

Washakie County, Wyoming

Natural Resource Management Plan

A Component of the Washakie County
Comprehensive Plan



December 14, 2020

Prepared for:
the Washakie County
Board of County
Commissioners

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Acronyms

Acronym or Abbreviation	Expanded Text
ACEC	Area of Critical Environmental Concern
AML	Appropriate Management Level
ATV	All-Terrain Vehicle
AUM	Animal Unit Month
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH ₄	Methane
CO ₂	Carbon Dioxide
DEQ	Department of Environmental Quality
DOI	Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ERMA	Extensive Recreation Management Area
FLPMA	Federal Land Policy and Management Act
FSH	Forest Service Handbook
GHG	Greenhouse Gases
GHMA	General Habitat Management Area
GIS	Geographic Information Systems
GLO	General Lands Office
GYE	Greater Yellowstone Ecosystem
HMA	Herd Management Area
IPCC	International Panel on Climate Change
LQ	Location Quotient
LUP	Land Use Plan
MOA	Memorandum of Agreement

Acronym or Abbreviation	Expanded Text
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NRCS	Natural Resource Conservation Service
NRMP	Natural Resource Management Plan
OHV	Off-highway Vehicle
OMB	Office of Management and Budget
OSLI	Office of State Lands and Investments
PHMA	Priority Habitat Management Area
PILT	Payments in Lieu of Taxes
PFYC	Potential Fossil Yield Classification
PRPA	Paleontological Resources Protection Act
RMP	Resource Management Plan(s)
RMZ	Recreation Management Zone
ROW	Right-of-way
SRMA	Special Recreation Management Area
TMDL	Total Maximum Daily Load
TSP	Total Suspended Particulates
US	United States
USDA	United States Department of Agriculture
USDI	United States Department of Interior
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Washakie County Natural Resource Management Plan
A Component of the Washakie County Comprehensive Plan

Acronym or Abbreviation	Expanded Text
VRM	Visual Resource Management
WCCD	Washakie County Conservation District
WCCP	Washakie County Comprehensive Plan
WGFD	Wyoming Game and Fish Department
WPLI	Wyoming Public Lands Initiative
WPCI	Wyoming Pipeline Corridor Initiative
WSA	Wilderness Study Area
WYNDD	Wyoming Natural Diversity Database

Introduction

A Natural Resource Management Plan (NRMP), a form of land use planning, is a document that serves as the basis for communicating and coordinating with the federal and state government and their agencies on land and natural resource management issues that influence the local area and economy.

Understanding that rural counties can be strongly impacted by federal and state land management decisions on lands located within or adjacent to the county, local governments can ensure that local policies and concerns are meaningfully considered by federal and state agencies through formally adopting a NRMP.

This NRMP adds to and enhances the Washakie County Comprehensive Plan (WCCP), and replaces objectives and policies that relate to public land use and management in Chapter 3 of the WCCP. Data and information related to public lands and associated values presented in this document are the most current available, and provide additional context when used in conjunction with past recorded data in the WCCP. In addition, this NRMP adds to, but does not replace information in, Chapters 1, 2, 4, 5, and 6. While some resource areas are repetitive, this NRMP reinforces those existing objectives and priorities and enhances the resource assessment by focusing on how that issue or resource is relevant to public land management.

While local governments do not have jurisdiction over the federal or state government or the lands they manage, various statutes dictate the requirements and parameters for how agencies engage with local entities during decision-making processes. This can include local governments serving as a “cooperating agency” during federal project planning as an Interdisciplinary Team member or providing local expertise and information for areas of statutory responsibility. Additionally, both the National Environmental Policy Act (NEPA) and the Federal Land Policy and Management Act (FLPMA) require a federal “consistency review” of the planning effort or project with the local policies, plans, or laws adopted by the local government (Budd-Falen Law Office 2018).

Counties are particularly well-suited to understand the impacts that federal land management decisions may have on the local economy, custom, and culture. Under Wyoming Statute § 18-5-208(a), a county is “deemed to have special expertise on all subject matters for which it has statutory responsibility, including but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture, and socio-economic viability of a county.”



Photo 1 Tensleep Creek

Purpose and Intent of this Plan

The purpose of this plan is to establish the custom and culture of the local area, identify resources or land uses that economically or culturally affect the stability and character of the county, and recognize

the importance of local involvement in federal decision-making.

Wyoming counties have a fundamental interest in federal and state lands within and adjacent to their county. Many aspects of the environmental and socioeconomic health and well-being of the local government and citizens are related to goods and services provided by federal and state lands. To this end, local governments request the same degree of participation as that afforded the State of Wyoming as described in IM WY 2015-013¹. It is the policy of Washakie County to productively participate in NEPA projects.

The NEPA, FLPMA, National Forest Management Act (NFMA), and the United States Department of Interior Bureau of Land Management (USDI BLM) Cooperating Agency policy² all encourage and provide for public processes, with special attention given to local governments. County governments are given special consideration with regard to planning on public lands under this framework. As duly elected representatives, locally elected county commissions represent a range of interests. The approval of a NRMP represents public input in regards to natural resource planning. Participation in a federal planning process does not negate the right for objection under NEPA.

In adopting this NRMP, the Board of County Commissioners intends to:

- Maintain or expand upon the culture, customs, heritage, and economic diversity of resource-based industries within the local economy, while balancing the integrity of local natural resources, wildlife, and environmental quality.
- Promote the understanding of the history, dynamics, and benefits from uses of federal and state lands within the county from activities such as agriculture, recreation, and other multiple-uses.
- Recognize and protect privacy rights and interests in federal and state land resources including, but not limited to, rights-of-way, grazing permits, water rights, special use permits, leases, contracts, and recreation permits and licenses.
- Use this plan to identify and justify areas of need facing Washakie County, specifically regarding the current conditions of natural resources within the county.
- Minimize conflicts between land uses.
- Promote a robust, diverse, and stable local economy.

The Board of County Commissioners also acknowledges that comprehensive and responsible management of local natural resources requires equal effort and participation of all parties involved, including local, state, and federal agencies. In order to encourage this relationship, the Board will:

- Inform federal agencies of the date, time, and location of their regularly scheduled meetings with an open invitation that federal agency personnel should attend such meetings if there are issues to discuss. Washakie County will strive to meet with federal agencies on a biannual basis.

¹ IM WY 2015-013, describes the BLM commitment to the NEPA process with specifics regarding types of NEPA and communication protocols.

² Bureau of Land Management, A Desk Guide to Cooperating Agency Relationships and Coordination with Intergovernmental Partners, 2012

- Transmit a copy of this plan to state, regional, and local federal agency offices doing business within the county for their consideration as part of any consistency review that is required pursuant to federal statute.
- Contact the BLM, the U.S. Forest Service (USFS), and the Bureau of Reclamation (BOR) offices to determine a protocol for informal communication that should occur so that each is apprised of issues and concerns as early as possible.
- Contact the Wyoming Game and Fish Department (WGFD), the Wyoming Department of Agriculture, and Wyoming Environmental Protection Agency (EPA) offices to determine a protocol for informal communication that should occur so that each is apprised of issues and concerns as early as possible.
- Review NEPA documents to determine if they will request “cooperating agency status” and will consider entering into Memorandums of Understanding (MOU) or Memorandums of Agreement (MOA) as appropriate for all NEPA-related projects or planning document amendments affecting federal lands in Washakie County. Washakie County reserves the right to negotiate an MOU or MOA on a case-by-case basis, although an MOU or MOA is not appropriate nor necessary in all cases.

Legal Framework

Federal statutes provide opportunities for counties to share their own special expertise with federal agencies during decision-making processes in order to protect the local custom and culture, tax base, and private property. NRMPs establish the current economic and cultural conditions and the desired future conditions of an area, and illustrate how those conditions are linked with activities that occur on adjoining public lands. Specifically, federal laws require federal agencies, including the BLM and USFS, to consider state and local land use plans and to explain deviations from these plans in decision documents per the following statutes:

The National Environmental Policy Act

NEPA and its implementing regulations under the Council on Environmental Quality (CEQ) require all federal agencies to address inconsistencies between a proposed action and state and local plans, and address the extent to which the agency would harmonize its proposed action with the local law or plan (40 CFR § 1502.16(c) and 40 CFR § 1506.2). Consistency review and cooperating agency status are provisions that allow local voice within federal planning. This requirement is further supported in the memorandum titled *Designation of Non-Federal Agencies to be Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act* from CEQ, which urged agencies to more actively solicit participation from state, tribal and local governments (CEQ 1999).

In order to participate in the federal agency’s consistency review process, an adopted local plan is required. On March 16, 1981, CEQ published the *Memorandum for Federal NEPA Liaisons, Federal, State, and Local Official and Other Persons Involved in the NEPA Process*. Questions 23b and 23c of the publication address how an agency should handle potential conflicts between a proposal and the objectives of federal, state, or local land use plans, policies and controls for the area concerned under 40 CFR § 1502.16(c). As defined in this document, local land use plans or policies includes all types of formally adopted documents for land use planning, zoning, and related regulatory requirements. Provided that the local government submits the local plan to the agency in the course of writing an

Environmental Impact Statement (EIS) or Environmental Assessment (EA), the federal agency is required to:

[...] discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the [environmental impact] statement should describe the extent to which the [federal] agency would reconcile its proposed action with the [local government] plan or law (40 CFR §§ 1506.2, 1506.2(d)).

Local governments can also participate in the NEPA process as a cooperating agency. A cooperating agency is defined as “any federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major federal action significantly affecting the quality of the human environment.” (40 CFR § 1508.5). As a cooperating agency, the local government would be involved in the federal process at its inception and participate in the NEPA process, such as scoping and drafting portions of the NEPA document (40 CFR § 1501.6(b)).

CEQ regulations also permit a cooperating agency to “assume on request of the lead agency responsibility for developing information and preparing environmental analyses including portions of the environmental impact statement concerning which the cooperating agency has special expertise.” (40 CFR § 1501.6(b)(3)). As a cooperating agency in future planning efforts, the county could take part in arranging for resource, environmental, social, economic, and institutional data and information to be collected or compiled, if already available (43 CFR §1610.4-3). This NRMP can be used by a federal agency in an environmental analysis or specialist report under these regulations.

In short, federal agencies are required to cooperate with state and local agencies to reduce duplication between NEPA and comparable local requirements (40 CFR § 1506.2(b)). By adopting a local NRMP, a county (1) ensures that local policies are considered during a federal agency’s consistency review process, and (2) demonstrates the special expertise required for participation in the NEPA process as a cooperating agency (if desired by the county).

The Federal Land Policy Management Act (FLPMA)

FLPMA, BLM’s guiding statute, requires BLM to coordinate their land use plans with local and state government land use plans, providing that BLM’s plans “shall be consistent with state and local plans to the maximum extent [the Agency] finds consistent with federal law and the purposes of this Act.” (43 U.S.C. § 1712(c)(9)).

Specifically, FLPMA requires that the BLM:

- Stay apprised of local land use plans.
- Assures that consideration is given to those local land use plans that are germane in the development of land use plans for federal and state lands.
- Assist in resolving, to the extent practical, inconsistencies between federal and local land use plans.
- Provides for meaningful public involvement of local government officials in the development of land use programs, land use regulations, and land use decisions for federal and state lands,

including early public notice of proposed decisions, which may have a significant impact on non-federal lands. (43 U.S.C. § 1712(c)(9)).

The National Forest Management Act

NFMA requires the USFS to coordinate National Forest land and resource plans with “the land and resource management planning processes of state and local governments and other federal agencies[.]” (16 U.S.C. § 1604(a)). While the USFS is not required to comply with state and local plans, a final decision document must contain results of a review of local plans. This also includes consideration of objectives, the compatibility and interrelated impacts of USFS plans and local government policies, opportunities to contribute to common objectives, and ways to reduce conflicts between a Forest Service plan and local policies (36 CFR § 219.4(b)(2)).

Agency Specific Guiding Documents and Regulation

There are additional orders, policies, regulations, and handbooks that outline or support cooperating agency status and the use of a NRMP. The Wyoming Public Lands Handbook provides “guidance for county commissioners on Wyoming’s public lands and the laws and policies that govern their management.” (Wyoming County Commissioners Association 2015). This handbook provides best management practices and explanations for those working with public land managers.

Executive Order 13352, *Facilitation of Cooperative Conservation* required that the Secretaries of the Interior and Agriculture:

[...] carry out the programs, projects, and activities of the agency that they respectively head that implement laws relating to the environment and natural resources in a manner that:

- a) facilitates cooperative conservation;*
- b) takes appropriate account of and respects the interests of persons with ownership or other legally recognized interests in land and other natural resources;*
- c) properly accommodates local participation in Federal decision making; and d) provides that the programs, projects, and activities are consistent with protecting public health and safety.” (Federal Register 2004)*

In 2008, the Department of the Interior (DOI) broadened its regulations to require every DOI agency to offer cooperating agency status to all eligible intergovernmental partners for all environmental impact statements (DOI 2008). The DOI also indicated that cooperating agency procedures could be used to support efforts under environmental assessments, as well. Under this regulation, agencies under DOI will “collaborate, to the fullest extent possible, with all cooperating agencies concerning those issues relating to their jurisdiction and special expertise (43 CFR 46.230).

Bureau of Land Management

The BLM published *A Desk Guide to Cooperating Agency Relationships* in 2005 as a “how to” publication that all BLM managers and staff were required to put into practice in order to guide the BLM through the legal, regulatory, and planning roles when involved in a cooperating agency relationship. Requirements for working with cooperating agencies were added to the BLM’s planning regulations at that same timeframe (43 CFR § 1601.0-5, 43 CFR § 1610.3-1, 43 CFR § 1610.4). The desk guide was revised in 2012 when the BLM adopted *A Desk Guide to Cooperating Agency Relationships and*

Coordination with Intergovernmental Partners (BLM 2012b) based on DOI's broadened regulations passed in 2008 (see discussion above). Specifically, this desk guide highlights the role of cooperating agencies in the planning process. The BLM's Land Use Planning Handbook (H-1601-1) and National Environmental Policy Handbook (H-1790-1) also provide additional guidance for collaborative planning and preparation of an EIS or EA for approval, amendment, or revision of a Land Use Plan (LUP).

Prior to the approval of a proposed resource management plan, or amendment to a management framework plan or resource management plan, the BLM is also required to provide for the state Governor's consistency review as part of their land use planning process (43 CFR § 1610.3-2(e)). During this period, additional inconsistencies and recommendations to remedy inconsistencies may be identified. "This step, in addition to the ongoing coordination with state and local governments, supports implementation of the FLPMA requirement that the BLM keep apprised of State, local, and tribal land use plans and assist in resolving, to the extent practical and consistent with federal law, inconsistencies between federal and non-federal government plans (see 43 USC 1712(c)(9))."

Bureau of Reclamation

The BOR, also under DOI, developed a NEPA handbook on these implementing regulations as a guidance tool for all BOR staff. Under 40 CFR § 1501.6, BOR will consider requests for cooperating agency status based on jurisdictional responsibilities, project effects, and any special expertise (BOR 2012).

Forest Service

In July 2008, the USFS, under the Department of Agriculture, moved its NEPA procedures from directives to regulations, codifying Forest Service Manual 1950 and Forest Service Handbook (FSH) 1909.15, and expanding them to incorporate CEQ guidance (36 CFR Part 220). As outlined under FSH 1909.15, and explained in *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations* (40 CFR Parts 1500 – 1508), the USFS has the responsibility to solicit cooperation from other federal, tribal, state, or local agencies with jurisdiction by law or special expertise on environmental issues that should be addressed in the environmental analysis (40 CFR § 1508.5).

The USFS is currently revising its NEPA regulations (36 CFR Part 220) to address challenges, such as droughts and insect infestations and disease, which have strained available staff and resources. These proposed rules are intended to help the USFS make timelier decisions based on high quality, science-based analysis. The proposed rule was released to the public on June 13, 2019 (36 CFR Part 220). The USFS is reviewing public comment and is planning to publish the rule revising the Forest Service NEPA regulations and associated directives in summer 2020³. The USFS refers to CEQ regulations and guidance, along with their NEPA handbook for working with cooperating agencies. Additional information regarding NEPA procedures, policy and guidance is found at <https://www.fs.fed.us/nepa/>.

While the objectives and priorities of the county may not be consistent with existing management plans or practices of the federal or State of Wyoming government, this plan is consistent with federal and state law.

Organization

This plan considers the current conditions of federal resources, county objectives for each resource, and how the county would like to see those objectives achieved. For each federal resource in the county,

³ <https://www.fs.fed.us/emc/nepa/revisions/index.shtml>

this plan addresses the following:

- **Resource Assessment:** This assessment includes background and detailed information on the resource, including qualitative as well as quantitative information. The assessment includes an evaluation of the resource's location, current condition, and importance to the county, as well as a map of the resource, where appropriate. Maps are included in [Appendix A](#). The Resource Assessment relies on the best data available at the time of publication, though new data collection or research is not required. The Resource Assessment addresses the question, "what is the existing condition of the resource now?"
- **Resource Management Objectives:** Resource Management Objectives describe general goals in the form of broad policy statements regarding the use, development, and protection for each resource. Where applicable, objectives are stated in measurable terms and include tangible metrics for which resource objectives can be met. Resource Management Objectives address the question, "What does the county want for and from this resource?"
- **Priorities:** This section describes specific priorities on how to achieve the County's Resource Management Objective for each resource. Priorities tier to Resource Management Objectives for each resource and address the question, "how would the county like to see its objectives achieved?"

Public Process

This plan is based on criteria developed by the Office of the Governor of the State of Wyoming in consultation with the counties, and consistent with Wyo. Stat. § 9-4-218(a)(viii)(B). The County developed this plan in public meetings in accordance with Wyo. Stat. § 16-4-401 through 16-4-408⁴, allowing for participation and contribution from the public. Two public meetings and one collaborative meeting with federal and state agencies were held to guide the development of this plan. In addition, a public survey was administered to identify important social, economic, and environmental issues associated with public lands within the county. Survey results are included in [Appendix B](#).

Credible Data

There are many factors that make a data source credible, but the underlying basis is an assurance that the source is unbiased and supported by evidence. The Information Quality Act (Pub. Law. 106-554, § 515) directed the Office of Management and Budget (OMB) to require federal agencies to issue formal information quality guidelines that would ensure the quality, objectivity, utility, and integrity of information disseminated by federal agencies. To satisfy OMB's government-wide guidelines (67 Fed. Reg. 8452), the BLM and USFS have each adopted information quality guidelines. The Board of County Commissioners has used credible data in the creation of this plan by the utilization of federal, state, and local publicly available data sources, as well as data that meets, at a minimum, the Information Quality Act guidelines. Conversely, the Board expects that all federal agencies will also follow, as required, their respective information quality guidelines to "ensure and maximize the quality, utility, objectivity and integrity of the information that they disseminate [...]" (67 Fed. Reg. 8452). Consideration was taken to account for the standard type of data sources used by each agency; all sources used can be found in the Resources Cited section.

⁴ Consistent with Wyo. Stat. § 9-4-218(a)(viii)(D)

Consideration of Other Plans

The WCCP and the Washakie County Conservation District Natural Resource Land Use Plan were each considered during the development of this plan. Other plans considered or reviewed are mentioned or cited in the relevant resource areas.

Updating the Plan

To the extent county resources allow, it is recommended to update this plan every five years following the same process for public involvement and adaptation as described above.

Planning Objectives

1. Washakie County supports federal land management that involves efficient, collaborative, and coordinated planning among federal, state and local governments, private individuals and entities, and other non-governmental organizations and individuals in order to manage the use, protection, enhancement, and enjoyment of natural resources and associated lands.
2. Washakie County supports relevant guidance from cooperating agencies and state handbooks on best management practices for involvement in public land management planning.

Planning Priorities

1. Washakie County expects and relies on federal and state authorities for appropriate and timely notice of anticipated changes to policies or management.
2. Washakie County expects and relies on federal and state authorities for the expertise and financial resources for it to make an informed decision regarding public land issues.
3. Washakie County expects to assert the maximum amount of influence allowed by law regarding any public land issues, and expects its contributions to management and regulatory decisions be accounted for and recognized as intended.
4. Washakie County expects federal and state authorities to implement and follow management policies and processes established for their respective agency. Washakie County has concluded past land management practices may have strayed from or otherwise ignored written management policies and processes when implementing or reviewing decisions. Washakie County cannot monitor compliance with various policies and processes, but it is the County's objective to review any deviations coming to its attention.
5. Washakie County expects to participate in federal and state actions impacting public land in a way best calculated to achieve optimum affect; including but not limited to, requests for cooperating agency status. If possible, the County will recommend how federal and state agency actions may enhance and benefit local custom and the community's culture; thus, providing sustainable continuity of local interests.
6. Washakie County expects federal and state officials to respect private improvements as contributions to the sustainability of local custom and culture. To this end, the County's objective is to reduce vandalism, educate public land users regarding these improvements, and promote more efficient and effective regulatory schemes that allow owners of these improvements to make repairs and enhance the usability of these improvements.
7. Community perceptions and the physical capabilities of the land (such as geography, geology,

soil conditions, and drainage patterns) rather than population projections will guide primary land use planning.

8. To facilitate and encourage effective government-to-government relations, Washakie County requests participation in bi-annual meetings with respective federal agencies in the county to review status of past projects in which the county was a cooperating agency, review current and upcoming NEPA and planning efforts, and determine the opportunities for cooperation and efficiency in the planning process.
9. Washakie County requests notification at the earliest opportunity of proposed policy, plans, projects, or actions that may affect the public's rights, interests, safety, or economic stability in order to provide for meaningful dialogue between the county and its citizens on potential implications and impacts.
10. Federal land management planning should involve a high-level of cooperation and coordination with Washakie County and associated agencies to identify, disclose and monitor impacts of any major federal action. All planning efforts should be multi-jurisdictional to the largest extent possible.
11. Land management agencies shall consider proposed actions and future impacts on:
 - a. Community resources and stability;
 - b. Maintenance of custom, culture and economic diversity and stability;
 - c. Conservation and use of the environment and natural resources in the county;
 - d. Active management options, efficiencies, and flexibility; and
 - e. Existing multiple use.
12. Federal land management plans will review, as required in the legal framework for consistency, all future planning documents with this Washakie County NRMP. All inconsistencies or conflicts that may exist must be identified, and practical measures and efforts that were taken to resolve the conflicts to ensure consistency and compliance with the plans must be recorded in the planning or other decision documents.
13. Washakie County, when involved as a cooperating agency, should be allowed, if interested, to arrange for resource, environmental, social, economic, and institutional data and information to be collected or assembled (if already available) as defined in 43 CFR §1610.4-3.
14. Washakie County supports concise and efficient issue based NEPA analysis that tiers to existing assessments or utilizes authorities in place for analysis in order to conserve time and financial cost. Washakie County asks that federal agencies use this approved NRMP in future federal planning efforts as a source of social, economic and/or institutional data for land management or resource planning efforts.
15. Washakie County supports analysis and decisions on actions and projects that are based on holistic considerations of the ecosystem and local community, rather than a species-by-species or resource-by-resource approach.
16. Washakie County will refer to the Wyoming Lands Handbook for guidance on all best

management practices for participation in public land management.

17. The Board of County Commissioners recommends that federal planning efforts take into account the best available unbiased science in planning efforts and that all planning documents will:
- a. Describe how high-quality data (data which is evaluated by rigorous scientific methodology and principles) was considered, appropriately interpreted, and applied in the planning process within the context of the issued being considered;
 - b. Evaluate and disclose substantial uncertainties in that science;
 - c. Require federal agencies to follow data that meets the minimum criteria described in their respective handbooks, unless other criteria are agreed upon between federal and cooperating agencies involved in a project.
 - d. Evaluate and disclose substantial risks associated with plan components based on that science; and
 - e. Require the inclusion of quantitative, credible data in land use planning efforts from non-federal sources. Federal and state land managers should seek out and take into full account data and information available from local sources⁵ when developing plans and/or making recommendations.

⁵ including county, towns, school districts, public health care providers, and other local agencies

Chapter 1: Custom and Culture

Resource Assessment

County Commissions in the State of Wyoming are particularly well-suited to understand the impacts that federal land management decisions may have on the local economy, custom, and culture, and are recognized as having responsibilities to preserve the custom and culture of their individual counties in matters relating to the NEPA and federal land planning process. Under Wyoming Statute § 18-5-208(a), a county is “deemed to have special expertise on all subject matters for which it has statutory responsibility, including but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture and socio-economic viability of a county.”

Culture is defined as the customary beliefs, social forms, and material traits of a racial, religious, or social group (Merriam-Webster 2020a). Custom is defined as the whole body of usages, practices, or conventions that regulate social life (Merriam-Webster 2020b). Both the customs and culture of Washakie County have been shaped by the community’s combined values and activities unique to the area. Over time, the county’s customs and culture will continue to change and grow, creating a rich cultural landscape which reflects the county’s past, present, and future.

The history of Washakie County is well documented in Chapter 2 of the WCCP and is part of the custom and culture of Washakie County. Washakie County was created by the legislature on February 9, 1911, and organized as a County on January 6, 1913. It is the twentieth county recognized in the State of Wyoming. The oldest community is the town of Ten Sleep, but the county seat is the City of Worland.

A common thread that connects most, if not all, of the county’s customs and culture is the land and the vital role it plays within the community. Open spaces are a defining quality of the county and are essential for the sustainability and continuity of traditional land uses and values. Important influences on customs and culture in the county include: agriculture, industry, water, recreation, and intrinsic uses such as historical/cultural sites and aesthetic values. Continued support of these traditional multiple



Photo 2 Main Street Worland, Wyoming

uses by the county is crucial to avoid potential negative social and economic impacts upon the community that relies upon them.

As the dominant private land use and driving economic influence, agriculture has always played an integral role in shaping the character of the county. The county contains an abundance of fertile lands and rangeland, which contributed to the early establishment of livestock use and farming by settlers. Livestock ranching, the oldest continuing industry in the county, is a foundational component of both custom and culture. Early ventures, such as fur trapping and gold mining, were soon exhausted or proved inefficient, but ranching remained a viable pursuit. Many of the same characteristics that made the area favorable for agriculture and livestock were also productive for American Indian tribes in the area, including the Arapaho, Shoshone, Crow, and Cheyenne, who used the area for shelter, timber, and game. In fact, the county is named for Chief Washakie, a Shoshone leader who often overwintered in the area and was well acquainted with the area's settlers.

The continued presence of family farms and ranches in the county is an issue of great concern among Wyoming residents evidenced by results from a 2014 poll in which 79 percent of respondents described themselves as "personally benefitting from the presence of ranches and farms in Wyoming." (Freedman and Korfanta 2014). The benefits of the county's farms and ranches also extends into social and recreational activities rooted in agriculture such as rodeo, 4-H club, and county fairs.

Conservation Districts are local units of government established under the Wyoming Conservation Districts Law (§ 11-16-101) to carry out natural resource management programs at the local level (WACD 2020). Conservation Districts were formed to link federal agency resources, via the Natural Resource Conservation Service (NRCS)⁶, with local farmers and ranchers. Conservation Districts work with counties, cities, towns, community organizations and landowners to conserve land and water resources on private and public lands. These districts are independent, non-profit, semi-governmental entities. Washakie County has one Conservation District administering services in the county.⁷

Industrial uses within the county such as mining, power production, oil and gas production and exploration, and some timbering contribute both economically and culturally to the area. First spurred by the construction of railroads within Wyoming, oil and gas expansion began in 1906 and contributed to population growth following the local "oil rush" of 1914. Today, the mining/oil and gas industry is a major employer and contributor of tax dollars to local governments. Typical "boom and bust" patterns of the oil and gas industry impact the county as tax revenue from these industries fluctuates, ultimately influencing the quality of life for many local residents.

The importance of water use within the county is inherently linked to the dominating presence of agriculture in the area. Early on, development of reliable irrigation methods drove economic and population growth within the area, as workers followed jobs created by the construction of canals supplying water throughout the Big Horn valley. Today, a system of extensive canals and reservoirs contribute to the county's water supply utilized for agricultural, industrial, and general uses. Domestic water use in both municipal and rural locales depends largely upon groundwater aquifers and artesian wells. Aside from the aquifer, availability of quality potable water in rural areas is a problem for

⁶ The NRCS was formed in 1935 as the Soil Conservation Service in response to the Dust Bowl.

⁷ Information compiled from <http://conservewy.com/>

residents (USGS 1993).

Throughout the county, the rugged landscape facilitates a variety of outdoor activities including: off-road vehicle use, snowmobiling, hunting and fishing, rock climbing, rock-hunting, skiing, horseback riding, hiking, camping, rodeos and county fairs, and wildlife watching. Many of these activities have been practiced in the area for generations, and this deep connection to the land is central to community identity and their way of life. Also, the open space which sustains these activities is, in itself, valuable to the county, with ecosystem services such as water filtration and wildlife habitat, valued to be worth millions of dollars (Taylor et al. 2011).

This range of activities has also attracted tourists, who come to the area to enjoy the outdoors and other events associated with the traditional western lifestyle that the county embodies. Many tourists are also interested in cultural attractions the area maintains in abundance, ranging from prehistoric mammoth kill sites to historic stage stops reminiscent of the “Wild West”. Increasing travel and tourism has become an important source of economic growth for the county that employs many members of the community.

Given the central economic and cultural role of the county’s extensive public lands, maintaining public access to public lands for traditional use is a critical issue for the community. Outside influence on this issue occurs primarily through management actions and policy stemming from federal and state governments which have jurisdiction over these public lands. Within Washakie County, this issue is given high priority, particularly regarding cooperative agreements between various agencies, bureaus, and administrations and the stakeholders of the public land that they manage. Traditional land uses are inextricably linked to public lands and the economic benefits derived from them, and continued public land access ensures the future of the customs and cultural characteristics the community values.

Current Values—Public Survey Results

A public survey was provided to Washakie County residents to form a picture of how those who live in the county describe their customs and culture. Residents describe their customs and culture favorably, noting that this is a community that knows how to work hard today for future benefits. Some describe a county with small-town values that knows how to come together to advocate for one another. Overall, those who live here value the land and the freedom its wide, open spaces provide.

With the majority of economic and recreational uses tied directly to the land and its natural resources, continued access and use of public lands remains an important value for Washakie County. This county recognizes the importance of balancing the economic and ecological health of the area, which relies on the ability to work and play within this land. Some residents identify shortsighted and self-serving outlooks as an impediment to future development, particularly regarding industries that preclude other uses in the future, thus decreasing the potential of an area for long-term economic value. However, others view increasing regulations on industry as a limiting component of development in the area. Preservation of traditional ways of life is also listed as an attitude that may make innovating and responding to changing demographics and economies somewhat challenging. Overall, Washakie County is a place that values its history and tradition, and one whom custom and culture is directly tied to the land.

Resource Management Objectives

1. Washakie County will support traditional land uses that maintain continuity and stability in the

local economy, and look for other future land uses that provide additional opportunities, diversity, and economic stability or growth to the area, while assuring the sustainability of existing agricultural, recreational, and industrial interests. By supporting traditional multiple uses, the County intends that local custom and culture will be maintained, while mitigating potential social impacts on the community.

Priorities

1. Washakie County supports the maintenance and enhancement of traditional land uses and custom and culture of the county, and opposes any change in land use that does not evaluate, mitigate, and minimize impacts to Washakie County's custom and culture and economic stability. The County intends to avoid undue social distress, dislocation, and hardship to the community by such changes.
2. Washakie County will oppose material changes in land uses, which hamper or otherwise negatively impact traditional land uses. The County intends to avoid undue social distress, dislocation, and hardship brought on the community by such changes.
3. Washakie County will endeavor to forge and maintain cooperative agreements with various agencies, bureaus, and administrations in order to assure the greatest possible communication and exchange between and among stakeholders of public land. Washakie County intends that cooperative agreements will be relied and acted on with regular consistency.
4. Washakie County will enforce mandates on federal and state authorities to consider the social, cultural, and economic needs of the local human environment in any regulatory action impacting local custom and culture. The County insists that regulatory actions cite the impacts to the local economy, local custom and culture, and the human environment, and provide how such action is consistent with new, revised, or supplements to the County's land use plans.
5. Washakie County supports and encourages federal land use planning and management activities that consider local community infrastructure, current community planning and economic efforts, along with anticipated land use trends to help provide for long-term community and economic stability and diversity, instead of planning or management that only reacts to a current situations or concerns occurring on federal lands.
6. Due to the nature of Washakie County's landscapes and ecology, agriculture goes hand-in-hand with maintaining the custom and culture of open space and its attendant values. Agriculture provides a basis for community and economic stability, while maintaining the values of custom and culture.
7. Management of federal lands will recognize valid existing rights and interests in federal lands as identified in the custom and culture resource assessment.

Chapter 2: Land Management

Land Use

Resource Assessment

Over 73 percent of surface land within Washakie County is “public land”, which refers to property owned or controlled by either a state or federal agency (Table 1). Given that public lands, by area, make up the majority of Washakie County, the county’s overall quality of life is closely tied to public land management decisions. Specific federal agencies that manage public lands within Washakie County include the BLM, BOR, and USFS. As discussed in later chapters, agriculture, recreation, industry, and water resources are all influenced by federal and state agency decisions. Refer to Map 1 in [Appendix A](#) for a map of surface land ownership in Washakie County.

Table 1 Washakie County Surface Land Ownership (Wyoming Geospatial Hub 2019)

Owner	Acres	Percent (%)
Bureau of Land Management	918,832	64.0%
Bureau of Reclamation	1,550	0.1%
Forest Service	36,037	2.5%
Local Government	2,026	0.1%
Private	373,913	26.0%
State	103,275	7.2%
Water	1,138	0.1%
Total	1,436,771	100.0%

Bureau of Land Management

The BLM originated from the reorganization of the General Lands Office (GLO) and the U.S. Grazing Service into a single agency in 1946. The GLO was originally responsible for all public land sales, patents, and entries established within the Treasury Department to oversee disposition of ceded and acquired lands. The U.S. Grazing Service⁸ was created to manage the Taylor Grazing Act (1934) authorization of grazing districts, regulation of grazing, and public rangeland improvements on public lands leased to farmers and ranchers for grazing. One of the first grazing districts (Grazing District No. 1), was established in 1935 in Worland under this act (BLM 2020).

FLPMA (Public Law 94–579, 1976), as amended (2001), the BLM’s guiding statute, outlines the management mandate of the BLM to balance public access and multiple uses, and to “provide for the management, protection, development, and enhancement of the public lands” to serve present and future generations. Specific discussion regarding FLPMA and cooperating agencies can be found above, in the Legal Framework section.

The BLM, under DOI, is the largest federal land managing agency in Washakie County (64 percent), with the Wind River/Bighorn Basin District Office overseeing the Worland Field Office’s management of more than two million acres of public lands. The Bighorn Basin Resource Management Plan was revised and approved in a record of decision signed September 21, 2015.

⁸ Originally the Division of Grazing until 1939

State Lands

When Wyoming became a state in 1890, the federal government granted approximately 4.2 million acres of land to the State of Wyoming. This land, authorized by the Wyoming Constitution and state law, is managed by the Board of Land Commissioners for long-term growth in value and optimum and sustainable revenue production. State lands are not managed under a multiple use mandate. In 1988, the Board of Land Commissioners adopted its Chapter 13 rules to officially allow the public the privilege of hunting, fishing, and general recreational use on state trust lands. However, the Office of State Lands and Investments (OSLI) is required by law to manage state trust lands to produce income to support public schools and other public institutions. Income is generated through the leasing of lands for a wide variety of surface and sub-surface purposes to return revenues to the designated state beneficiaries in the form of rentals, royalties, and fees (WOSLI 2020). State lands in Washakie County make up over 7 percent of the county's area.

Forest Service (USFS)

The origins of federal forest management date back to 1876 when Congress formed the office of Special Agent in the Department of Agriculture, which became the Division of Forestry in 1881. Ten years later, the Forest Reserve Act of 1891 authorized the designation of lands known as forest reserves (USFS 2005b). The Organic Act of 1897 stated that these forest reserves would be established to “improve and protect the forest within the boundaries or for the purpose of securing favorable conditions of water flow, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States [...]”. In 1905, management of these reserves was transferred from DOI to the Department of Agriculture's Bureau of Forestry, a title which was officially changed to the USFS later that year. The Multiple-Use Sustained Yield Act (Public Law 86-517) of 1960 required the USFS to develop and administer the renewable resources of timber, range, water, recreation, and wildlife on the national forests for multiple use and sustained yield of the products and services (USFS 2005b). This law was amended by the Omnibus Parks and Public Lands Management Act of 1996. Management of the USFS is through NFMA (Public Law 94-588, 1976), the primary statute governing the administration of national forests.

The USFS manages a relatively small portion of Washakie County (2.5 percent) on the Big Horn National Forest, but these lands are also a major contributor to the county both in tourism funds and recreational opportunities and access (see section on Recreation and Tourism). The Bighorn National Forest is broken into three districts, with the Medicine Wheel Ranger District managing lands within Washakie County. The Big Horn National Forest Revised Land and Resource Management Plan was approved in 2005.

Bureau of Reclamation (BOR)

The BOR, under DOI, “manages, develops, and protects water and related resources in an environmentally and economically sound manner in the interest of the American public” (BOR 2020). Established in 1902, the BOR is known for the dams, power plants, and canals it constructed and manages. Irrigation projects in Washakie County started in 1902, with the Hanover Canal being the first significant man-made waterway constructed in Washakie County.

Change in Land Use

The National Land Cover Database was used to assess the change in land cover across Washakie County between 2001 and 2016 as a way to show changes in land use. Notable observations include increases in medium and high intensity development and minimal changes in forested lands. As expected, medium

and high intensity development occurred primarily around the town of Worland. While the data shows a drastic decrease in herbaceous lands and increase in shrub/scrub lands, this vast and sudden change suggests that this is likely due to a change in classification technique, as opposed to actual changes in land cover. Exceptions are visible in the southeast part of the county, where large areas of shrub/scrub lands are replaced by grassland/herbaceous, indicating post-fire response. Land classified as hay/pasture was largely replaced by cultivated cropland. Refer to Map 2 in [Appendix A](#), which compares county-wide land cover between 2001 and 2016.

Resource Management Objectives

1. Washakie County supports multiple-use management of public lands as intended in the Multiple Use Sustained Yield Act, and as defined as the management of public land use and their resource values (renewable and non-renewable) so that they are utilized in a balanced combination that will best meet the current and future needs of the people for current and future generations.
2. Washakie County expects federal and state authorities to either implement or allow augmentation of water resources, protection of access, and education of the public on the contributions multiple use makes to the local economy and custom and culture.

Priorities

1. Washakie County is opposed to management initiatives that restrict or limit existing and potential uses of public lands and associated resources. Public land managers are required to determine and coordinate with the County on any negative impacts on the livelihoods and/or quality of life of Washakie County residents from any proposed changes to uses and resources.
2. Washakie County supports year-round, multiple use management on public lands that enhances the local economic stability and diversity, and provides for the quality of life and traditional uses outlined in Chapter 1 and other portions of this NRMP.
3. The economic tax base of Washakie County will be maintained or expanded, and the public/private balance of ownership will be maintained as measured in acreage and fair market value. If it becomes necessary to withdraw private land for state or federal use, those agencies will return land of equal value to private ownership and will ensure that private property interests are protected and enhanced. Access and rights-of-way shall be exempt from this equal value exchange.
4. Washakie County will utilize cooperative agreements, NEPA, the Wyoming Wilderness Act, and broad-based legal precedent for appropriate and timely notice of anticipated changes in land use management of public land so it can provide essential information and assert the maximum amount of influence on land use management decisions negatively impacting multiple use issues.
5. Washakie County will be notified of, consulted with, and otherwise involved in all federal and state land adjustments in Washakie County. The design and development of all federal land disposals, including land adjustments and exchanges, shall be carried out to the benefit of the citizens of Washakie County.
6. Federally managed lands that are difficult to manage or which lie in isolated tracts with no public access will be prioritized for disposal.

7. Federal land management agencies shall make suitable lands available for disposal under the Recreation and Public Purposes Act regulations found in 43 CFR, Parts 2740 (Sales) and 2912 (Leases) in resource management plans and upon request of an appropriate entity identified in the act.
8. Protect, preserve and respect private property rights. Assure state agency compliance with the provisions of W.S. § 9-5-303, W.S. § 9-5-304 and W.S. § 16-3-103(a)(i)(H).

Land Access

Resource Assessment

U.S. Highway 16 is the main east-west corridor in Washakie County, intersecting State Highway 434 in Ten Sleep and then connecting with U.S. Highway 20 in Worland. State Highway 434 and U.S. Highway 20 are the main north-south arteries in Washakie County Map 3. The transportation network on the public lands in Washakie County consists of federal and state highways, county roads, and roads built to facilitate industrial and commercial development. BLM and USFS roads range from regularly maintained gravel roads to an array of unofficial roads, trails, and vehicle routes that were never formally constructed and rarely receive maintenance (BLM 2015) and can be used by a variety of motorized vehicles and vehicle classes such as motorcycles, all-terrain vehicles (ATV), 4-wheel drive vehicles, and passenger cars (USFS 2005a). Specifically, the USFS is directed to coordinate the preparation of Travel Management Plans with the County (36 CFR § 212), and the BLM is required to coordinate “inventory” with local governments (43 USC § 1712).

As captured in the public survey (described above in Chapter 1) and discussed during public comment meetings, land access is the greatest concern among county residents. Multi-use access was a common theme in the public survey, with specific comments related to recreational access, concerns with dispersed access, and concerns on limitation of motorized access to public lands. Access to public lands is also considered one of the key cultural features of Washakie County and should be a consideration of the custom and culture of the local area. Refer to [Appendix B](#) for a summary of the public survey results.

Off-Highway Vehicle Management Areas

Off-highway vehicle (OHV) use on federal lands in Washakie County (primarily administered by the BLM) supports many operations, including livestock grazing, mineral exploration and development, law enforcement, fire protection, and recreation. Overall, federal lands have seen rapidly increasing OHV use over the past 20 years in comparison to other types of recreation. OHV use can lead to environmental concerns, including disturbance of wildlife in crucial habitats, siltation of streams from increased erosion, and degradation of scenic qualities and cultural sites. Effective transportation management seeks to balance these environmental concerns with uses of federal lands that are important to Washakie County’s economy and culture. All BLM-administered lands have an OHV use designation. As such, these lands are designated as Open, Limited, or Closed to OHV use:

Lands designated as Open are open to all OHV use, on or off established roads and vehicle routes, as long as this activity does not cause unacceptable levels of natural resource damage. The Worland OHV Play Area, a 1,053-acre area west of Worland, is the only area in Washakie County that is designated as Open to OHV use.

Limited means that OHV use is subject to some type of restriction, such as the number or type of vehicles allowed, time of year, or the type of road or trail that can be used. OHV use is allowed, with use

limitations, in approximately 903,119 acres in Washakie County. OHV limitations are as follows:

- OHV use is limited to existing roads and trails on approximately 617,684 acres. This designation allows for OHV use without increasing the acres of land disturbed by route creation. Users are not authorized to travel off of roads and trails in these areas, except during the performance of necessary tasks such as the retrieval of game or for maintenance of range improvements and livestock management.
- OHV use is limited to designated roads and trails on approximately 284,938 acres. This designation is often applied in environmentally sensitive areas.
- OHV use is limited to designated roads with seasonal limitations on approximately 497 acres. These areas are closed to OHV use during a portion of the year, a designation which is generally in place to protect the values of other resources, such as crucial wildlife winter range or fragile soils.

Lands designated as Closed to OHV use are closed to all OHV access, with exceptions for emergencies, firefighting, and public safety or related incidents. A closed designation usually does not exclude foot, horseback, or mechanized travel (BLM 2015). Approximately 15,146 acres in Washakie County are closed to OHV use. The county contains three closed areas: the Bobcat Draw Badlands Wilderness Study Area, the Worland Shooting Complex, and the Duck Swamp Interpretive Area.

OHV management areas are displayed in [Appendix A](#), Map 3.

Rights-of Way and Corridors

Rights-of-ways (ROW) and corridors provide for the development of certain types of infrastructure or facilities that are in the public interest on federal lands for a specified period of time (BLM 2015). This can include intrastate and interstate transportation projects such as roads and utilities, as well as legal access to private homes or ranches. Other types of ROWs include water reservoirs, communication sites, pipelines, and transmission lines. These are authorized under Section 501 of FLPMA for the BLM and under Title V of FLPMA for the USFS. Transmission and utility lines may be sited within established ROW corridors that have been identified to support specific concentration of ROW uses such as pipelines for transport of energy resources or highways.

Stock Driveways

The Taylor Grazing Act (1934) and the Stock Raising Homestead Act (1916) both provide for the establishment, maintenance, and use of stock driveways within and between established grazing districts for the purpose of creating lanes and reserving water sources for trailing livestock. These driveways can prohibit disposal of these lands, protect water sources, and place limits on mining activity. Use of these stock driveways are an important part of livestock operations to move livestock between summer and winter ranges (BLM 2015).

Resource Management Objectives

1. Washakie County relies on the access to public land to enhance quality of life, but also to fulfill its statutory mandate of protecting the health, safety, and general welfare of people within its jurisdiction. Access to public lands allows for fire protection, search and rescue, flood control, law enforcement, infrastructure maintenance, and general human safety.

Priorities

1. Washakie County supports retaining existing access to public land and will oppose management initiatives that restrict or limit access that might affect the livelihoods and/or quality of life for Washakie County residents.
2. Washakie County relies on its cooperative agreements, RS 2477, the Wyoming Wilderness Act, NEPA, and broad-based legal precedent, which all assure continued access to public land. Any planning process or activity that restricts or eliminates access to federal or state lands shall first notify and allow the County to initiate coordination and cooperation to resolve any potential conflicts with the County's objectives and priorities prior to taking action. In the case that access must be restricted, Washakie County places the burden on federal and state officials to show in an analysis and disclosure why that access is being restricted.
3. In order make an informed decision of any proposed change, Washakie County expects federal and state agencies to provide appropriate and timely notice of anticipated changes to management of public land or changes that would affect access to public lands. Washakie County intends to assert such influence allowed by law to maximize access to public land. The deciding officer shall conduct full consultation with the county and local citizens.
4. Washakie County asserts federal and state officials need to respect access to public land as contributing to the sustainability of local custom and culture and vital to the local community. Toward this end, the County supports efforts to identify and perfect stock trails, roads, and rights-of-way protected by law. The County supports and promotes efficient and effective regulatory schemes that allow continued access and encourages the education of public land users regarding access issues and rights.
5. Washakie County requests federal and state officials work with the County to finalize perfection of the County's rights under RS 2477 and the Wyoming Wilderness Act, including assistance in obtaining the funding for the County to complete this project.
6. No road, trail, RS 2477 ROW, corridor, easement, or other traditional access for the transportation of people, products, recreation, energy, or livestock shall be closed, abandoned, withdrawn, or have a change of use without full public disclosure, and only if the closure is due to public safety, health, or scientific justification.
7. Access to public lands is part of the custom and culture in Washakie County, and changes in land management uses or activities should consider impacts to that value. The County requires federal and state agencies to provide access for activities linked to the local custom and culture of Washakie County such as agriculture, recreation and related tourist activities, industrial and energy production, water resources. This includes other intangible values such as historical and cultural sites, open space values and access to open space, aesthetic values, conservation and entrepreneurial values, in order to support the custom and culture and economies of the local communities.
8. Federal land managers shall provide for the development of access areas on federal lands for the elderly and physically impaired.
9. County roads on federal lands shall remain open unless it has been determined by the county that the subject road is no longer needed as part of the county's transportation system.

10. Access to or across federal lands shall not entail encumbrances or restrictions on private property rights or privileges.
11. Access to and across public lands has been identified through public comment ([Appendix B](#)) as the largest concern within the county, and should be prioritized and considered by federal land managers on all land use actions.

Wilderness and Other Special Land Use Designations

Resource Assessment

Special designations discussed here include Wilderness Study Areas (WSA), Lands with Wilderness Characteristics, Areas of Critical Environmental Concern (ACEC), Recreation Management Areas, and National Historic Trails. There are no congressionally designated Wilderness Areas, Back Country Byways, or National Historic Landmarks within Washakie County. Refer to Chapter 4 for a discussion of Wild and Scenic Rivers and Chapter 5 for a discussion of Wild Horse and Burro Ranges. Refer to [Appendix A](#), Map 4 for a map of Washakie County's Special Land Use Designations.

Wilderness Study Areas

In 2016, Washakie County Commissioners voted to participate in the Wyoming Public Lands Initiative (WPLI), with the goal to develop a locally-led legislative lands package addressing designation, release, and other management for WSAs in Wyoming. Washakie County contains three WSAs: Honeycombs WSA, Cedar Mountain WSA, and Bobcat Draw Badlands WSA ([Appendix A](#), Map 4). The Washakie County Commissioners then selected a WPLI Advisory Committee to develop a proposed management recommendation for WSAs within the county. The Washakie County WPLI Advisory Committee made the following recommendations:

- That approximately 10,000 acres of the Honeycombs WSA be managed taking into account the highly erodible soils and the preservation of scenic rock formations, and that the remaining lands within the Honeycombs WSA be soft-released to the regular BLM Resource Management Plan process.
- That the Cedar Mountain WSA be released from Wilderness Area consideration and be designated as a Special Management Area.
- That approximately 5,000 acres of the Bobcat Draw Badlands WSA be designated as the Bobcat Wilderness, and that the remaining lands within the Bobcat Draw Badlands WSA be released to the regular BLM Resource Management Plan process.

While only Congress has the authority to designate lands as Wilderness, it is the BLM's policy to manage WSAs in a manner that maintains the area's suitability for preservation as Wilderness (BLM 2012a).



Photo 3 Bobcat Draw Badlands WSA

Lands with Wilderness Characteristics

Section 201 of FLPMA requires the BLM to maintain on a continuing basis an inventory of all public lands and their resources and other values, which includes wilderness characteristics. It also provides that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of public lands. Regardless of past inventory, the BLM must maintain and update its inventory of wilderness resources on public lands. In order for an area to qualify as lands with wilderness characteristics, it must possess sufficient size, naturalness, and outstanding opportunities for either solitude or primitive and unconfined recreation (BLM 2012d). The BLM manages lands with wilderness characteristics in accordance with the current Resource Management Plans, which contain no specific management for retention of wilderness characteristics.

As outlined in BLM Manual 6310 (BLM 2012d), the Cody and Worland Field Offices conducted inventories for lands with wilderness characteristics on BLM-administered lands in 2011 and reviewed comments made during the public scoping process. Refer to Map 4 in [Appendix A](#) for inventoried lands with wilderness characteristics.

Areas of Critical Environmental Concern

An Area of Critical Environmental Concern (ACEC) is defined as, “an area within public lands where special management attention is required [...] to protect and prevent irreparable damage to important historical, cultural, or scenic values; fish and wildlife; or other natural systems or processes, or to protect life and safety from natural hazards.” (43 CFR § 1601.0-5(a)). Permissible activities on ACECs generally depend on the resources and values that the designation was meant to protect. Big Cedar Ridge ACEC is the only ACEC located in Washakie County and was designated to protect paleontological values (Map 4). Current threats to this ACEC include surface disturbance from mineral and ROW development, and theft and vandalism (BLM 2015).

Recreation Management Areas

Instruction Memorandum No. 2011-004 (BLM 2010) includes revised guidance for Recreation and Visitor Services planning in conjunction with the BLM land use planning process. Recreation and Visitor Services objectives are a primary resource management consideration within Recreation Management Areas. Recreation Management Areas are classified as either special recreation management areas (SRMA) or extensive recreation management areas (ERMA). SRMAs are administrative units where, “recreation opportunities and recreation setting characteristics are recognized for their unique value, importance and/or distinctiveness, especially as compared to other areas used for recreation.” (BLM 2010). A Recreation Management Zone (RMZ) further delineates specific recreation opportunities within a SRMA. ERMAs “require specific management consideration to address recreation use, demand, or Recreation and Visitor Services program investments.” (BLM 2010). ERMAs are managed to facilitate the visitors’ ability to participate in recreation activities but also to achieve objectives of the individual ERMA. This means that non-compatible uses, such as some recreation activities, may be restricted.

Washakie County contains the following Recreation Management Areas: Canyon Creek SRMA, Horse Pasture SRMA, Middle Fork Powder River SRMA, Brokenback/Logging Road RMZ, Wild Badlands RMZ, Tour de Badlands RMZ, Rattlesnake Ridge ERMA, South Bighorns ERMA, and Bighorn River ERMA ([Appendix A](#), Map 5).

National Historic Trails and Other Historic Trails

A National Historic Trail is a congressionally designated trail that is an extended, long-distance trail, not

necessarily managed as continuous, that follows as closely as possible and practicable the original trails or routes of travel of national historic significance. The purpose of a National Historic Trail is the identification and protection of the historic route and the historic remnants and artifacts for public use and enjoyment. A National Historic Trail is managed in a manner to protect the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, including the primary use or uses of the trail (BLM 2012c).

Bridger Trail is the only historic trail found within Washakie County ([Appendix A](#), Map 5). Since Bridger Trail is not a congressionally designated National Historic Trail, its management does not include the provisions under the National Trails System Act.

Resource Management Objectives

1. Washakie County supports a decision on WSAs and the management of special use areas that balance continued and multiple use of public lands while conserving unique and special areas and resources.

Priorities

1. Washakie County opposes attempts to bypass the processes for creating wilderness areas by using roadless areas as a category for Wilderness-like management. The County supports the intent of Wyoming Wilderness Act, which discourages efforts to promote additional roadless areas and wilderness-like areas.
2. Washakie County supports the expeditious release of wilderness study areas that were not recommended for wilderness from non-impairment management, and supports an end to the informal *de facto* wilderness management of other study areas. The County supports the intent of the Wyoming Wilderness Act, which discourages efforts to promote additional wilderness areas, and wilderness-like areas in any form.
3. The County encourages the BLM to publish the findings and conclusions of its study of the three areas selected for possible designation as wilderness, prior to finalizing its revisions for its management plan. In this way, the BLM will be able to adopt an appropriate management plan for these areas rather than waiting another 15 years to do so.
4. Washakie County supports not allowing federal agencies to engage in endless and repetitive wilderness review or studies that expand lands managed as wilderness or as *de facto* wilderness while reducing the land base available for multiple use. The County encourages decisions to be made regarding status and management of these areas, and that those designations and decisions consider sound policy of multiple use, economic viability, and community stability.
5. Washakie County supports special land use designations when they are consistent with surrounding conservation management, and that do not preclude future conservation options for rangeland, soil, or the development, conservation and utilization of water resources.
6. Washakie County opposes proposed special designations until it is determined and substantiated by verifiable scientific data that a need exists for the designation; protections cannot be provided by other methods, and the area in question is truly unique when compared to other area lands. If special land use designations are proposed, they must be fully coordinated with Washakie County and consistent with surrounding conservation management,

and do not preclude future options for the conservation, implementation, or utilization of water resources, rangeland, soils, or vegetation (including noxious or invasive weeds) and fuels management.

7. Washakie County opposes protective perimeters or buffer zones around wilderness areas that would preclude, in itself, non-wilderness uses or activities from occurring that can be seen or heard from within any wilderness area.
8. Washakie County opposes any impairment or diminution by any wilderness or other special use designations to those interests associated with water management and access, such as ditches, reservoirs, water conveyance facilities, and easements or rights-of-way.
9. The County supports upholding the legal requirements and qualifications of the Wilderness Act of 1964 and the Wyoming Wilderness Act of 1984, including those providing for the continuation of existing uses and the regulation of existing uses only so as to prevent necessary or undue degradation of the environment
10. Washakie County supports the implementation of actions that incorporate and implement the recommendations submitted as part the WPLI for Bobcat Draw Badlands WSA, Cedar Mountain WSA, and Honeycombs WSA ([Appendix C](#)).

Fire Management

Resource Assessment

Wildland fire describes any non-structural fire that occurs in vegetation and/or natural fuels. Wildfire and prescribed fires are two categories of wildland fire. Wildfires are unplanned ignitions caused by natural sources such as lightning, unauthorized and accidental human-caused fires, and escaped prescribed fires. Prescribed fire refers to the introduction of fire to an area under regulated conditions for specific management purposes (BLM 2015).

Washakie County fire occurrences and total acres burned from 1980 to 2016 is displayed below in Figure 1 and Figure 2. While annual fire totals vary from year to year, they generally stayed at or below 20 occurrences (ignitions) between 1980 and 2010. Between 2010 and 2016, however, five of seven years saw greater than 20 occurrences, with a high of 55 occurrences in 2012 (Figure 1). Acres burned saw even greater annual variability. The highest acreage burned (58,979 acres) occurred in 1996, the majority coming from the Bates Fire, which totaled nearly 39,000 acres (Figure 2). As shown in Table 2, the number of natural and human-caused fires were roughly equal over this time period; however, natural-caused fires accounted for a much larger proportion of total acres burned, in comparison to human-caused fires.

Washakie County Natural Resource Management Plan
A Component of the Washakie County Comprehensive Plan

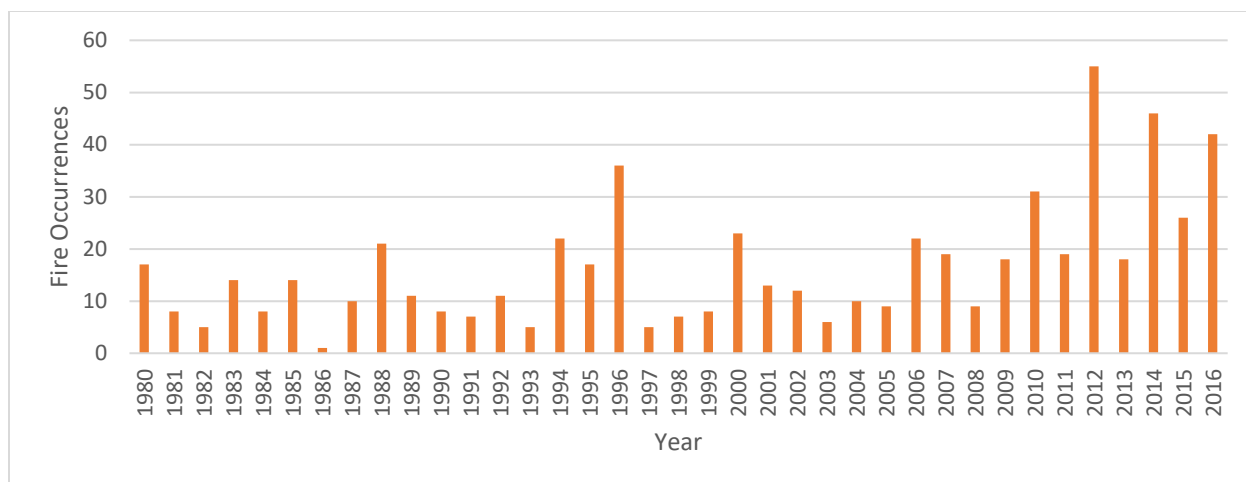


Figure 1 Fire Occurrences in Washakie County (1980–2016) (USGS 2016)

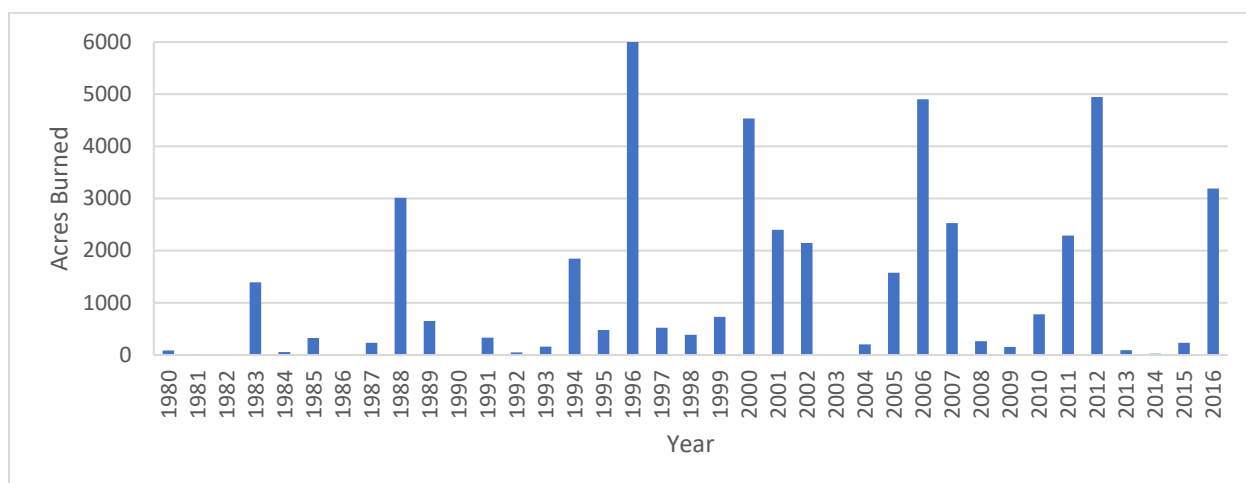


Figure 2 Acres of Land Burned in Washakie County (1980–2016)⁹ (USGS 2016)¹⁰

Table 2 Causes of Fires in Washakie County (1980–2016) (USGS 2016)

Cause	Total Occurrences	Total Acres Burned
Human	270	10,111
Natural	262	84,393
Undetermined/Cause Not Listed	81	5,106
Total	613	99,610

Broadly speaking, wildland fire may have both positive and negative impacts. From an ecological perspective, fire is an important component of the ecological processes of many plant communities. Certain vegetation types have developed under a regime of intermittent fire and have made appropriate adaptations to the occurrence of wildland fire (BLM 2015). Fire and fuels treatments are often employed for improving rangeland health, disease and insect control, and hazardous fuel reduction. Many factors contribute to wildfire behavior and future outlook, including weather patterns and climate, invasive

⁹ In 1996, fires burned 58,979 acres in Washakie County. For scale, this outlier was not shown in the figure.

¹⁰ Acres are based on point data. The totals displayed above represent fires that were ignited within Washakie County. Acres burned may also include lands in adjacent counties. Likewise, fires that were ignited in adjacent counties and spread into Washakie County are not accounted for in this data set.

annual grasses, forest disease, and past fire management practices. As vegetation conditions depart from reference conditions, fire return intervals and severity generally will also change. Cheatgrass invasion, for example, has become more widespread over the past 25 years. Areas impacted by cheatgrass will likely experience increased fire size and frequency (BLM 2015).

Wildfires may also negatively impact the county in a number of ways. Wildfires can impact water quality and quantity, long-term soil productivity, and increase threats to human life and property. Nearby smoke may contribute to health effects such as emphysema and heart disease. Furthermore, recreation and local businesses that rely upon it may also be impacted (Wildland Fire Leadership Council 2014).

Resource Management Objectives

1. Washakie County supports active management and the utilization of tools and treatments that prevent and/or minimize the negative effects of wildfire, including human health effects and safety, impacts to businesses, agricultural operations, and recreation.

Priorities

1. The County will seek to encourage federal and state agencies to use prescribed burns as a primary tool of vegetation management and weed and pest control, especially in areas where access or roads are limited. The County will become actively involved in planning for prescribed burns to mitigate potential wildfire threats.
2. Washakie County supports efforts to thin poorly managed forests and to remove dead and infested trees to mitigate wildfires.
3. Washakie County encourages active management, pre- and post-fire, and the development of vegetation treatments with the objective to lower high fuel loads, reduce fine fuel, and minimizing wildfire risk. This includes but is not limited to timber harvest, prescribe burning, biomass fuel removal, slash pile burning, livestock grazing treatments, herbicide application, and the creation of fuel breaks by modifying vegetation cover and density. Active management would include the use of, but not limited to, all tools and treatments listed or addressed in this NRMP and would occur on rangeland or forested stands that have been impacted by insect and disease, invasive annual grasses, heavy loading of vegetation or biomass, or dead and downed fuels.
4. Washakie County knows that active management of cheatgrass and other invasive annual grasses includes all available tools and treatments from biological, mechanical, and chemical or physical, and should be aggressively pursued in order to reduce rangeland wildfire risk and decrease or control the spread of cheatgrass to intact ecological sites. Washakie County encourages the expedited approval of vegetation management planning where objectives to reduce wildfire risk or to slow wildfire spread has been identified.
5. Washakie County supports aggressive suppression and prevention of wildfires when private property structures or historic values are threatened.
6. Federal agencies shall coordinate with local fire agencies. Specifically, the USFS shall adhere to all requirements set forth in the Cooperative Forestry Assistance Act *16 USC §2106*.
7. Federal agencies will incorporate local fire planning efforts into their overall fire suppression and management planning, and will support efforts of local fire departments in wildfire suppression

activities and fire prevention planning and implementation.

8. Washakie County supports active rehabilitation of forests and rangeland damaged by wildfires in order to protect habitat values and wildlife, to reduce the potential for erosion, and the introduction or spread of invasive annual grasses or noxious weeds. Active rehabilitation can include, but is not limited to, seeding, grazing treatments, chemical treatments, salvage-logging operations, or other forms of treatments that have been shown to be beneficial to post-fire rehabilitation.
9. Post-fire objectives should be consistent with site potential as defined in approved Desired Future Conditions or Ecological Site Descriptions.
10. Washakie County supports the DOI's Secretarial Order 3372, *Reducing Wildfire Risks on Department of Interior Land through Active Management* (Department of the Interior 2019); and Secretarial Order 3336, *Rangeland Fire Prevention, Management, and Restoration* (Department of the Interior 2015) which ordered to identify and develop effective tools and practices to reduce frequency and extent of wildland fires that threaten property, ecological function and wildlife habitats across much of the west (both issued under the authority of Section 2 of Reorganization Plan No. 3 of 1950 (64 Stat.1262), as amended).
11. Active management on rangelands, including management and treatment of invasive annual grasses, should be a priority for federal land management

Forest Management

Resource Assessment

Active forest management is meant to promote healthy vegetation and prevent the spread of catastrophic wildfire and invasive species. Prior to the implementation of any treatments, however, knowledge of historic fire patterns is important in understanding characteristics of the landscape when fires burned as a natural part of the ecosystem. Fires historically moved through conifer forests of the western United States, clearing out brush and low branches. Today, active forest management practices are designed to achieve a similar effect. Many methods are available to thin fuels beneath the canopy and reduce crown fire potential. Treatments include thinning trees and brush with chainsaws, piling fuels with dozers and excavators, controlled burning, and using livestock for grazing (Rands 2019).

Healthy forests serve as the basis for many ecosystem processes that ultimately dictate the availability of products that are used by the county. Healthy forests aid in providing clean water, diverse wildlife habitat, timber products, and a variety of recreation opportunities. The majority of Washakie County's forested areas are located on the eastern side of the county ([Appendix A](#), Map 2). Forest and woodland communities within Washakie County are largely comprised of limber pine, ponderosa pine, Douglas-fir, and lodgepole pine. Some deciduous species such as aspen and cottonwood are also present. Approximately 36,843 acres of the Bighorn National Forest overlap the northeastern corner of Washakie County.

Levels of native and nonnative insects and diseases are useful indicators of forest and woodland health. The National Insect and Disease Detection Survey (USFS 2019) has been conducted since 1997 and includes annual aerial and ground surveys. Across Washakie County, top causes of damage include five-needle pine decline, multi-agent complexes, Douglas-fir beetle, mountain pine beetle, and western spruce budworm ([Appendix A](#), Map 6).

Douglas-fir beetles prefer to attack trees that are injured by fire scorch, defoliation, windthrown, or root disease. When low beetle populations are present, individual or small groups of trees will be attacked. Once populations build up, large outbreaks can occur that kill thousands of trees. Stand conditions and weather can also strongly influence Douglas-fir beetle. The best management is to promote stand vigor by thinning (USFS 2010).

The mountain pine beetle is the most aggressive, persistent, and destructive bark beetle in the western United States and Canada. Most native and introduced species of pines are hosts for mountain pine beetle. In the Rocky Mountain Region, ponderosa, lodgepole, whitebark, limber, and bristlecone pines are all attacked. Management should focus on forests and not on the beetle by altering stand conditions that favor buildup of beetle populations (USFS 2010).

Five-needle pine decline is the mortality in whitebark or limber pine stands brought on by multiple causal agents, including blister rust, bark beetles, drought, and/or defoliators.

The Western spruce budworm is a widely distributed defoliator. Western spruce budworms are commonly found on Douglas-fir, Engelmann spruce, blue spruce, white fir, and subalpine fir; occasionally found on pines when mixed with other hosts. Because larvae disperse on silken threads and often impact the understory more intensively, removing the understory (thinning from below), lowering stand density, and maintaining tree species diversity can reduce the budworm populations (USFS 2010).

Multi-agent complexes result in tree damage from a variety of damage causing agents.

Data regarding timber harvests in the county is limited to USFS land in the northeast corner of Washakie County. Past treatments include shelterwood cutting, overstory removal, and sanitation cutting, among several others. Shelterwood cutting and overstory removal are both methods used to regenerate even-aged stands. Sanitation cutting is employed to reduce actual or anticipated spread of insects and diseases (USFS 2020). These techniques are defined in the USFS Reforestation Glossary¹¹.

Resource Management Objectives

1. Washakie County encourages proper and active forest and woodland management to ensure healthy and vibrant watersheds for current and future generations and to sustain the stability of ranching and agriculture, as well as other traditional and future uses.

Priorities

1. Washakie County calls on public land managers to take drastic action in the form of active management to reduce or stop tree losses along scenic view corridors in Ten Sleep Canyon due to insect, disease and pestilence, thus creating excessive risk of fire, reduced habitat, the potential for excessive erosion, and the ultimate loss of aesthetic values that contribute to the canyon's scenic integrity
2. Encourage the use of the authorities granted under the Healthy Forests Restoration Act, Healthy Forests Initiative and Good Neighbor Authority to expedite cross-boundary agency planning and collaboration processes and project implementation to economically and efficiently treat and protect the resources of Washakie County.
3. Washakie County supports local, regional, state, and federal partnerships in the manufacture

¹¹ <https://www.fs.fed.us/restoration/reforestation/glossary.shtml>

and use of forest and forest by-products, including innovative ways to harvest timber.

4. Forest management should support a coordinated, hands-on, proactive approach to achieve overall forest health and ensuring a healthy and vibrant forest for current and future generations. Commercial timber harvesting and thinning, including salvage operations, and other actions such as, but not limited to, chaining, thinning, prescribed fire, and managed livestock grazing should be considered as methods to promote forest health, reduce insect and disease infestation, reduce wildfire impacts, and prevent waste of forest products while supporting local and regional economies.
5. Federal and state agencies should support the ability of local communities to derive economic and social benefits from forested areas. Access to and use of forest products such as, but not limited to, firewood, posts and poles, building materials, and live tree or Christmas tree permits, is part of an effective forest management plan and important to the local community culture. Access to these sites should be maintained and considered to allow a wide demographic to harvest these products.
6. Washakie County endorses the Wyoming Forest Action Plan and supports the task force recommendations in the Forest Task Force Report (2015).
7. Washakie County has identified the need for active forest management, as shown in Map 6, from identified forest health issues. The resource assessment and map in this NRMP identifies the need for action, and should be included in relative federal forest health, fire management, or wildfire risk reduction projects and environmental assessments. This information shall be used for, if necessary, the justification for funding or cross-boundary cooperation between federal, state and local agencies and private landowners.

Chapter 3: Physical Resources

Air Quality and Climate Change

Resource Assessment

Air Quality

Air quality is important to the health, safety and welfare of Washakie County's residents. Under the Clean Air Act of 1970 (42 U.S.C. §7410 et seq.), the EPA is responsible for setting and enforcing air quality standards (US EPA 2020). In Wyoming, local enforcement of many air pollutants is delegated to the Department of Environmental Quality (DEQ). DEQ's Air Quality Division has established standards for ambient air quality necessary to protect public health and welfare. Ambient air refers to that portion of the atmosphere, external to buildings, to which the general public has access. The status of areas with respect to federal ambient air quality standards are classified as nonattainment (violating the air quality standard), attainment (better than federal standards), or unclassified (due to an absence of monitoring data). Washakie County is currently considered in attainment or unclassified for all federal ambient air quality standards.

DEQ has also established limits on the quantity, rate and concentration of emissions of various air pollutants from various sources including, but not limited to:

- Vehicle engines
- Construction/Demolition activities (asbestos)
- Handling and transport of materials
- Agricultural practices
- Fuel burning equipment
- Oil and gas operations
- Manufacturing operations

To address burning of flammable materials in the county, the Board of Washakie County Commissioners adopted Resolution 326 (Washakie County Commissioners 2016). This resolution authorizes the Washakie County Fire Warden to issue temporary burn restrictions as needed based on fire danger, the presence of any excessive amount of flammable material or for any other sufficient reason. The full explanation of Resolution 326 is available for viewing on the Washakie County website¹².

Climate Change

Climate change refers to "a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer" (IPCC 2014). Paleoclimatology, the study of climates at particular times in the geologic past to have a better understanding of the cause of and how it relates to the present and future climate events. Ice cores, tree rings, sediment cores, etc. are used as proxy records for understanding our current climate, which has shown that the climate of earth is in a perpetual state of change. The earth's climate is influenced and changed through natural causes like volcanic eruptions, ocean currents, the earth's orbital changes, solar variations and internal variability, as well as by the human-caused increase of greenhouse gasses (GHG) into the atmosphere (National Geographic Society 2020). Energy development and industrial activities can generate carbon dioxide

¹² <https://washakiecounty.net/wyoming/home/BURNING%20RESOLUTION%20326.pdf?attredirects=0&d=1>

(CO₂) and methane (CH₄): CO₂ emissions result from the use of combustion engines, while CH₄ can be released during processing. Wildland fires also are a source of CO₂ and other greenhouse gas emissions, while livestock grazing is a source of CH₄. Other activities with the potential to contribute to climate change include soil erosion from disturbed areas and fugitive dust from roads, which have the potential to darken snow-covered surfaces and cause faster snow melt.

The potential effects of climate change, as well as the causes, are varied. For example, if global climate change results in a warmer and drier climate, this could result in increased concentrations of Total Suspended Particulates (TSP) due to increased windblown dust from drier and less stable soils. Reduced snowpack and an earlier snowmelt could result in a longer wildland fire season, which could lead to higher concentrations of ozone and TSP, and a decreasing supply of water. Potential, rising temperatures, drier soils, and changing water availability are likely to present challenges for Washakie County's farms and cattle ranches. Hot weather causes cows to eat less and grow more slowly, and it can threaten their health. Reduced water availability would create challenges for ranchers, as well as farmers who irrigate crops (EPA 2016).

Executive Order 13783 (2017) *Promoting Energy Independence and Economic Growth* directed CEQ to withdraw guidance that was issued in 2016 for federal agencies on the consideration of the effects of climate change and greenhouse gas emissions in favor of promoting energy independence and economic growth. In 2019, CEQ published draft guidance to assist federal agencies in their consideration of GHG emissions in NEPA analysis and documentation, and to facilitate timely reviews and permitting decisions for infrastructure projects requiring federal agency approval. Agencies are required to consider direct, indirect, and cumulative effects of the proposed action and connected actions on climate change when completing an analysis, subject to reasonable limits. The draft guidance recognizes the need to use qualitative analysis unless existing data is available for GHG only where emissions are substantial enough to warrant quantification. This draft guidance also removes the need to complete a monetary cost-benefit analysis using any monetized Social Cost of Carbon estimates and related documents or other similar cost metrics (Federal Register 2019). Land management practices such as prescribed burning, vegetation management and manipulation, soil conservation, commercial timber harvest, and grazing can result in both carbon emissions and carbon sequestration.

In an effort to respond to climate change, BLM has implemented policy to encourage the development of renewable energy in acceptable areas. In addition, Executive Order 13212 (2001) instructs agencies, including the BLM "to expedite projects that will increase the production, transmission, or conservation of energy." The Climate Change Program Office coordinates USDA's and the Forest Service's responses to climate change, focusing on implications of climate change on agriculture, forests, grazing lands, and rural communities (USDA 2013b). Regional Climate Science Centers provide scientific information and tools that land and resource managers can apply to monitor and adapt to climate changes at regional and local scales (DOI 2010).

Climate change science and projections of climate change is a continually growing and emerging science. Additional and recent information on climate change and regional projections of climate change for the Planning Area can be found through the following links:

- U.S. Global Change Research Program: <http://www.globalchange.gov/>
- Intergovernmental Panel on Climate Change (IPCC): <http://www.ipcc.ch/>

Resource Management Objectives

1. Maintaining Washakie County's air quality below federal and state air quality standards is critical to the health and well-being of its residents and its future economic development, while maintaining traditional and industrial uses.
2. Washakie County supports reasonable actions that reduce adverse effects from climate change while maintaining the economic viability and growth of the county.

Priorities

1. The County will seek to work with federal, state and local agencies to educate the public on the value burning plays in agriculture operations and wildfire risk reduction, while also providing education on the best practices, concepts and applications for reducing agricultural and prescribed burning emissions. The County will work with agricultural interests to develop best practices concepts and applications for burning fields, ditches and canal facilities in the county.
2. Air quality is an essential element of the economy and environment. All new development proposals or changes in land use shall maintain, or make better, this area's air quality.
3. Air quality is important to the health, safety and general welfare of the public. Dust and odors from local family farm and ranch operations are an accepted part of life in rural Wyoming, but unnecessary and harmful pollutants in the air are not. The objective is to prevent harmful air pollution without hampering normal family farm operations.
4. Incentives for mitigating sources of air pollution will be given priority over regulatory restrictions. If regulatory restrictions are deemed necessary, then the goal will be to implement those regulations on terms and conditions that will not be invasive of the rights of individual property owners, but only for the public's health, safety and welfare.
5. The county's Road and Bridge Department will identify those roads highly susceptible to the creation of fugitive dust, and then pursue dust control efforts as funding permits.
6. New uses or changes in existing land uses, which would tend to cause a significant deterioration of existing air quality, shall be discouraged. Existing activities shall be encouraged to improve management and practices in support of higher air quality standards.
7. Washakie County supports the purpose of the Clean Air Act amendments (1990) which balance the need for the highest level of environmental protection with the need to maintain economically viable and sustainable communities.
8. Washakie County supports the goals of the Wyoming Environmental Quality Act, which implements the Clean Air Act, as amended. The Wyoming DEQ establishes emission standards and permit procedures that are economically achievable and protect the public health and welfare.
9. Federal and state agencies shall take aggressive efforts with forest and rangeland management to decrease the number and intensity of wildfires, thereby decreasing the deleterious effects of smoke and particulates on human health and air quality.
10. Washakie County asserts that notification be given of all air quality studies undertaken by or on behalf of a public land management agency. Study methods for air quality analysis shall be developed with, and agreed upon by the county. If necessary, a third-party consultant approved

by the county may be enlisted to complete the required air quality analysis so long as that consultant conforms to the agreed upon methods. Air quality baselines for the area must be established with the participation of the county.

11. Federal land management agencies shall coordinate with the county when formulating permitting and leasing stipulations for proposed activities or projects that have significant impacts to air quality. Permitting and leasing stipulations shall include: provisions for the implementation of agreed upon mitigation strategies to reduce or eliminate criteria pollutants where state or federal air quality standards are likely to be violated; and provisions for the implementation of agreed upon enforcement strategies to be implemented in the case of a violation.
12. To maintain high air quality, federal and state agencies will work to protect the area's air from degradation from non-area sources that have been identified by the relevant federal and state agencies.
13. The individual and cumulative impacts to air quality and the significance thereof, of any proposed actions on federal lands shall be analyzed thoroughly and quantitatively by the federal agency proposing the activity. Analysis of individual and cumulative impacts must be coordinated with, and the findings provided to, the county.
14. Climate change analysis should occur only when required, based on a proposed action and connected actions on a local or regional level that is determined in consultation and review with the county. Federal climate change analysis that does occur should be a qualitative analysis that considers impacts to the local custom and culture and economies from climate change. If peer reviewed and credible scientific data is currently available, this can also be used in the analysis. Additional studies, regulation, or mitigations should not be required as part of the proposed action if this current quantitative data is not available.
15. Washakie County supports land management practices that restore through active management, high carbon-value ecosystems, such as forests and grasslands, and reduce wildfire frequency and intensity.
16. Washakie County supports education, in partnership with federal and state entities, on climate-smart land management practices, including but not limited to low-emission agriculture, forestry, industrial emissions, open space conservation, and burning.

Cultural, Historical, Geological, and Paleontological Resources

Resource Assessment

Historic trails, historic churches, petroglyphs, and tepee rings are evidence of Washakie County's long and remarkable anthropological history. Many significant cultural, paleontological and archeological sites have already been identified on public and private land; with the likelihood that additional important sites have yet to be identified. Since the vast majority of land within Washakie County is publicly owned, it is reasonable to assume most future discoveries will occur on public land. The Bighorn National Forest Service Office alone has concluded that a significant resource site may exist on every 10 acres in their jurisdiction.

The Archaeological Resources Protection Act of 1979 provides substantial penalties for destroying sites

on public land and for taking artifacts. To reaffirm their importance, in the FLPMA of 1973, Congress declared that the national interest public lands and their resources should be inventoried periodically and, that they should be managed so as to protect the quality of historical and archeological values.

In addition to archaeological resources, the occurrence of fossils is widespread and unique to Washakie County. The county is one of the principal areas in the U.S. for paleontological research on plants, dinosaurs, dinosaur track sites, early mammal evolution, and paleoenvironments, with a long history of producing many important dinosaur, mammal, and plant specimens. In 1997, Cody and Worland BLM Field Offices classified the region based on potential to affect significant paleontological resources from surface-disturbing activities. Referred to as PFYC (Potential Fossil Yield Classification), each geologic mapping unit has been classified using a scale of 1 to 5 (1 for unlikely to 5 for highly likely). Nearly 900,000 acres, or 65 percent of Washakie County is classified as 3 or 5 geologic formations, indicating a “Moderate” to “Very High” potential for vertebrate or scientifically important paleontological resources (Map 7 in [Appendix A](#)).

Currently, the BLM does not allow commercial collecting of fossils from public lands, except petrified wood, which is managed as a mineral material and is salable under the Mineral Materials Act (43 CFR 3600). Congress passed the Paleontological Resources Preservation Act (PRPA) in March 2009. This Act supplements existing laws and guidance regarding paleontological resources on BLM-administered lands.

Under current policy, the BLM allows the public to collect common invertebrate or plant fossils in reasonable quantities for personal use, making negligible disturbance using only hand tools (casual-use or hobby collecting). Permits may be issued to qualified researchers and fossils collected remain public property and must be curated in an approved repository.

Sites, archaeological and paleontological, that have been identified include:

- Big Cedar Ridge has produced hundreds of species of fossilized plants, some of which have never previously been found in North America (Smithsonian Institution 2016).
- Dana Dinosaur Quarry near Ten Sleep, Wyoming is located on private land. It is highly productive and has been producing dinosaur fossils for over 20 years. Over a dozen individual skeletons have so far been discovered, representing a variety of species, including predator and prey, both large and small.
- The Colby Site, a mammoth kill site, dates back approximately 11,200 years and is one of the earliest known human occupations in North America.
- Washakie Museum & Cultural Center and Ten Sleep Museum include important Paleoamerican exhibits of the Colby & Horner site artifacts, Meeteetse Hadrosaur fossils, Sheepeater Shoshone lodge and artifacts, a rock shelter replica, historic wagons, a sod house and historical photographs.



Photo 4 Fossil collected from Big Cedar Ridge ACEC (courtesy of the Smithsonian Institute)

- The Spring Creek Raid monument, on the Upper Nowood road south of Ten Sleep, describes a feud between sheepmen and cattlemen during the 1890's.
- Leigh Creek monument, located above Ten Sleep, describes the story of an English nobleman, Gilbert Leigh, who was hunting Big Horn Sheep when he and his horse plummeted over a cliff in the fog.

Washakie County's traditional lifestyle has centered on agricultural pursuits and resource-based industries for generations. Cultural resources are a link to the past and convey the legacy prior inhabitants have left. Historic and pre-historic sites are a reminder of the county's rich cultural heritage, provide a sense of time and place, and guarantee a continuing source of educational opportunity with continued preservation of these resources.

Resource Management Objectives

1. Washakie County recognizes the value cultural, archeological, paleontological and geological resources have on the county's custom and culture. The County supports the development of public education and stewardship programs to increase awareness about these resources to enhance responsible visitation and appreciation of history and meaning of various sites, and to heighten protection strategies carried out within the context of multiple use.

Priorities

1. It is the County's intent to be recognized as a consulting party under Section 106 of the National Historic Preservation Act (as amended). Washakie County has a Historic Preservation Commission, and maintains the status of a certified local government as evidence of its intent to be a consulting party.
2. Washakie County will cooperate with federal and state authorities in identifying significant Cultural Resources in the county, make such sites known, and evaluate the significance of proposed land use actions and their impact on Cultural Resources. It is the County's intent to evaluate the economic and cultural impacts associated with cultural resource identification and protection, and weigh one against the other in a cost/benefit context based on the county's unique custom and culture.
3. Washakie County supports visitation opportunities to local cultural resources, and site protection of those cultural resources. Washakie County relies on federal and state agencies for the fiscal costs and expertise necessary to carry out this policy.
4. The County will support the inventory of historic and cultural sites and buildings within the county. There is no prior inventory of historical and archeological resources so a thorough inventory is essential if the county is to achieve its goal of preserving the county's historical and archeological heritage. Through a cooperative effort between public and private interests a methodical effort will be made to identify and develop innovative and wide-ranging incentives to support a variety of historic preservation activities.
5. The County will assist in the search for funding to review and update the existing inventory of eligible historic and cultural sites, buildings, communities, land, archeology, landscapes, and historic transportation corridors within the county. Preservation and adaptive re-use of historic buildings will be given due consideration in the planning process, and methods to preserve

these historic and cultural resources will be investigated.

6. The County will encourage local historic preservation interest groups to assist property owners and communities in understanding the benefits of, and preparing nominations for, the National Register of Historic Places listing. Yearly goals for nominations will be established.
7. The Historical Preservation Society, with assistance of the county, will offer assistance or recommendations for owners of historic properties aware of grant and loan programs for restoring historic buildings and provide information on the proper maintenance and repair of historic buildings. In addition, the county will continue to promote the compatible adaptive reuse of significant historic structures through the use of flexible regulations.
8. The County will set the example for preservation of historic and cultural structures and sites through designation, maintenance, and compatible use of county-owned sites and areas.
9. Projects and publications, which link cultural heritage and tourism, have the potential to become important components in the county's tourism program. The County will actively participate in regional tourism efforts that link and promote Washakie County's unique attractions and activities. This participation will encourage efforts that will attract new and repeat visitors to this community's lodging, retail and restaurant facilities.
10. Washakie County will commit to cooperative agency status in federal agency actions affecting historic buildings and culturally significant sites.

Energy, Mining and Mineral Resources

Resource Assessment

Mineral and energy production have and continues to play one of the most significant roles in the culture and economy of Washakie County. Natural gas, oil, and bentonite constitute the energy and mineral resources in Washakie County. Sand and gravel are other economic resources present within the county.

Although the production of energy resources and minerals, and associated economic and cultural activity, have waxed and waned with demand and pricing over the past; it has been, and remains a significant portion of Washakie County's tax base (Figure 3).

Congruently, the county uses this funding to provide the industry with infrastructure and services such as roads, bridges, medical services, and law enforcement. It is also Washakie County's duty and obligation to be a part of and/or intervene in the regulatory process as provided for by federal and state law. This requires interaction and cooperation with agencies such as the BLM, USFS, Wyoming Oil and Gas Commission, and State of Wyoming DEQ.

WASHAKIE COUNTY ASSESSED VALUATION: 2016

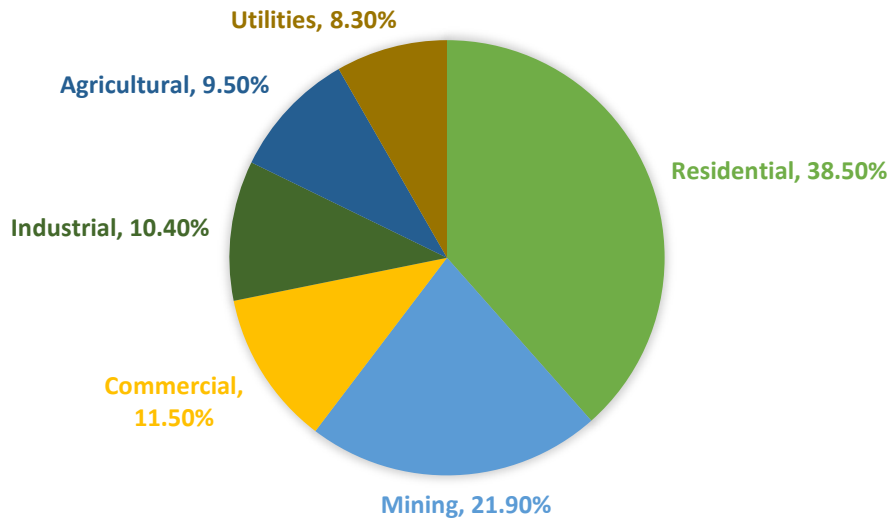


Figure 3 Washakie County Assessed Valuation in 2016 (U.S. Department of Commerce 2019)

The extraction of fluid mineral resources plays a significant role in the culture and economy of Washakie County, starting with the discovery of crude oil in the 1910s. It is known that substantial amounts of crude oil and natural gas are present in the county (BLM 2015). There are currently 476 active oil wells, 30 active natural gas wells and 270 miles of pipeline (Map 8 in [Appendix A](#)). Oil and gas production contribute substantially to tax dollars within Washakie County (Table 3). Coal Bed Methane potential, according to the Bighorn Basin Resource Management Plan is low to nonexistent depending on location (BLM 2015).

Table 3 Energy and Mineral Resource Production and Value in Washakie County (Wyoming Department of Revenue 2019)

Mineral Production and Value in Washakie County	2014	2015	2016	2017	2018
Production or Sales (units)					
Oil (barrels)	735,052	696,807	592,496	600,110	397,061
Gas (mcf)	1,560,433	1,552,758	1,419,250	1,322,073	1,190,689
Coal (tons)	0	0	0	0	0
Gypsum (tons)	0	0	0	0	0
Sand and Gravel (tons)	103,408	78,833	31,716	44,935	42,746
Bentonite (tons)	170,862	162,915	121,553	138,295	172,577
Taxable Valuation (\$ millions)					
Oil	\$50.2	\$22.6	\$16.4	\$21.4	\$15
Gas	\$5.4	\$2.9	\$2.5	\$3.0	\$2.6
Coal	\$0	\$0	\$0	\$0	\$0
Gypsum	\$0	\$0	\$0	\$0	\$0
Sand and Gravel	\$0.1	\$0.2	\$0.1	\$0.1	\$0.1
Bentonite	\$2.5	\$2.8	\$1.6	\$1.8	\$1.5
Total (\$ millions)	\$58.2	\$28.5	\$20.6	\$26.3	\$19.4

Wyoming Pipeline Corridor Initiative Project:

The Washakie County Commissioners, Washakie County Conservation District (WCCD), and other Wyoming county agencies are currently involved in the Wyoming Pipeline Corridor Initiative (WPCI). The WPCI is a proposal from the State of Wyoming to designate approximately 1,914 miles of pipeline corridors across private, State, and BLM-managed lands throughout the central and western portions of the state that are essential to future production and distribution of oil and gas products viable to the state's economy. Approximately 1,105 miles of the proposed corridors are located on BLM-managed lands in nine field offices: Buffalo, Casper, Cody, Kemmerer, Lander, Pinedale, Rawlins, Rock Springs, and Worland. Approximately 110 miles lie in Washakie County as lateral and trunk lines. The WPCI Project, as proposed by the State of Wyoming, would designate a statewide pipeline corridor network dedicated to pipelines and facilities associated with carbon capture, utilization, and storage, and of pipelines and facilities associated with enhanced oil recovery. The CO₂ will be injected into existing, often "played-out" oil fields, thereby increasing oil production beyond conventional recovery methods with little additional surface disturbance. The project would not authorize any new pipelines or construction but would amend several BLM resource management plans (RMP) across the state (Map 8 in [Appendix A](#)).

Rare Earth Elements

The rare earth elements, also referred to as rare earth metals, consist of 15 naturally occurring chemical elements that range in atomic number from 57 (lanthanum) to 71 (lutetium) on the periodic table of elements (USGS 2014). Demand for the rare earth elements has grown dramatically over the past several decades, as their many technological and environmental uses have developed. The rare earth elements are essential to a variety of applications including hybrid and electric car batteries, digital camera lenses, fluorescent lights, screens of smart phones, and automotive catalytic converters. In recent years, Chinese production has accounted for the vast majority of the rare earth element market (approximately 95 percent). While rare earth element stockpiling and exploration have increased substantially since 2000, the Mountain Pass mine in southeastern California is the only active producer of rare earth elements in the United States (USGS 2014).

As noted in the Bighorn Basin Proposed RMP and Final EIS (BLM 2015), data regarding the potential occurrence for rare earth elements is not available.

Renewable Energy Resources:

There are no solar facilities or pending applications for solar facilities in Washakie County. Based on the findings of the BLM Renewable Resource Assessment Project (BLM and DOE 2003), there are no locations in the county that receive six or more kilowatt hours per square meter per day of solar insolation. As a result, the potential for development of solar resources in the county is not likely. Similarly, wind and geothermal resource development potential are considered low, and the BLM does not anticipate widespread energy development of those resources. Nevertheless, federal lands are available for leasing, should there be any advances in technology that increase potential (BLM 2015).

Resource Management Objectives

1. Washakie County supports continued mineral exploration on public land in an environmentally responsible manner.
2. Washakie County supports the continued development of oil and gas on federal and state lands within county, federal, and state jurisdiction in keeping with the local and regional custom and culture and to ensure local economic diversity and stability.

3. Washakie County encourages new opportunities for the development of energy industries and the adoption of new technologies for existing energy industries, in order to balance responsible renewable and non-renewable energy development while supporting traditional energy developments.

Priorities

1. Washakie County asserts local, state, and federal land use and management plans are incomplete and materially deficient unless such plans contain a thorough discussion and evaluation of coal bed methane development and the implications such development has on surface land uses.
2. The experience of other counties in Wyoming indicates the exploitation of coal bed methane extraction. The resulting water generated by operations needs to be considered in any planning process to assure local health, safety and general welfare considerations are protected.
3. The County acknowledges coal seams underlying the county at-depth are not presently economical for development, but future exploitation has implications the county needs to address. It is good public policy to assure negative impacts associated with coal bed methane production in other parts of the state do not occur here; that agricultural interests in the surface are appropriately protected; and that responsible mineral interests will be able to proceed without undue interference or delay.
4. Washakie County will endeavor to incorporate provisions in its land use regulations directed at development of coal bed methane.
5. Washakie County strongly urges mineral interests reach written agreements with surface owners before entering upon the land. The County believes mineral and surface owners both have rights and responsibilities, and only through mutual cooperation can each optimize their returns on investment.
6. Washakie County asserts that it is the responsibility of the mineral owner, especially federal and state officials, to evaluate opportunities for commercial use and mitigate adverse impacts on surface uses. Cooperation and good planning will help sustain the county's agriculture heritage for future generations.
7. Mineral extraction operations will conform to the best practicable management practices concerning water quality and shall be expected to conform to the Big Horn Basin Water Quality (208) Plan.
8. The County will adopt clear and objective standards for the development of mining operations. These standards will be applied to all mining operations, except where supplanted by other clear and objective standards.
9. Agriculture surface uses are to be protected from excessive or abusive development of severed mineral rights, which impair or impede surface land uses. The County will encourage restraint of development of severed mineral rights and assist as appropriate in creating standards for agreement between and among surface and mineral interests prior to actual development.
10. The county has long been known for its mineral resources, and the known oil and gas fields are depleted, which has resulted in the large multi-national firms selling out to local business

interests. The County will encourage local ownership of mineral resources and build working relationships with entrepreneurs willing to invest in and do business in the county.

11. Federal and state land management agencies will consider local government transportation and maintenance needs for local resources such as rock, gravel, road base, etc., and will provide options for siting new or expanding existing year-round sources on federally managed lands that are reasonably distributed around the county and that provide sufficient material for those needs. All planning or permitting for actions on public lands that require the use of a road or travel route that is maintained by the county, should provide consideration within that project's environmental analyses for the potential maintenance needs and locations of material sources that are available. If no sources are available for a project that meet the above requirements, then new locations should be permitted.
12. Federally managed lands shall remain open and available for mineral resource exploration, development, and production, unless land has been withdrawn congressionally or administratively or by other procedural action necessary to protect local community resources or health and safety.
13. Provide adequate bonding requirements to ensure removal and successful reclamation of abandoned energy and mineral resource projects.
14. Provide for immediate, interim, and final reclamation as conditions and development warrant with reclamation practices and standards that are appropriate to industries' specific needs.
15. Federal and state agencies shall:
 - a. Have efficient, streamlined permitting processes to approve plans of development in a timely manner;
 - b. Base wildlife buffers, occupancy stipulations, and restrictions on peer reviewed and credible scientific data and provide all data to the affected private property owners or local agencies upon request;
 - c. Refer to the *Cultural Resource Compliance When Managing Minerals on Split Estate* (Gary Stumpf)¹³ for guidance on managing cultural resources on split estate lands; and
 - d. Not limit or infringe, without adequate compensation, upon the ability of private mineral owners to access, extract and transport their mineral resource, including in areas determined as a set aside for no mineral leasing on federal lands, if that determination takes place after leasing has already occurred.
16. Locate energy transmission infrastructure, such as oil and gas pipelines and high voltage electric transmission lines in existing utility corridors and on federal and state lands, where feasible.
17. Use streamlined permitting processes to enable the placement of energy transmission infrastructure on federal and state lands rather than impacting private property owners.
18. Encourage and assist carbon capture and sequestration projects and development of pipelines to transfer carbon dioxide to markets.

¹³ <https://www.ntc.blm.gov/krc/uploads/646/ManagingMineralsonSplitEstate.pdf>

19. Encourage the delineation and management of oil and gas fields, and associated residual oil zones, that are amenable to tertiary recovery efforts.
20. Encourage the delineation of carbon dioxide, water and oil and gas pipeline infrastructure to facilitate tertiary recovery efforts.
21. Obtain full bonding to ensure removal and reclamation of abandoned renewable and non-renewable energy projects.
22. Washakie County shall strive to meet bi-annually with federal and state agencies, including but not limited to: BLM, USFS, and the Wyoming State Planning Office regarding potential and proposed energy development and infrastructure projects that may impact Washakie County citizens, industries, and economy. Washakie County asks to be a cooperating agency in corridor and field developments and preplanning implementation for energy development and infrastructure projects that.
23. Washakie County authorities, affected stakeholders, including private property owners, shall receive ample notice and mapping for potential eminent domain, energy development, and infrastructure projects that may affect citizens and industries. Washakie County expects that impacted individuals or entities receive full compensation for eminent domain acquisitions pursuant to federal and state law.

Soils

Resource Assessment

Soil conservation is crucial to sustaining a viable agricultural economy, wildlife populations, and high-quality water and air resources. The Natural Resources Conservation Service (NRCS) has mapped and conducted research to support detailed soil surveys for Washakie County, which are available online at the Web Soil Survey website¹⁴. Soil surveys are the base information source used for evaluating land use development and disturbance activities. The soil survey identifies soil properties used in making various land use or treatment decisions and identifies soil limitations on various land uses. Great differences in soil properties can occur within short distances. Soils in Washakie County are diverse and highly variable, reflecting differences in parent material, position on the landscape, elevation, aspect, and climatic variables such as precipitation and temperature. The plant communities supported by such a diversity of soils are equally diverse, ranging from sparsely vegetated desert saltbush and sagebrush-bunchgrass communities to forests and alpine meadows. The NRCS published the Washakie County soil survey in 1983, however for more recent data, the NRCS soil database allows soil data to be applied for use and suitability interpretations. This database is adequate for most soil interpretations.

Resource Management Objectives

1. Washakie County recognizes the innate importance of soils, soil conservation, and soil protection in land use management and multiple use mandates in order to sustain the traditional and future land uses within the county.

Priorities

1. As soil is essential to the economy and environment, all new development proposals or changes

¹⁴ <http://websoilsurvey.sc.egov.usda.gov/>

in land use shall limit erosion.

2. Washakie County supports WCCD in their efforts to:
 - a. Reduce soil erosion and associated hazards;
 - b. Cooperate, consult, and coordinate with local, state, and federal agencies in studies, planning, and implementation activities related to soil resources; and
 - c. Provide natural resource education to urban and rural communities in Washakie County.
3. Federal and state agencies shall consult, coordinate, and collaborate with local agencies, including WCCD, and any affected stakeholders regarding projects potentially affecting soil resources in Washakie County.
4. Washakie County supports the prioritization of soil survey mapping and the use of ecological site descriptions, or proxy, developed by the NRCS as a foundation for the inventory, evaluation, monitoring, and management of federal and state lands.

Chapter 4: Water Resources

Irrigation and Related Infrastructure

Resource Assessment

The western part of Washakie County is largely composed of intensively irrigated farmlands that lie adjacent to the Bighorn River, which flows north through Worland. Other farmlands exist along the Gooseberry and Cottonwood Creeks, which feed into the Bighorn River from the west. The Nowood River, which flows north through Ten Sleep, has a less extensive irrigation network. The eastern side of the county is primarily based on ranching operations, which generally move from pasture to pasture, instead of relying on irrigation systems. Annual precipitation alone is insufficient to sustain the county's agricultural needs; therefore, water storage and use inherently impact local farming operations, down to which crops are planted. Refer to Map 9 in [Appendix A](#), which depicts water resources within the county.

Boysen Reservoir, located in Fremont County, is a major water source for Washakie County. Boysen Reservoir is a BOR project, which manages waters of the state in accordance with Wyoming water law. Irrigation water stored in Boysen Reservoir is conveyed through Wind River Canyon and then down the Big Horn River to various irrigation infrastructure (Map 9 in [Appendix A](#)). Irrigation infrastructure is under the jurisdiction of various agencies and local districts, which are responsible for conveying the water from the river to farm fields through ditches and sprinkler irrigation units.

Washakie County's municipalities obtain water from wells located on public land. Extensive aquifer reserves were discovered in the county during the late 1970s, including artesian wells, which do not require pumps. The City of Worland uses pipelines to transport well water over 27 miles to residential, commercial, and other users.

Resource Management Objectives

1. Washakie County will maintain or improve the integrity of watersheds within the county and prioritize the continued exploration for and the use of water sources and aquifers and associated water storage needs on public land in an environmentally responsible manner.

Priorities

1. Washakie County will continue to support and advocate for augmentation of water storage and conveyance facilities on public land. Local agricultural interests rely on the strict compliance with state water law and water storage agreements, which give priority to agriculture in delivery and use of water.
2. Washakie County supports water development and restoration projects that increase water quantities and quality for beneficial use within the county, while also considering the traditional custom, culture, ecology, and economy of the area.
3. Washakie County recognizes the importance of irrigation systems that make up a critical part of the water cycle within the county and supports the implementation of irrigation best management practices.
4. Require that agencies process permits on federal lands for the construction, maintenance or expansion of irrigation distribution systems to private lands in a reasonable timeframe. If a

review will take longer than 30 days, the agency must notify the county with an explanation for the delay and the revised timeframe.

Dams and Reservoirs

Resource Assessment

Reservoirs are typically utilized for surface water storage, flood control, hydroelectric power generation, recreation development, and range improvements. Spatial data is limited regarding the total number of dams and reservoirs in Washakie County. The National Hydrography Dataset classifies many waterbodies as lakes, while aerial imagery suggests that they are actually stock watering ponds.

According to the 2010 Wind-Bighorn Basin Plan Update (MWH Americas et al. 2010), Tensleep Reservoir (also known as Meadowlark Lake) is the only reservoir in Washakie County considered to be a major reservoir, meaning it has an attached water right of 500 acre-feet or greater. The majority of Tensleep Reservoir is located in Big Horn County.



Photo 5 Tensleep Reservoir/Meadowlark Lake from Observation Point

Reservoir sedimentation is a challenge currently facing Washakie County. Excessive sediment loading results in many negative effects, including reduced water storage capacity, water quality impacts, and increased maintenance costs. Reservoir sedimentation occurs when a surface erodes, and excessive sand, clay, silt, and other soil particles are deposited into streams and rivers and transported to a downstream reservoir. Erosion rates are affected by slope, soil surface texture, and the plant community (USDA NRCS 2001). While runoff potential generally increases with plant community disturbance, increased bare ground,

and soil compaction (each commonly caused by grazing, OHV use, and poorly designed roads), certain soils, such as those in Washakie County badlands, have a naturally high runoff potential ([Appendix A, Map 10](#)). As displayed in the map, a considerable portion of lands surrounding the Bighorn River and its tributaries are classified as moderately or highly erodible. The movement of sediment into Bighorn Lake, located in Big Horn County, via the Bighorn River is a current concern which was also voiced during the development of the Bighorn Basin Proposed RMP and Final EIS (BLM 2015). A 2010 study (BOR and USACE 2010) attributed this issue to high gradients of Bighorn Lake tributaries, low precipitation, the natural erodibility of rocks in the drainage basin, and a lack of vegetative cover. Refer to [Appendix A, Map 10](#), which depicts water erosion potential across Washakie County.

Resource Management Objectives

1. Washakie County acknowledges the importance of dams and reservoirs for water storage and flood control purposes, recreational attractions, fisheries, sources of water for livestock, and hydroelectric power generation, and supports active management to maximize benefits while reducing negative effects such as sedimentation.

Priorities

1. Washakie County supports the prevention and management of reservoir sedimentation, and will

promote best management practices that reduce sedimentation.

2. Washakie County asserts that the applicable owner of each water storage facility location be proactive in the maintenance and monitoring of that facility.
3. Washakie County supports agency actions that analyze impacts on facilities such as dams, reservoirs, delivery systems, monitoring facilities, etc. located on, or downstream from, land covered by any water-related proposal.
4. Maintain the primary use of all reservoirs within the County for the purpose for which they were originally intended.

Water Rights

Resource Assessment

Wyoming water law is based on the doctrine of prior appropriation, as are most western states. Users with earlier rights are entitled to water during periods of limited supply, over those with later rights. The Wyoming State Engineer's Office¹⁵ is the chief administrator of Wyoming waters and oversees appropriation, distribution, and application to beneficial uses of state water resources.

Resource Management Objectives

1. Washakie County will work with local, federal and state government to encourage and support state control of water rights and to maintain opportunities for future water right allocations.

Priorities

1. Washakie County opposes any federal governmental control over individual water rights within the County
2. Washakie County supports Wyoming's beneficial uses of water as defined under administrative policy of the State Engineer's Office.
3. Washakie County recognizes and will protect the existence of all legal canals, laterals, or ditch rights-of-way.
4. Washakie County requires that historic and customary beneficial uses take precedence over any and all in-stream flow use designations established under current Wyoming State Law.

Water Quality

Resource Assessment

The use and enjoyment of a variety of natural resources are linked to water quality. As such, it is often a useful tool in assessing overall habitat conditions in the surrounding area. In addition, many beneficial uses of water resources are contingent on healthy watersheds, including drinking water, recreation, propagation of aquatic life, agricultural water supply, and industrial water supply. Water quality was identified by public comment as of utmost importance to the county ([Appendix B](#)).

Under the Clean Water Act, states are required to monitor water pollution and report to the EPA biannually. Waters that do not meet water quality standards (referred to as impaired waters) are placed on the state 303(d) list. The state identifies which pollutant is causing the impairment and assigns a

¹⁵ <https://sites.google.com/a/wyo.gov/seo/>

priority for developing a Total Maximum Daily Load (TMDL). A TMDL is the maximum amount of a given pollutant allowed to enter a waterbody, given that the waterbody still meets that pollutant's water quality standards. By developing a TMDL, pollution reduction targets can be determined. A 303(d) listed waterbody generally remains listed until the EPA approves the TMDL developed by the state.

Approximately 97 percent of Washakie County is located within the Bighorn River Basin. Several waterbodies within the Bighorn River Basin are currently listed on the state 303(d) list; however, none are found within Washakie County. While the county does not currently have any 303(d) listed waterbodies, several were listed as recently as 2014. The Bighorn River was added to the 303(d) list in 2000 due to exceedances of Fecal Coliform. In 2002, Nowater Creek, Sage Creek, Fifteen Mile, and Slick Creek were added to the 303(d) list for the same impairment. Since then, Wyoming Department of Environmental Quality has completed an EPA-approved TMDL for these waterbodies. As a result, impaired segments were removed from the 303(d) list in 2014 and placed in Category 4A, indicating that a state-developed TMDL has been approved by the EPA. Improved animal feeding operations and septic system repairs were employed to help improve water quality (Wyoming Department of Environmental Quality 2018). Refer to the Dams and Reservoirs Section, above, for a discussion of Bighorn River and Bighorn Lake sedimentation concerns.

Cottonwood Creek was added to the 303(d) list in 2004 due to exceedances in selenium and chloride, likely due to discharges from the Hamilton Dome Oil Field. A site-specific criterion of 43 ug/L for selenium and 860 mg/L for chloride were adopted as part of a Use Attainability Analysis for Cottonwood Creek and approved by the EPA in 2008. Cottonwood Creek was removed from the 303(d) list and placed in Category 2, indicating that at least one designated use is supported, while one or more other uses are either indeterminate or not assessed (Wyoming Department of Environmental Quality 2018).

Approximately 3 percent of Washakie County is located within the Powder River Basin. No waterbodies within the Powder River Basin are currently listed on the state 303(d) list; however, three waterbodies found in Washakie County were previously listed on the 303(d) list and have since been placed in Category 2. These waterbodies include Beaver Creek, Rock Creek, and the Middle Fork of Powder River.

Wyoming Department of Environmental Quality ensures compliance with the Clean Water Act. Detailed, up-to-date water quality information is available in their biannual Integrated 305(b) and 303(d) Reports¹⁶. Map 11 in [Appendix A](#) depicts Washakie County's assessed waterbodies.

Riparian Areas and Wetlands

Wetlands and riparian ecosystems are critical to maintaining water quality. Specifically, they help to maintain stream flows, provide shading to stream channels, and act as a buffer, which reduces erosion and sediment inputs into the channel. As described above, there are currently no waterbodies within Washakie County listed on the state 303(d) list. Severe damage to riparian areas or wetlands would typically lead to waterbody impairments caused by sediment or temperature exceedances or habitat alterations.

Resource Management Objectives

1. Washakie County will maintain the ground and surface water quality within the county to prevent or mitigate potential harm to the health and safety of county residents, while balancing

¹⁶ <http://deg.wyoming.gov/wqd/water-quality-assessment/resources/reports/>

the needs and uses for economic growth and stability.

Priorities

1. Washakie County will participate in the planning of programs to identify, monitor, and abate all non-point source pollution-generating activities on lands and waters. The County supports the use of best management practices that reduce non-point source pollution and promote water conservation.
2. Washakie County will oppose proposals or efforts to modify the watersheds, natural vegetation, or prevailing climate patterns, as a means of transferring and increasing water supplies at the expense of county residents, wildlife, vegetation, and quality of life.
3. Ensure any recovery plan, habitat management plan, critical habitat designation or any other plan proposing an in-stream flow requirement adequately considers local existing and anticipated future water uses, local custom and culture, local economic and individual needs and is consistent with Wyoming water laws
4. Washakie County supports the wise management and use of the county's surface and groundwater resources to sustain local use, economic development, and maintain or improve stream, floodplain, wetland, and groundwater function.
5. Washakie County supports locally-led watershed-based planning with federal and state participants, and encourages the acquisition of grants or funding for watershed and water quality improvement projects on public and private lands that benefit overall watershed integrity or water quality.
6. Washakie County recommends, where practical, environmentally sound, and economically viable, the recycling of water, use of appropriately treated reclaimed water, and use of alternative water sources to reduce the use of potable water for industrial uses, agricultural uses, maintenance of roads and dust abatement, and for energy production.
7. It is Washakie County's policy that protection of the county's groundwater and surface water quality is of utmost importance. Active management from federal or state agencies should occur to reduce impacts to watersheds and groundwater from wildfires.
8. Industrial or energy development proposed actions on federal or state lands that impact ground or surface water must provide for water quality monitoring, and implement requirements to reduce impacts to downstream or adjacent water sources federal and state agencies shall involve the Conservation District and the county in developing and setting water quality monitoring protocol.
9. Encourage sediment management strategies within Washakie County, specifically on the Nowater and Fifteenmile drainages, to maintain or improve water quality in all downstream sources. Potential strategies include maintaining or increasing plant cover or litter through effective rangeland management practices, minimizing soil disturbance when soils are wet, and installing water bars to direct water flow away from roads and trails.

Wild and Scenic Rivers

Resource Assessment

Wild and Scenic Rivers are designated under the Wild and Scenic Rivers Act of 1968 (Public Law 90-542; 16 U.S.C.) to preserve selected rivers (and their immediate environments) which possess outstanding natural, cultural, or recreational values. While the Act strives to balance dam and other construction, designation of a river as part of the National Wild and Scenic River System does not prohibit all development or give the federal government control over private property. The U.S. Fish and Wildlife Service¹⁷ (USFWS) offers several resources, including a map of the entire National Wild and Scenic Rivers System.

The BLM has evaluated rivers within the Bighorn Basin Planning Area to determine if they are suitable for inclusion in the National Wild and Scenic River System. Excluding a 36,000-acre piece of the Bighorn National Forest in the northeast corner of the county, Washakie County lies entirely within the Bighorn Basin Planning Area. Washakie County does not currently contain any designated Wild and Scenic Rivers; however, the BLM determined that three waterways, totaling 7.6 stream miles within the county, met eligibility criteria for Wild and Scenic designation. Eligible waterways include segments of Canyon Creek (1.3 miles), Middle Fork of the Powder River (1.1 miles), and Deep Creek (5.2 miles). Of these waterways, however, Canyon Creek did not meet suitability screening factors outlined in BLM Manual 6400 (BLM 2012e), and will not be given further consideration for inclusion in the National Wild and Scenic River System (Jonas Consulting 2002).

One public land parcel along the Middle Fork of the Powder River, involving 1.1 river miles, and one public land parcel along Deep Creek, involving 5.2 river miles, were determined by the BLM to meet all suitability screening factors for inclusion in the National Wild and Scenic River System. As such, interim management practices for these parcels focus on maintaining or enhancing the outstandingly remarkable scenic and recreational values and maintaining the character of each area. Any activities in conflict with this objective are prohibited (Jonas Consulting 2002).

Resource Management Objectives

1. Washakie County balances local uses, scenic and recreational values, and economic stability and requests involvement in the consideration of areas with special designations.

Priorities

1. Federal land managers will coordinate with and involve the county on any determinations, suitability screenings or discussions involving Wild and Scenic Rivers. All considerations for designations must show how the designation will benefit the county custom and culture and local economic stability.

¹⁷ <https://www.rivers.gov/index.php>

Chapter 5: Wildlife and Fisheries

Fisheries

Resource Assessment

The WGFD highlights 23 rivers and streams and 35 lakes, reservoirs, and ponds as being productive and popular fisheries within the Wind and Bighorn River Basins (Wyoming Game and Fish Department 2015). Washakie County is home to six red ribbon trout streams (300–599 pounds of trout per stream mile): (1) Nowood River, (2) South Fork Little Canyon Creek, (3) North Fork Otter Creek, (4) Lower Canyon Creek, (5) Leigh Creek, and (6) Tensleep Creek (above the Ten Sleep Fish Hatchery), as well as 16 yellow ribbon streams (50–299 pounds of trout per stream mile) (Wyoming Game and Fish Department 2019a). Trout streams in Washakie County can be seen in Map 12 in [Appendix A](#). WGFD manages three public fishing access sites, all of which are located on the Bighorn River. Statewide, gross fishing license revenue has increased more than 22 percent in the last decade; revenue from the 2019 calendar year was approximately \$6.9 million (USFWS 2019).

Ten Sleep Fish Hatchery hatches and rears rainbow, brook, cutthroat, splake, and tiger trout. The hatchery is an integral part of the state’s fish culture system, hatching approximately six million eggs annually and stocking approximately 250,000 fish into Wyoming’s waters (Wyoming Game and Fish Department 2020b).

Resource Management Objectives

1. As an important component to the tourism industry and local recreational enjoyment, maintain adequate stream flows to sustain fisheries.

Priorities

1. Washakie County supports the continued efforts of the Ten Sleep Fish Hatchery.

Threatened, Endangered, and Sensitive Species

Resource Assessment

Federally Listed Species

Washakie County supports habitat for two federally threatened wildlife species: grizzly bear (*Ursus arctos horribilis*) and Canada lynx (*Lynx canadensis*) (USFWS 2020). While suitable habitat exists, neither species are known to occur in Washakie County (Interagency Grizzly Bear Study Team 2017, USDA 2007, 2013a).

The grizzly bear was listed as threatened in 1975 across the contiguous United States. The listing was in response to a severe decline in habitat availability and human-caused mortality. Current distribution is confined to less than two percent of historic distribution (USDI 1993). Details of recovery goals and objectives are discussed in detail within the 1993 Grizzly Bear Recovery Plan (USDI 1993). Grizzly bears are generalists, occupying multiple cover types and elevations at different times of the year, and foraging on a variety of foods. In general, grizzly bears require large, contiguous, relatively undisturbed tracts of mountainous terrain with a variety of diverse vegetative characteristics (USDI 1993). In Wyoming, grizzly bears occur in the northwest corner of the state as part of the distinct population segment of grizzly bears found within the Greater Yellowstone Ecosystem (GYE) spanning Wyoming, Idaho, and Montana. Within the GYE, the USFWS also established the Grizzly Bear Recovery Zone in 1993 (USFWS 1993). Washakie County lies just east of this known distribution of grizzly bears

(Interagency Grizzly Bear Study Team 2017), however the USFWS requires their consideration during land use planning.

The Canada lynx was listed as threatened in 2000, citing the main reason for listing as “the lack of guidance for conservation of lynx and snowshoe hare habitat in National Forest Land and Resource Plans and BLM Land Use Plans” (USDA 2007). The management direction from the 2007 Northern Rockies Lynx Management Direction Record of Decision was incorporated into the Bighorn National Forest Revised Land and Resource Management Plan (USDA 2013a) and includes goals, objectives, standards, and guidelines related to all activities on the Forest. The Bighorn National Forest is currently considered unoccupied by Canada lynx, though suitable habitat exists (USDA 2013a, 2007).

BLM Sensitive Species

The most recent (2010) BLM sensitive species list¹⁸ includes 42 wildlife species which require management considerations by the BLM Worland Field Office. Twenty-three of these species are predicted to occur within one mile of Washakie County (Wyoming Natural Diversity Database 2020b). A complete discussion of BLM responsibilities relating to special status species can be found in BLM Manual 6840 (BLM 2008).

U.S. Forest Service Sensitive Species

The Bighorn National Forest published an updated sensitive animal list on December 18, 2018. Responsibilities of the Forest and management guidelines for these species can be found in Forest Service Manual 2600, Chapter 2670 (USDA 2018)¹⁹. Additionally, the 2013 Bighorn National Forest revised Land and Resource Management Plan identifies six Management Indicator Species, or “focal species”, 35 species of local concern, and 15 demand species. Management Indicator Species would be considered during management decisions; species of local concern and demand species would be considered with less rigor.

State Sensitive Species

The WGFD published an updated State Wildlife Action Plan in 2017²⁰. This plan identifies threats and conservation strategies for 229 species (Wyoming Game and Fish Department 2017). These conservation strategies are meant to maintain the health and diversity of wildlife within the state, as well as reducing the need for future federal listings.

Executive Order 2019-3—Greater Sage-grouse Core Area Protection provides management guidelines for greater sage-grouse throughout Wyoming and Washakie County, and will be consulted when making land management decisions. Specific to local (county) governments the Executive Order (2019) states:

Counties are political subdivisions of the state and are statutorily granted enumerated powers to be exercised to promote the general welfare of the public. For example, Wyoming statutes § 18-s-201(a) grants counties the authority to regulate and restrict land use and development in the unincorporated area of the county through zoning and comprehensive planning to limit impact to wildlife, such as Greater sage-grouse.

Per Wyoming Statute § 18-s-208(a) a county involved in federal land planning and

¹⁸ <https://www.blm.gov/policy/im-wy-2010-027>

¹⁹ https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd619539.pdf

²⁰ <https://wgfd.wyo.gov/Habitat/Habitat-Plans/Wyoming-State-Wildlife-Action-Plan>

management is "deemed to have special expertise on all subject matters for which it has statutory responsibility, including but not limited to, all subject matters directly or indirectly related to the health, safety, welfare, custom, culture and socio-economic viability of a county." Counties regularly advocate for county interests related to wildlife management, state species, recreation, private property rights, water rights or leasehold rights as pursuant to Wyoming Statute § 9-4-218(a).

Under the 2019 Wyoming Greater Sage-Grouse Approved Resource Management Plan Amendment, the BLM retained the designations of priority habitat management areas (PHMA) and general habitat management areas (GHMA). The management for PHMAs is "to open to oil and gas leasing, but with restrictions; to exclude or avoid disturbance to sage-grouse and their habitat; and to minimize impacts to PHMA where they cannot be avoided." GHMAs are "where avoidance and minimization are applied flexibly, consistent with both local conditions and the State's science-based objectives for species management." Figure 5 below and Map 13 in [Appendix A](#) show the designated PHMA, GHMA, and non-habitat for greater sage-grouse in Washakie County.

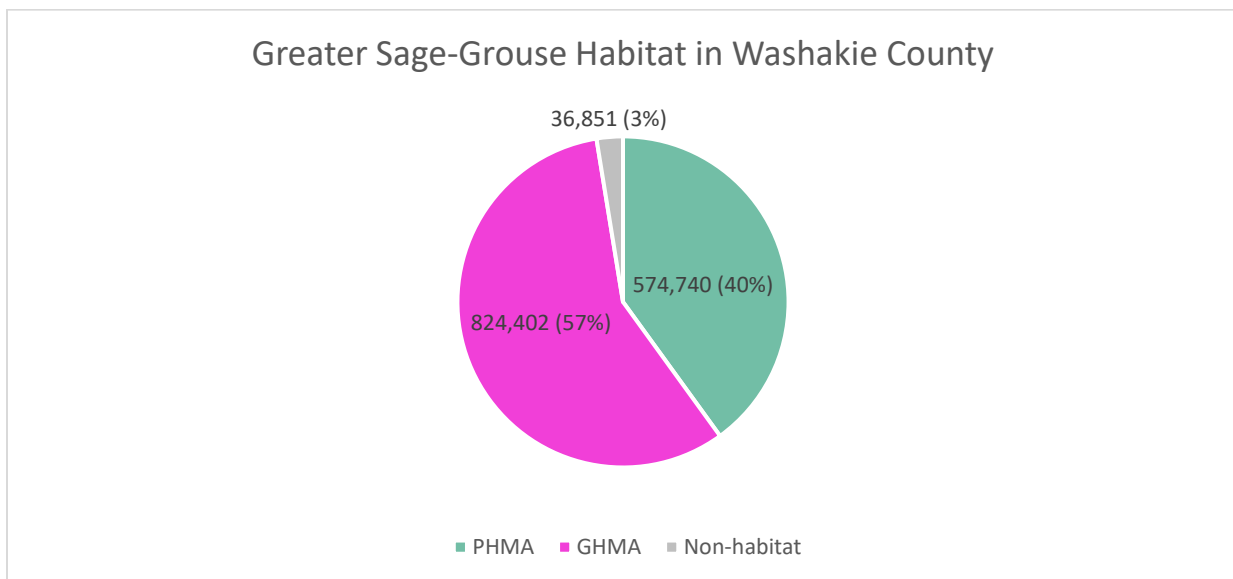


Figure 4 Greater Sage-grouse Habitat Designations in Washakie County

The Wyoming Natural Diversity Database (WYNDD) maintains a list of Species of Concern and Species of Potential Concern for the State of Wyoming. Wildlife species are considered for inclusion in the Species of Concern list due to: (1) the species rarity, (2) their inherent vulnerability, and (3) threats to the species. Species of Potential Concern includes species that appear to be currently stable, but because they have limited distribution as regional or state endemics they could become vulnerable following large-scale changes (Wyoming Natural Diversity Database 2020a). According to a February 2020 data request, there are 81 WYNDD Species of Concern (not including BLM or USFS sensitive species) and 67 WYNDD Species of Potential Concern (not including BLM or USFS sensitive species) that occur or are predicted to occur in or within one mile of Washakie County (Wyoming Natural Diversity Database 2020b). These lists are intended solely to be a reference for decision makers and the public, and not all species on this list require specific management considerations.

Raptors and Migratory Birds

The Migratory Bird Treaty Act, as amended, made the taking, killing, or possessing of migratory birds

unlawful. Executive Order 13186 of 2001 clarified the responsibilities of federal agencies regarding migratory bird conservation and directed federal agencies to evaluate the effects of federal actions on migratory birds with an emphasis on species of concern. The Executive Order also directed federal agencies to develop a MOU with the USFWS regarding their role with respect to the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act.

In December 2008, the USFS entered into a MOU with USFWS that further clarified the responsibility of the Forest Service to protect migratory birds (USDA and USDI 2008). In the 2008 MOU the USFS agreed to consider the most up-to-date USFWS list of Birds of Conservation Concern when developing or amending land management plans, and to evaluate the effects of agency actions on migratory birds within the National Environmental Protection Act process, focusing first on species of management concern along with their priority habitat and key risk factors. When negotiating the 2008 MOU both the USFWS and USFS focused on bird populations and effects at that level, not at the individual level.

USFS Region 2 incorporates 98 Conservation Assessments²¹ into their management approaches. These assessments outline the life history, risks, and management opportunities for each species. Incorporating these management opportunities and considerations, the USFS has the goal of precluding risks, and in some cases, the downward trend in viability or federal listing of these species.

Resource Management Objectives

1. Washakie County will participate in all decisions and proposed actions which affect the county regarding threatened or endangered species, and supports the management of these species in a cooperative way that balances traditional uses with species management, with an emphasis on keeping species from being listed.

Priorities

1. Washakie County will be involved in the review of federal actions regarding ESA listings, delisting, and management plans.
2. Washakie County supports the use of credible data or information, that the BLM and USFS can use, on which to base a decision that a species should be designated a species of concern or sensitive beyond criteria provided in their respective handbooks.
3. Washakie County opposes the listing of any species with insufficient, unsupported, or questionable data not meeting the minimum criteria for its listing or protection level.
4. Washakie County supports management plans that are consistent with multiple-use mandates and have not been created for single species management.
5. Washakie County supports the development and adoption of local solutions to keep a species from being listed as a sensitive species/species of concern or under the ESA.
6. Washakie County supports the development of management activities on federal lands as part of the local solutions to keep a species from being listed as a sensitive species/species of concern or under the ESA.
7. Washakie County requires a full analysis of the proposed critical habitat designations and species management plans on socio and economic impacts and the impacts to custom culture to

²¹ <https://www.fs.usda.gov/detail/r2/landmanagement/?cid=stelprdb5177128>

the county.

8. Washakie County supports cooperation between private landowners and federal agencies to reduce the risk of listing under the ESA.
9. Washakie County opposes the introduction or reintroduction of listed species into the County, unless the County deems no harm will come to its constituents or additional economic impacts will occur.
10. Washakie County requires the petition of the immediate delisting of a species when population or recovery plan objectives have been met.
11. Washakie County requires the avoidance of single-species management in all planning efforts and requires multiple uses of lands and resources as required by federal law.
12. Washakie County requests involvement in discussions and decisions regarding any proposed introduction of experimental populations.
13. Washakie County supports returning to existing approved local management documents(s) when litigation is pursued (e.g., revert to the state or local plan rather than the BLM/USFS Sage-grouse Land Use Plan Amendment).

Wildlife

Resource Assessment

Washakie County is home to several well-distributed big game wildlife species and their habitats. Table 4 shows the available seasonal and crucial habitat of big game species. Map 14, Map 15, Map 16, Map 17, and Map 18 in [Appendix A](#) present big game habitat within the county. Seasonal habitat reflects land that may be used by the animal during any given part of the year, and generally reflects the estimated range of the species. Crucial habitat is measured by lands that have characteristics that are the determining factor in a population's ability to maintain itself at a certain level (Wyoming Game and Fish Department 2015). These population levels typically reflect WGFD population objectives. The acres of habitat are generally created by the following methods, as discussed in WGFD standardized definitions (2015):

[Habitat] is construed as generally referring to recorded observation of animals, however evidence of their use based on such factors as forage utilization and fecal excretion in relation to forage type; forage availability and the spatial relationships of forage to cover among others may also be used to refine seasonal distribution boundaries or to delineate seasonal ranges for transplanted species or herds expanding their range.

Table 4 Acres of Big Game Habitat in Washakie County

Species and Habitat Type	Acres of Habitat	Percent of Washakie County
Pronghorn Seasonal	18,235	1.3%
Pronghorn Crucial	352,517	24.5%
Pronghorn Year-long	901,288	62.8%
Elk Seasonal	92,285	6.4%
Elk Crucial	77,696	5.4%
Elk Year-long	316,655	22.1%
Mule Deer Seasonal	21,013	1.5%
Mule Deer Crucial	434,151	30.2%

Species and Habitat Type	Acres of Habitat	Percent of Washakie County
Mule Deer Year-long	978,934	68.2%
White-tailed Deer Seasonal	1,445	0.1%

Pronghorn, elk, mule deer, white-tailed deer, and moose can be hunted legally in Washakie County.

Wyoming's ungulate migration corridors and stopover areas are vital to maintaining big game populations. In 2016, WGFD issued a Ungulate Migration Corridor Strategy²² which outlines the goals and objectives for managing ungulate migration (Wyoming Game and Fish Department 2019b). The strategy ultimately guides the WGFD to: (1) update the Wyoming Game and Fish Commission's mitigation policy, (2) designate ungulate migration corridors, (3) conduct risk assessments, research, and proactive actions to conserve migration corridors, and (4) provide input on federal surface projects and planning efforts.

Resource Management Objectives

1. Washakie County supports integrated long-term wildlife management. The County believes any planning process needs to account for both consumptive and non-consumptive management strategies and tactics addressed in an environmentally responsible manner from the perspective of impacts on the human environment.

Priorities

1. The State of Wyoming has made the Department of Game and Fish responsible for management of wildlife. This responsibility entails protection of the public and their property from damage by wildlife. If and when such damage does occur, the county fully expects victims to be compensated in full for their losses as expeditiously as possible.
2. Management plans shall consider the overall health of all natural resources, not management for one individual species.
3. Federal or state agencies shall coordinate with Washakie County where federal resources are committed for wildlife introductions or reintroductions, for the development of management plans, population objectives, or other decisions that may affect the economic stability of Washakie County.

Predator Control

Resource Assessment

Predators can have a detrimental effect on livestock, agriculture, and wildlife. Predatory animals are defined in Wyoming Statute (W.S.) 23-1-101 as coyote, jackrabbit, porcupine, raccoon, red fox, skunk, or stray cat. Predacious birds are defined in W.S. 23-1-101 as English sparrow and starling. Details of the predatory animal regulations for the State of Wyoming, including specifics on gray wolf, as well as responsibilities of each County can be seen in the full text of W.S. Title 23²³.

Resource Management Objectives

1. Washakie County supports the control of predatory animals to reduce property damage, protect

²² https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Habitat%20Information/Ungulate-Migration-Corridor-Strategy_Final_012819.pdf

²³ <https://wyoleg.gov/statutes/compress/title23.pdf>

wildlife, agriculture community, and the local economy and tax base.

Priorities

1. Washakie County supports W.S. Title 23 and strives to maintain consistency with the Statute.
2. Washakie County supports proactive efforts to reduce and control predator populations; and more especially, prevent the spread of predator species such as grizzly bears and wolves from migrating or re-locating to grazing allotments. Washakie County expects predator control strategies to balance with the best science available, economics, and the pragmatic logistics of the livestock industry.
3. Washakie County supports control of predators and diseases that negatively impact sensitive species/species of concern.
4. Washakie County supports efforts by the Wyoming Department of Agriculture, the WGFD and other wildlife management agencies to reduce predation on domestic livestock and wildlife.
5. Washakie County Recognizes the right of private property owners to protect their property and livestock from predation through state and federally approved control methods.

Wild Horses and Burros

Resource Assessment

Existing wild horse herds originated from feral animals released into the area by early European—American exploration and settlement in the region in the 1800s. Current populations incorporate genetic traits from a wide variety of breeds historically used in the region. Wild and free roaming horses have been reported in the Fifteenmile area since the late 1880s. After the ranching community arrived, it was common practice to cull the horses periodically and to occasionally introduce new horses to the population. The horses were then gathered as needed. In the 1930s and 1940s, many horses were killed, and others were captured and sold. In the 1950s, almost all the horses (approximately 600) were captured and sold. Some wild horses were periodically gathered by local residents until the practice was prohibited in 1971 by the passage of the Wild Free-Roaming Horses and Burros Act.

In Washakie County, the BLM manages the wild horse population in Fifteenmile Wild Horse Herd Management Area (HMA). Map 19 in [Appendix A](#) presents HMAs within the county. The Fifteenmile Wild Horse HMA is approximately 81,112 acres, with 18,875 acres (23.2 percent) in Washakie County. Ownership percentages in Washakie County are as follows: BLM (96.5 percent); state (3.4 percent); and private (0.02 percent). The remaining area of the HMA, outside of Washakie County, lies in Big Horn and Park counties. In August 2019, the BLM published an EA, Finding of No Significant Impact, and Decision Record which updated the Appropriate Management Level (AML) for the HMA to be 100–230 wild horses, which is an increase from 70–160 horses in years prior. In 2018, the population in the HMA was estimated to be 597 wild horses (BLM 2019). The Decision Record (2019) states that the “... BLM is required to manage multiple uses to avoid degradation of public rangelands, and the removal of excess wild horses is necessary to protect rangeland resources from deterioration or impacts associated with the current overpopulation of wild horses within the Fifteenmile HMA.”

Resource Management Objectives

1. Washakie County supports wild horse management for viable healthy herds that will not adversely impact the rangeland resource, wildlife habitat or wildlife resources, soil resources or

other multiple uses.

Priorities

1. Washakie County believes that all wild horses are feral and should be managed as such.
2. Washakie County opposes the introduction or reintroduction of wild and feral horses on public lands within the County.
3. Washakie County supports herd management plans that include provisions for periodic gathers of all horses in the herd management area to limit populations to planned levels, remove trespass horses, and test for equine diseases as prescribed by the Wyoming state veterinarian and prevent habitat degradation.
4. Washakie County does not support any adjustments to Animal Unit Months (AUM) for livestock based on wild horses.
5. Washakie County opposes any proposed enlargement or expansion of current HMA boundary or the establishment of any new HMAs or Herd Areas.
6. Since the completion of a gather is a lengthy and expensive undertaking often hampered by litigation, and because horses have few predators, horses should be removed to the lowest limits of the AML to reduce the frequency of gathers.
7. Support the continued use of long-term fertility control only if the wild horse numbers are within AML.
8. Public education programs should be created to inform the public at large about the differences between livestock, wild horse, and wildlife management needs and impacts and the need to maintain healthy ecosystems.
9. Rulemaking should be pursued to give the BLM additional options for the disposal of wild horses to allow BLM to meet their existing statutory requirements.
10. Modifications of HMA boundaries would be allowed only for the purpose of reducing resource conflicts and adverse effects on private lands so long as there is no net increase in boundary size or AML numbers.
11. Any reduction in HMA size should be completed with appropriate reduction in AML.

Aquatic Invasive Species

Resource Assessment

There are currently no known occurrences of aquatic invasive species in Washakie County (Wyoming Game and Fish Department 2020a). There are regulations²⁴ in place so that the spread of aquatic invasive species and the effect to native wildlife, municipal water supplies, recreation, agriculture, and other commercial activities is minimized throughout Wyoming and neighboring states.

Resource Management Objectives

1. Washakie County supports cooperative effort with federal, state and private land managers to enhance cooperative aquatic invasive species management efforts countywide, coordinated

²⁴ <https://wgfd.wyo.gov/Fishing-and-Boating/Aquatic-Invasive-Species-Prevention/AIS-Boating-Information>

with, and primarily managed by the Washakie County Weed and Pest Control District.

Priorities

1. Washakie County supports aggressive prevention and management measures of aquatic invasive species such as zebra mussels and quagga mussels, and other forms of invasive species on all waters in Washakie County.

Chapter 6: Economics & Society

Recreation and Tourism

Resource Assessment

Recreation and tourism in Washakie County are a lesser, but increasingly more significant contributor to the custom, culture, and economy of the area, especially with the rising popularity of snowmobiles, off-highway vehicles, and rock-climbing. The BLM field offices offer special recreation permits for outfitting, activities and events. BLM field offices collect permitting fees and spend this revenue on visitor services, maintenance, monitoring, and law enforcement in public lands. Other, perhaps more traditional recreation enjoyed within the county include hunting & fishing, rock hunting, skiing, horseback riding, hiking, camping, mountain biking, and enjoying the abundant wildlife of the area. Washakie County has many outdoor recreation opportunities, which include:

- The Big Horn National Forest's 1.1 million acres includes hiking trails, horseback riding, ATV's, camping, hunting, rock climbing, skiing, site seeing and fishing.
- Access to the Cloud Peak Wilderness
- Ten Sleep Canyon
- Developed campsites such as; Leigh Creek and Boulder Park Campgrounds and dispersed camping in Big Horn National Forest and BLM lands.
- Castle Gardens Scenic Area



Photo 6 Ten Sleep Canyon

Washakie County is on a major route to Yellowstone National Park, which experiences seasonal surges in tourism. Cloud Peak Wilderness, which is located in Big Horn County has experienced a dramatic increase in visitation in the last 10 years, (USFS 2013) bringing visitors through Washakie County as a result. The Bighorn National Forest and the Wyoming Department of Transportation designated U.S. Highway 16 East from Ten Sleep as the "Cloud Peak Skyway Scenic Byway." A ski area, and several hunting lodges

also serve Washakie County. There are also prime hunting areas, fishing streams, and historic sites attractive to sportsman and tourists alike in Washakie County. The economic linkages between national forests and surrounding communities have become increasingly important in recent years. National Forest system lands contribute to the economies of surrounding communities by attracting recreation visitors who, as part of their trip, spend money in communities on the periphery of the national forest.

With tourism and outdoor recreation increasing in recent years, Washakie County is feeling the effects of increased visitation and the needs and requirements for parking, overnight accommodations, and access on public lands and within adjacent communities. More people create more waste, and currently there is a lack of sanitary facilities to accommodate sportsmen, recreationists and tourists. The ability of these transportation corridors to support and accommodate visitors is critical to gaining and keeping

their status as scenic byways. The lack of sanitary facilities is of considerable concern to local residents who use these corridors regularly for business, recreation, and social driving. Additionally, more people are utilizing dispersed camping, which is camping done for free and outside a designated campground. This type of recreation can become a strain on public land resources without generating revenue to better equip land management to address issues.

Recently, the Bighorn Basin Outdoor Recreation Collaborative)²⁵, which includes representatives of Washakie County, has convened to bring together stakeholders with the aim of creating a plan for improving outdoor recreation in the communities of the Bighorn Basin and planning for long-term economic services and benefits for communities. This collaborative was created following the Governor's Outdoor Recreation Task Force recommendation to support local collaborative efforts throughout the state of Wyoming.

In 2016, the Big Horn Mountain Coalition (BHMC), comprised of Big Horn, Johnson, Sheridan and Washakie counties initiated a public discussion on the topic of dispersed camping in the Bighorn Mountains. The purpose of this process was to:

- Establish a new framework for public participation in public lands planning and initiate an ongoing dialogue;
- Promote understanding of different views of dispersed camping in the Bighorn Mountains; and
- Promote collaboration among members of the public and public lands officials in developing solutions.

The resulting public surveys and discussions showed that a significant portion of respondents indicated direct support for dispersed camping, citing preferences for dispersed campsites over both designated and developed campgrounds (BHMC 2016). The report was provided to the USFS, Wyoming Forestry Division, and BLM for their consideration in future planning activities.

Resource Management Objectives

1. Washakie County supports recreation and tourism opportunities carried out in an environmentally responsible manner consistent with sustaining local businesses that rely on tourism and recreation.

Priorities

1. Washakie County will strive for additional federal designation(s) of scenic byways, will promote cooperative agreements with other communities to develop heritage and cultural corridors, and will take appropriate action in support of efforts to create facilities to bolster scenic highway access in and through the County.
2. Washakie County deems it incumbent upon federal and state offices and agencies to provide sufficient sanitary facilities on major highway corridors, at recreation areas, historic sites, and other attractions throughout the County.
3. Washakie County asserts federal and state land use and management plans are incomplete and materially deficient unless there is a thorough discussion and evaluation of the need for public

²⁵ <https://www.bborc.org/>

sanitary facilities. Each plan needs to incorporate standards and objectives, which sustain and support local recreation and tourism economic interests.

4. Outdoor recreation is important to the county's custom and culture. The County will coordinate with municipal, federal and state officials to encourage recreational opportunities, support development of recreational opportunities and provide promotion of recreational opportunities.
5. Washakie County supports the efforts and recommendations of the Bighorn Basin Outdoor Recreation Collaborative to provide for sustained and balanced recreational opportunities and growth.
6. Washakie County asserts that federal and state recreational planning should consider local community resources and long-term economic stability and diversity when determining facilities and services that support increased recreational use patterns.
7. Washakie County requests that federal land managers consider the report and survey from the Big Horn Mountain Coalition, and provide options, in discussion with the county, regarding dispersed camping and supported services that address impacts to health, safety, and ecological integrity.

Visual Resources

Resource Assessment

Washakie County has a combination of mountains and wide-open spaces, natural landscapes and skylines that are important to all citizens. Protection of viewsheds along highways enhances tourism, and encourages travelers to stop and enjoy the county's scenic vistas (Map 20).



Photo 7 Cedar Mountain WSA-Class I VRM

The USFS views landscape components of landform, vegetation types, and cultural modifications as the basis for the definition of visual resources. Visual or scenic quality is described by the BLM as the relative worth of a landscape from a visual point of view. The character and quality of visual resources in Washakie County vary due to changes in landscape character and their patterns. Visual

character describes the visual patterns of form, line, color, texture, dominance, scale, and diversity of elements in the landscape. Visual resources are managed in accordance with Visual Resource Management (VRM) class objectives. VRM classes define the "amount of noticeability" a project can have in a specified area. The BLM considers VRM objectives before authorizing land uses that may affect the visual character of the landscape.

- Class I - most natural
- Class II - want it to be not noticeable to the casual observer
- Class III - can be noticeable
- Class IV - can be substantially noticeable

The Bighorn Basin Field Office has calculated Washakie County to have 50,413 acres classified as Class I, 431,698 acres as Class II, 220,976 as Class III, and 695,435 as Class IV. (Map 20).

Resource Management Objectives

1. The County shall make every attempt to protect and improve the aesthetic quality of the environment. This includes preventing negative impacts on property values and historic culture and custom of the county.
2. In decisions of whether mining, or other similar disturbances can be implemented in more visually sensitive areas, the costs and benefits to local economic diversity and stability will be considered.

Law Enforcement

Resource Assessment

The U.S. Constitution is the supreme law of the land (Article VI US Constitution), however, those laws that are not held by the federal government are retained by the states (Amendment X US Constitution). Under the authority of the Wyoming State Constitution, the sheriff has jurisdiction to protect the health, safety and general welfare of its citizenry. Federal government retains authority over federal lands pursuant to Article 1 Section 8 and Article 4 Section 3 of the US Constitution. Aside from lands reserved for exclusive federal jurisdiction (i.e., Yellowstone National Park), the State of Wyoming retains its state jurisdiction on those federal lands.

Generally speaking, federal laws or regulations pertaining to federal land are restricted to those prohibitions which affect federal land or have a nexus. Violations or crimes affecting people or private property when there is no federal nexus are not prohibited by federal law. That authority to enforce those crimes generally remains with the State.

The Federal Land and Policy Management Act (FLPMA) provides a means for federal agencies to work with local law enforcement authorities to assure law enforcement protections have no gaps. The pertinent language follows: "The Secretary may authorize federal personnel or appropriate local officials to carry out his law enforcement responsibilities with respect to the public land and their resources."

The search and rescue program for Washakie County is conducted through the Washakie County Sheriff's Department. In addition, the Washakie County has a Homeland Security Coordinator on staff to assist with the coordination of local and state resources and liaison for federal resource needs.

Law enforcement communications equipment and radio towers, vital to law enforcement and search and rescue operations are often located on public land. Communication facilities on public land are important for public and law enforcement safety and welfare.

Resource Management Objectives

1. Washakie County supports cooperation between and among county, federal and state authorities for uninterrupted communications, expedited emergency response, and unimpeded law enforcement protection.

Priorities

1. Washakie County will endeavor to adhere to its rights and responsibilities for each cooperative agreement, and will insist on the adherence by other parties. In the event the county is unable

to carry out its obligations, it will take immediate action to assure the public health; safety and general welfare are not compromised.

2. Federal and state land management agencies will identify and make available sites for the strategic location of communications towers to aid in law enforcement activities.

Economic Considerations

Resource Assessment

Recognizing that socioeconomic data changes on a yearly basis, [Appendix D](#) has been created to allow updated information to be appended as needed to this plan and to allow for the most up-to-date socioeconomic profile for the county. Included in the Appendix is an analysis from Headwaters Economics as well as an analysis from the University of Wyoming. The following discussion captures the socioeconomic changes in the county over time, while [Appendix D](#) is intended to be the “snapshot” of the socioeconomics in that immediate time period. Both are relevant components in the socioeconomic profile of Washakie County.

Between 2000 and 2015, Washakie County experience negligible growth, increasing from 8,252 residents to 8,325 residents (+1 percent). This is significantly lower than the state growth rate (+19 percent) and the national growth rate (+13 percent) during those years. The U.S. Census Bureau estimated the population in 2018 at 7,885 residents with a growth rate now declining (-7 percent). The median age for the county in 2015 (42.7 years) was 16 percent older than the median age for Wyoming (36.9 years) and 13 percent older than the median age for the U.S. (37.8 years). In 2015, per capita income for Washakie County was \$39,511. This level of income was 22 percent below per capita income for Wyoming and 10 percent below per capita income for the U.S. The county’s 2015 unemployment rate (4.0 percent) was lower than Wyoming’s unemployment rate (4.2 percent) and lower than the U.S. unemployment rate (5.3 percent). There are 3.7 Washakie County residents per square mile and they travel an average of 12.2 minutes to work (U.S. Census Bureau 2019).

Concern was expressed in an anonymous public survey conducted as part of this plan ([Appendix B](#)) in regards to an over dependence on the energy sector, as well as the aging population of Washakie County and the needed focus on long-term resource planning that encourages economic diversity that attracts a younger population as a way to balance boom-and-bust cycles.

When making countywide project decisions, disproportionate effects to one or more environmental justice populations could occur. These impacts could potentially be either adverse or beneficial, depending on the specific project setting and the specific actions being implemented. Executive Order 12898 directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order also directs each agency to develop a strategy for implementing environmental justice. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities with access to public information and public participation (EPA 2020).

In the Washakie County Socioeconomic profile, location quotients (LQ) were used to identify “Defining Industries” in the county. A LQ is the ratio of an industry’s share of total employment in the region relative to the industry’s share of total employment at the national level. A large LQ is an indication of specialization within the county’s economy. Defining Industries are important because they play a

significant role in a region's growth over time. On this basis, Washakie County has seven Defining Industries including (in decreasing order): Mining, Agriculture, Forestry, Fishing, and Ag Support, Utilities, Local Government, Construction, and Federal-Civilian. These seven sectors are relatively more important in the county's economy than they are at the national level.

Three of these Defining Industries characterize Washakie County while influencing its economy. Agriculture, recreation and the mineral extraction industry are heavily dependent on federal and state lands for viability. Agriculture is a specifically important part of the LUP because of its extensive amount of public land use. While the travel and tourism industry account for a relatively minor portion of economic activity, the sector is growing and will likely have a further impact on Washakie County economics. Figure 6 displays the trends of employment (number of jobs) of Washakie County's Defining Industries that rely on public land.

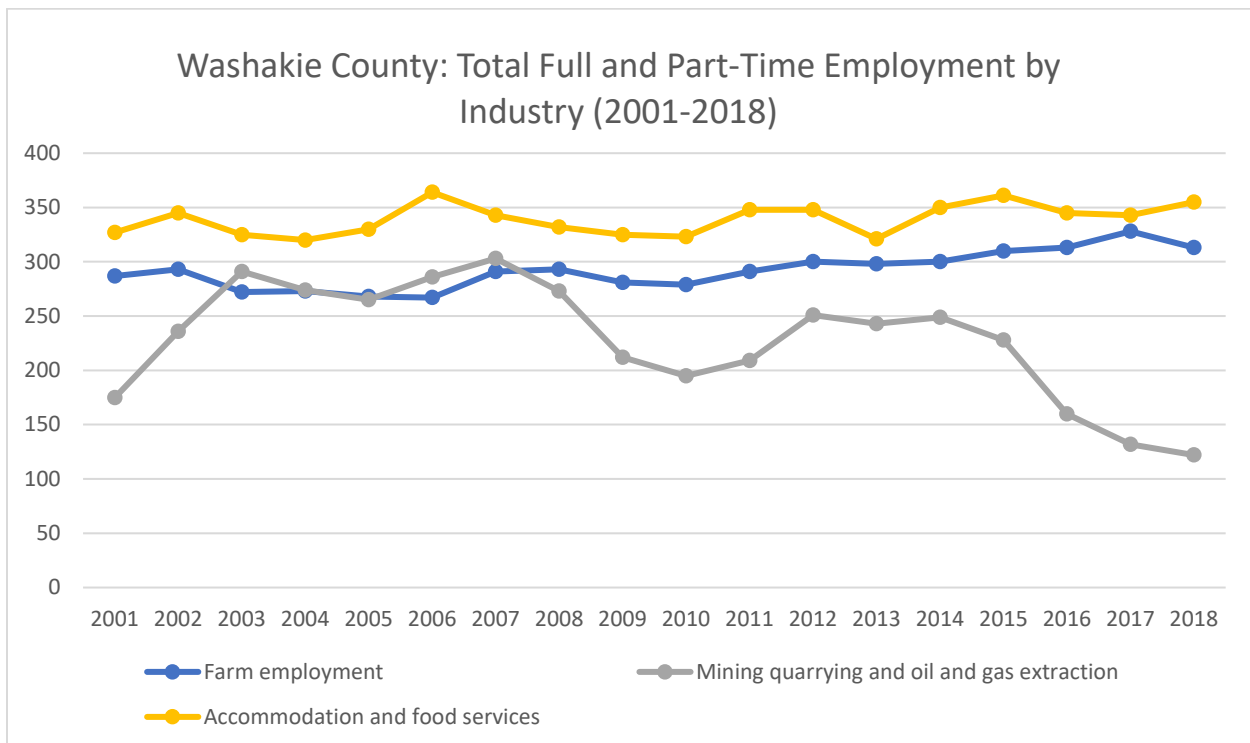


Figure 5 Total Full and Part-Time Employment by Industry within Washakie County (2001–2018) (U.S. Department of Commerce 2019). * Accommodation and food services are used as a proxy for the tourism and recreation industry.

Washakie County's largest federal land management agency, the BLM, incorporates its socioeconomic strategic plan as a guide in land management decisions. As communities grow and diversify, they become increasingly involved in public lands management. Communities of place (such as small settlements and growing towns) and communities of interest (such as ranchers, mining and oil/gas extraction workers, off-road vehicle users, and wilderness advocates) continue to play an important role in providing public perspectives and input for the BLM's staff and managers to consider in the decision-making process (BLM 2013).

When compared to the nation as a whole, Washakie County is very specialized in agriculture and mining/oil and gas extraction. Four times the national average of county residents is employed in agriculture and almost seven times the national average is employed in mining (U.S. Department of

Commerce 2019).

Oil/Gas/Mining

County revenue from property taxes is greatly impacted by the oil and gas industry. Over 23 percent of the county's property taxes came from the oil and gas industry in 2017 (Petroleum Association of Wyoming 2017)²⁶. Oil and gas extraction/non-metal mining/petroleum and coal product manufacturing valuations totaled \$19.4 million (Wyoming Department of Revenue 2019).

As a major energy resource producer, the state of Wyoming is significantly affected by the fluctuations in the national energy market, and the historic cycles of boom and bust in the oil/gas/coal industries are familiar to Wyoming residents (see Table 3 in Chapter 3).

Agriculture

Since the mid-1800s, the vast open rangelands of Wyoming have been pivotal for livestock production within the state, and Wyoming's importance in meat and fiber for markets across the US. As irrigation techniques evolved, the Bighorn Basin's climate was recognized as suitable for a variety of crops, and lowlands, usually along waterways, were turned into cropland.



Photo 8 Sugar beets piled at Worland, 1920's (WY State Archives)

Currently, agriculture provides a consistent economic base for local economies including county revenues to provide public services. In 2017, there were 246 agricultural operations in Washakie County. The county ranked 19th out of 23 counties in Wyoming in terms of cattle and calf inventory and 7th out of 23 counties in terms of sheep and lamb inventory. It also ranked 3rd in barley production, 3rd in sugar beet production, 14th in alfalfa hay production, and 17th in other hay production. The agriculture industry in

Washakie County ranked 7th out of 23 sectors in the county's economy in terms of total employment and 15th out of 23 sectors in terms of total labor earnings. In 2019, irrigated land valuations totaled \$8.8 million, and non-irrigated agricultural land valuations totaled \$2.5 million (Figure 7) (Wyoming Department of Revenue 2019). There are nearly 250 farms in Washakie County. The market value of agricultural products sold in the county were over \$43 million (USDA 2017).

In addition to jobs and revenue, agriculture provides important natural resource services such as open space. Open space offers landscapes, lifestyles, and wildlife habitat that can have immeasurable value to both residents and visitors. Open space is particularly important because it determines the character of the landscapes surrounding a community.

Recreation and Tourism

In 2017, visitors spent \$20.5 million while in Washakie County and generated 220 direct jobs. In 2018,

²⁶ <https://pawyo.org/2019-facts-figures/>

spending increased to \$21.2 million and generated 240 jobs. This represents 4 percent of total employment in the county. The tax revenue associated with the county's travel industry is estimated to be \$1.1 million going to state and local governments (Wyoming Office of Tourism 2018). The number of visitors to Bighorn National Forest was over 500,000 compared to 600,000 in 2013 and 732,000 in 2008.

Most recreation and tourism opportunities occur on public land but draw on county resources and infrastructure to provide support for that experience. Since public land is not taxed, the county relies on programs like the "Payments in lieu of Taxes" ("PILT") program to provide infrastructure, and public services.

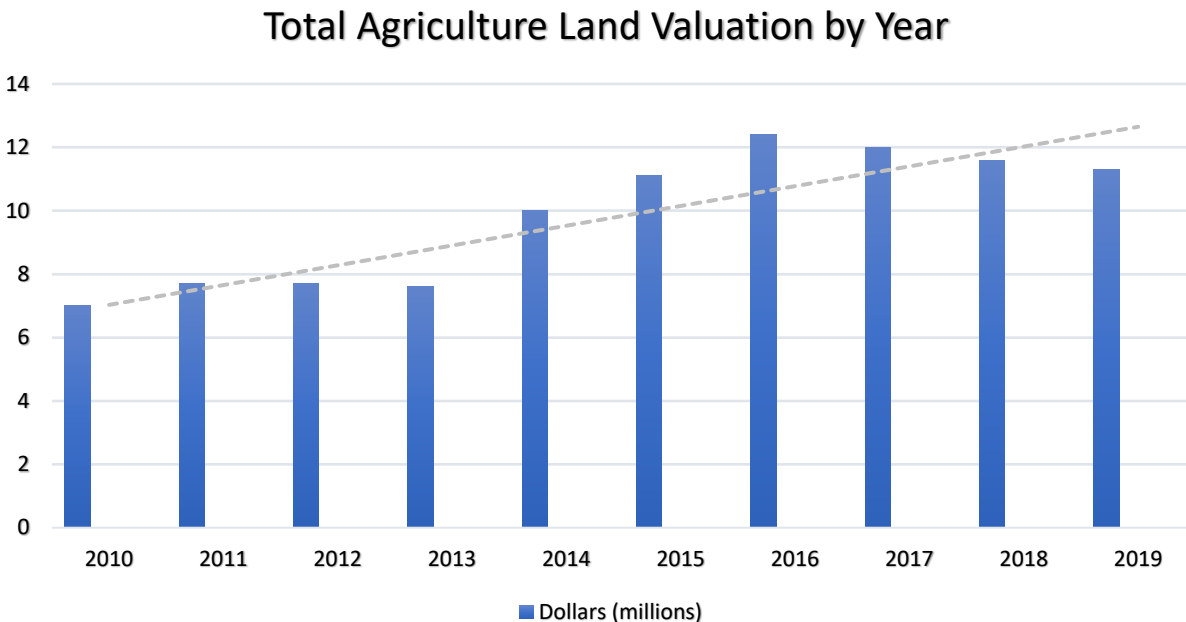


Figure 6 Total Agricultural Land Valuation 10-year Trend 2010-2019 (Wyoming Department of Revenue 2019).

Resource Management Objectives

1. Washakie County will balance quality of life with traditional economies and potential future growth, while ensuring a stable and diverse economy with equal job and financial opportunities for permanent residents to encourage a diverse demographic.

Priorities

1. Washakie County supports stakeholders in the pursuit of utilizing agriculture by-products. This will help provide economic stability and efficiency in agriculture practices.
2. Washakie County discourages any action that results in a net loss of irrigated lands that produce food and fiber and affects the economic return of those lands within the district.
3. Washakie County supports efforts to maintain or improve the overall economic base of the county through the judicious use and enjoyment of federal and state lands in the county.
4. Any proposed change in land use or management must evaluate, mitigate, and minimize impacts to custom and culture and the economic stability of the county. Federal land management agencies must work in chorus with Washakie County to accurately provide

socioeconomic impact analysis and provide socioeconomic impact mitigation or compensation when a negative impact is unavoidable.

5. Washakie County acknowledges the importance of promoting and seeking out sustainable economic industries and uses of public lands that are not subject to cyclic fluctuations that can negatively affect a local community's custom, culture, and economic well-being and growth. This is supported by public concerns expressed in the survey found in [Appendix B](#).
6. Federal agencies must consider economics of the local community carefully in any land use change or decision. Economic diversity and long-term stability are beneficial to the welfare of county residents. Federal agencies must complete an evaluation of the social and economic conditions in the area of project influence. The social and economic conditions shall be inventoried and evaluated as they currently exist, and projected as they would exist in the future with and without the proposed action. Considerations such as community infrastructure and services available or needed to support the action, populations and demographics of the local area, changes in potential transient work populations and needs to support them, and a fiscal analysis over the projected period, including taxes generated by the proposed activity should at a minimum be considered for these changes and decisions.

Chapter 7: Agriculture

Livestock and Grazing

Resource Assessment

Livestock and grazing are of large economic and cultural significance in Washakie County. There are over 300,000 acres of land within the County that is assessed at over \$2.4 million (State of Wyoming Department of Revenue 2019) and currently designated as rangeland. There are 218 active grazing allotments in the County totaling 1,174,922 acres (Map 21 in [Appendix A](#)). The average size of a grazing allotment is 5,390 acres. Allotments are situated on BLM, State, County, and private lands (Table 5). Authorized grazing on public lands is a critical component of private livestock operations in Washakie County, and has been culturally significant to the development and growth of the local communities. Historically, sheep and cattle grazing have occurred within the county, using a combination of federal, state and private lands. Livestock operations are an important part of the economic and socioeconomic values in Washakie County. While grass species are a large component of the vegetative ecology of the region, they also are an integral part of the grazing system.

Table 5 Allotment Acres by Owner across Washakie County

Land Ownership	Allotment Acres
BLM	891,249
Private	199,126
County	370
USFS	0
State	84,177
Total	1,174,922

Because grazing allotments are designated according to the BLM Field Office boundaries and not Washakie County boundaries, specific Animal Units and AUMs cannot easily be tabulated. According to the 2015 Bighorn Basin Resource Management Plan, Washakie County supports approximately 142,233 AUMs on 218 grazing allotments. This number reflects allotments that are entirely or partially within Washakie County. Since the 2015 Resource Management Plan, 21,429 acres have been added to the grazing allotment system. There are currently no grazing allotments on USFS land.

In general, AUMs and grazing management prescriptions have not changed since the 2015 RMP. Minor changes in AUMs and grazing practices are implemented on a case-by-case basis in order to accommodate for seasonal conditions (e.g., drought or fire), available resources, or needs of BLM or individual permittees. As an overall trend, domestic goat and sheep grazing is becoming less common and is being replaced by an increased demand for cattle (Philips 2020).

Range Improvements

Range improvements, such as watering locations, pipelines, and fencing, needed for the implementation of grazing authorizations must be authorized by the agency through a Cooperative Range Improvement Agreement or a Range Improvement Permit. NEPA analysis is not required for normal repair and maintenance of range improvements that are listed on a term grazing permit. However, construction of new improvements or reconstruction of an existing improvement may require NEPA analysis.

Resource Management Objectives

1. Agriculture businesses and livestock grazing are culturally and economically significant

components that should be managed for sustained and continued presence for the preservation of open space, habitat, working landscapes, and historic customs.

Priorities

1. Washakie County supports the maintenance of AUMs and does not support the retiring or purchasing of allotments or AUMs for the purposes of removal or retirement.
2. Washakie County has determined agriculture makes a substantive contribution to environmental and recreational uses of public land; for that reason, public purposes such as protection of endangered species, wildlife habitat, open space, and augmentation of water resources are all enhanced by continued support for agriculture.
3. Washakie County supports opportunities for enhancement of land stewardship based on objective scientific data. Good land stewardship assures public land continues to be productive for generations to come, as it has sustained the county's economy for several generations already.
4. Washakie County asserts federal and state land use and management plans are incomplete and materially deficient unless they contain a thorough discussion and evaluation of agriculture. Each plan needs to incorporate standards and objectives that sustain agricultural interests' season-by-season, year-by-year and generation-by-generation.
5. Washakie County endorses fencing strategies, especially strategies implemented by the Wyoming Department of Transportation, to enhance the ability of permittees and other agricultural interests to keep their operations financially viable, and reduce or otherwise mitigate risks to the health, safety and general welfare of the public.
6. Washakie County assists and promotes local stakeholders' continued use of best management practices for erosion control and vegetation management on rangeland. Washakie County supports livestock grazing as a tool for the sound management of private, federal and state lands.
7. Washakie County will not support any action that causes the net loss of AUMs for livestock on any allotment, permit, or lease on lands owned or managed by the State of Wyoming or the federal government, which is not based on sound science or provides a net benefit to the authorized user. If a documented resource condition indicates a need for temporary reduction to improve condition, any reduction should include a plan to reinstate AUMs when the resource condition has been addressed.
8. Oppose the reduction of domestic livestock grazing AUMs to provide additional forage for another species or strictly for conservation purposes. Washakie County supports, instead, the addition of active and adaptive management by the permittee to manage forage and vegetation to benefit the ecological site as a whole.
9. Livestock grazing management plans should incorporate standards and objectives that maintain the economies, culture, health, safety and welfare of the county's agriculture interests.
10. Washakie County supports the development and use of new technologies and range management practices in federal grazing authorizations that are alternatives to permanent reductions in stocking rates.

11. Washakie County supports allowing adaptive grazing management practices and treatments, adaptive seasons of use, triggers and response, and cooperative monitoring, and the inclusion of those practices in term permits to allow flexible management practices to decrease fuel loads and fine fuels on the landscape, particularly in areas with heavy grass understory.
12. Washakie County supports the use of current site-specific soils and ecological site data, as developed by NRCS, to create appropriate objects for livestock management.
13. When a grazing allotment is in non-use, it should be available for other permittees to utilize. If there is a resource concern on that allotment, the grazing plan should acknowledge the concern and utilize livestock as a tool to help in recovery if feasible. If the allotment is in non-use and the range is in good condition, the grazing plan must fully utilize all available grazing AUMs.
14. Grazing rest prescriptions related to wildfires or prescribed burns will be determined on a site-specific basis and post-fire monitoring. Post-fire grazing will not be limited when cooperatively collected post fire monitoring and subsequent evaluation produces relevant, accurate data that demonstrates that grazing will not unduly harm the long-term sustainability.
15. Encourage the improvement of or development of range improvements when the opportunity is presented. Range improvements are a vital component for range management that benefit both livestock and wildlife.
16. Agencies need to collaboratively develop and implement rangeland monitoring programs for all allotments using currently accepted scientifically based monitoring methods and return intervals and utilizing properly trained rangeland personnel with an understanding of rangeland and its management to ensure proper collection and analysis of data.
17. Washakie County supports the review and incorporation of data collected by a permittee, or qualified team or third-party, for use in management decisions by federal agencies.
18. Washakie County considers it a priority and supports the timely processing of all term grazing permit renewals. The term permit renewal process must consider actions and practices proposed by the permittee. Washakie County supports the inclusion of flexible options regarding season of use, livestock kind, and other actions as they relate to fuels reduction and mitigating wildfire risk as part of term grazing permits.

Noxious Weeds and Invasive Species

Resource Assessment

Plants and animals that are determined to be noxious in Wyoming are identified on the State Designated Weed and Pest List²⁷. The 2018 Wyoming State Noxious Weed and Pest List includes 30 plants and six animals or insects. Since 2016, four plant species have been added to the noxious weed list. Noxious species are plants and animals that are considered detrimental to the health or welfare of Wyoming due to their ability to:

- Aggressively invade native plant communities and/or agricultural crops
- Be injurious or poisonous to livestock
- Carry disease or parasites

²⁷ https://wyoweed.org/wp-content/uploads/2018/07/StateDesignatedList_2018.pdf

- Negatively impact management of agricultural systems and/or natural ecosystems

Wyoming Statute 11-5-105(a)(i) directs that “The district board shall: Implement and pursue an effective program for the control of designated weeds and pests.”

Additionally, each county may consider plants or animals as noxious within their county. These species are recognized by the Wyoming Board of Agriculture and the Wyoming Weed and Pest Council as “declared” weeds and pests within that county only. Wyoming Statute 11-5-102(a)(vii) defines declared weeds and pests as “... [any plant, animal, or insect that] the board and the Wyoming Weed and Pest Council have found, either by virtue of its direct effect, or as a carrier of disease or parasites, to be detrimental to the general welfare of persons residing within a district”. The Washakie County Declared Weed and Pest List²⁸ was amended in April 2018 and contains 23 plants and one insect.

Various tools can be implemented for combatting noxious weeds within Washakie County. These include, but are not limited to prescribed fire, biological control, cultural control, preventative measures, mechanical and physical control, and chemical control. Different control measures have varying degrees of success depending on the target weed or pest. It is recommended that land managers contact the local Conservation District and/or the local Wyoming Weed and Pest District or conduct literature reviews in order to understand the implications of various control techniques before implementation.

Noxious or invasive species of priority to Washakie County are medusahead grass (state designated), cheatgrass (county declared), and western spruce budworm (not formally listed).

Medusahead is an invasive annual grass that can render rangelands unproductive for wildlife and livestock. It is a prolific seed producer and will outcompete most native plants, as well as contributing to an increased wildfire risk. Medusahead is a state designated noxious weed that has not been documented in Washakie County (Wyoming Natural Diversity Database 2013, Rocky Mountain Herbarium 2020, EDDMapS 2020, Wyoming Weed and Pest GIS Committee 2020). The noxious grass has been discovered in both Sheridan and Converse Counties (Wyoming Game and Fish Department 2018).



Photo 9 Medusahead (*Taeniatherum caput-medusae*)

Cheatgrass infestations carry a multitude of impacts, ranging from increased wildfire risk, loss of forage for grazing, loss of wildlife and native plant habitat, and reducing soil health. Cheatgrass is a County-declared noxious weed and is common throughout the county (and state). The most recent data from WYNDD (2013) shows that Washakie County contains more than 20,000 acres of cheatgrass and that the population trend is increasing.

Western spruce budworm is a defoliating insect that feeds on the new needles, cones, and flowers of Douglas-fir, white fir, subalpine fir, western larch, and spruce trees. The defoliation caused by the budworm can have massive effects on the ecological and economic viability of forests. Western spruce budworm is not formally listed on state or county pest lists; however, it is a priority concern for landowners and land managers alike. Western spruce budworm has been detected in eastern Washakie County, and

²⁸ https://wyoweed.org/wp-content/uploads/2018/07/DeclaredList_2018.pdf

host plants (Douglas-fir, Engelmann spruce, and subalpine fir) are readily available on the Bighorn National Forest as well as in woody draws and other forested landscapes in the far eastern portion of the county (Brookes 2019).

Other pests not included on the county list have been previously discussed in the Forest Management section.

Resource Management Objectives

1. Washakie County supports integrated long-term plant management and weed control tactics programs for responsible wildlife habitat preservation, development, and management through the Washakie County Weed and Pest Control District.

Priorities

1. Washakie County relies on Washakie County Weed and Pest Control District to make use of cooperative agreements, NEPA, the Wyoming Wilderness Act and broad-based legal precedent to assure recognition of local conditions and circumstances in the decision-making process, and to keep the County and the public informed of those efforts.
2. Washakie County will seek to encourage federal and state agencies to use prescribed burns as a primary means of weed and pest control. The County will become actively involved in planning for prescribed burns to mitigate potential wildfire threats.
3. Washakie County will support cooperative efforts with State, federal and private land managers to enhance cooperative weed management efforts countywide coordinated with and primarily managed by the Washakie County Weed and Pest Control District.
4. Washakie County supports and strongly encourages the control of noxious weeds, invasive species, and pests by owners, managers, and users of all private, federal and state lands including easements, right-of-way, and municipalities.
5. Federal and state agencies shall support and encourage the aggressive management of noxious weeds and pests on lands within Washakie County.

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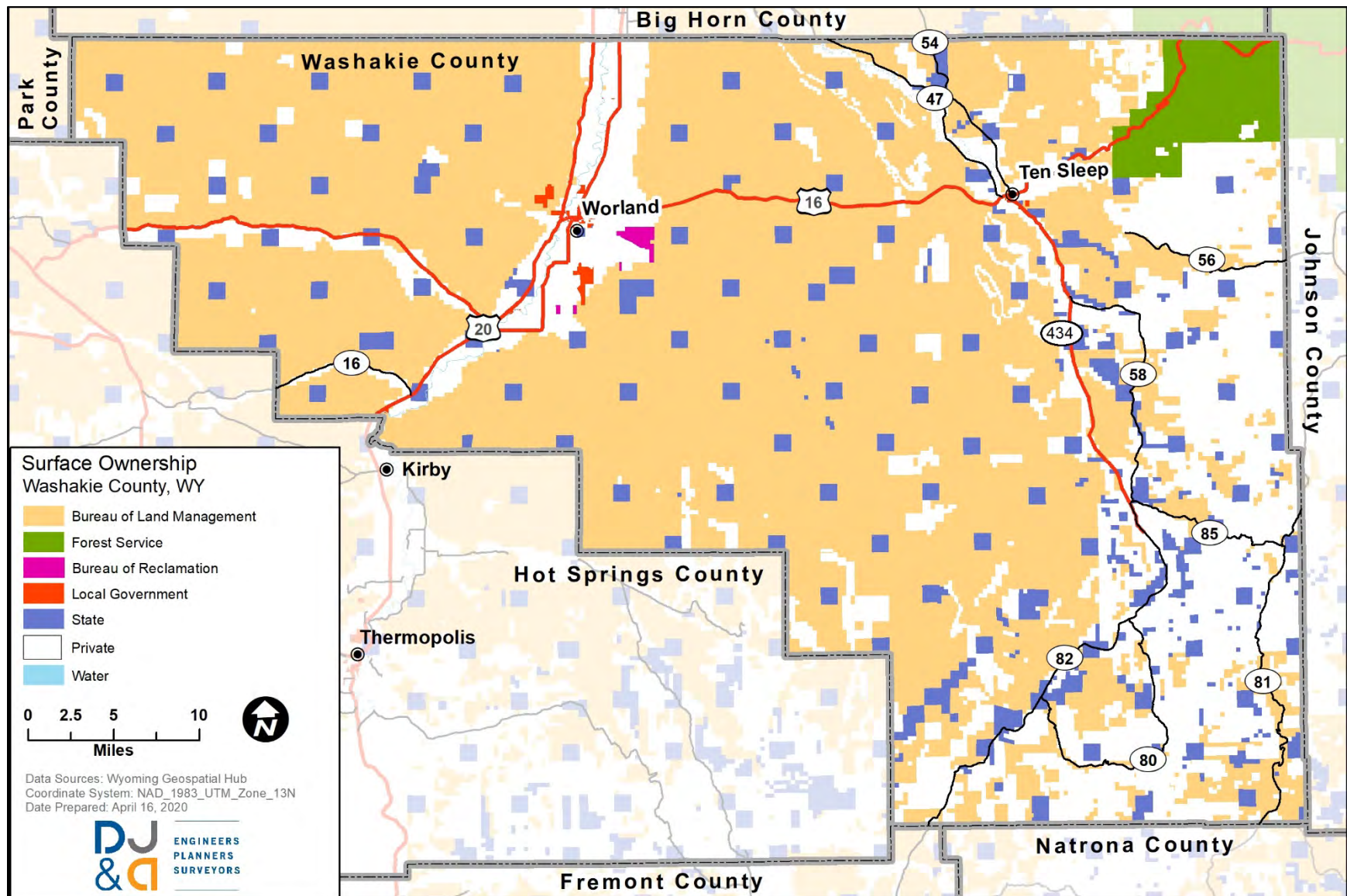
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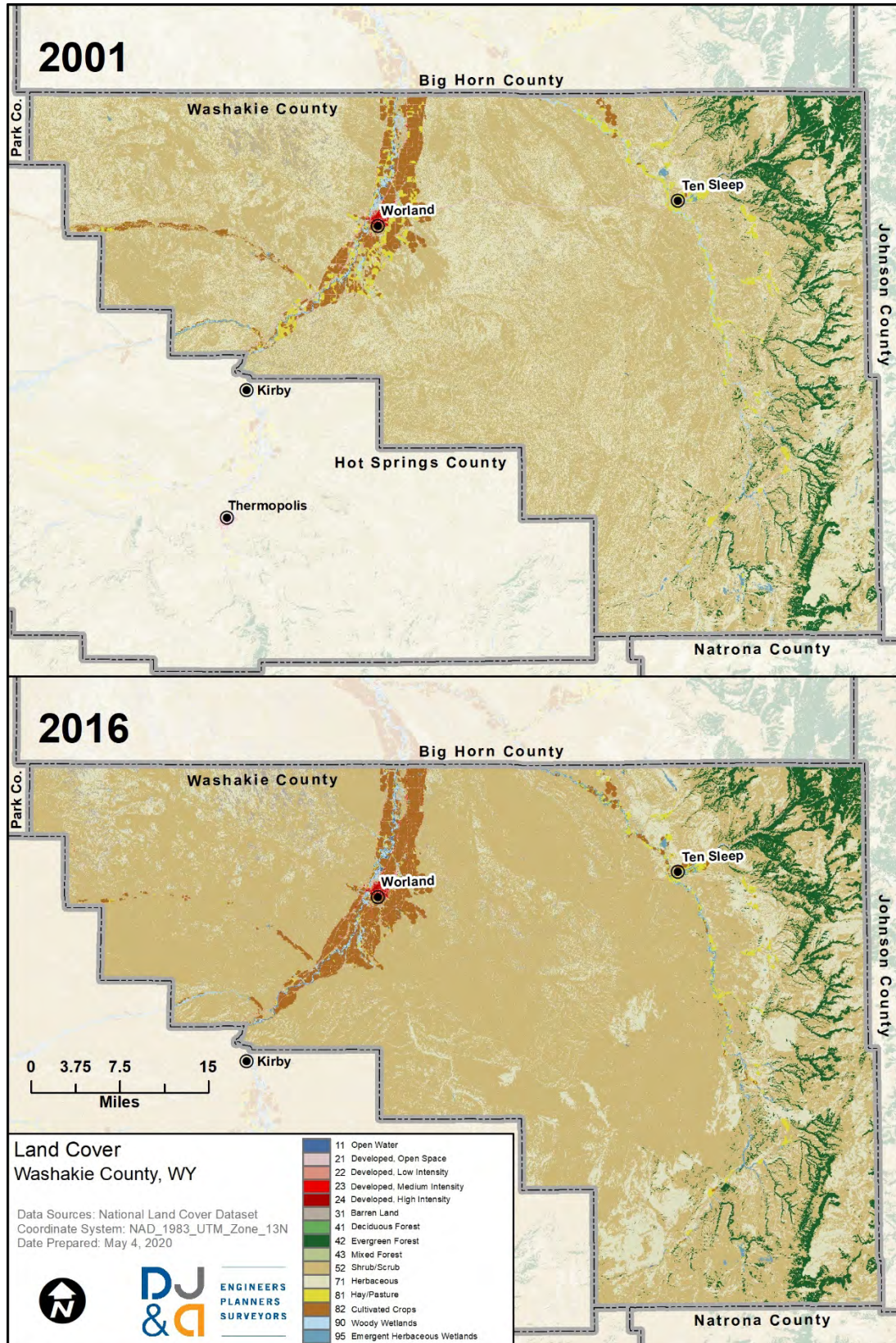
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Appendix A—Maps

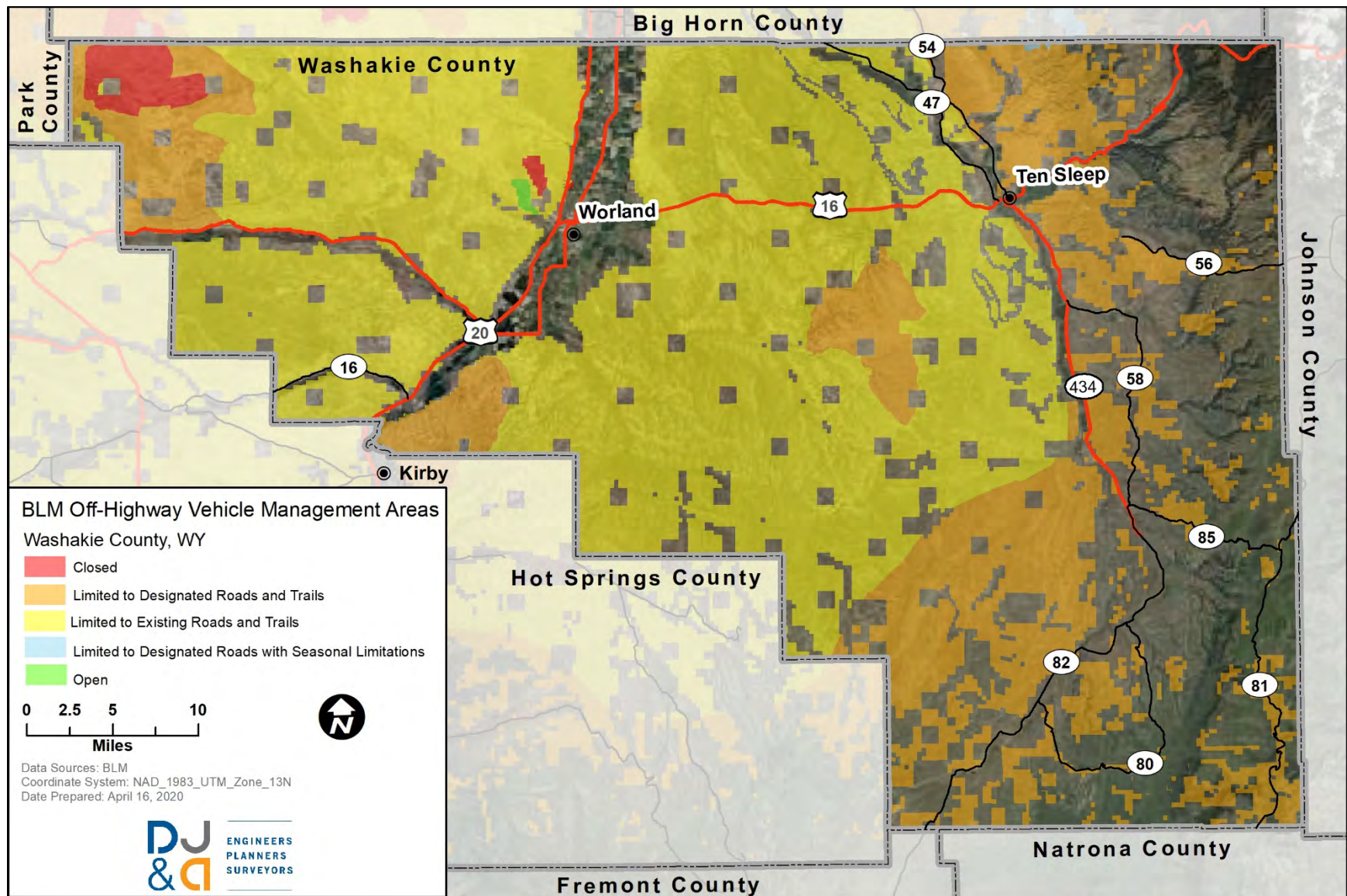


Map 1 Surface Ownership within Washakie County

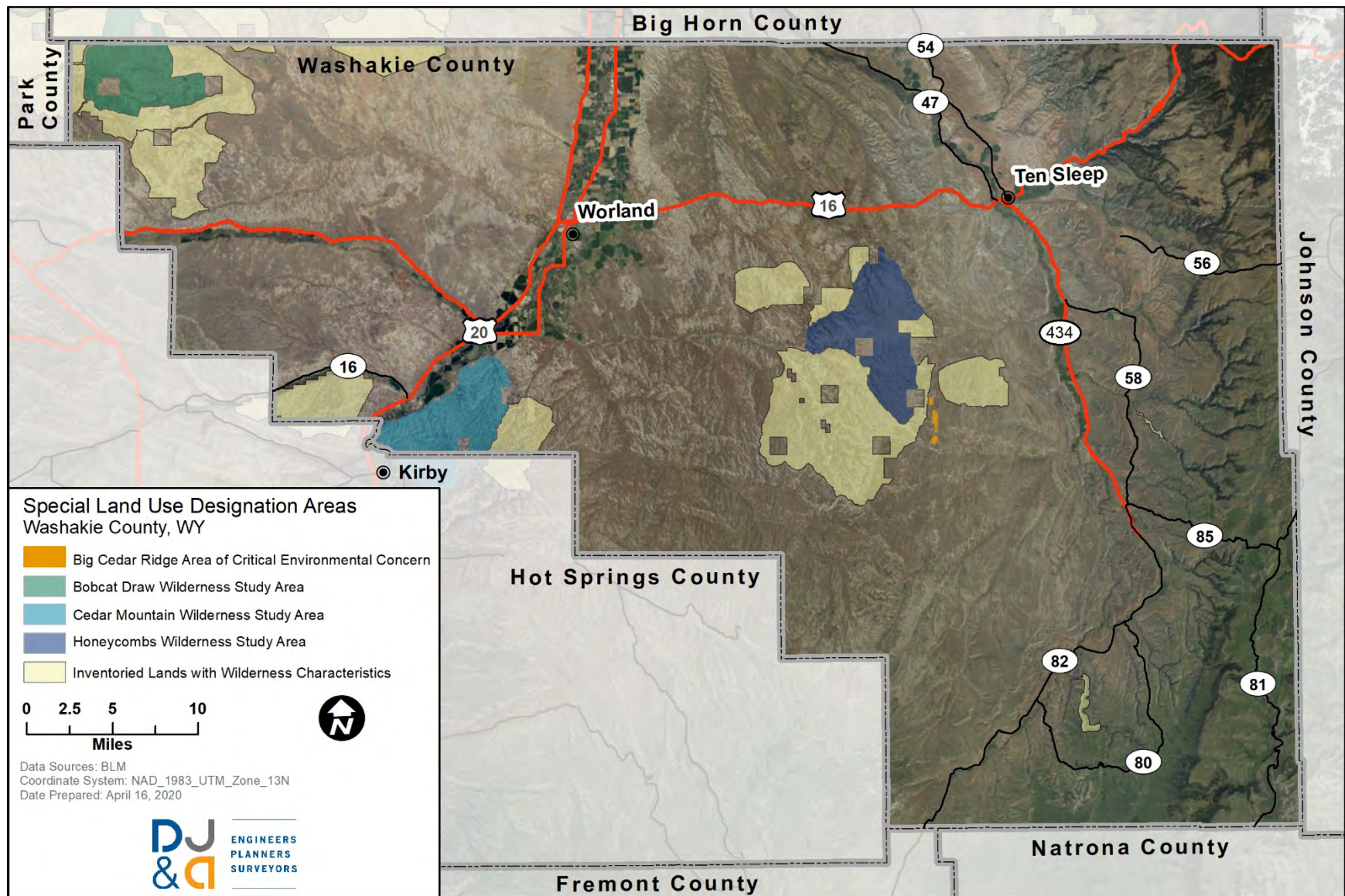
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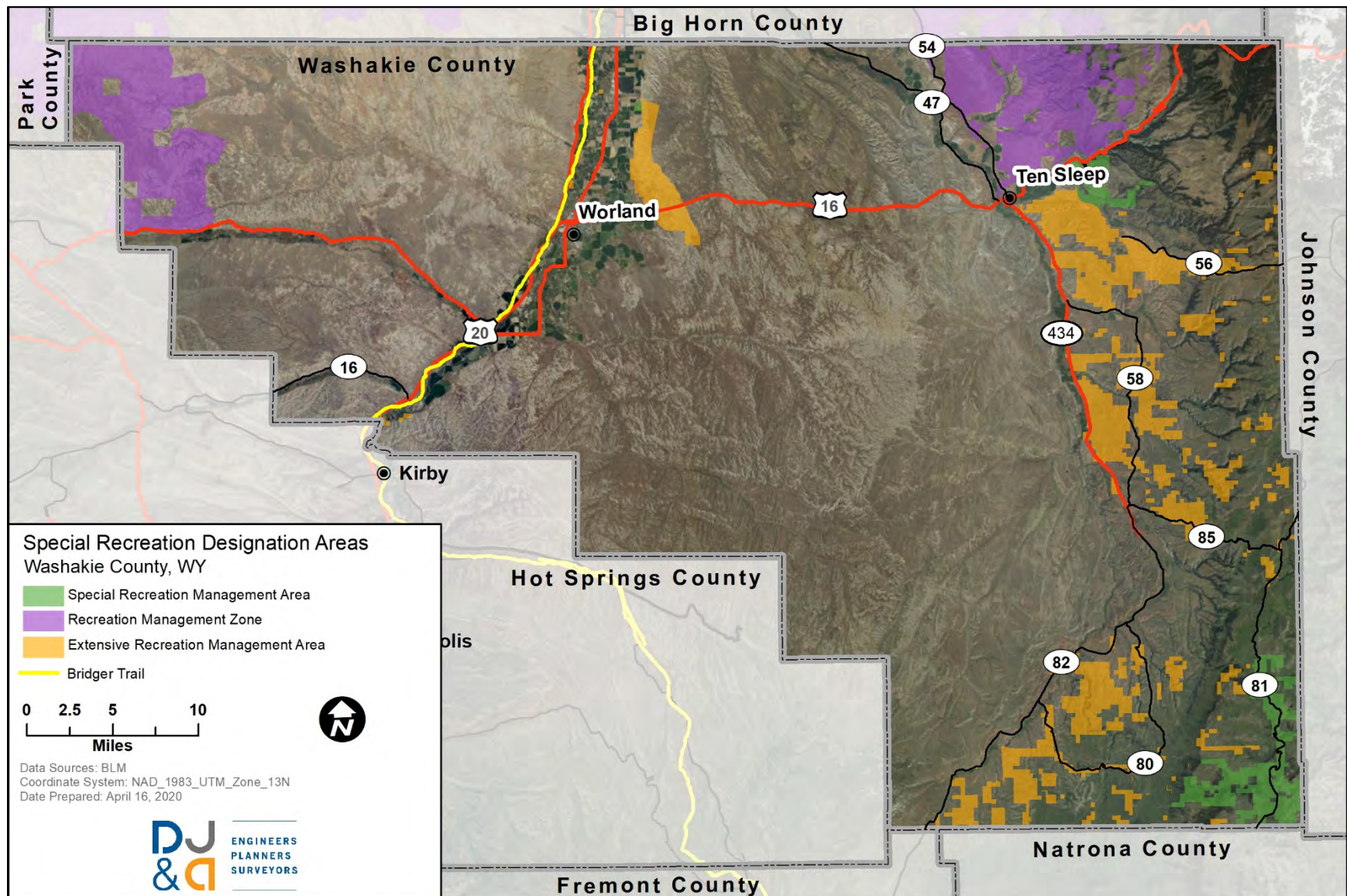
Map 2 Land Cover within Washakie County, 2001–2016



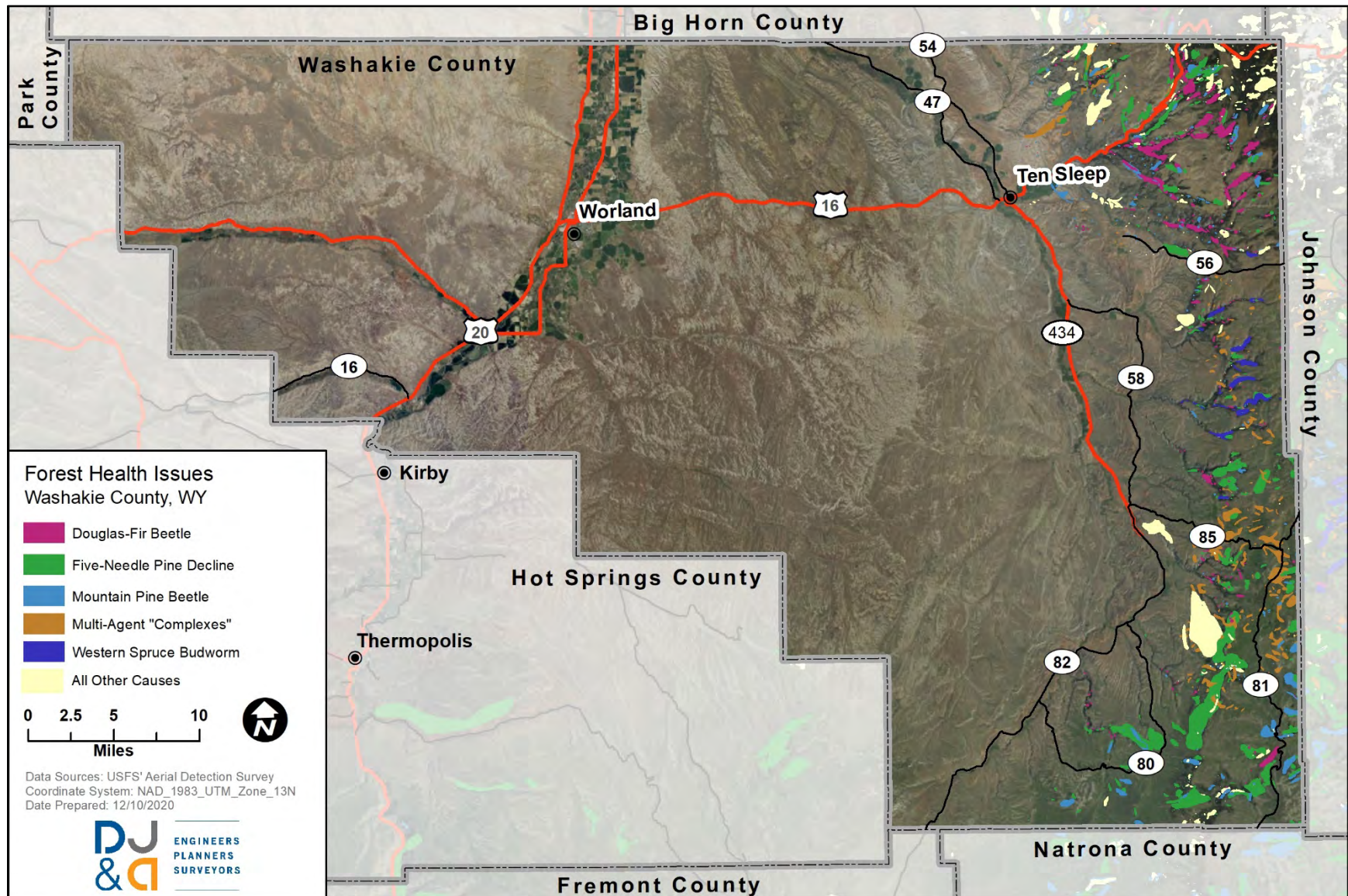
Map 3 Off-Highway Vehicle Management Areas within Washakie County



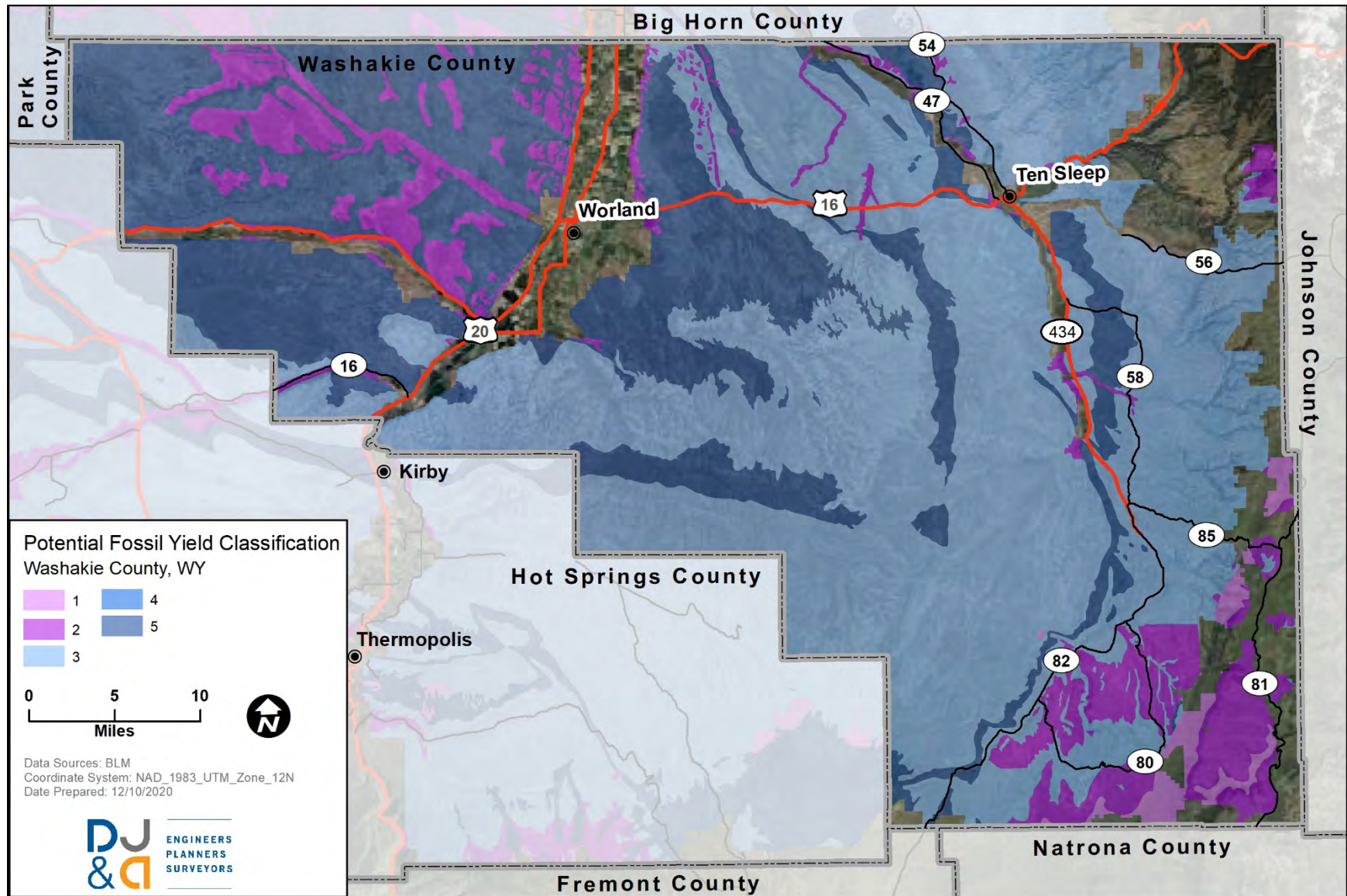
Map 4 Special Land Use Designations within Washakie County



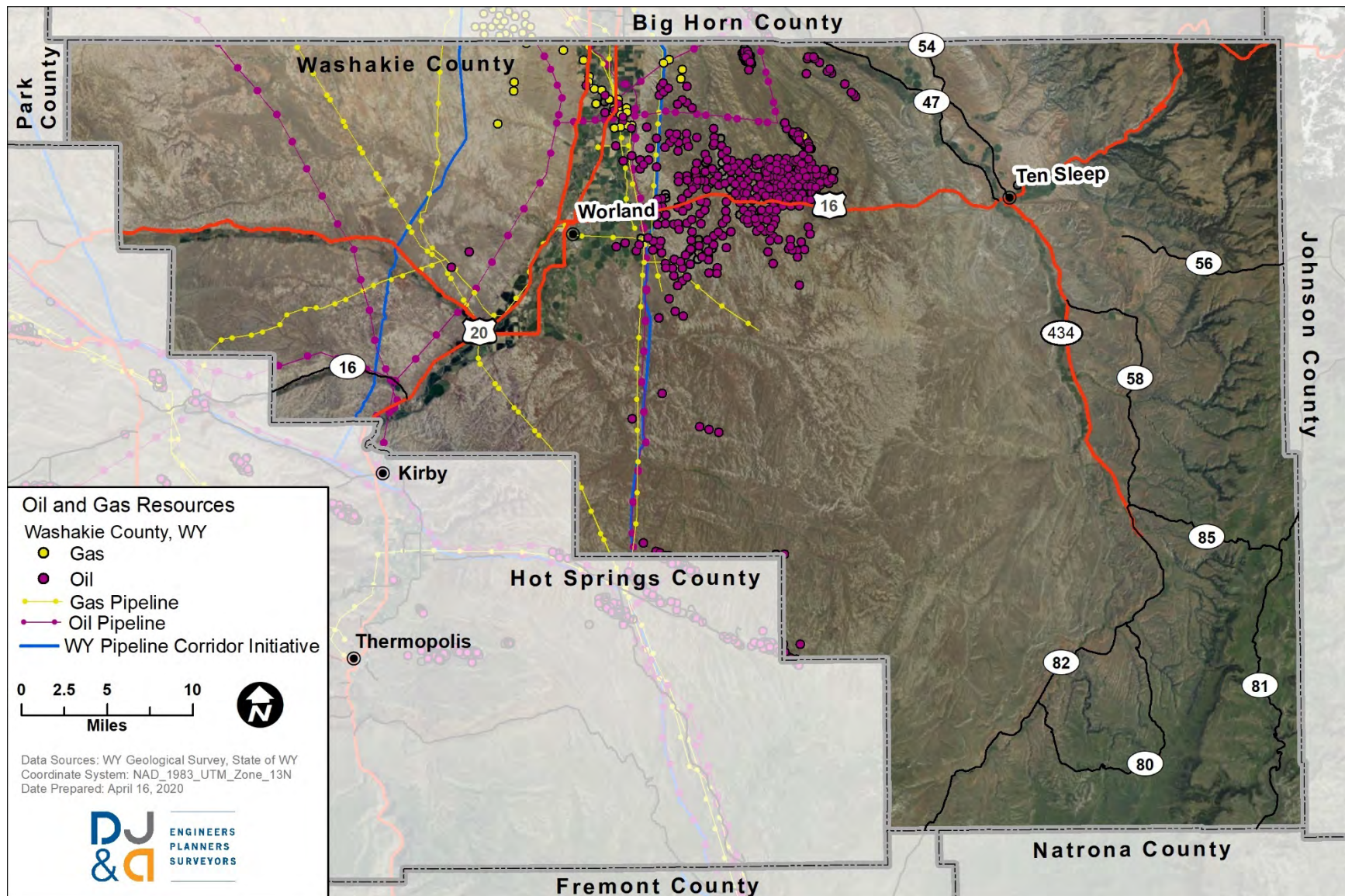
Map 5 Special Recreation Designation Areas within Washakie County



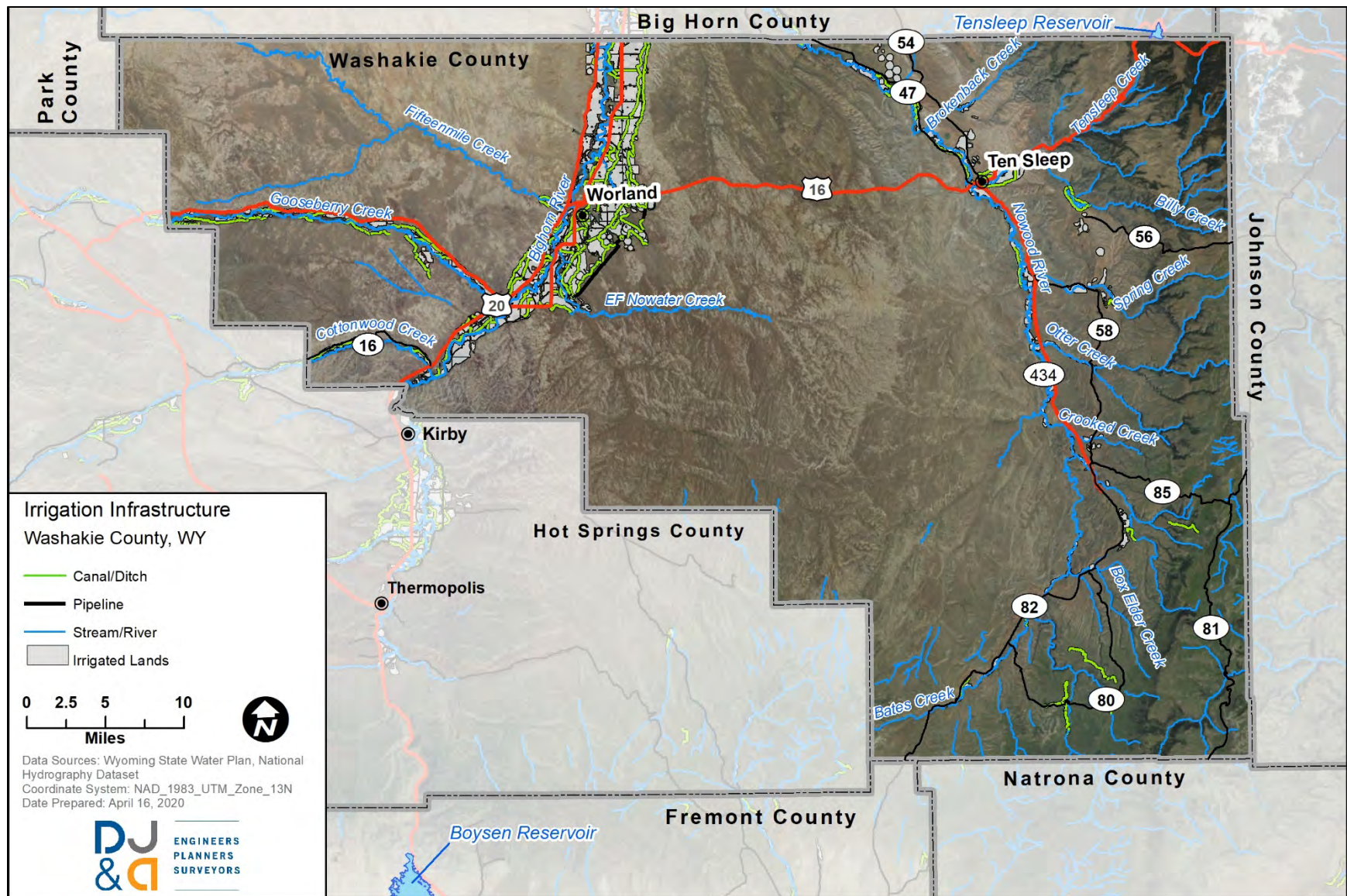
Map 6 Forest Health Issues within Washakie County, 1997–2018



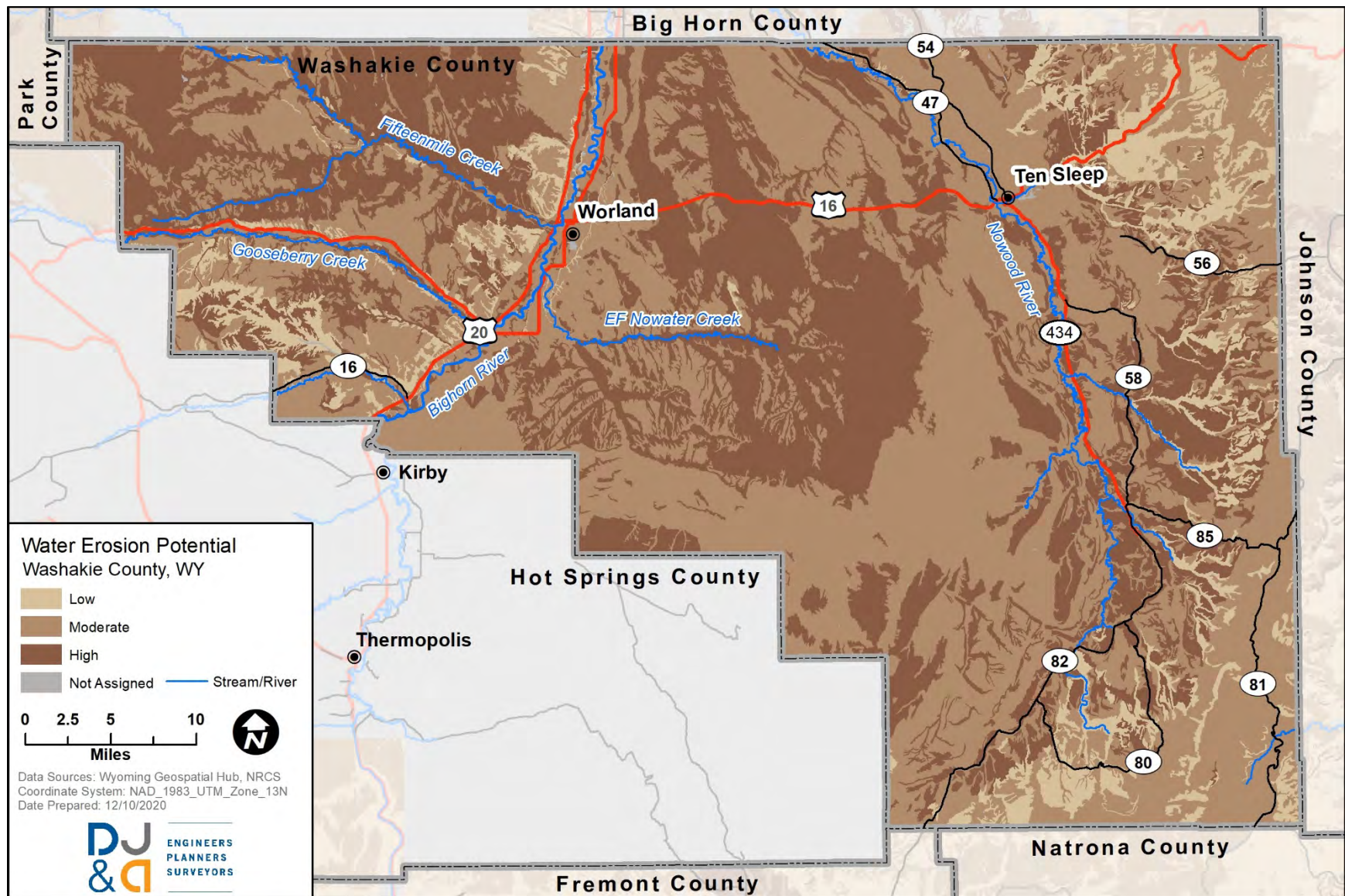
Map 7 Potential Fossil Yield Classification within Washakie County



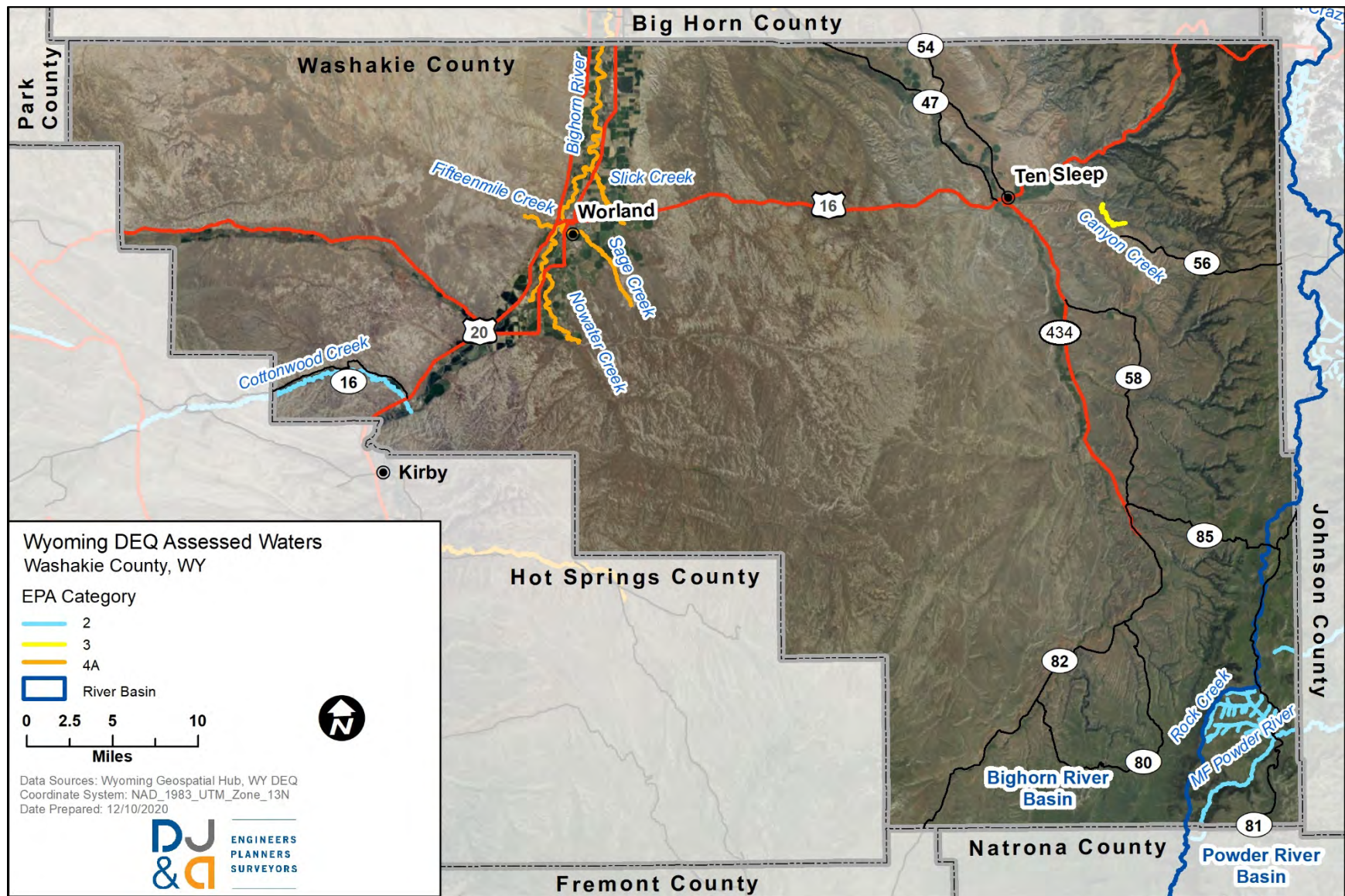
Map 8 Oil and Gas Resources within Washakie County



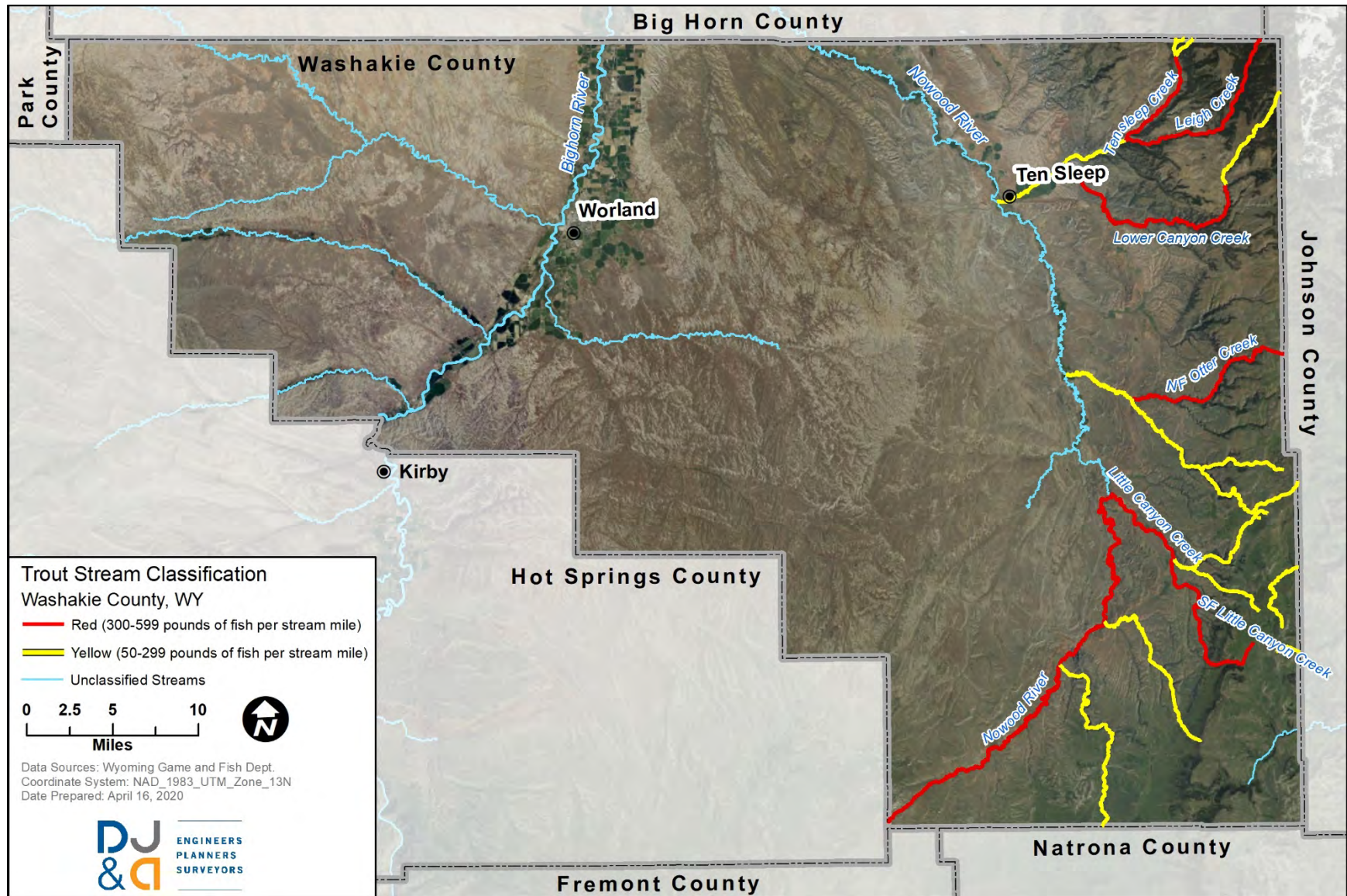
Map 9 Irrigation Infrastructure within Washakie County

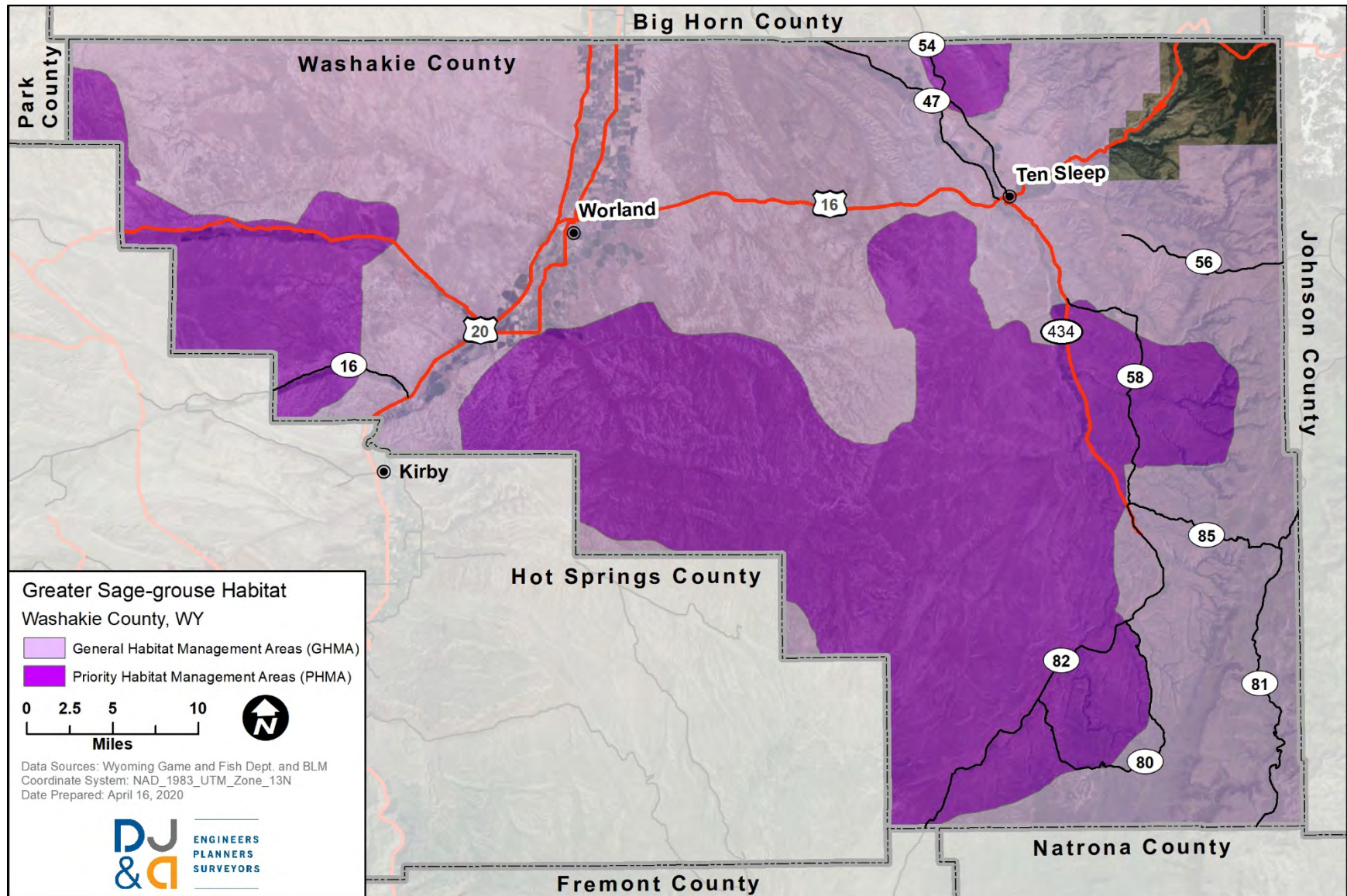


Map 10 Water Erosion Potential within Washakie County

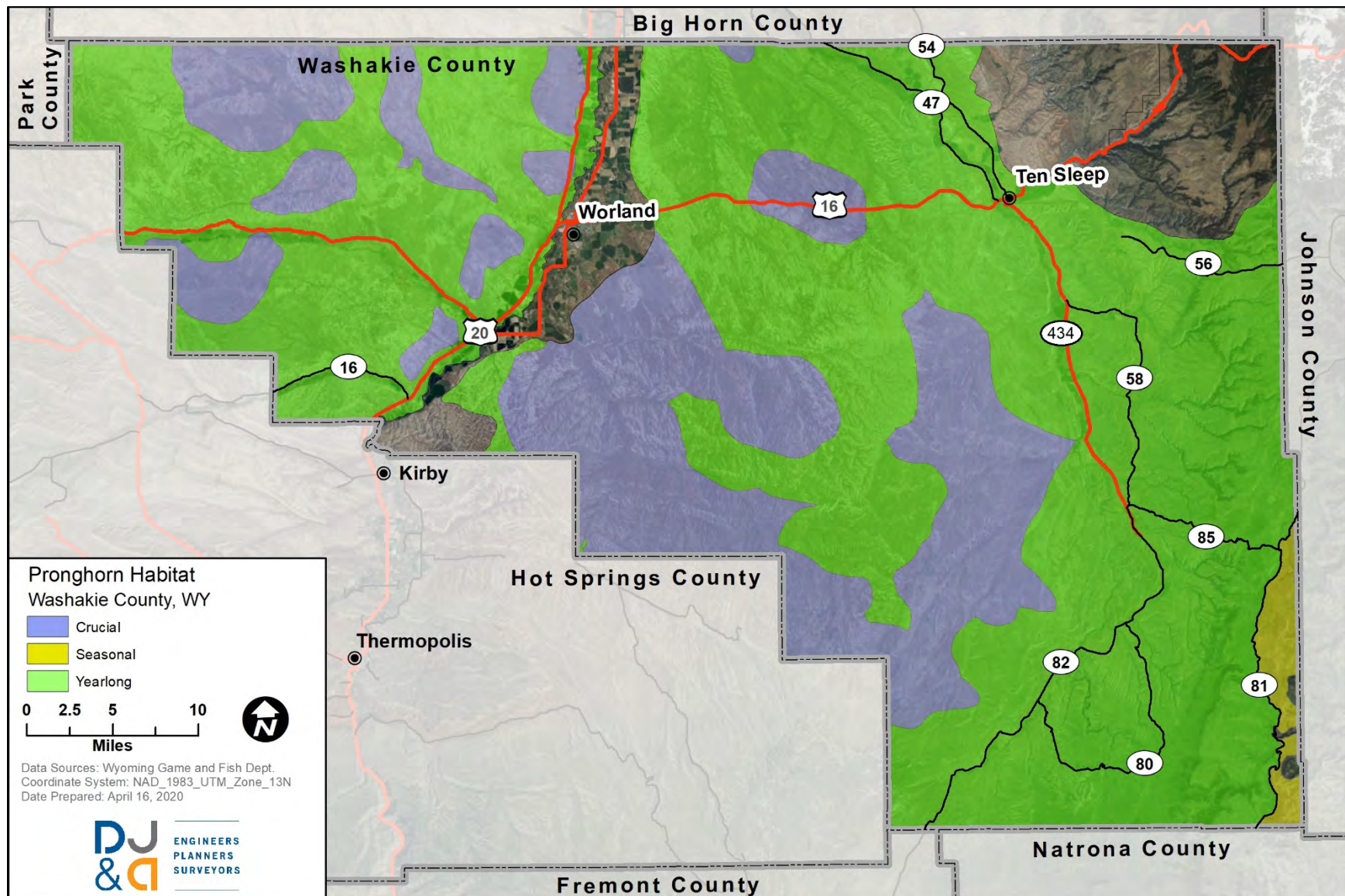


Map 11 Wyoming Dept. of Environmental Quality Assessed Waters

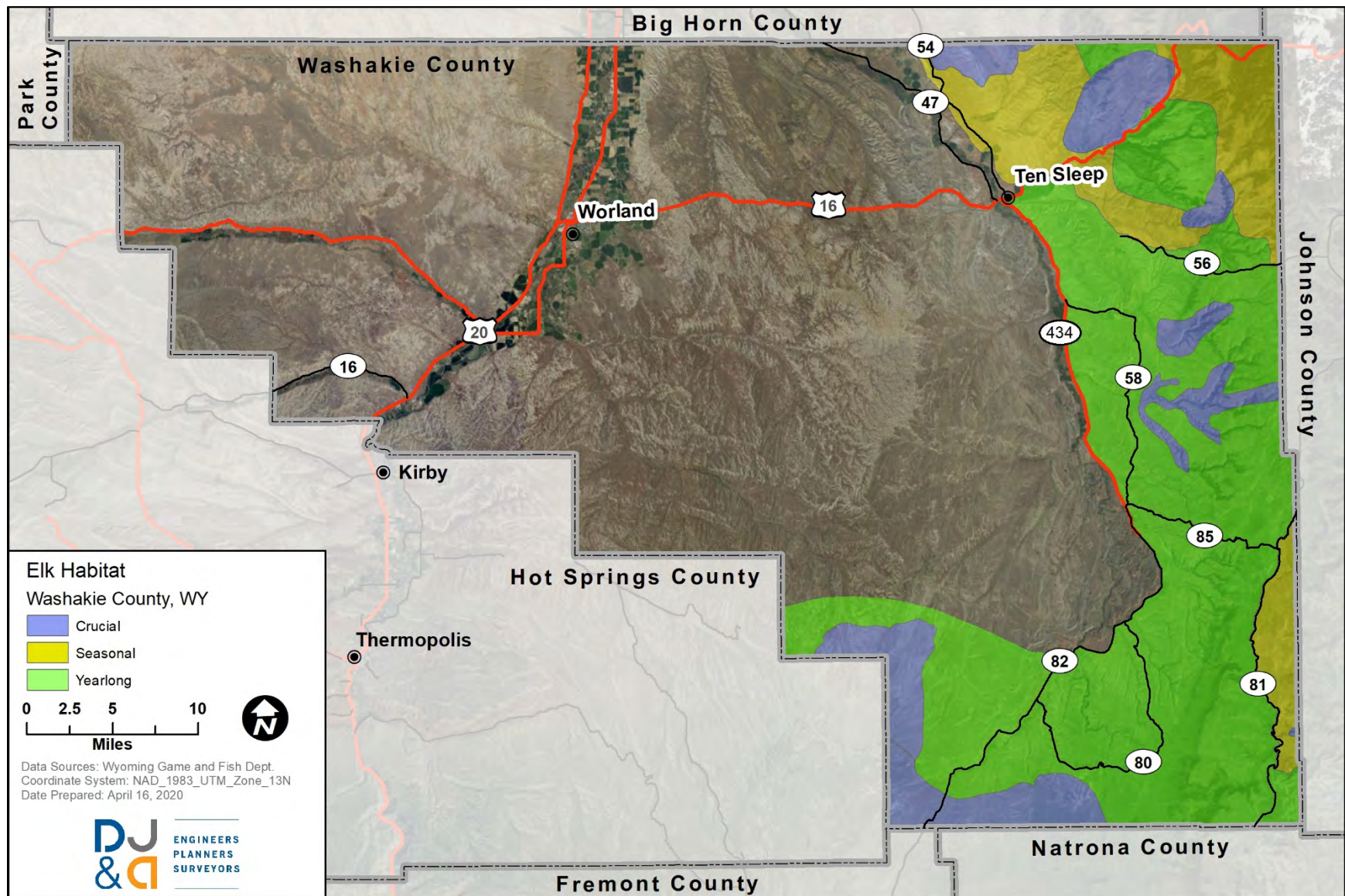




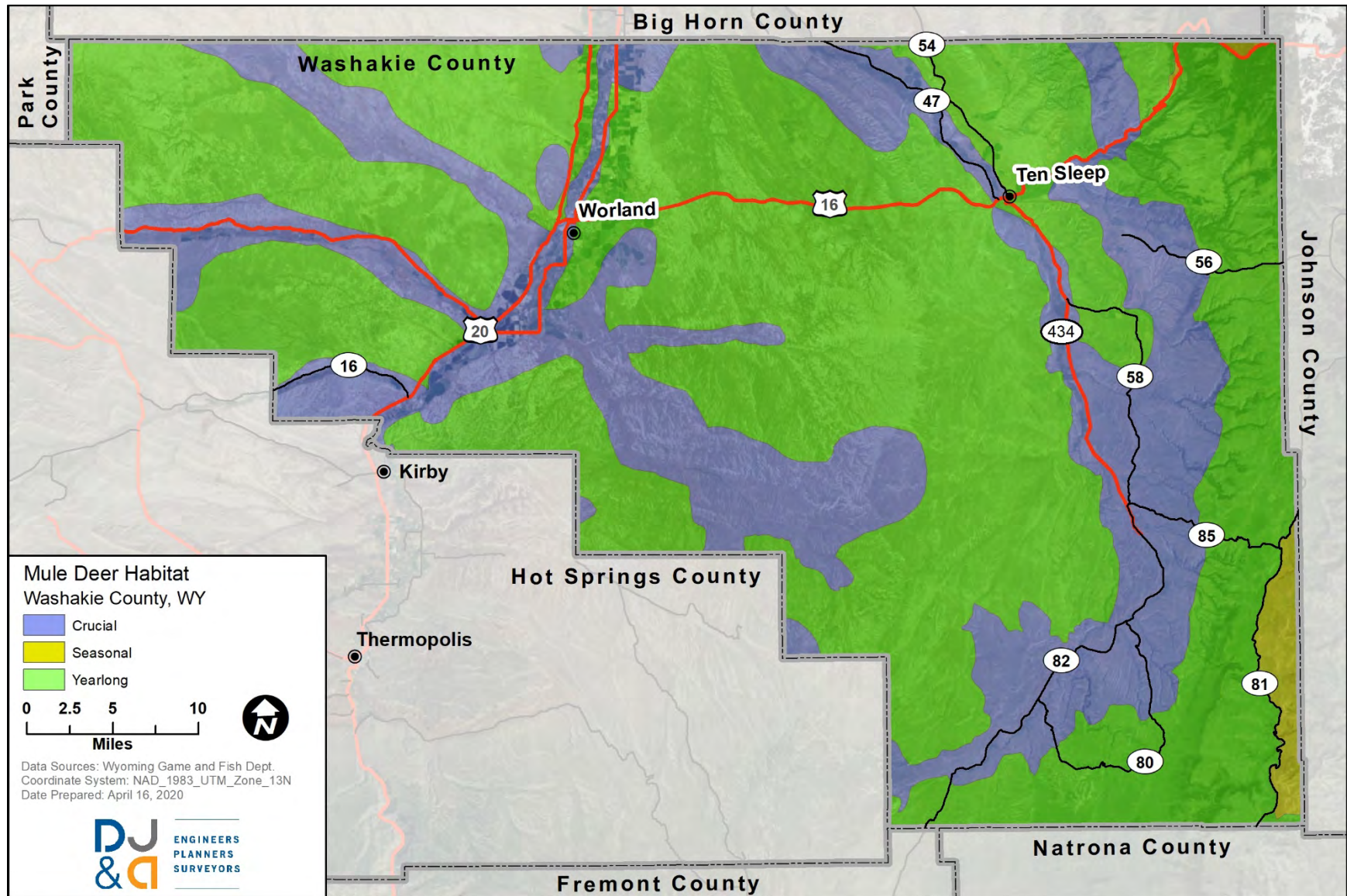
Map 13 Greater Sage-grouse Habitat within Washakie County



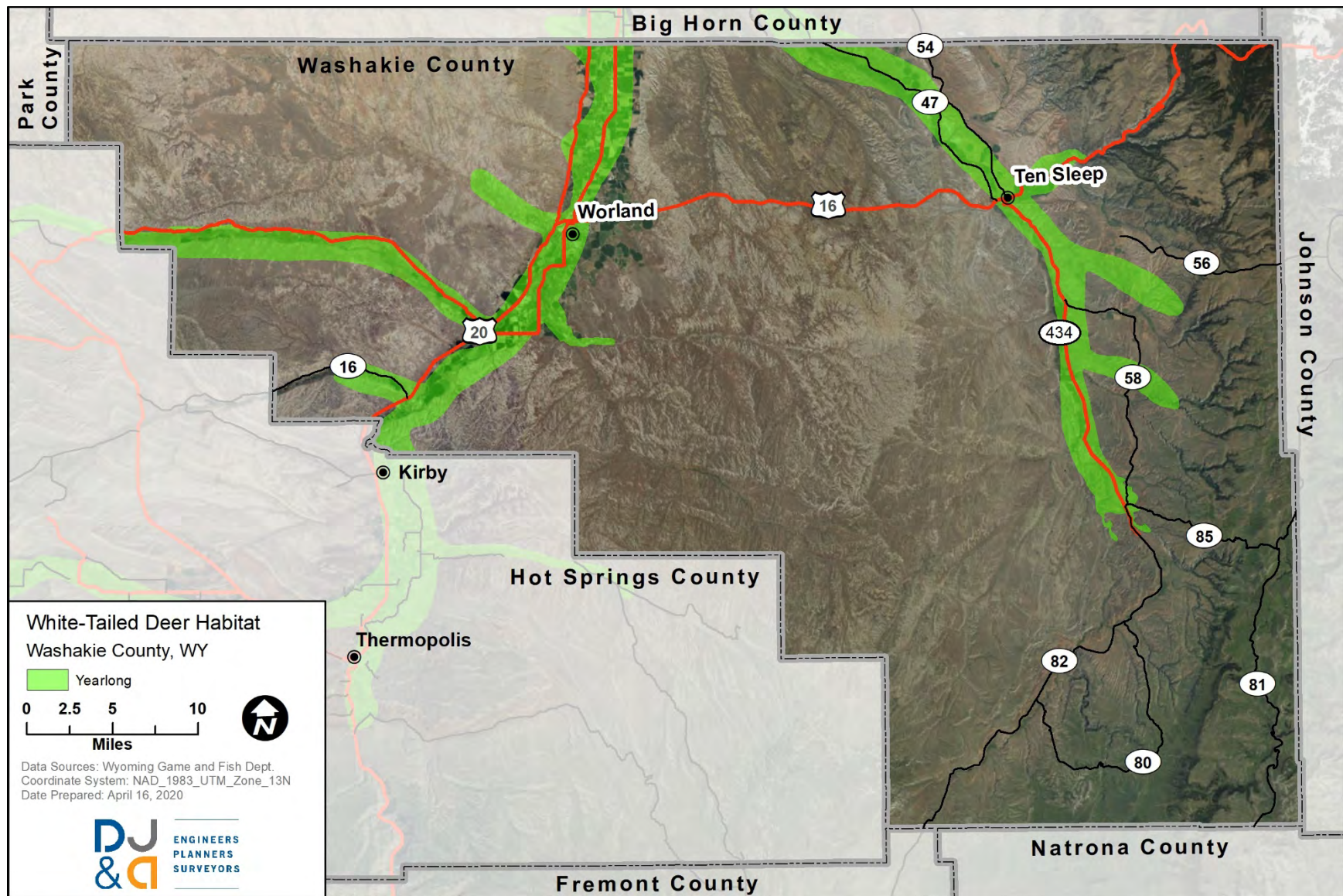
Map 14 Pronghorn Habitat within Washakie County



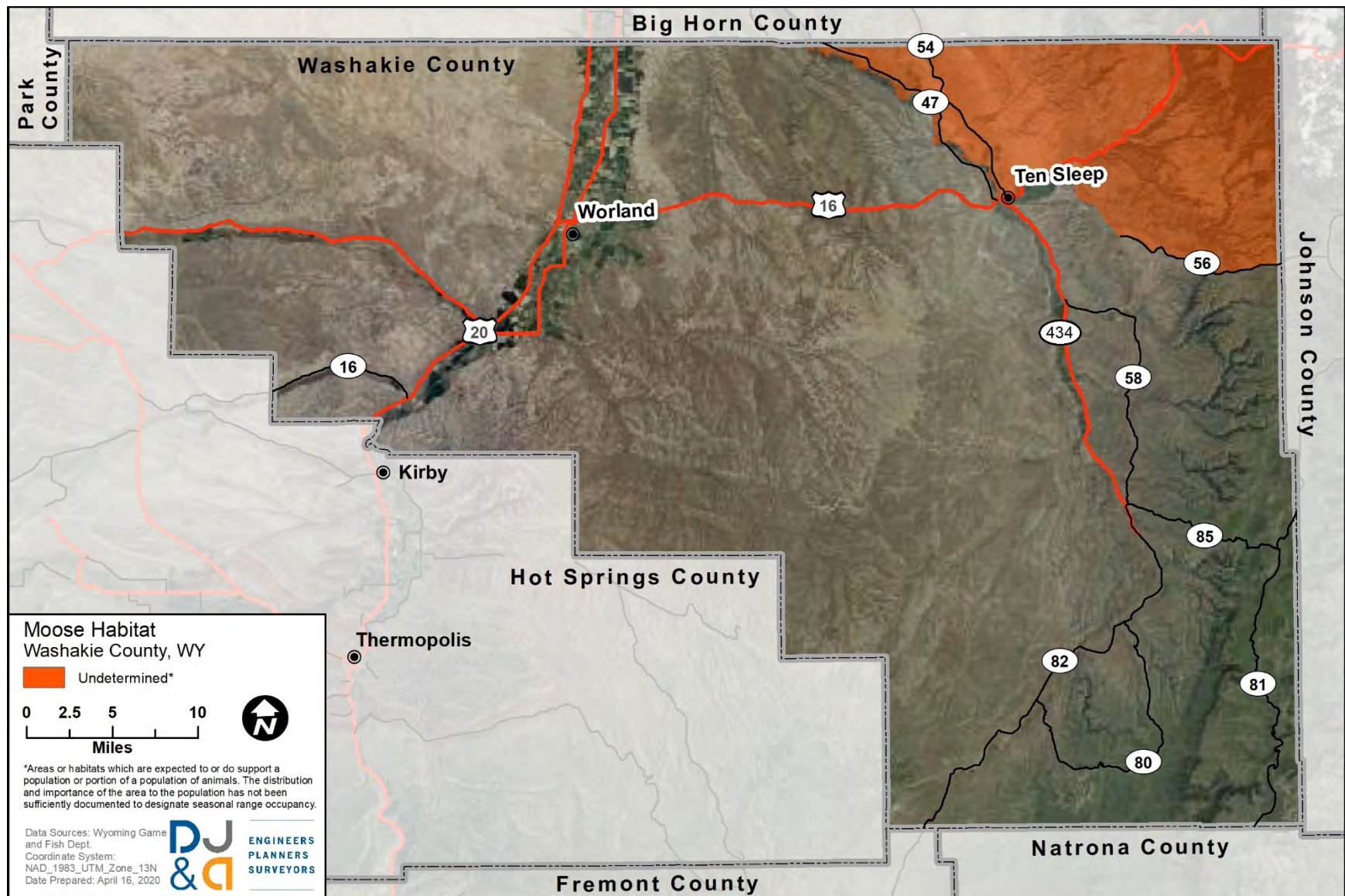
Map 15 Elk Habitat within Washakie County



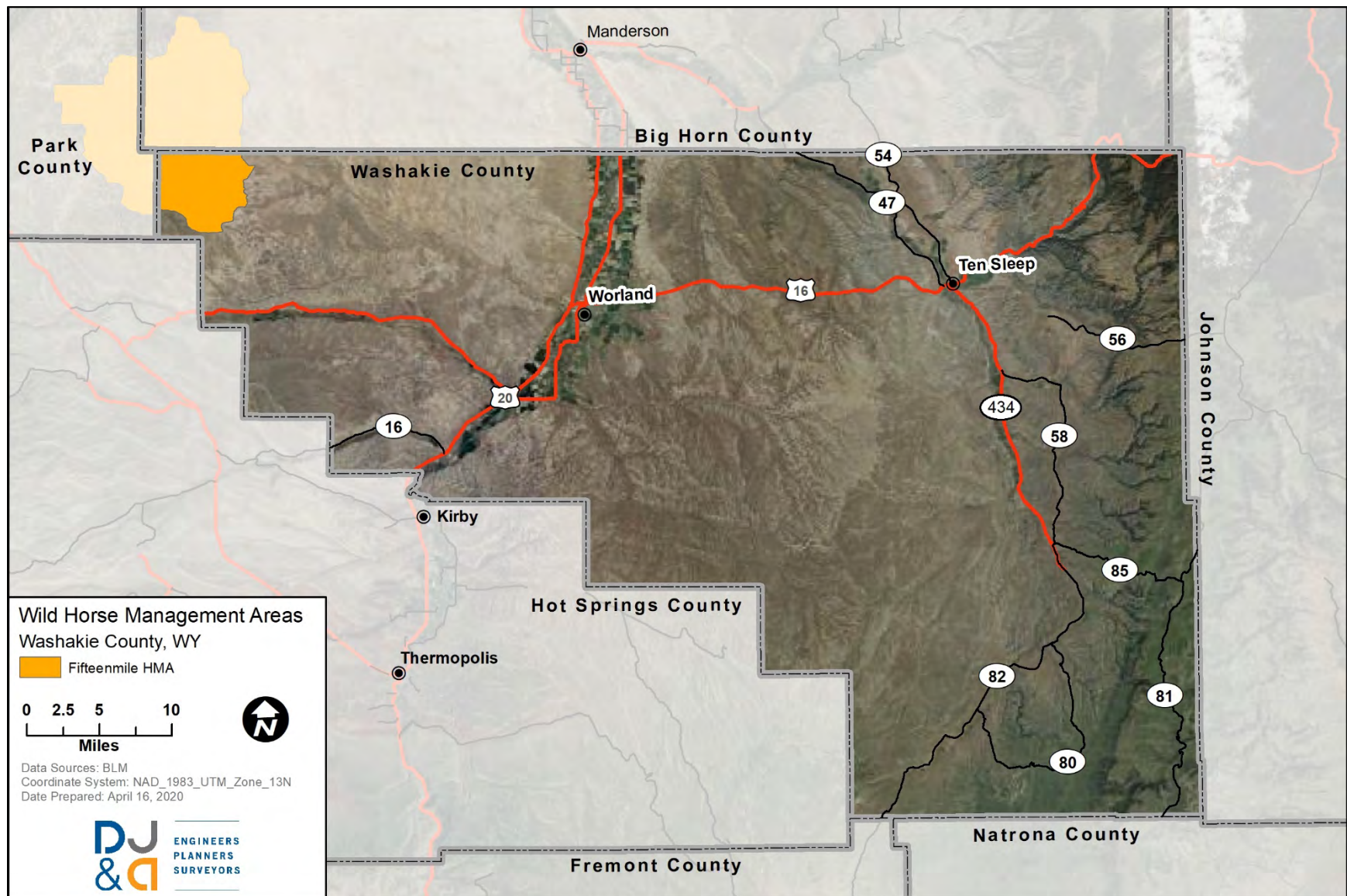
Map 16 Mule Deer Habitat within Washakie County



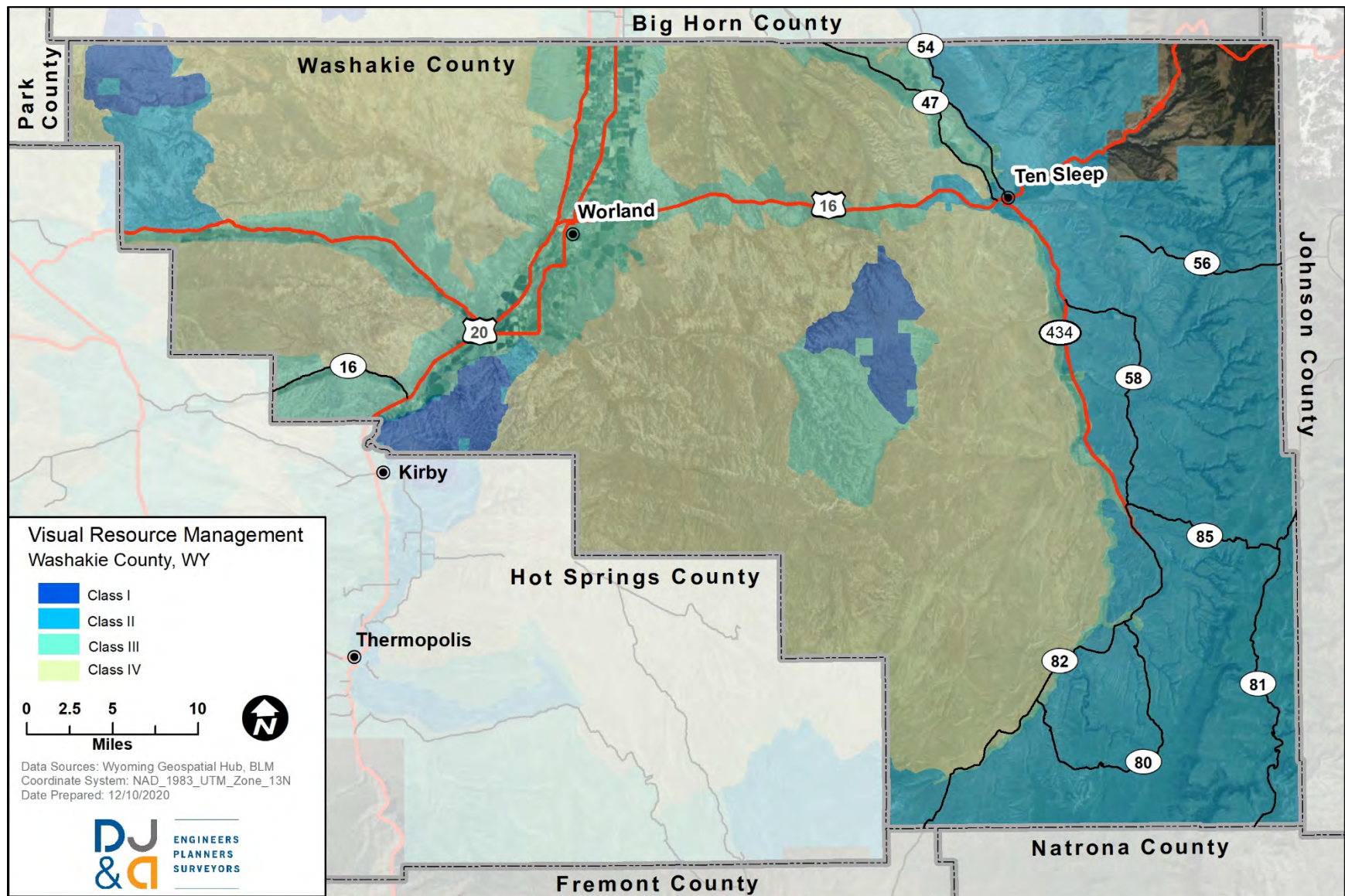
Map 17 White-Tailed Deer Habitat within Washakie County



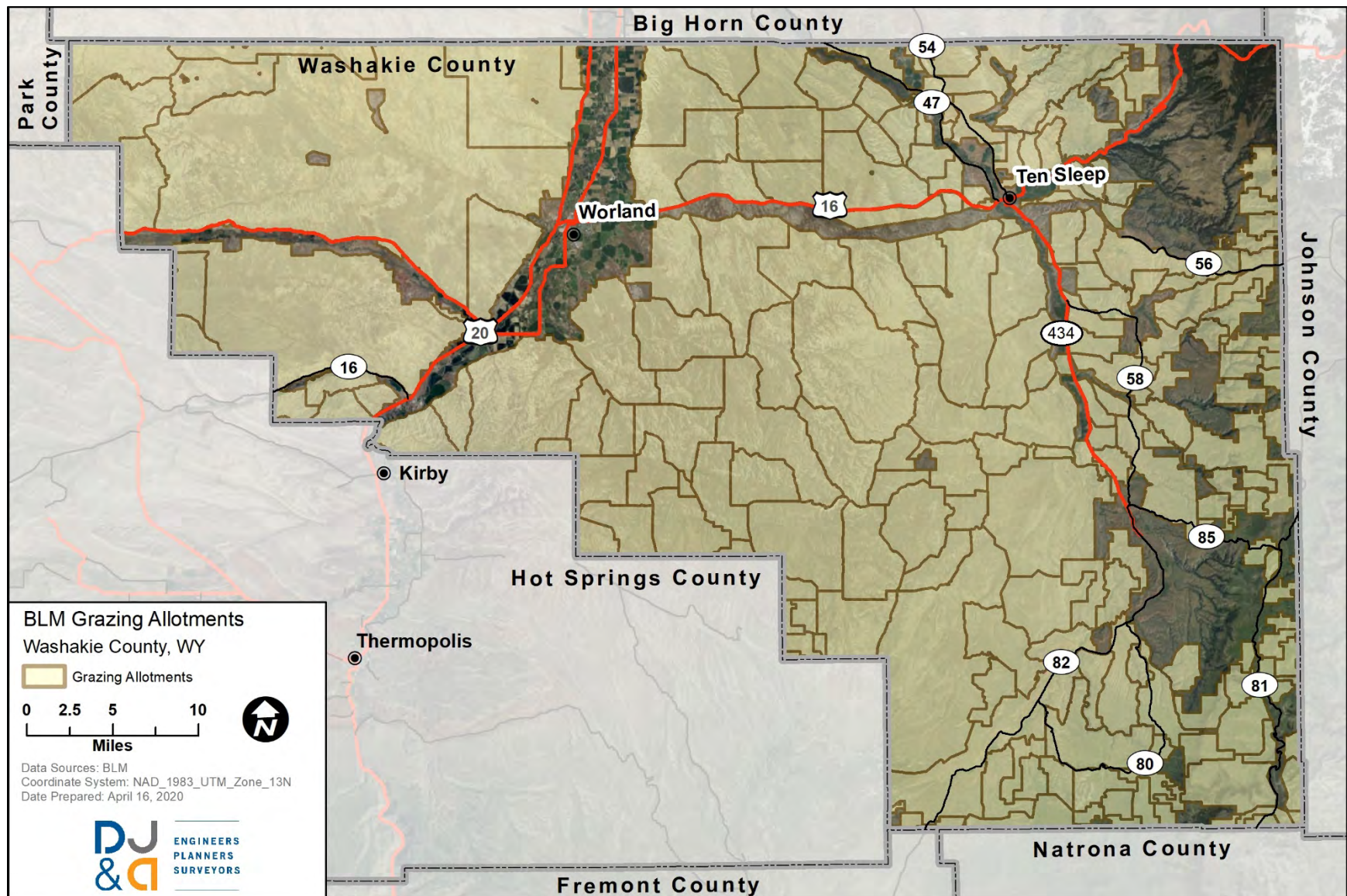
Map 18 Moose Habitat within Washakie County



Map 19 Wild Horse Management Areas within Washakie County



Map 20 Visual Resource Management Classification within Washakie County



Map 21 BLM Grazing Allotments within Washakie County

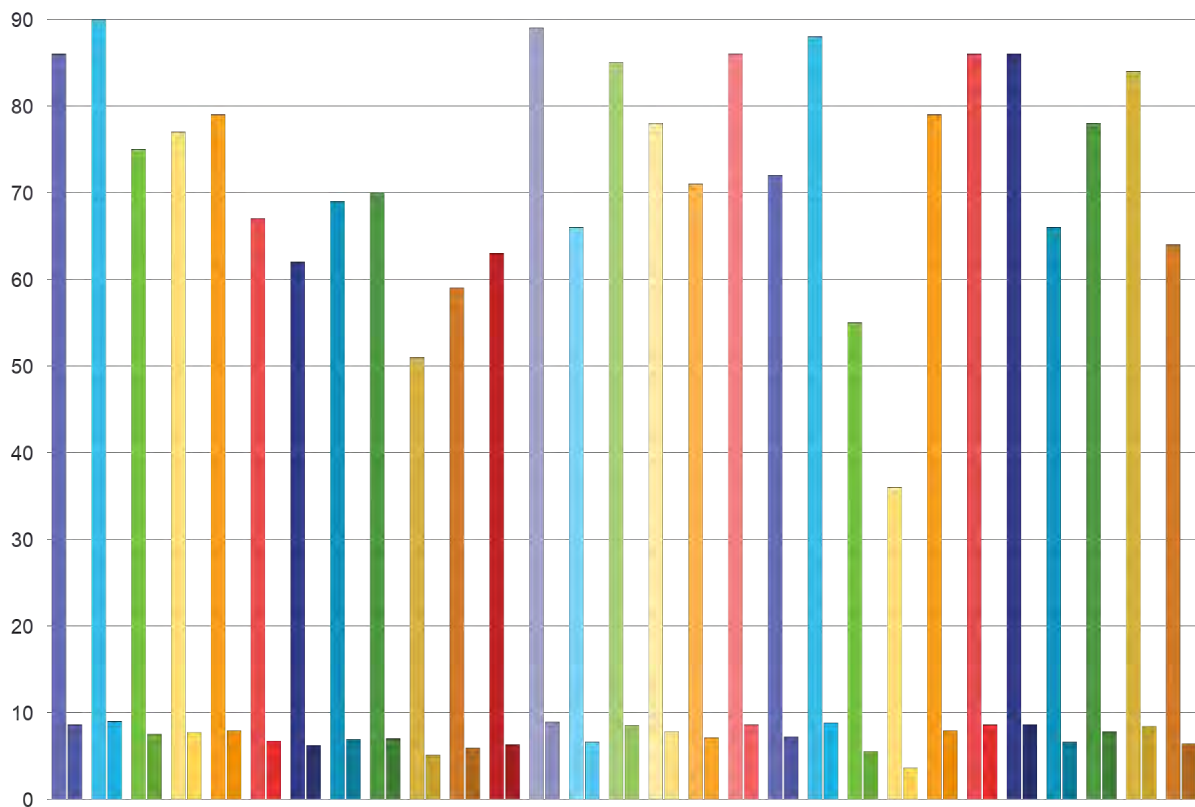
Appendix B—Public Survey

Washakie County Natural Resource Management Plan Survey

Thank you for taking the time to complete this survey regarding the creation of this County Natural Resource Management Plan (hereafter referred to as "the document").

Q1 PART 1: This section seeks to identify important social, economic, and environmental issues associated with public lands within the county.

Rank each area below, based on its importance as a consideration within the county. For areas which you feel have no importance, or you are unsure of their importance, please rank zero. For areas which you feel have the highest importance, please rank 10.



Answered: 10 Unanswered: 0

Choice	Score	Average
Land Use	86	8.6
Land Access	90	9
Wilderness and Special Designations	75	7.5
Fire Management	77	7.7
Forest Management	79	7.9
Mining and Mineral Resources	67	6.7
Energy Resources	62	6.2
Air Quality	69	6.9
Soils	70	7
Irrigation and Related Infrastructure	51	5.1

Choice	Score	Average
 Dams and Reservoirs	59	5.9
 Water Rights	63	6.3
 Water Quality	89	8.9
 Flood Plains	66	6.6
 Rivers and Streams	85	8.5
 Riparian Areas and Wetlands	78	7.8
 Wild and Scenic Rivers	71	7.1
 Fisheries	86	8.6
 Threatened, Endangered, and Sensitive Species	72	7.2
 Wildlife	88	8.8
 Predator Control	55	5.5
 Wild Horses and Burros	36	3.6
 Noxious Weeds and Invasive Species	79	7.9
 Economics and Society	86	8.6
 Recreation and Tourism	86	8.6
 Law Enforcement	66	6.6
 Cultural, Historical, Geological, and Paleontological Resources	78	7.8
 Economic Considerations	84	8.4
 Livestock and Grazing	64	6.4

Q2 PART 1: This section seeks to identify important social, economic, and environmental issues associated with public lands within the county.

In your opinion, in regards to the county, what natural resources or natural resource issues are impacted by federal and state land management planning and should be discussed in the document?

Friday, March 6, 2020, 1:00 PM UTC

Water, forage, timber, oil, gas and surface mining. All have a direct economic impact. Recreational values related to natural resource exist, but it needs managed and controlled due to free and unlimited access. Agriculture is the most important because it cannot just pick up and relocate. Agriculture has an investment in the land for today and tomorrow.

Monday, March 2, 2020, 10:45 PM UTC

SOIL IS GREATLY IMPACTED WHEN NOT MANAGED. POORLY MANAGED PROPERTY RESULTS IN SOIL LOSS THAT EFFECTS WATER QUALITY, NOXIOUS WEEDS, LOW FORAGE PRODUCTION

Thursday, February 27, 2020, 12:08 PM UTC

Multi recreational use of the Big Horn mountains. Opening access to more opportunities. Mapping and physically developing trails, highlighting wilderness study areas and their rec potential and raising public awareness of needs for wildlife protection and expansion.

Wednesday, February 26, 2020, 8:13 PM UTC

Recreational trails and corridors, both existing and potential. Migratory birds and their habitat.

Wednesday, February 19, 2020, 2:56 PM UTC

Land access and open access

Wednesday, February 19, 2020, 2:05 AM UTC

Recreation, tourism, and balanced growth.

Friday, January 31, 2020, 7:51 PM UTC

Outdoor recreation, stewardship of public lands, local economy, and health and well being of local citizens.

Friday, January 24, 2020, 11:52 PM UTC

The closures of roads- too many have been closed and the public can not have access to the public lands except by horse back and foot.

Friday, January 24, 2020, 6:52 PM UTC

WATER WAY, WILD HORSES AND AGRICULTURAL IMPACT ON LANDS FOR GRAZING

Answered: 9 Unanswered: 1

Q3 PART 1: This section seeks to identify important social, economic, and environmental issues associated with public lands within the county.

In your opinion, in regards to the county, what industries are impacted by federal and state land management planning and should be discussed in the document?

Friday, March 6, 2020, 1:00 PM UTC

Grazing, minerals and recreation

Monday, March 2, 2020, 10:45 PM UTC

OIL & GAS AND LIVESTOCK NEED TO BE ALLOWED TO FULLY FUNCTION IF PROPERTY MANAGED

Thursday, February 27, 2020, 12:08 PM UTC

Hunting, fishing and tourism

Wednesday, February 26, 2020, 8:13 PM UTC

In addition to recreation/tourism and how it affects local business, mining, oil and gas, livestock grazing.

Wednesday, February 19, 2020, 2:56 PM UTC

Mining and Energy resources.

Wednesday, February 19, 2020, 2:05 AM UTC

Tourism

Friday, January 31, 2020, 7:51 PM UTC

Tourism, outdoor recreation, hospitality, extractive (oil & gas).

Friday, January 24, 2020, 11:52 PM UTC

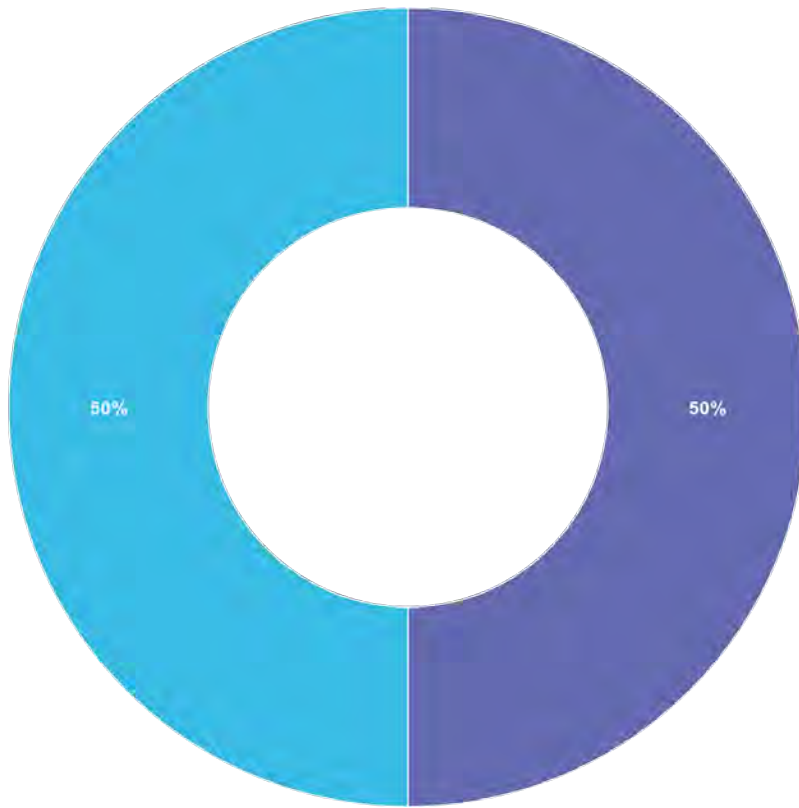
Oil and Gas, Ranching (Grazing) and Recreation

Friday, January 24, 2020, 6:52 PM UTC

Answered: 9 Unanswered: 1

Q4 PART 1: This section seeks to identify important social, economic, and environmental issues associated with public lands within the county.

Do you or anyone in your household earn income from an industry or commercial service that is dependent (directly or indirectly) on public lands (federal or state)?



Answered: 10 Unanswered: 0

Choice		Total
	Yes	5
	No	5
	Unsure	0

Q5 PART 1: This section seeks to identify important social, economic, and environmental issues associated with public lands within the county.

If yes, what industry or commercial service?

Friday, March 6, 2020, 1:00 PM UTC

Agriculture

Wednesday, February 26, 2020, 8:13 PM UTC

Natural resources consulting and management services.

Wednesday, February 19, 2020, 2:56 PM UTC

State Lands and Outdoor Recreation

Wednesday, February 19, 2020, 2:05 AM UTC

Balanced recreation, too many trailers looks an RV park, not a forest.

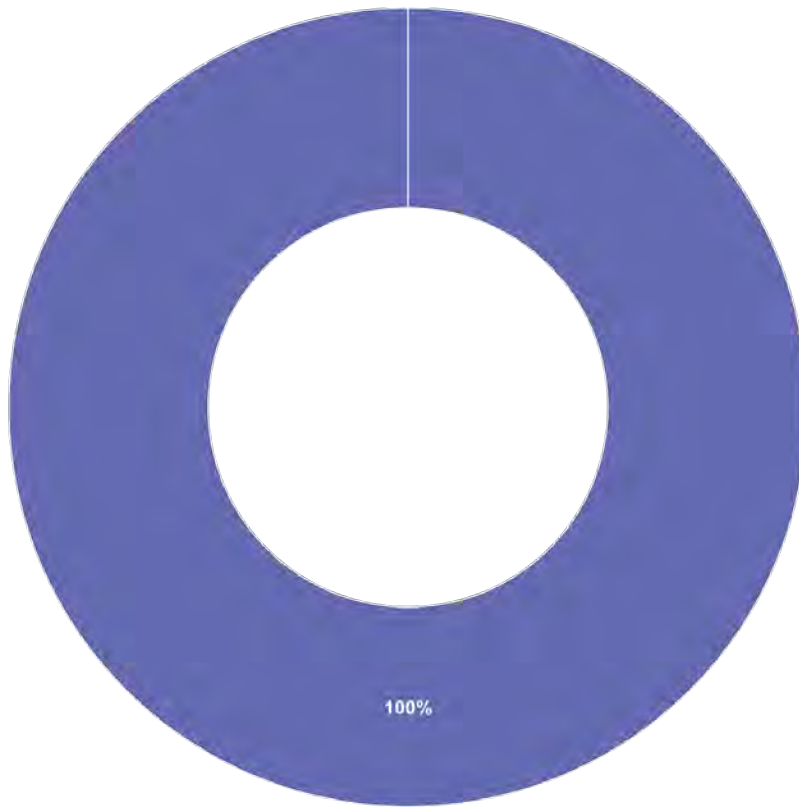
Friday, January 24, 2020, 11:52 PM UTC

Oil and Gas

Answered: 5 Unanswered: 5

Q6 PART 1: This section seeks to identify important social, economic, and environmental issues associated with public lands within the county.

Do you or anyone in your household use public lands in a recreational or other non-economic manner?



Answered: 10 Unanswered: 0

Choice		Total
	Yes	10
	No	0
	Unsure	0

Q7 PART 1: This section seeks to identify important social, economic, and environmental issues associated with public lands within the county.

If yes, please list those recreational or other non-economic uses.

Friday, March 6, 2020, 1:00 PM UTC

Everything but spelunking

Monday, March 2, 2020, 10:45 PM UTC

CAMPING, FISHING, HIKING, 4-WHEELER,

Thursday, February 27, 2020, 12:08 PM UTC

Hiking, fishing, Nordic, snowshoeing

Wednesday, February 26, 2020, 8:13 PM UTC

I think what you mean here is non-extractive or non-commercial use as opposed to non-economic? Hiking, biking, fishing, hunting, skiing (alpine and nordic) wildlife viewing/birding. These uses might fall into the category of conservation, which leads to multiple economic benefits, which can be direct or indirect.

Wednesday, February 19, 2020, 2:56 PM UTC

Hunting, fishing, hiking, 4x4, camping, sight seeing, exploring

Wednesday, February 19, 2020, 2:05 AM UTC

Biking, hiking, fishing, hunting, skiing, snowmobiling, atv, camping

Friday, January 31, 2020, 7:51 PM UTC

Hunting, fishing, camping, hiking, boating, biking, skiing, ATVing. Recreational use IS an economic use. In Wyoming outdoor recreation accounts for \$5 Billion in consumer spending, \$1.6 Billion in wages and salaries, and more than \$500 million is state and local tax revenue.

Friday, January 24, 2020, 11:52 PM UTC

Hunting, fishing, camping, UTV and site seeing

Friday, January 24, 2020, 6:52 PM UTC

Answered: 9 **Unanswered:** 1

Q8 PART 2: This section seeks to identify the custom and culture of the county.

In your opinion, what components describe the values and culture of the county?

Friday, March 6, 2020, 1:00 PM UTC

Do good today for tomorrow

Monday, March 2, 2020, 10:45 PM UTC

WIDE OPEN SPACES, CLOSE TO MOUNTAINS, LOW TAXES

Thursday, February 27, 2020, 12:08 PM UTC

This is one of gemstones of Wyoming

Wednesday, February 26, 2020, 8:13 PM UTC

Access to public lands. Open spaces and views, wildlife, multiple land uses.

Wednesday, February 19, 2020, 2:56 PM UTC

Helping keep public lands public and protecting the interests of the county landowners and private land owners

Wednesday, February 19, 2020, 2:05 AM UTC

It is tied to the land.

Friday, January 31, 2020, 7:51 PM UTC

We are outdoors people. We earn our living from the land (ranching, oil & gas, recreation & tourism). Our culture depends on our natural resources. Our values are small-town oriented and we care for one another.

Friday, January 24, 2020, 11:52 PM UTC

Using conservation but opening up the lands to all the public.

Friday, January 24, 2020, 6:52 PM UTC

Answered: 9 **Unanswered:** 1

Q9 PART 2: This section seeks to identify the custom and culture of the county.

In your opinion, what components of the values and culture influence or impede future development?

Friday, March 6, 2020, 1:00 PM UTC

It's about me and what I want for me

Monday, March 2, 2020, 10:45 PM UTC

LOW RESPECT FOR THE LAND BY OUT OF STATE PEOPLE LESSEN VALUES

Thursday, February 27, 2020, 12:08 PM UTC

Apathy

Wednesday, February 26, 2020, 8:13 PM UTC

Too much focus on one industry for short term gain can limit potential future uses for a particular area.

Wednesday, February 19, 2020, 2:56 PM UTC

As regulations grow freedoms die. TRUMP 2020

Wednesday, February 19, 2020, 2:05 AM UTC

Closed minds and local governments surrounded by an echo chamber.

Friday, January 31, 2020, 7:51 PM UTC

Resistance to change.

Friday, January 24, 2020, 11:52 PM UTC

Too many times scientific facts are not used to make decisions but instead small select groups opinions

Friday, January 24, 2020, 6:52 PM UTC

Answered: 9 Unanswered: 1

Q10 PART 2: This section seeks to identify the custom and culture of the county.

In your opinion, how have the values and culture influenced the economic stability or lack of stability within the county?

Friday, March 6, 2020, 1:00 PM UTC

Lack of respect for other uses has limited the right and ability to sustain good economic return

Monday, March 2, 2020, 10:45 PM UTC

WHAT STABILITY WE DO HAVE IS DUE TO THE STRONG AG PRESENCE. NEW AGE OF STOPPING ON LINE IS WHAT HAS CAUSED THE DOWN TOWN FAILURE, IN MY OPINION.

Thursday, February 27, 2020, 12:08 PM UTC

Stagnation

Wednesday, February 26, 2020, 8:13 PM UTC

The county has a diverse economy, which helps absorb the ups and downs of individual industries, but there has not been a comprehensive big picture/long term plan for how to prepare for the demographic shifts that are likely to come. Our population is aging and losing younger people which negatively influences our ability to look ahead. Innovative resource planning now can insure that we have the ability to grow steadily into the future while avoiding the boom-and-bust cycles that often come with extractive-based economies.

Wednesday, February 19, 2020, 2:05 AM UTC

Perceived values has locked in a hyper-focus on extraction and ranching. While energy can provide good jobs, so does the technology sector and other growing fields such as health care.

Friday, January 31, 2020, 7:51 PM UTC

Our dependence on natural resources and the land has lead to an over dependence on the energy sector.

Friday, January 24, 2020, 11:52 PM UTC

Too many times scientific facts are not used to make decisions but instead small select groups opinions

Friday, January 24, 2020, 6:52 PM UTC

Answered: 8 Unanswered: 2

Q11 PART 2: This section seeks to identify the custom and culture of the county.

In your opinion, how have the values and culture influenced the diversity of industries or lack of diversity of industries within the county?

Friday, March 6, 2020, 1:00 PM UTC

Transportation due to location within the Big Horn Basin and lack of willingness to allow success

Thursday, February 27, 2020, 12:08 PM UTC

Same

Wednesday, February 26, 2020, 8:13 PM UTC

With technological advances, more people are able to work from anywhere, which gives them the ability to select where they want to live based on the lifestyle benefits they find in a particular area. Washakie County has a great potential to draw people who are looking for a smaller population with access to multiple recreational opportunities nearby. As this happens we also stand to gain other services that are underrepresented in the county like the trades, service and retail businesses, etc.

Wednesday, February 19, 2020, 2:05 AM UTC

Lack of diversity, we are not positioned for the future.

Friday, January 31, 2020, 7:51 PM UTC

Our values and culture have had a tendency to resist change. However, since they are tied directly to our natural resources

Friday, January 24, 2020, 11:52 PM UTC

Too many times scientific facts are not used to make decisions but instead small select groups opinions

Friday, January 24, 2020, 6:52 PM UTC

Answered: 7 Unanswered: 3

Q12 Thank you for completing this survey. If there is anything else you would like to share regarding this process, please use the space below to do so. All information will be reviewed and considered for incorporation into the County Natural Resource Management Plan.

OPTIONAL: You may provide your name and affiliation, if desired. This information will be included in the compilation of this survey only if you choose to record below.

Thursday, February 27, 2020, 12:08 PM UTC

Daryl Stilwell

Wednesday, February 26, 2020, 8:13 PM UTC

CJ Grimes

President, Tensleep Nowood Trailbreakers

Member, Bighorn Basin Outdoor Recreation Collaborative

Friday, January 24, 2020, 6:52 PM UTC

Answered: 3 Unanswered: 7

Appendix C—WSA Proposals as Part of the Wyoming Public Lands Initiative

Bobcat Draw Proposal
(FINAL, AUGUST 1, 2018)

The Bobcat Draw Badlands WSA (WY-OIO-126) includes 17,150 acres of public land administered by the Bureau of Land Management (BLM). There are 1,390 acres of state-owned lands inholdings within the wilderness study area (see map). The WSA is located in Washakie and Big Horn County, approximately 25 miles west of Worland, Wyoming. The southern, western, and eastern boundary of the WSA follow primitive roads. The northeast boundary follows a road and then detours around a state-owned section, T. 49 N., R. 97 W., Section 36, and continues along a road to the southeast to a two-track trail which was used as a boundary to exclude an area lacking wilderness characteristics. A portion of the northern boundary is located along private land. The western portion of the WSA is dominated by broad, grass-covered benches or ridges that are separated by deep, wide drainages running into the Big Draw drainage to the north or the Fifteenmile drainage to the east. Bare, rugged desert pockets of colorful badland scenery and formations like hoodoos, spires, and mushrooms are predominant in the central and southern portions of the unit and offer interesting attractions to recreationists. Rich colors of orange, red, and purple are layered throughout the broken, eroded topography of this Willwood geologic formation. The flat, sandy drainage of Fifteenmile Creek, thickly vegetated with sagebrush and greasewood, extends along the northern fringe of the unit. The highly variable terrain and the rugged, colorful badland topography offer a unique and interesting wilderness and primitive recreation setting.

The Washakie County WPLI Group Reviewed the Bobcat Draw WSA Starting in March 2017. Over the course of the summer in 2017 the vast majority of the group took the time to visit Bobcat Draw in person and look at the WSA and the surrounding scenery. The group was unable to come to an agreement with the members from Bighorn County so the Washakie group chose to leave the Bighorn County portion of Bobcat Draw out of their Recommendation.

Wilderness Recommendation:

The Washakie County group has chosen to recommend approximately 5,000 acres of the most significant wilderness characteristics and visual resources in Bobcat draw as the Bobcat Wilderness. This areas is mapped below and essentially contains the following from the description above. "Bare, rugged desert pockets of colorful badland scenery and formations like hoodoos, spires, and mushrooms are predominant in the central and southern portions of the unit and offer interesting attractions to recreationists. Rich colors of orange, red, and purple are layered throughout the broken, eroded topography of this Willwood geologic formation." This area will fall under the wilderness act and will be subject to management of the Wilderness Act of 1964 . Grazing shall occur under the guidelines of House Report No. 101-405 1990 (H. R. 2570).

Release Recommendation:

The balance of the Bobcat Draw will be released to the regular BLM Resource Management Plan process and available for fluid mineral leasing with NSO stipulations on the entire remaining area.

Management Guidelines:

Recreation:

Within Bobcat Wilderness recreation will be limited to non-motorized non-mechanized travel in accordance with the Wilderness act. Outside of the portion of Bobcat Draw designated as Wilderness mechanized and motorized travel would be allowed but restricted to existing roads and trails. These routes would be designated in a travel management plan that the BLM would be required to develop for the Area. This travel management plan would include narrative depicting how travel regulations would be enforced. The Area will remain in VRM Class I within Bobcat Wilderness and with the balance of the Bobcat Draw to be released designated as VRM Class II.

Mining/Energy/Disposal:

Bobcat Wilderness would be withdrawn from mineral entry, oil and gas leasing, and disposal and energy development subject to existing rights.

The area released to the RMP process, except that portion east of the WHMA would have the following stipulations:

- Valid existing rights would be honored.
- All solid, locatable, and saleable minerals would be withdrawn from leasing.
- Fluid minerals would be available for leasing with a No Surface Occupancy (NSO) stipulation.

Agriculture:

Within Bobcat Wilderness livestock grazing and associated management would continue in accordance with the Wilderness Act.

In the non-wilderness area outside of Bobcat Wilderness livestock grazing shall occur on the rangeland and be managed in accordance with The Federal Land Policy and Management Act of 1976, Rangeland Improvement Act of 1978, Taylor Grazing Act of 1934 and Multiple Use Sustained Yield Act of 1960. Livestock grazing and associated management, including fence maintenance would continue and motorized access for water development and maintenance including reservoirs, guzzlers and potential water pipelines are allowed. Roads necessary for livestock production would continue to be used and maintained.

Conservation:

Within Bobcat Wilderness and in addition to the scenic value, the lack of motorized recreation and surface-disturbing activities is what sets these areas apart, providing the public a place to go to experience naturalness and solitude.

Many recreational activities can be pursued in these areas, including but not limited to:

- Backcountry hunting.
- Hiking and backpacking.
- Horseback riding
- Photography and sightseeing.
- Study of natural features (geology, wildlife, native flora, night sky)

Wildlife:

Within Bobcat Wilderness hunting and wildlife viewing would continue in accordance with the Wilderness Act. Improvements such as development of water resources will be allowed in the non-wilderness area.

Cedar Mountain Special Management Area Proposal

(FINAL, AUGUST 1, 2018)

This proposal considers the Cedar Mountain WSA with an aerial extent of 21,580 acres (map attached) located in Hot Springs and Washakie Counties, Wyoming. The boundary along the southwest side would be the boundary depicted in the BLM's 1991 recommendations for wilderness, which moves that boundary to the ridgeline avoiding conflicts with a road accessing agricultural lands on private property.

The Cedar Mountain WSA would be released from wilderness area consideration and would, be designated a **Special Management Area** (SMA); a designation that defines an area of concern to an agency (BLM) and directs them how to manage it. Designation is subject to valid existing rights and only affects Federally managed land; no effect on private land within or adjacent to the area.

Management Purposes

Management purposes of the **Cedar Mountain Special Management Area** are to maintain the area's recreational, scenic, cultural, ecological, wildlife and livestock production values. Management consistent with purposes and only uses consistent with the purposes are permitted.

Cedar Mountain Special Management Area Allowable Uses and Management:

Recreation:

Mechanized and motorized recreation would be allowed but restricted to existing roads and trails where these uses were permitted as of date of enactment. Routes would be designated in a travel management plan that the BLM would be required to develop for the Area. This travel management plan would include narrative depicting how travel regulations would be enforced. Due to the arid nature of the area, highly erodible soils and steep topography, construction of additional roads or trails for recreational purposes would not be allowed. Horse and foot travel would continue as allowed previous to enactment.

Mining/Energy/Disposal:

Valid existing rights would be honored.

All solid, locatable, and saleable minerals would be withdrawn from leasing.

Fluid minerals would be available for leasing with a No Surface Occupancy (NSO) stipulation within the **Cedar Mountain Special Management Area**.

Agriculture:

Livestock grazing is not a discretionary use and shall occur on rangeland within the SMA consistent with the purposes of the area and be managed in accordance with The Taylor Grazing Act 1934, The Federal Land Policy and Management Act of 1976, Rangeland Improvement Act of 1978 and Multiple Use Sustained Yield Act. Livestock management practices, including fence maintenance would continue and motorized access for water development and maintenance including reservoirs, guzzlers and potential water

pipelines are allowable where necessary to meet the purposes of the area. Roads necessary for agricultural practices would continue to be used and maintained. Noxious weed control as well as fire control would be allowed as would vegetation management if consistent with the Area's purposes and existing law.

Wildlife:

Hunting and wildlife viewing would continue. Habitat improvements such as development of water resources, elimination of woven wire fences and conversion of existing fences to wildlife friendly fences would be allowed consistent with the purposes of the area.

Other

The BLM, with public involvement including Wyoming State Parks and Historic Sites and Trails, would be required to conduct a study evaluating potential areas for development of mountain bike and ORV activities in (but not limited to) Hot Springs County.

REJECTED IN FAVOR OF SOFT RELEASE

Honeycombs Proposal

(FINAL, AUGUST 1, 2018)

The Honeycombs WSA (WY-010-221) is located in Washakie County, sixteen miles southeast of Worland (see map). The WSA contains 21,000 acres of BLM-administered lands, and 260 acres of split-estate lands (see table 1) with minerals held by the state of Wyoming. The WSA is bounded on the north and east by the BLM's Blue Bank improved dirt road and state and private land. The southern and western boundaries are two-track trails, one section of state land and Nowater Creek.

The Honeycombs WSA consists of sharply eroded, strongly dissected badlands and rolling to steep hills. Elevations in the unit range from 5,000 feet to 4,400 feet where the western boundary crosses the East Fork of Nowater Creek. Sagebrush and grasses are the most common vegetation. Drainages exhibit substantially more greasewood and scattered rabbitbrush, leaving most hillsides and ridge tops sparsely vegetated.

Recommendation Summary:

The Washakie WPLI committee has identified approximately 10,000 acres to be referred to as Honeycombs (see map) within the boundary of the Honeycombs WSA. The management of Honeycombs shall consider the highly erodible soils and preserve the scenic rock formations when making management decisions on a case by case basis. The balance of Honeycombs WSA will be soft-released to the regular BLM Resource Management Plan process. This proposal recognizes the economic benefits of recreation opportunity to Washakie County and to the Town of Ten Sleep, which is approximately 16 miles to the northeast and easily accessible via improved gravel roads.

The Honeycombs shall be managed for the following purposes:

- Protection of unique scenic geologic formations and erodible soils;
- Non-motorized recreation and hunting, including mountain biking;
- Opportunities for the public to experience naturalness and solitude;
- Protection of existing grazing permits and range improvements under existing laws.

Recreation Management Direction:

- ICE (Internal Combustion Engine) motorized travel shall be prohibited.
- Mechanized travel shall be allowed, subject to a travel management plan that the BLM would be required to develop for the Area.
- Teepee Pole road shall be reestablished for non-motorized travel.
- Other improvements to non-motorized recreation opportunities subject to normal agency review processes.

Mining/Energy/Disposal Management Direction:

- Valid existing rights will be honored.
- All solid, locatable, and saleable minerals will be withdrawn from leasing.
- Fluid minerals will be available for leasing with a No Surface Occupancy (NSO) stipulation.

Agriculture Management Direction:

- Livestock grazing shall occur on the rangeland within the boundary of the entire Honeycombs. Grazing shall be managed in accordance with The Federal Land Policy and Management Act of 1976, Rangeland Improvement Act of 1978, Taylor Grazing Act of 1934 and Multiple Use Sustained Yield Act of 1960.
- Livestock grazing and associated management, including fence maintenance, shall continue and motorized access for water development and maintenance including reservoirs, guzzlers, and potential water pipelines are allowed.
- Roads necessary for agricultural practices shall continue to be used and maintained.

Conservation and Wildlife Direction:

- Protection of scenic rock formations.
- Opportunities for the public to experience naturalness and solitude.

Area Outside of Honeycombs shall be soft-released to the RMP with this direction:

Recreation Management:

- Motorized and mechanized travel will be allowed and managed under the current RMP.
- Other improvements to non-motorized recreation opportunities subject to normal agency review processes.

Mining/Energy/Disposal Management:

- The area will be available for mineral entry and disposal, oil and gas leasing, and energy development per the RMP.

Agriculture Management:

- Livestock grazing shall occur on the rangeland within the boundary of the entire Honeycombs. Grazing shall be managed in accordance with The Federal Land Policy and Management Act of 1976, Rangeland Improvement Act of 1978, Taylor Grazing Act of 1934 and Multiple Use Sustained Yield Act of 1960.

- Livestock grazing and associated management, including fence maintenance, shall continue and motorized access for water development and maintenance including reservoirs, guzzlers, and potential water pipelines are allowed.
- Existing roads necessary for agricultural practices shall continue to be used and maintained.

Appendix D—Socioeconomic Profile



A Profile of Socioeconomic Measures

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

Socioeconomic Measures

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Socioeconomic Measures

Washakie County, WY

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Socioeconomic Measures

Washakie County, WY

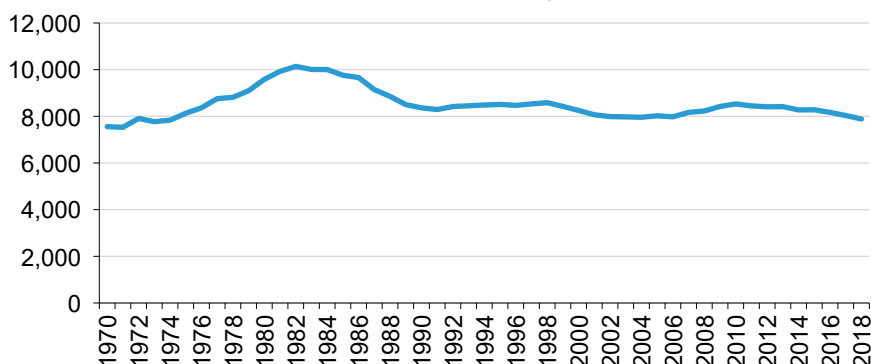
Overview of Historical Trends

	1970	2000	2018	Change 2000-2018
Population	7,557	8,252	7,885	-367
Employment (full & part-time jobs)	3,562	5,303	5,320	17
Personal Income (thousands of 2019 \$s)	179,840	323,255	386,770	63,515

Population and personal income are reported by place of residence, and employment by place of work on this page.

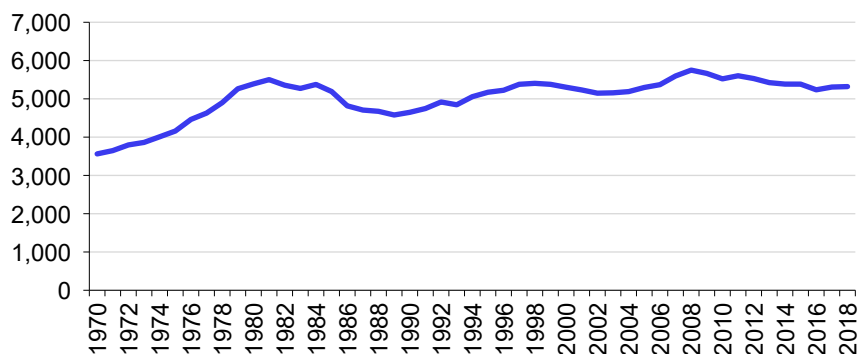
- From 1970 to 2018, population grew from 7,557 to 7,885 people, a 4% increase.

Population Trends, Washakie County, WY



- From 1970 to 2018, employment grew from 3,562 to 5,320, a 49% increase.

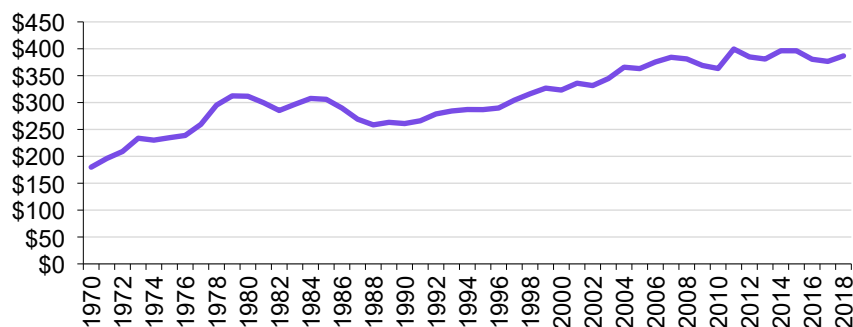
Employment Trends, Washakie County, WY



- From 1970 to 2018, personal income grew from \$179.8 million to \$386.8 million, (in real terms), a 115% increase.

Millions of 2019\$

Personal Income Trends, Washakie County, WY



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

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Data and Graphics | Part 4

Socioeconomic Measures

Washakie County, WY

Overview of Historical Trends

What do we measure on this page?

This page describes trends in population, employment, and real personal income. If this report is for an individual county, it also shows the county classification (metropolitan, micropolitan, or rural).¹

Population: The total number of people by place of residence.

Employment: All full- and part-time workers, wage and salary jobs (employees), and proprietors (the self-employed) reported by place of work.

Personal Income: Income from wage and salary employment and proprietors' income (labor earnings), as well as non-labor income (dividends, interest, rent, and transfer payments) reported by place of residence. All income figures in this report are shown in real terms (i.e., adjusted for inflation). Subsequent sections of this report define labor earnings and non-labor income in more detail.

Metropolitan Statistical Areas: Counties that have at least one urbanized area of 50,000 or more people, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties. Metropolitan Statistical Areas are classified as either Central or Outlying.

Micropolitan Statistical Areas: Counties that have at least one urbanized area of 10,000 to 50,000 people, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties. Micropolitan Statistical Areas are classified as either Central or Outlying.

Rural: Counties that are not designated as either Metropolitan or Micropolitan.

Why is it important?

Long-term, steady growth of population, employment, and real personal income is generally an indication of a healthy, prosperous economy. Erratic growth, no-growth, or long-term decline in these indicators are generally an indication of a struggling economy.

Growth can benefit the general population of a place, especially by providing economic opportunities, but it can also stress communities and lead to income stratification. When considering the benefits of growth, it is important to distinguish between standard of living (such as earnings per job and per capita income) and quality of life (such as leisure time, crime rate, and sense of well-being).

A related indicator of economic performance is whether the local economy is negatively affected by periods of national recession. This issue is explored in depth in the section "Employment During National Recessions" later in this report.

The size of a population and economy (metropolitan, micropolitan, or rural) can have an important bearing on economic activities as well as opportunities and challenges for area businesses.

Socioeconomic Measures

Washakie County, WY

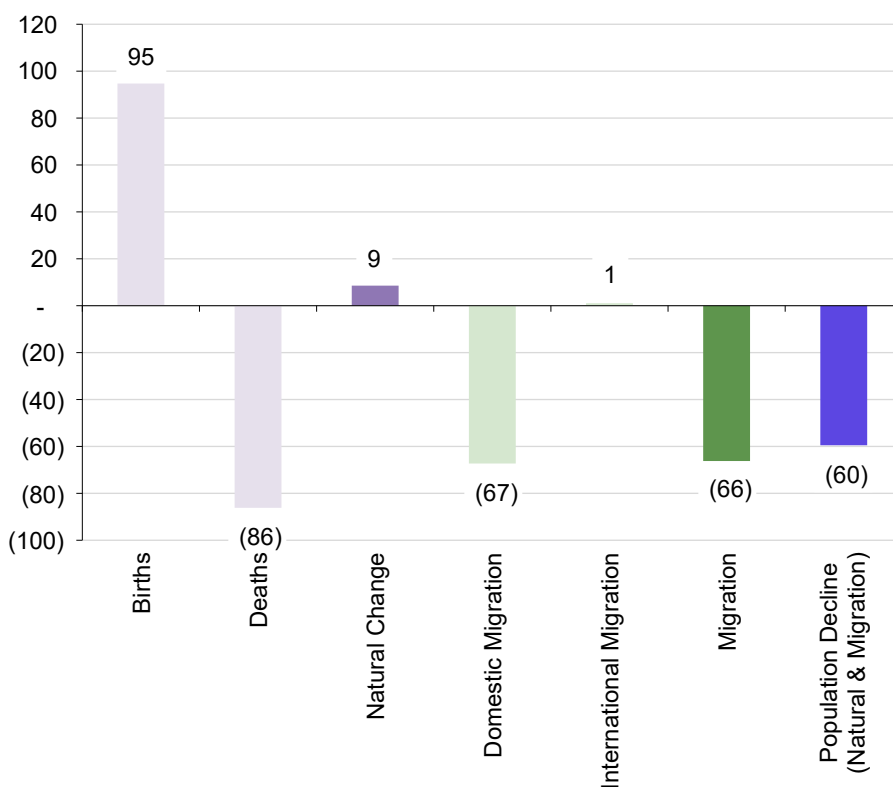
Population

	Change 2000-2019
Population Decline, 2000-2019	-452
Average Annual Population Change	-60
From Natural Change	9
Births	95
Deaths	86
From Net Migration	-66
International Migration	1
Domestic Migration	-67
From Residual	-2

Percent of Average Annual Population Decline, 2000-2019

Natural Change	11.2%
Net Migration	86.4%
Residual	2.4%

Average Annual Components of Population Change, Washakie County, WY, 2000-2019



- From 2000 to 2019, population shrank by 452 people, a 5% decrease.
- From 2000 to 2019, natural change contributed to 11% of population decline.
- From 2000 to 2019, migration contributed to 86% of population decline.

* The Census Bureau makes a minor statistical correction, called a "residual" which is shown in the table above, but omitted from the figure. Because of this correction, natural change plus net migration may not add to total population change in the figure.

Data Sources: U.S. Department of Commerce. 2020. Census Bureau, Population Division, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

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Data and Graphics | Part 6

Socioeconomic Measures

Washakie County, WY

Population

What do we measure on this page?

This page describes components of population change and total population growth or decline. Total population growth (or decline) is the sum of natural change (births and deaths) and migration (international and domestic). Data are from the U.S. Census Bureau.^{2,3}

The U.S. Census Bureau makes a minor statistical correction called a "residual." This is defined by the U.S. Census Bureau as resulting from two parts of the estimates process: 1) the application of national population controls to state and county population estimates; and 2) "the incorporation of accepted challenges and special censuses into the population estimates." The residual represents change in the population that cannot be attributed to any specific demographic component of population change.

For more detailed information about demographics for a given area, create an EPS Demographics report at <https://headwaterseconomics.org/eps>.

Why is it important?

The components of population change offer insight into the causes of population growth or decline and they help highlight important areas of inquiry. For example, if a large portion of population growth is attributable to in-migration, it would be helpful to understand what is driving this trend, such as whether people are moving to the area for jobs, quality of life, or both. Similarly, if a large portion of population decline is attributable to out-migration, it would be important to understand the reasons, such as the loss of employment in specific industries, youth leaving for education or new opportunities, or elderly people leaving for better medical facilities.

Socioeconomic Measures

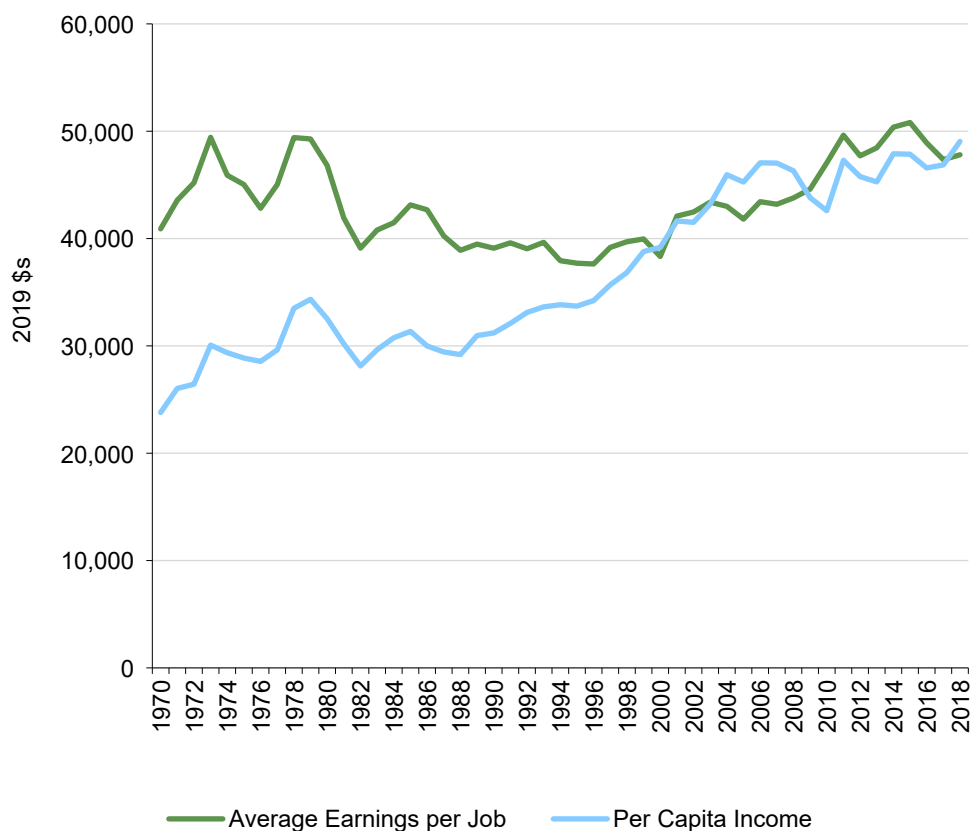
Washakie County, WY

Earnings Per Job and Per Capita Income

	1970	2000	2018	Change 2000-2018
Average Earnings per Job (2019 \$s)	\$40,906	\$38,334	\$47,804	\$9,470
Per Capita Income (2019 \$s)	\$23,798	\$39,173	\$49,051	\$9,878
				Percent Change 2000-2018
Average Earnings per Job				24.7%
Per Capita Income				25.2%

Average Earnings per Job & Per Capita Income, Washakie County, WY

- From 1970 to 2018, average earnings per job grew from \$40,906 to \$47,804 (in real terms), a 17% increase.
- From 1970 to 2018, per capita income grew from \$23,798 to \$49,051 (in real terms), a 106% increase.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

Earnings Per Job and Per Capita Income

What do we measure on this page?

This page describes how average earnings per job and per capita income (in real terms) have changed over time.

Average Earnings per Job: The compensation of the average job. It is total earnings divided by total employment. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included.

Per Capita Income: Income per person. It is total personal income (from labor and non-labor sources) divided by total population.

Why is it important?

Average earnings per job is an indicator of the quality of local employment. A higher average earnings per job indicates that there are relatively more high-wage occupations. It can be useful to consider earnings against local cost of living indicators.⁴

Average earnings per job may decline for a number of reasons:^{5, 6}

1. more part-time and/or seasonal workers entering the workforce;
2. a rise in low-wage industries, such as tourism-related sectors;
3. a decline of high-wage industries, such as manufacturing;
4. more lower-paid workers entering the workforce;
5. the presence of a university that is increasing its enrollment of relatively low-wage students;
6. the in-migration of semi-retired workers who work part-time and/or seasonally; and
7. an influx of people who move to an area for quality of life rather than profit-maximizing reasons.

Per capita income is one of the most important measures of economic well-being. However, this measure can be misleading. Per capita income is total personal income divided by population. Because total personal income includes non-labor income sources (dividends, interest, rent and transfer payments), it is possible for per capita income to be relatively high due to the presence of retirees and people with investment income.⁷ And because per capita income is calculated using total population and not the labor force (as in average earnings per job), it is possible for per capita income to be relatively low in a population with a disproportionate number of children and/or elderly people.

Socioeconomic Measures

Washakie County, WY

Labor Earnings and Non-Labor Income

	1970	2000	2018	Change 2000-2018
Personal Income (thous' of 2019 \$s)	179,840	323,255	386,770	63,515
Labor Earnings	135,398	174,116	216,645	42,529
Non-Labor Income	44,442	149,139	170,125	20,986
Dividends, Interest, and Rent	30,698	99,499	92,235	-7,264
Age-Related Transfer Payments	8,399	34,306	54,677	20,371
Hardship-Related Payments	1,790	8,877	12,805	3,928
Other Transfer Payments	3,554	6,455	10,408	3,953

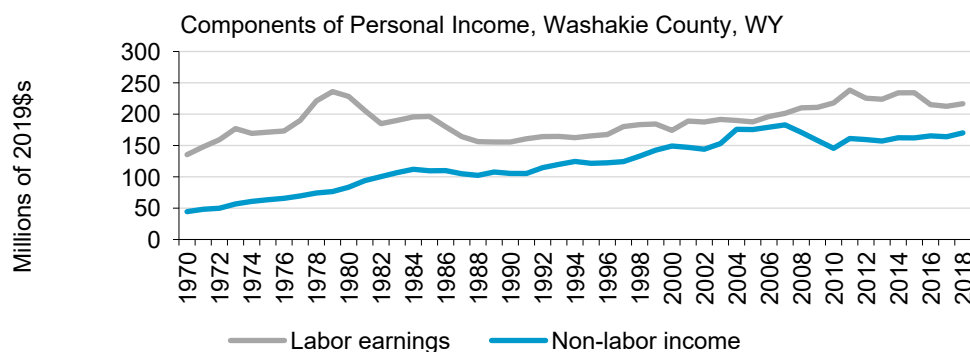
Percent of Total

Percent Change
2000-2018

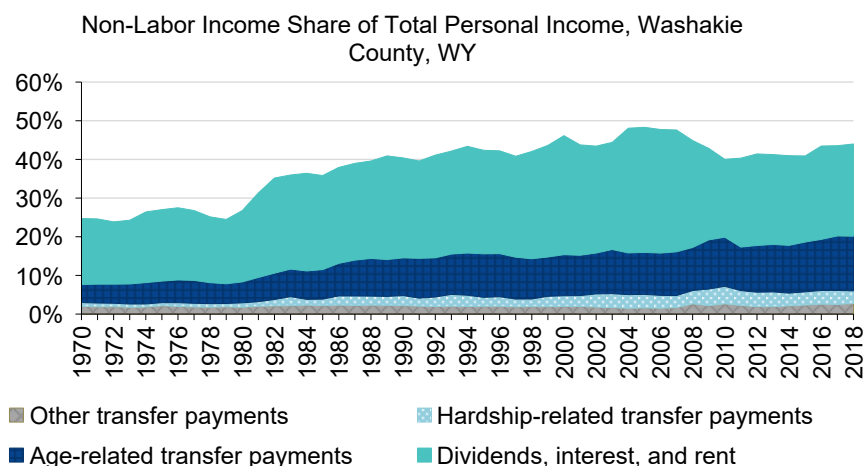
Personal Income				19.6%
Labor Earnings	75.3%	53.9%	56.0%	24.4%
Non-Labor Income	24.7%	46.1%	44.0%	14.1%
Dividends, Interest, and Rent	17.1%	30.8%	23.8%	-7.3%
Age-Related Transfer Payments	4.7%	10.6%	14.1%	59.4%
Hardship-Related Payments	1.0%	2.7%	3.3%	44.2%
Other Transfer Payments	2.0%	2.0%	2.7%	61.2%

All income data in the table above are reported by place of residence and are displayed in thousands of 2019 dollars. Labor earnings and non-labor income may not add to total personal income due to adjustments made by the Bureau of Economic Analysis.

- From 1970 to 2018, labor earnings grew from \$135.4 million to \$216.6 million (in real terms), a 60% increase.
- From 1970 to 2018, non-labor income grew from \$44.4 million to \$170.1 million (in real terms), a 283% increase.



- From 1970 to 2018, labor earnings accounted for 39% of growth and non-labor income for 61%.
- In 1970, non-labor income represented 25% of total personal income. By 2018 non-labor income represented 44% of total personal income.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Part 10

Socioeconomic Measures

Washakie County, WY

Labor Earnings and Non-Labor Income

What do we measure on this page?

This page describes changes in labor earnings and non-labor sources of income.

Labor Earnings: Net earnings by place of residence, which is earnings by place of work (the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income) less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place of residence basis.

Non-Labor Income: Dividends, interest, rent, and transfer payments (includes government retirement and disability insurance benefits, medical payments such as mainly Medicare and Medicaid, income maintenance benefits, unemployment insurance benefits, etc.). Non-labor income is reported by place of residence.

Labor earnings and non-labor income may not add to total personal income because of adjustments made by the Bureau of Economic Analysis to account for contributions for Social Security, cross-county commuting, and other factors.

Dividends, Interest, and Rent: Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustments. Dividends, interest, and rent are sometimes referred to as "investment income" or "property income."

Age-Related Transfer Payments: Payments, including Social Security and Medicare, associated with older populations.

Hardship-Related Transfer Payments: Payments associated with poverty and welfare, including Medicaid and income maintenance.

Other Transfer Payments: Payments from veteran's benefits, education and training, Workers Compensation insurance, railroad retirement and disability, other government retirement and disability, and other receipts of individuals and nonprofits.

The EPS Non-Labor report provides a more detailed analysis of non-labor income and its components. The EPS Demographics report provides more information about the aging of the population and poverty. See <https://headwaterseconomics.org/eps>.

Why is it important?

In many locations, non-labor income is the largest source of personal income and also the fastest growing.⁸ This is particularly the case in some rural areas and small cities. An aging population, growth in the stock market and investments, and a highly mobile population are some of the reasons behind the rapid growth in non-labor income.

Growth in non-labor income can indicate an attractive place to live and retire. The in-migration of people who bring investment and retirement income with them (verify from previous pages that in-migration is increasing) is associated with a high quality of life (for example, local recreation opportunities), good health care facilities, and affordable housing (important for those on a fixed income). Non-labor income can also be important to places with struggling economies, either as a source of income maintenance for the poor or as a more stable form of income in areas with declining industries and labor markets.

Socioeconomic Measures

Washakie County, WY

Employment by Industry (1970-2000)

	1970	1990	2000	Change 1990-2000
Total Employment (number of jobs)	3,562	4,648	5,303	655
Non-Services Related	1,220	1,375	1,530	155
Farm	469	358	305	-53
Agricultural services, forestry, fishing & oth	110	123	131	8
Mining (including fossil fuels)	111	191	212	21
Construction	169	222	342	120
Manufacturing (incl. forest products)	361	481	540	59
Services Related	1,658	2,319	2,938	619
Transportation & public utilities	232	265	349	84
Wholesale trade	110	204	117	-87
Retail trade	595	712	828	116
Finance, insurance & real estate	167	297	341	44
Services	554	841	1,303	462
Government	684	954	835	-119

Percent of Total

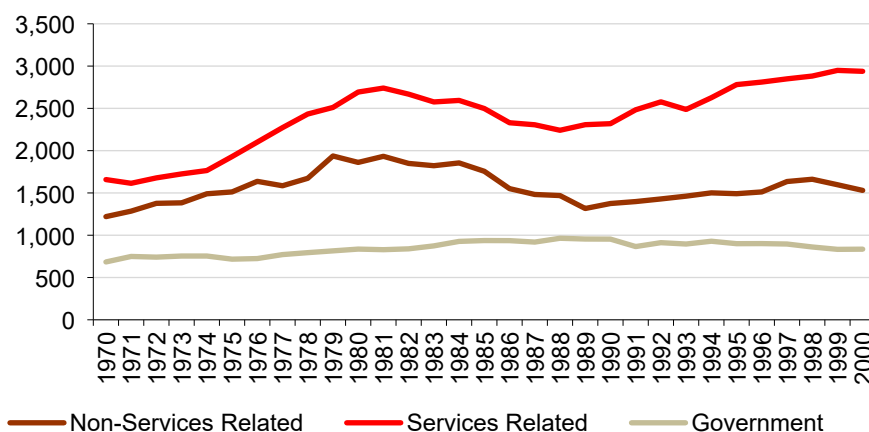
Percent Change
1990-2000

Total Employment				14.1%
Non-Services Related	34.3%	29.6%	28.9%	11.3%
Farm	13.2%	7.7%	5.8%	-14.8%
Agricultural services, forestry, fishing & oth	3.1%	2.6%	2.5%	6.5%
Mining (including fossil fuels)	3.1%	4.1%	4.0%	11.0%
Construction	4.7%	4.8%	6.4%	54.1%
Manufacturing (incl. forest products)	10.1%	10.3%	10.2%	12.3%
Services Related	46.5%	49.9%	55.4%	26.7%
Transportation & public utilities	6.5%	5.7%	6.6%	31.7%
Wholesale trade	3.1%	4.4%	2.2%	-42.6%
Retail trade	16.7%	15.3%	15.6%	16.3%
Finance, insurance & real estate	4.7%	6.4%	6.4%	14.8%
Services	15.6%	18.1%	24.6%	54.9%
Government	19.2%	20.5%	15.7%	-12.5%

All employment data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~).

- From 1970 to 2000, jobs in non-services related industries grew from 1,220 to 1,530, a 25% increase.
- From 1970 to 2000, jobs in services related industries grew from 1,658 to 2,938, a 77% increase.
- From 1970 to 2000, jobs in government grew from 684 to 835, a 22% increase.

Employment by Major Industry Category, Washakie County, WY



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

Employment by Industry (1970-2000)

What do we measure on this page?

This page describes historical employment change by industry. Industries are organized according to three major categories: non-services related, services related, and government. Employment includes wage and salary jobs and proprietors. The employment data are organized according to the Standard Industrial Classification (SIC) system and reported by place of work.

Non-Services Related: Employment in industries such as farming, mining, and manufacturing.

Services Related: Employment in industries such as retail trade, finance, insurance and real estate, and services.

The terms “non-services related” and “services related” are not terms used by the U.S. Department of Commerce. They are used in these pages to help organize the information into easy-to-understand categories.

Government: Federal, military, state, and local government employment, and government enterprise.

The SIC data end in 2000 because in 2001 the Bureau of Economic Analysis switched to organizing industry-level information according to the newer North American Industrial Classification System (NAICS). More recent employment trends, organized by NAICS, are shown in subsequent pages of this report.

It is not normally appropriate to put SIC and NAICS data in the same tables and graphs because of the difference in methods used to organize industry data. The SIC coding system organizes industries by the primary activity of the establishment. In NAICS, industries are organized according to the production process.⁹ See the Data Sources and Methods section of this report for more information on the shift from SIC to NAICS.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps.¹⁰ These values are indicated with tildes (~).

Why is it important?

Understanding which industries are responsible for most jobs and which sectors are growing or declining is key to grasping the type of economy that exists, how it has changed over time, and evolving competitive strengths.^{11,12} Most new jobs created in the U.S. economy in the last 30 years have been in services-related sectors, a category that includes a wide variety of high- and low-wage occupations ranging from jobs in hotels and amusement parks to legal, health, business, and educational services. The section in this report titled “Wages by Industry” shows the difference in wages among various services related industries and compared to non-services related sectors.

In many small rural communities, government employment (e.g., the Forest Service and Bureau of Land Management) represents an important component of the economy. In others there have been important changes in employment in mining and fossil fuel energy development, manufacturing (which includes lumber and wood products), and construction.^{13,14}

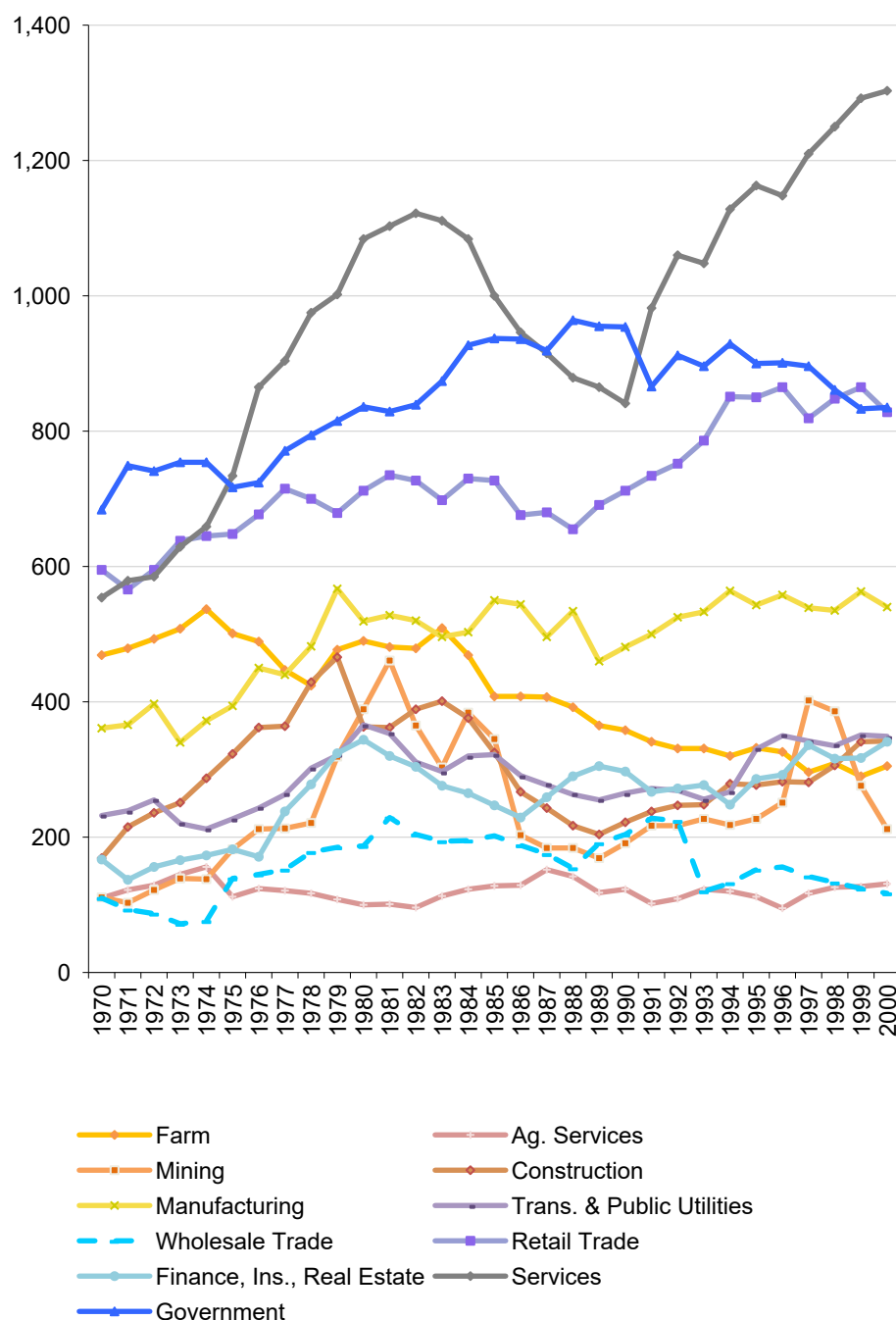
Socioeconomic Measures

Washakie County, WY

Employment by Industry (1970-2000)

Employment by Industry, Washakie County, WY

- In 2000 the three industry sectors with the largest number of jobs were services (1,303 jobs), government (835 jobs), and retail trade (828 jobs).
- From 1970 to 2000, the three industry sectors that added the most new jobs were services (749 new jobs), retail trade (233 new jobs), and finance, insurance & real estate (174 new jobs).



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

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Socioeconomic Measures

Washakie County, WY

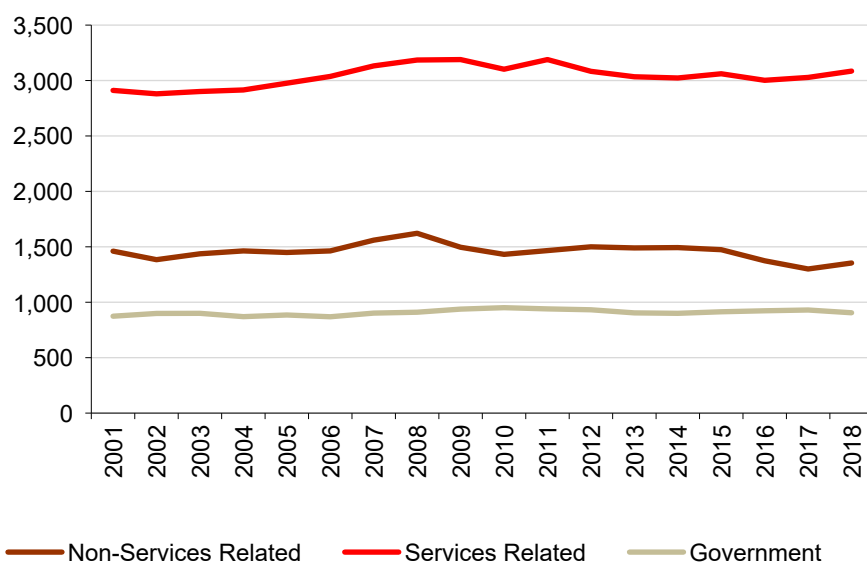
Employment by Industry (since 2000)

	2001	2010	2018	Change 2010-2018
Total Employment (number of jobs)	5,232	5,522	5,320	-202
Non-services related	1,461	~1,432	~1,354	-~78
Farm	287	279	313	34
Forestry, fishing, & ag. services	76	~80	~83	~3
Mining (including fossil fuels)	175	195	122	-73
Construction	384	395	353	-42
Manufacturing	539	483	483	0
Services related	~2,911	~3,102	~3,085	-~17
Utilities	na	46	49	3
Wholesale trade	~126	128	155	27
Retail trade	500	492	436	-56
Transportation and warehousing	181	183	205	22
Information	95	90	89	-1
Finance and insurance	183	184	171	-13
Real estate and rental and leasing	190	263	293	30
Professional and technical services	184	229	166	-63
Management of companies	11	~16	~21	~5
Administrative and waste services	125	~132	~136	~4
Educational services	~32	37	~46	~9
Health care and social assistance	~567	630	~596	-~34
Arts, entertainment, and recreation	69	71	91	20
Accommodation and food services	327	323	355	32
Other services, except public admin.	321	278	276	-2
Government	874	951	905	-46

All employment data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~).

Employment by Major Industry Category, Washakie County, WY

- From 2001 to 2018, jobs in non-services related industries shrank from 1,461 to 1,354, a 7% decrease.
- From 2001 to 2018, jobs in services related industries grew from 2,911 to 3,085, a 6% increase.
- From 2001 to 2018, jobs in government grew from 874 to 905, a 4% increase.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

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Data and Graphics | Part 16

Socioeconomic Measures

Washakie County, WY

Employment by Industry (since 2000)

What do we measure on this page?

This page describes recent employment change by industry. Industries are organized according to three major categories: non-services related, services related, and government. Employment includes wage and salary jobs and proprietors. The employment data are organized according to the North American Industrial Classification System (NAICS) and reported by place of work.

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Why is it important?

Recent employment trends organized by NAICS offer more detail than the previous SIC system, particularly with regard to services-related industries. This is especially useful since in many places the majority of new job growth in recent years has been in services-related industries.

The services-related sector encompasses a wide variety of high- and low-wage occupations ranging from jobs in accommodation and food services to professional and technical services. The section in this report titled “Wages by Industry” shows the difference in wages among various services related industries and compared to non-services related sectors.

Socioeconomic Measures

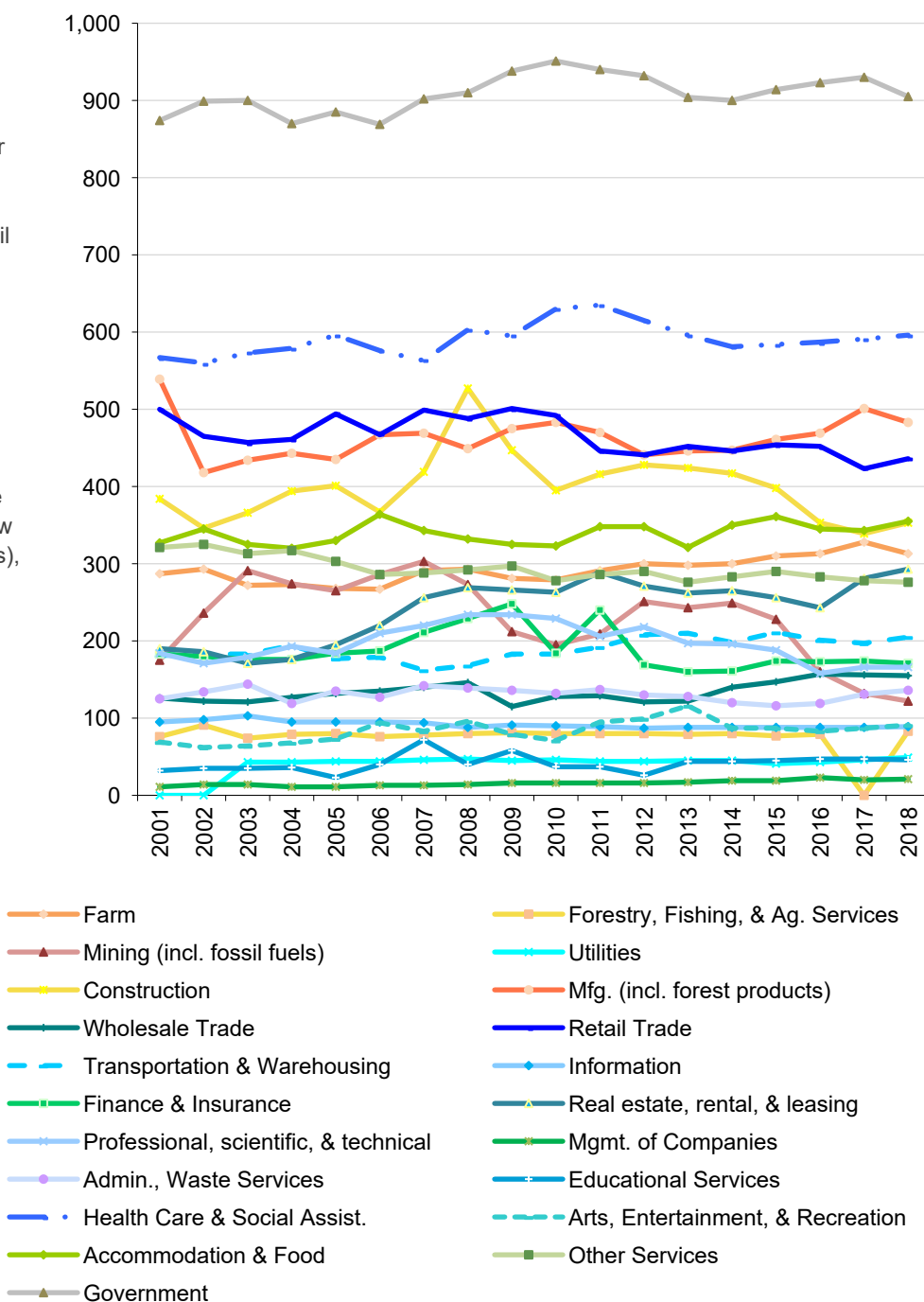
Washakie County, WY

Employment by Industry (since 2000)

Employment by Industry, Washakie County, WY

- In 2018 the three industry sectors with the largest number of jobs were government (905 jobs), health care and social assistance (596 jobs), and retail trade (436 jobs).

- From 2001 to 2018, the three industry sectors that added the most new jobs were real estate and rental and leasing (103 new jobs), government (31 new jobs), and wholesale trade (29 new jobs).



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

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Socioeconomic Measures

Washakie County, WY

Earnings by Industry (1970-2000)

Labor earnings in thousands of 2019 \$s

	1970	1990	2000	Change 1990-2000
Labor Earnings	\$145,706	\$181,737	\$203,286	\$21,549
Non-Services Related	\$56,987	\$66,428	\$67,918	\$1,490
Farm	\$20,444	\$11,196	\$7,306	-\$3,890
Agricultural services, forestry, fishing	\$2,758	\$1,949	\$1,789	-\$160
Mining (including fossil fuels)	\$6,832	\$14,090	\$11,212	-\$2,878
Construction	\$11,150	\$9,384	\$15,154	\$5,770
Manufacturing (incl. forest products)	\$15,803	\$29,809	\$32,456	\$2,647
Services Related	\$56,388	\$69,270	\$92,155	\$22,885
Transportation & public utilities	\$10,972	\$15,214	\$24,780	\$9,566
Wholesale trade	\$4,463	\$10,405	\$4,361	-\$6,044
Retail trade	\$16,876	\$16,554	\$15,254	-\$1,300
Finance, insurance & real estate	\$3,725	\$5,546	\$7,991	\$2,445
Services	\$20,352	\$21,550	\$39,768	\$18,218
Government	\$32,331	\$46,038	\$43,214	-\$2,824

Percent of Total*

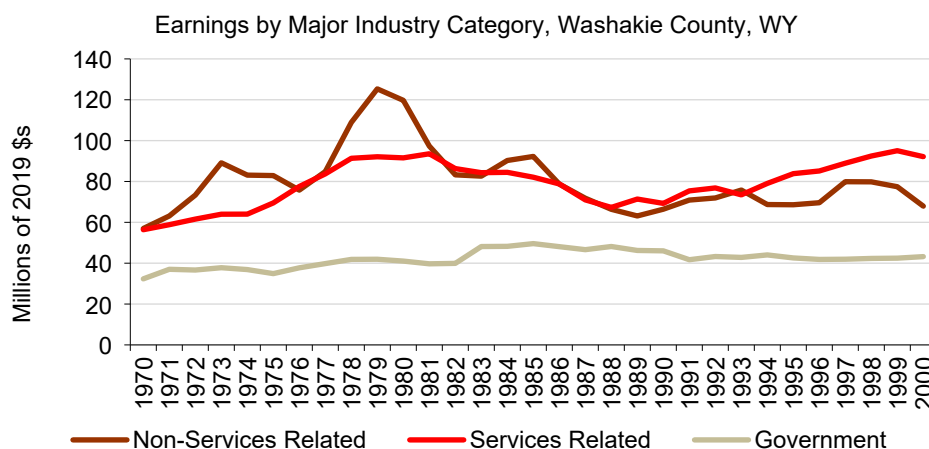
Percent Change
1990-2000

Labor Earnings				11.9%
Non-Services Related	39.1%	36.6%	33.4%	2.2%
Farm	14.0%	6.2%	3.6%	-34.7%
Agricultural services, forestry, fishing	1.9%	1.1%	0.9%	-8.2%
Mining (including fossil fuels)	4.7%	7.8%	5.5%	-20.4%
Construction	7.7%	5.2%	7.5%	61.5%
Manufacturing (incl. forest products)	10.8%	16.4%	16.0%	8.9%
Services Related	38.7%	38.1%	45.3%	33.0%
Transportation & public utilities	7.5%	8.4%	12.2%	62.9%
Wholesale trade	3.1%	5.7%	2.1%	-58.1%
Retail trade	11.6%	9.1%	7.5%	-7.9%
Finance, insurance & real estate	2.6%	3.1%	3.9%	44.1%
Services	14.0%	11.9%	19.6%	84.5%
Government	22.2%	25.3%	21.3%	-6.1%

All earnings data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~).

* Total is considered to be the sum of all reported or estimated income with positive values from the earnings by industry table.

- From 1970 to 2000, earnings from non-services grew from \$57.0M to \$67.9M (in real terms), a 19% increase.
- From 1970 to 2000, earnings from services grew from \$56.4M to \$92.2M (in real terms), a 63% increase.
- From 1970 to 2000, earnings from government grew from \$32.3M to \$43.2M (in real terms), a 34% increase.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

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Data and Graphics | Part 20

Socioeconomic Measures

Washakie County, WY

Employment by Industry (1970-2000)

What do we measure on this page?

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Why is it important?

Historical changes in labor earnings by industry show how the structure of the local economy has changed over time. Some of the trends are caused by national and international circumstances while other trends may reflect local conditions. The shifting sources of labor earnings can point to evolving weaknesses and strengths in the local or regional economy.

Most new jobs created in the U.S. economy in the last several decades have been in services-related sectors, a category that includes a wide variety of high- and low-wage occupations ranging from jobs in hotels and amusement parks to legal, health, business, and educational services. The section in this report titled “Wages by Industry” shows the difference in wages among various services related industries and compared to non-services related sectors.

In many communities there have been important changes in employment in non-services, particularly mining and fossil fuel energy development, manufacturing (which includes lumber and wood products), and construction.¹³

In rural communities, government employment (e.g., the Forest Service and Bureau of Land Management) often represents an important component of the economy.

Socioeconomic Measures

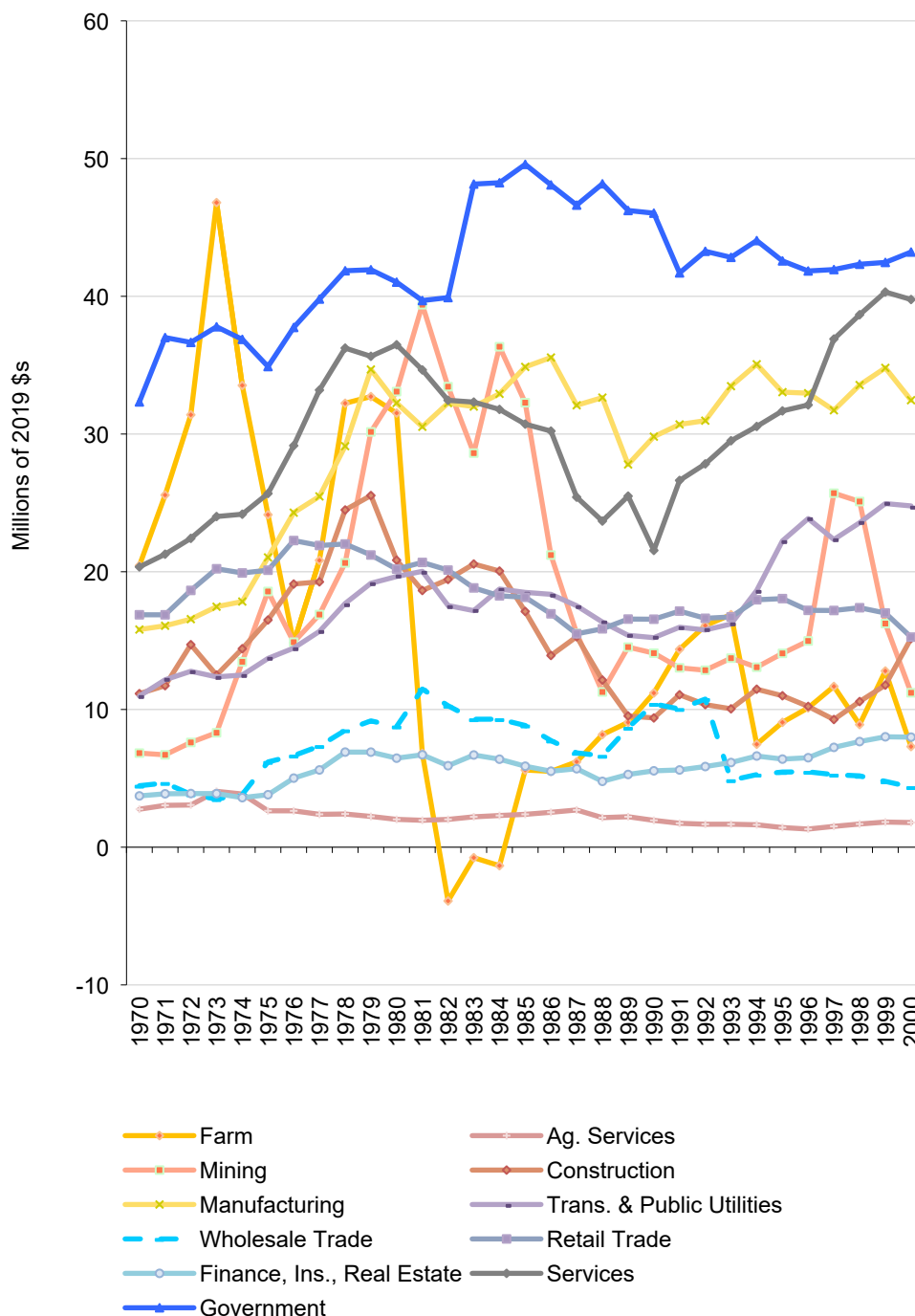
Washakie County, WY

Earnings by Industry (1970-2000)

Earnings by Industry, Washakie County, WY

- In 2000 the three industry sectors with the largest earnings were government (\$43.2 million), services (\$39.8 million), and transportation & public utilities (\$24.8 million).

- From 1970 to 2000, the three industry sectors that added the most earnings were services (\$19.4 million), transportation & public utilities (\$13.8 million), and government (\$10.9 million).



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

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Socioeconomic Measures

Washakie County, WY

Earnings by Industry (1970-2000)

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Socioeconomic Measures

Washakie County, WY

Earnings by Industry (since 2000)

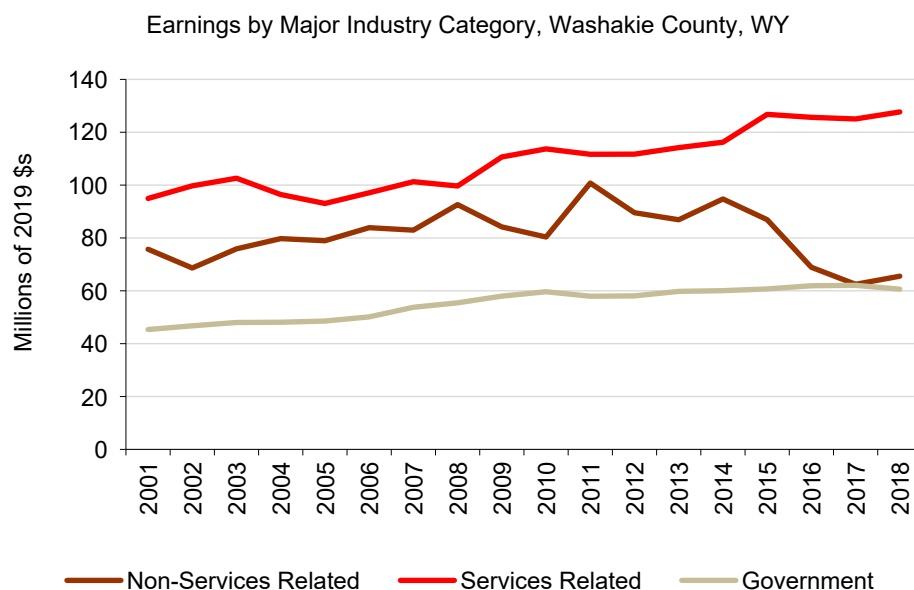
Labor earnings in thousands of 2019 \$s

	2001	2010	2018	Change 2010-2018
Labor Earnings	\$220,214	\$259,824	\$254,320	-\$5,504
Non-services related	\$75,731	~\$80,359	~\$65,531	~-\$14,828
Farm	\$10,686	\$9,668	\$8,295	-\$1,373
Forestry, fishing, & ag. services	\$1,596	~\$1,854	~\$1,567	~-\$287
Mining (including fossil fuels)	\$8,895	\$16,631	\$5,755	-\$10,876
Construction	\$18,277	\$20,038	\$17,984	-\$2,054
Manufacturing	\$36,278	\$32,169	\$31,931	-\$238
Services related	~\$94,947	~\$113,697	~\$127,680	~\$13,983
Utilities	na	\$4,924	\$5,378	\$454
Wholesale trade	~\$4,004	\$5,793	\$8,216	\$2,423
Retail trade	\$13,790	\$15,697	\$12,371	-\$3,326
Transportation and warehousing	\$11,922	\$11,060	\$31,592	\$20,532
Information	\$5,926	\$5,340	\$4,526	-\$814
Finance and insurance	\$6,787	\$9,370	\$6,262	-\$3,108
Real estate and rental and leasing	\$2,469	\$4,032	\$5,963	\$1,931
Professional and technical services	\$6,367	\$11,091	\$7,141	-\$3,950
Management of companies	\$178	~\$1,130	~\$561	~-\$569
Administrative and waste services	\$1,639	~\$3,110	~\$4,425	~\$1,315
Educational services	~\$650	\$393	~\$1,030	~\$637
Health care and social assistance	~\$26,458	\$28,049	~\$25,989	~-\$2,060
Arts, entertainment, and recreation	\$2,708	\$689	\$953	\$264
Accommodation and food services	\$3,756	\$5,116	\$5,563	\$447
Other services, except public admin.	\$8,294	\$7,904	\$7,709	-\$195
Government	\$45,344	\$59,649	\$60,614	\$965

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- From 2001 to 2018, earnings in non-services related industries shrank from \$75.7 million to \$65.5 million, a 13% decrease.
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Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

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Data and Graphics | Part 24

Socioeconomic Measures

Washakie County, WY

Earnings by Industry (since 2000)

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It can be useful to ask whether the historical employment trends shown earlier in this report continue, and what factors are driving a shift in industry makeup and competitive position.

In many places the majority of growth in earnings in recent years has been in services-related industries, which include a wide variety of high- and low-wage occupations ranging from jobs in hotels and amusement parks to legal, health, business, and educational services. The section in this report titled “Wages by Industry” shows the difference in wages among various services related industries and compared to non-services related sectors.

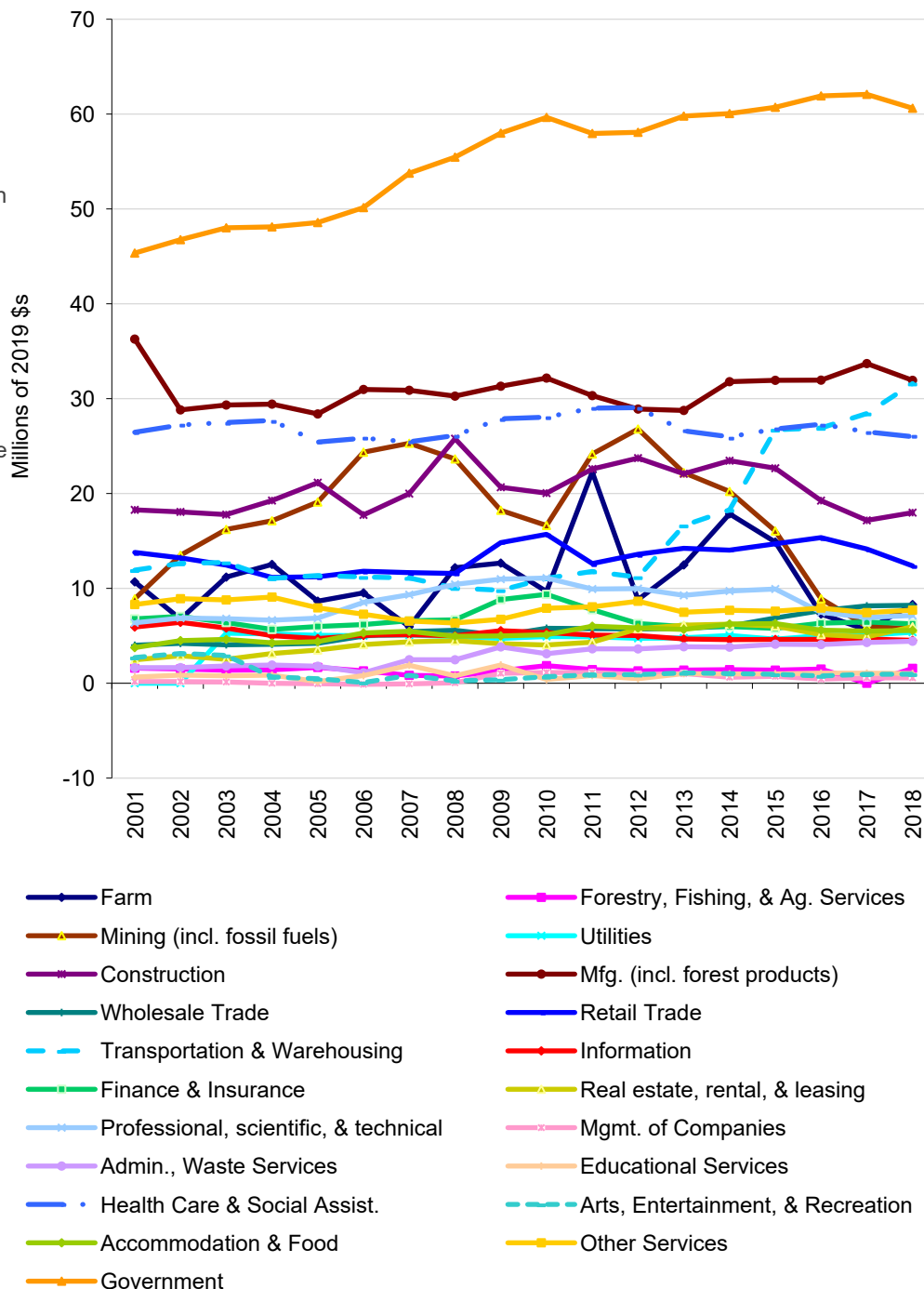
Socioeconomic Measures

Washakie County, WY

Earnings by Industry (since 2000)

Earnings by Industry, Washakie County, WY

- In 2018 the three industry sectors with the largest earnings were government (\$60.6 million), transportation and warehousing (\$31.6 million), and health care and social assistance (\$26.0 million).
- From 2001 to 2018, the three industry sectors that added the most earnings were transportation and warehousing (\$19.7 million), government (\$15.3 million), and wholesale trade (\$4.2 million).



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Data and Graphics | Part 26

Socioeconomic Measures

Washakie County, WY

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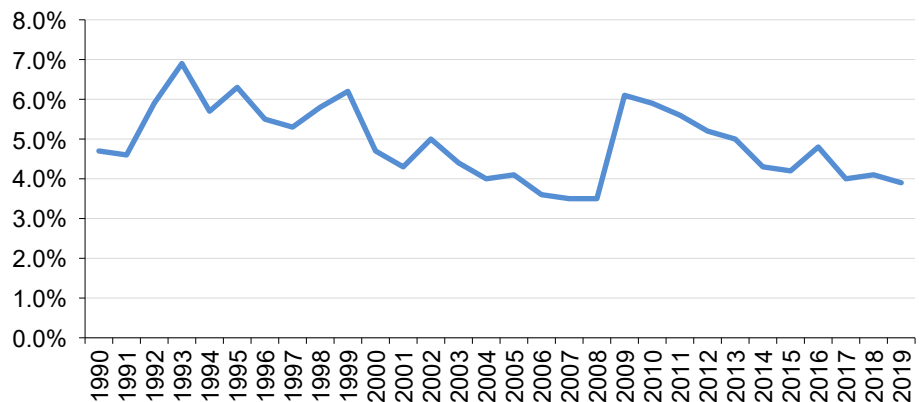
Socioeconomic Measures

Washakie County, WY

Unemployment

	1990	2000	2010	2019	Change 2010-2019
Average Annual Unemployment Rate	4.7%	4.7%	5.9%	3.9%	-2.0%

Average Annual Unemployment Rate, Washakie County, WY

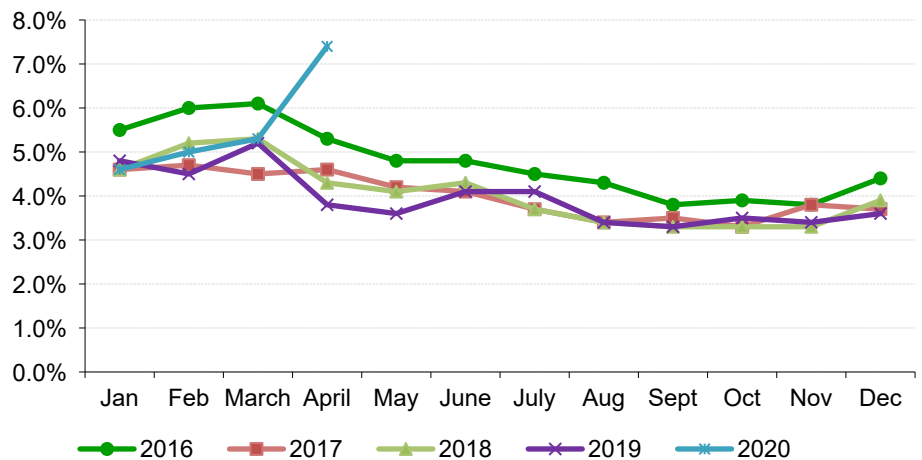


- Since 1990, the annual unemployment rate ranged from a low of 3% in 1977 to a high of 9.8% in 1986.

Monthly Unemployment Rate	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2016	5.5%	6.0%	6.1%	5.3%	4.8%	4.8%	4.5%	4.3%	3.8%	3.9%	3.8%	4.4%
2017	4.6%	4.7%	4.5%	4.6%	4.2%	4.1%	3.7%	3.4%	3.5%	3.3%	3.8%	3.7%
2018	4.6%	5.2%	5.3%	4.3%	4.1%	4.3%	3.7%	3.4%	3.3%	3.3%	3.3%	3.9%
2019	4.8%	4.5%	5.2%	3.8%	3.6%	4.1%	4.1%	3.4%	3.3%	3.5%	3.4%	3.6%
2020	4.6%	5.0%	5.3%	7.4%								

- The most recent monthly data is **preliminary** in the table and the chart; as reported by BLS.

Monthly Unemployment Rate, Washakie County, WY



- The lowest monthly unemployment rate was Oct of 2017. The highest monthly unemployment rate was April of 2020.

Data Sources: U.S. Department of Labor. 2020. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

Unemployment

What do we measure on this page?

This page describes the average annual unemployment rate and the seasonality of the unemployment rate over time.

The Average Annual Unemployment Rate graph shows the rate of unemployment since 1990. The Monthly Unemployment Rate graph shows the rate of unemployment for each month over the last five years. Note that unemployment figures most often reported are seasonally adjusted.¹⁵ However, the monthly unemployment data shown on this page are not seasonally adjusted so that fluctuations in employment throughout the year can be displayed.

Unemployment Rate: The number of people who are jobless, looking for jobs, and available for work, divided by the labor force.¹⁶

Data begin in 1990 because prior to 1990 the Bureau of Labor Statistics used a different method to calculate the unemployment rate.

Why is it important?

The rate of unemployment is an important indicator of economic well-being. This figure can go up during national recessions and/or more localized downturns. Unemployment may vary significantly by season.

It is important to know how the unemployment rate has changed over time, whether the rate is higher or lower during certain periods of the year, and whether this seasonality of unemployment has changed over time. Places that are heavily dependent on the tourism industry, for example, may show higher rates of unemployment during spring and fall "shoulder seasons." Places that rely heavily on the construction industry, for example, may have lower unemployment rates during the non-winter months.¹⁷

Communities with diverse economies tend to have more stable unemployment rates. This is particularly true of places that are able to attract new residents, retain manufacturing, and support a high-tech economy.¹⁸

Public land agencies sometimes provide seasonal employment and may have an effect on the local rate of unemployment.

Socioeconomic Measures

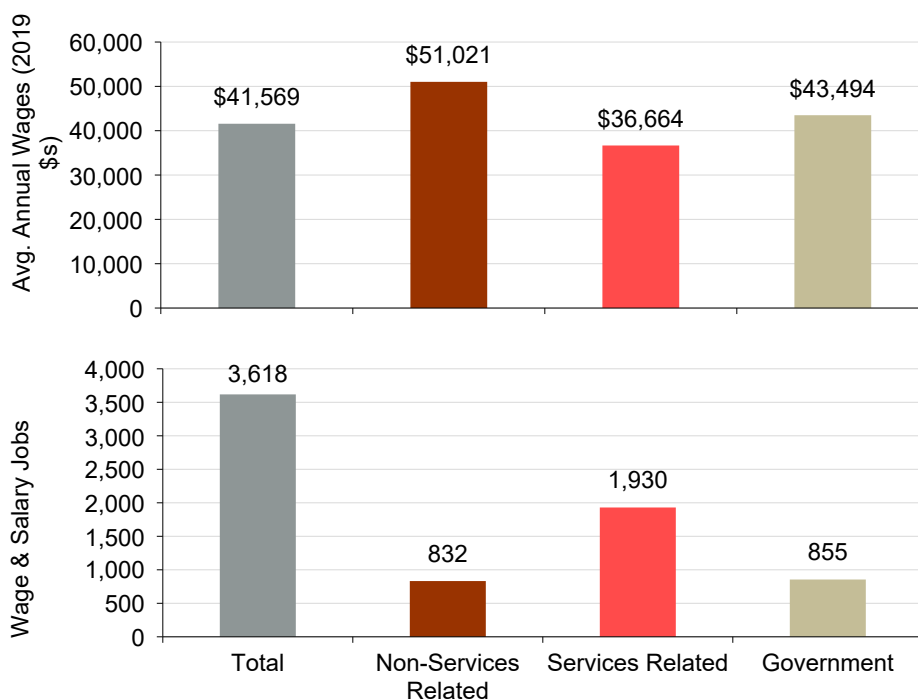
Washakie County, WY

Wages by Industry

Employment and Wages in 2018	Wage & Salary Employment	% of Total Employment	Avg. Annual Wages (2019 \$s)	% Above or Below Avg.
Total	3,618		\$41,569	
Private	2,762	76.3%	\$40,989	-1.4%
Non-Services Related	832	23.0%	\$51,021	22.7%
Natural Resources and Mining	179	4.9%	\$47,453	14.2%
Agriculture, forestry, fishing & hunting	117	3.2%	\$35,324	-15.0%
Mining (incl. fossil fuels)	62	1.7%	\$70,343	69.2%
Construction	215	5.9%	\$46,181	11.1%
Manufacturing (Incl. forest products)	439	12.1%	\$54,729	31.7%
Services Related	1,930	53.3%	\$36,664	-11.8%
Trade, Transportation, and Utilities	617	17.1%	\$42,460	2.1%
Information	78	2.2%	\$41,291	-0.7%
Financial Activities	148	4.1%	\$52,109	25.4%
Professional and Business Services	131	3.6%	\$43,831	5.4%
Education and Health Services	530	14.6%	\$40,080	-3.6%
Leisure and Hospitality	325	9.0%	\$13,800	-66.8%
Other Services	101	2.8%	\$21,400	-48.5%
Unclassified	0	0.0%	na	na
Government	855	23.6%	\$43,494	4.6%
Federal Government	117	3.2%	\$72,619	74.7%
State Government	158	4.4%	\$51,397	23.6%
Local Government	580	16.0%	\$35,466	-14.7%

Wages & Employment by Industry, Washakie County, WY, 2018

- In 2018 non-services related jobs paid the highest wages (\$51,021) and services related jobs paid the lowest (\$36,664).



- In 2018 trade, transportation, and utilities jobs employed the largest number of people (1,930), and natural resources and mining employed the smallest (832 jobs).

Data Sources: U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Part 30

Socioeconomic Measures

Washakie County, WY

Wages by Industry

What do we measure on this page?

This page describes employment and average annual wages by industry. It is sometimes the case that industries that pay well employ few people. Use the table on this page to understand how wages relate to the share of employment contributed by each industry.

Average Annual Wages: Total annual pay divided by total employment.

The data on this page are from the Bureau of Labor Statistics (BLS), which is the most reliable source of national data on average annual wages.^{19, 20, 21} However, unlike the Bureau of Economic Analysis data used in other sections of this report, these data do not include proprietors or the value of benefits and are summarized into slightly different industry categories. As reported by BLS, wages include gross wages and salaries, bonuses, stock options, tips and other gratuities, and the value of meals and lodging.

The table compares level of employment and wages for all sectors of the economy and shows (in the far-right column) whether the sector's wages are above or below the average wage for all industries.

Depending on the areas selected, some data may not be available due to disclosure restrictions.

"Average annual wages" shown on this page is not the same as "average earnings per job" shown earlier in this report. Average annual wages are calculated from BLS data, which do not include proprietors, while earnings per job are calculated from Bureau of Economic Analysis data, which include proprietors.

Why is it important?

It is sometimes assumed, particularly in rural areas, that the only high-wage jobs are in manufacturing and natural resource industries (e.g., timber, fossil fuel energy development, and mining). While these jobs often provide high average wages, some services-related industries also offer high wages (e.g., information, financial activities, and professional and business services).

Nearly all new jobs created since 1990 have been in services-related industries, but they are not equally distributed across the country, and not all areas are able to attract and retain the relatively high-wage service-related jobs. The elements required to attract and keep high-wage service-related workers may include access to reliable transportation including airports, amenities, recreation opportunities, a trained workforce, and good schools.^{22, 23}

In some areas, the highest-paying jobs are in the public sector. During recessions, government jobs may serve as an economic buffer against declining employment and earnings in the private sector.

Socioeconomic Measures

Washakie County, WY

Proprietors (self-employed)

	1970	2000	2018	Change 2000-2018
Total Employment	3,562	5,303	5,320	17
Wage and salary jobs	2,763	3,946	3,826	-120
Number of proprietors	799	1,357	1,494	137

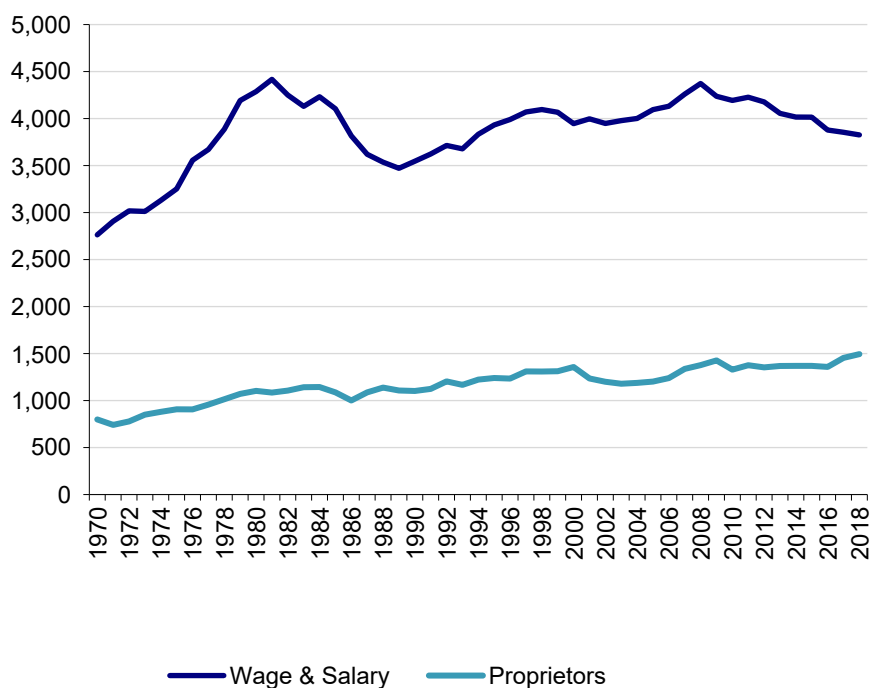
Percent of Total

				% Change 2000- 2018
Total Employment				0.3%
Wage and salary jobs	77.6%	74.4%	71.9%	-3.0%
Number of proprietors	22.4%	25.6%	28.1%	10.1%

All employment data in the table above are reported by *place of work* and include both full-time and part-time workers.

Components of Employment, Washakie County, WY

- From 1970 to 2018, wage and salary employment (people who work for someone else) grew from 2,763 to 3,826, a 38% increase.
- From 1970 to 2018, proprietors (the self-employed) grew from 799 to 1,494, a 87% increase.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Part 32

Socioeconomic Measures

Washakie County, WY

Proprietors (self-employed)

What do we measure on this page?

This page describes the changes in two components of employment: wage and salary employment, and proprietors.

Wage and Salary: This is a measure of the average annual number of full-time and part-time jobs by place of work. All jobs for which wages and salaries are paid are counted. Full-time and part-time jobs are counted with equal weight.²⁴

Proprietors: This term includes the self-employed in nonfarm and farm sectors by place of work. Nonfarm self-employment consists of the number of sole proprietorships and the number of individual business partners not assumed to be limited partners. Farm self-employment is defined as the number of non-corporate farm operators, consisting of sole proprietors and partners.²⁵

For more detailed information about farm employment and earnings, create an EPS Agriculture report at <https://headwaterseconomics.org/eps>.

Why is it important?

A high level of growth in proprietors' employment could be interpreted as a sign of entrepreneurial activity, which is a positive indicator of economic health.²⁶ However, in some areas and particularly in remote rural areas, it is possible that a high proportion of self-employed is an indication that few jobs are available. People may work for themselves because it is the only alternative or they may work for themselves in addition to holding a wage and salary job.

One way to see whether growth and a high level of proprietors' employment is a positive sign for the local economy is to look at the long-term trends in proprietors' personal income. When proprietors' employment and real personal income are both rising, this is a healthy indicator of entrepreneurial activity. On the other hand, rising proprietors' employment and falling real personal income can be a sign of economic stress. The following section of this report examines this relationship.

Socioeconomic Measures

Washakie County, WY

Wages and Proprietors' Income

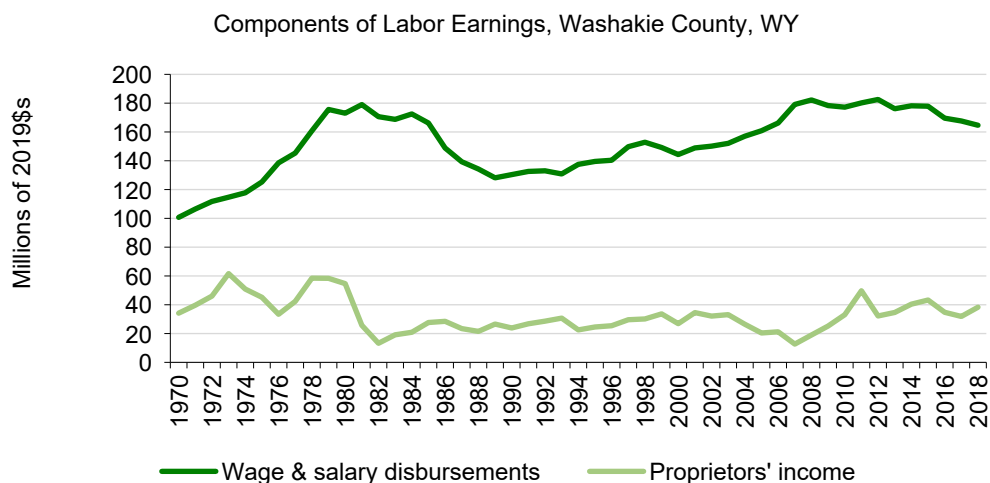
	1970	2000	2018	Change 2000-2018
Earnings by place of work	145,706	203,286	254,320	51,034
Wage & salary disbursements	100,685	144,318	164,652	20,334
Supplements to wage & salary	10,854	32,089	51,371	19,282
Proprietors' income	34,167	26,879	38,296	11,417

Percent of Total

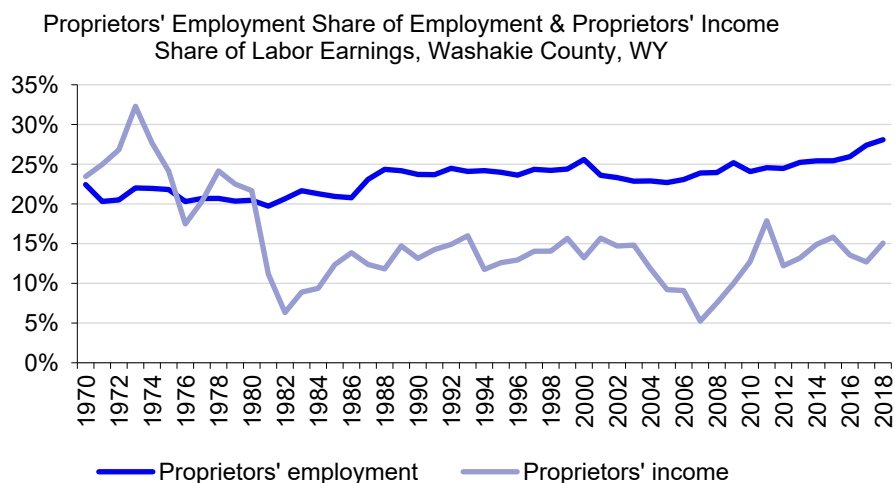
				% Change 2000- 2018
Earnings by place of work				25.1%
Wage & salary disbursements	69.1%	71.0%	64.7%	14.1%
Supplements to wage & salary	7.4%	15.8%	20.2%	60.1%
Proprietors' income	23.4%	13.2%	15.1%	42.5%

All income data in the table above are reported by *place of work*, which is different than earnings by *place of residence* shown on the following page of this report.

- From 1970 to 2018, labor earnings from wage and salary employment grew from \$100.7 million to \$164.7 million (in real terms), a 64% increase.
- From 1970 to 2018, labor earnings from proprietors' employment grew from \$34.2 million to \$38.3 million (in real terms), a 12% increase.



- In 1970, proprietors represented 22% of total employment. By 2018, proprietors represented 28% of total employment.
- In 1970, proprietors represented 23% of total labor earnings. By 2018, proprietors represented 15% of total labor earnings.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Find more reports like this at headwaterseconomics.org/eps

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Socioeconomic Measures

Washakie County, WY

Wages and Proprietors' Income

What do we measure on this page?

This page describes the components of labor earnings (in real terms): income from wage and salary, and proprietors' employment. It also looks more closely at proprietors, comparing long-term trends in proprietors' employment and personal income.

Earnings by Place of Work: This represents net earnings by place of work.

Wage and Salary Disbursements: This is a measure of the average annual number of full-time and part-time jobs in each area by place of work. All jobs for which wages and salaries are paid are counted. Full-time and part-time jobs are counted with equal weight.

Proprietors' Income: This term includes the self-employed in nonfarm and farm sectors. Nonfarm self-employment consists of the number of sole proprietorships and the number of individual business partners not assumed to be limited partners. Farm self-employment is defined as the number of non-corporate farm operators, consisting of sole proprietors and partners.

For more detailed information about farm employment and earnings, create an EPS Agriculture report at <https://headwaterseconomics.org/eps>.

Why is it important?

The table and figures can be used to compare the relative importance, and change in importance, of wage and salary jobs and proprietors as a source of employment and earnings.

Rapid growth and/or high proportions of proprietors' employment and income can be a sign of a healthy economy that is attracting entrepreneurs and stimulating business development, especially when paired with population growth and low unemployment. However, if labor earnings are flat or declining, high levels of proprietors may indicate a lack of opportunity.

Socioeconomic Measures

Washakie County, WY

Commuting Patterns

Personal income in thousands of 2019 \$\$

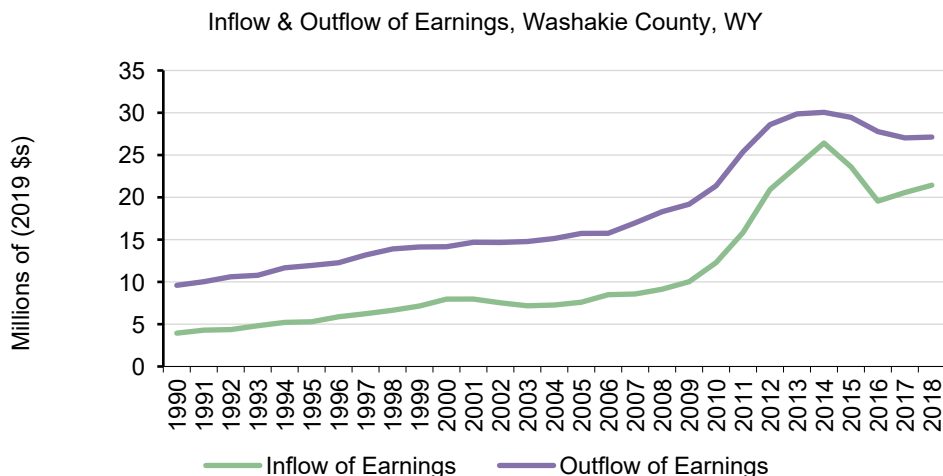
	1990	2010	2018	Change 2010-2018
Total Personal Income	260,952	363,332	386,770	23,438
Cross-County Commuting Flows				
Inflow of Earnings	3,941	12,285	21,435	9,150
Outflow of Earnings	9,597	21,361	27,124	5,763
Net Residential Adjustment (In - Outflow)	-5,656	-9,076	-5,689	3,387

Percent of Total

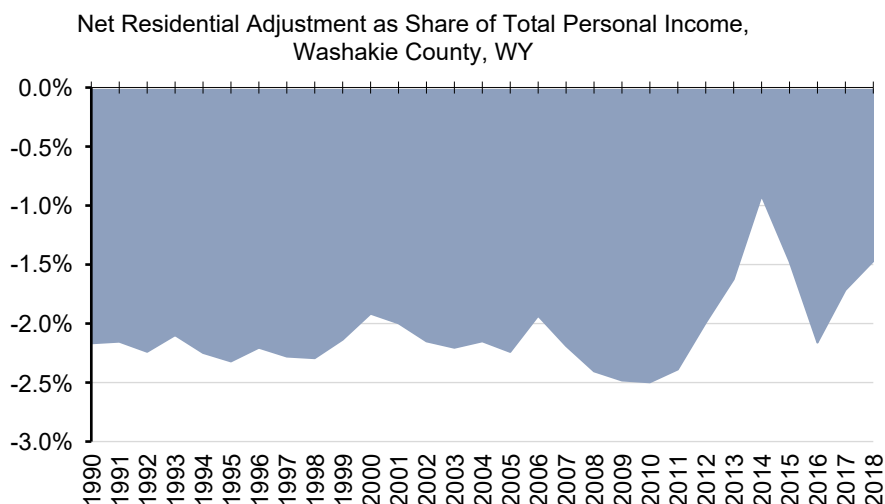
Net Residential Adjustment Share of Total Personal Income	-2.2%	-2.5%	-1.5%	1.0%

Data are only available at the county level (i.e., this page will be blank for aggregated geographies, states, and the U.S.). Total personal income is reported by *place of residence*.

- From 1990 to 2018 inflow of earnings grew from \$3.9 million to \$21.4 million (in real terms), a 444% increase.
- From 1990 to 2018 outflow of earnings grew from \$9.6 million to \$27.1 million (in real terms), a 183% increase.



- From 1990 to 2018, net residential adjustment (inflow - outflow) changed from -2.2 to -1.5 percent of total personal income.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Part 36

Socioeconomic Measures

Washakie County, WY

Commuting Patterns

What do we measure on this page?

This page describes the flow of earnings into the county by residents who work in neighboring counties ("inflow" of earnings because they bring money home); the flow of earnings by residents from neighboring counties who commute into the county for work ("outflow" of earnings because they take their earnings with them); and the difference between the two ("net residential adjustment").^{19, 20, 21}

If net residential adjustment is positive (inflow exceeds outflow), it means county residents commute outside the county for work and bring back more personal income than leaves the county in net terms. If net residential adjustment is negative (outflow exceeds inflow), it means the economy of the county attracts workers from nearby counties and loses more personal income than it brings into the county in net terms.

Inflow of Earnings: The gross annual earnings of in-commuters (i.e., people who work out of the county and bring money home).

Outflow of Earnings: The gross annual earnings of out-commuters (i.e., people who work in the county but live elsewhere and take their earnings with them).

Net Residence Adjustment: The net inflow of labor earnings of inter-area commuters.^{22, 23}

Note: Data are only available at the county level, and begin in 1990 because that is the year the Bureau of Economic Analysis began reporting these data.

Why is it important?

One indicator of economic health for a county is whether it is able to attract workers from nearby counties. This could be the case if a county has a surplus of jobs that attract workers from adjacent counties and would be indicated by a negative net residential adjustment. Another possibility is that expensive housing in the county has driven some workers to live in relatively more affordable neighboring counties that have become "bedroom communities."

Alternatively, it is possible that a county with a positive net residential adjustment is a more desirable place to live (people are willing to commute and/or telecommute to work in order to live there for quality of life reasons). Commuting and telecommuting workers may also contribute to the economy by spending their money in the local area (essentially exporting work and importing wages).

Long-term trends in inflow, outflow, and net residential adjustment help to describe the role that the county's economy has played over time in a multi-county area. For example, a net residential adjustment that was positive but today is negative indicates that county residents used to have to commute to neighboring counties for work but today the reverse is true and the county attracts workers from neighboring counties.

If net residential adjustment is a large share of earnings (e.g., 10% or higher), it may indicate that the appropriate unit of analysis is a multi-county area that encompasses the entire labor market.

Socioeconomic Measures

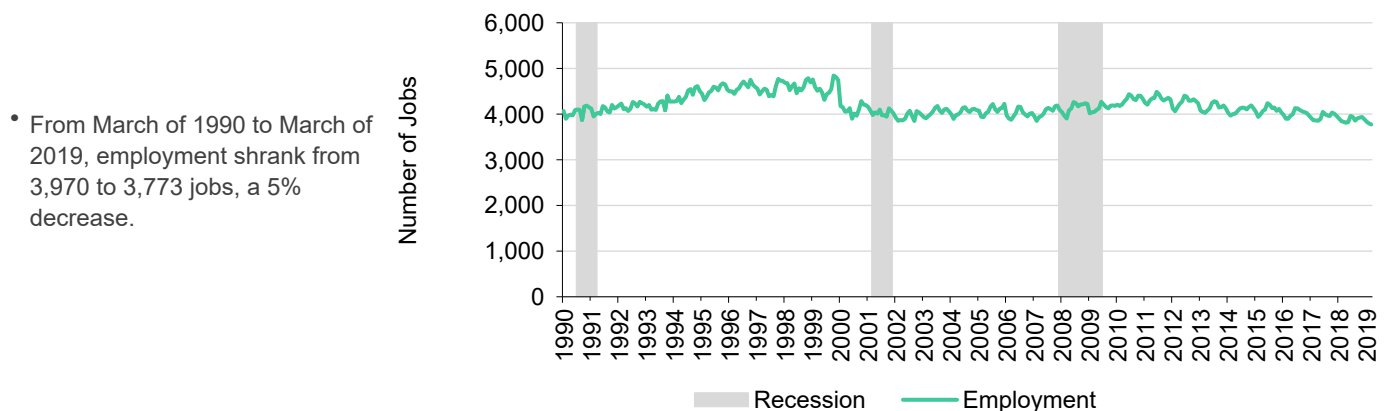
Washakie County, WY

Employment During National Recessions

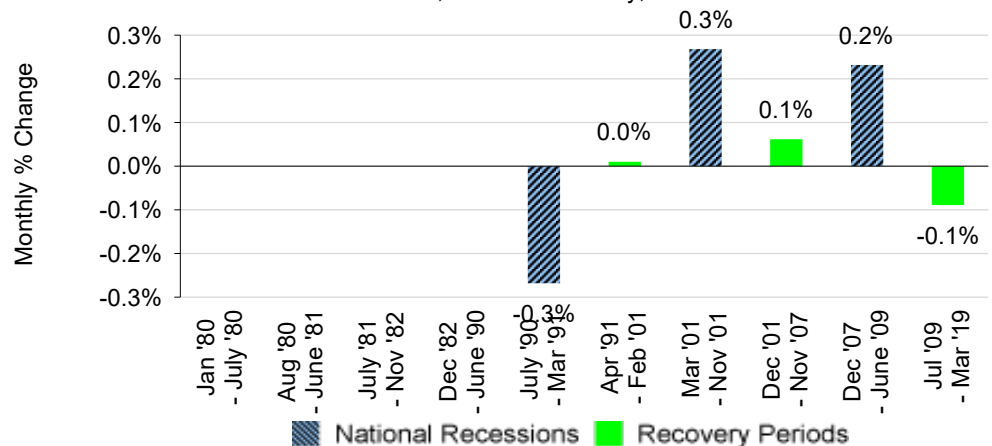
National Recessions, 1990-2019	Jan '80 - July '80	July '81 - Nov '82	July '90 - Mar '91	Mar '01 - Nov '01	Dec '07 - June '09
Employment Change (Net Jobs)	na	na	-99	96	180
Employment Change (Monthly % Change)	na	na	-0.3%	0.3%	0.2%

Recovery from National Recessions, 1990-2019	Aug '80 - June '81	Dec '82 - June '90	Apr '91 - Feb '01	Dec '01 - Nov '07	Jul '09 - Mar '19
Employment Change (Net Jobs)	na	na	48	178	-439
Employment Change (Monthly % Change)	na	na	0.0%	0.1%	-0.1%

Employment & National Recessions, Washakie County, WY



Monthly Rate of Change in Employment During Recessions & Recovery Periods, Washakie County, WY



Blue vertical bars in the figures above represent the last five recession periods: January 1980 to July 1980; July 1981 to November 1982; July 1990 to March 1991; March 2001 to November 2001; and December 2007 to June 2009. The green columns in the figure above represent the intervening recovery periods.

Data Sources: U.S. Department of Labor. 2020. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.; National Bureau of Economic Research. 2009. U.S. Business Cycle Expansions and Contractions, Cambridge, MA, reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

Employment During National Recessions

What do we measure on this page?

This page describes long-term trends in employment during national recessions and recovery periods.^{32, 33}

The Employment and National Recessions graph shows long-term change in employment against periods of national recession (blue bars) and recovery. The Employment During Recessions and Recovery Periods graph shows the percent gain or loss in employment during periods of national recession (blue bars) and recovery (green bars).

Recession: According to the National Bureau of Economic Research: "A recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales. A recession begins just after the economy reaches a peak of activity and ends as the economy reaches its trough. Between trough and peak, the economy is in an expansion."

The U.S. Bureau of Labor Statistics changed methodology related to unemployment rates in 1990. Caution should be used comparing pre-1990 estimates of unemployment rates with those from 1990 forward.³⁴

Why is it important?

One measure of economic well-being is the resilience of the local economy during periods of national recession. It is a positive sign if local employment continues to grow (or does not decline) during a recession.³⁵

Another sign of economic well-being is how well the local economy recovers from a recession, measured as growth of employment from the trough (at the depth of the recession) to the peak (just before the next period of decline).

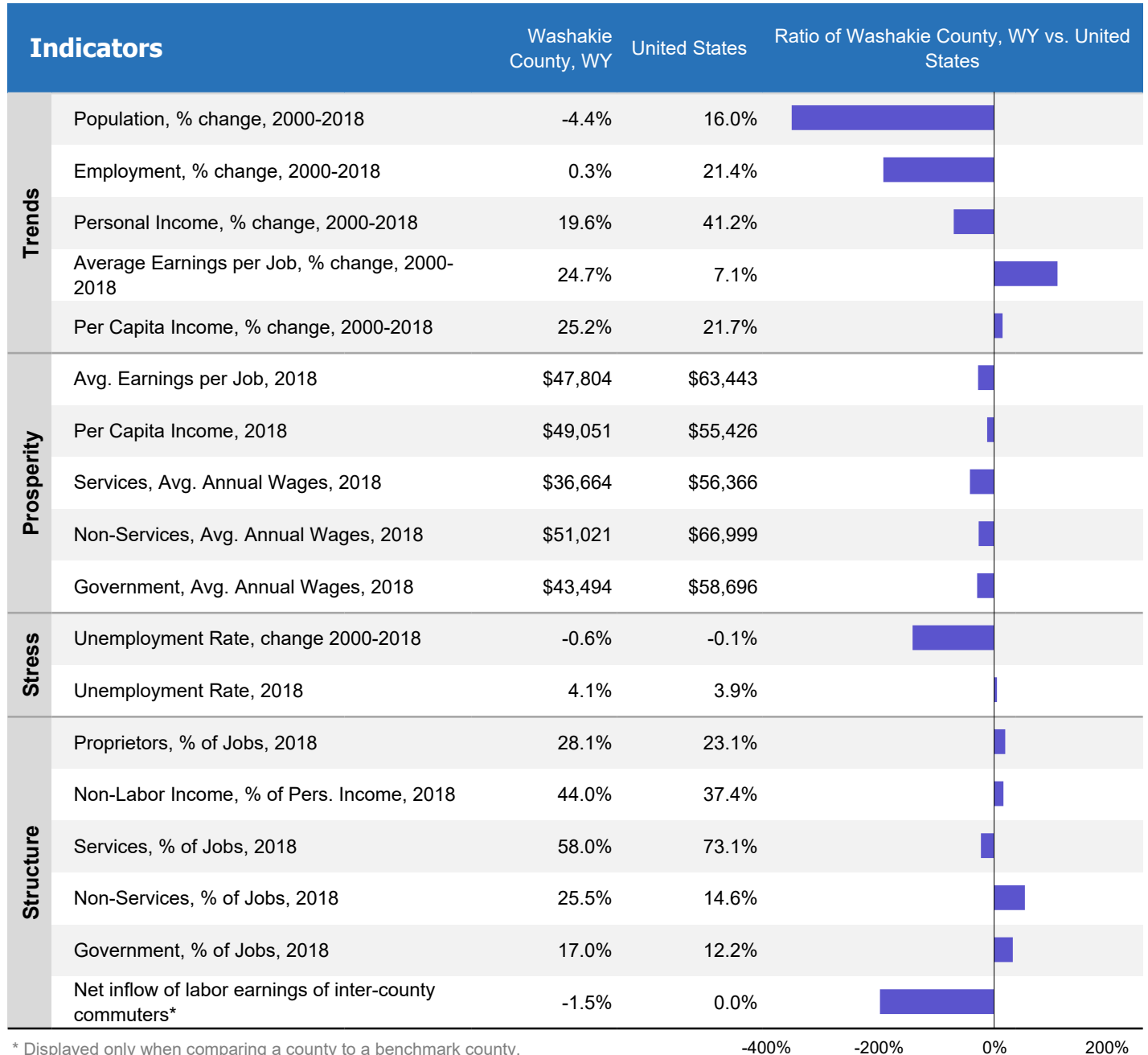
As the economy of a place diversifies, it can become more resilient to economic downturns. Places that attract new residents, retain manufacturing, and support a high-tech economy tend to be less affected by economic downturns.

Government employment is more stable and can help to absorb some of the losses in private sector economic activity during a recession.

Socioeconomic Measures

Washakie County, WY

Comparisons



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Labor. 2020. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.; U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.; reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

Comparisons

What do we measure on this page?

This page compares key performance indicators for the selected location(s) to the selected benchmark area. (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.) Performance indicators are organized by groups (Trends, Prosperity, Stress, and Structure) that highlight potential competitive strengths and weaknesses.

The percent, or relative, difference between the selected geography and the benchmark is calculated by dividing the difference between the values by the arithmetic mean of the values.

In some cases it may be appropriate to compare a local economy to the U.S. economy. In most cases, however, it will be more useful to compare county or regional economies to similar county or regional economies. For example, if the county being analyzed is small and rural, it should be compared to similar counties because comparing against the U.S. will include data from large metropolitan areas.

Some indicators require a judgment call to decide whether they represent a positive or negative indicator of well-being. For example, a high percentage of personal income in the form of non-labor income could mean the location has done a good job of attracting retirees and investment income. However, it could also mean that there is very little labor income so non-labor income is relatively larger.

The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).

Why is it important?

A number of indicators determine the economic health of a place. No single indicator should be used by itself. Rather, a range of indicators should be analyzed to derive a comprehensive view of the economy.

The indicators in this report can be used to gauge both standard of living (through factors such as earnings per job and per capita income) and growth (through factors such as change in population, employment, and personal income). When comparing performance among places, it may be important to consider additional measures that are not provided in this report, such as leisure time, crime rate, health statistics, sense of well-being, and other factors that represent quality of life.

Detailed data on a range of topics, including in-depth reports on individual industries, can be obtained by creating other EPS reports at <https://headwaterseconomics.org/eps>.

Socioeconomic Measures

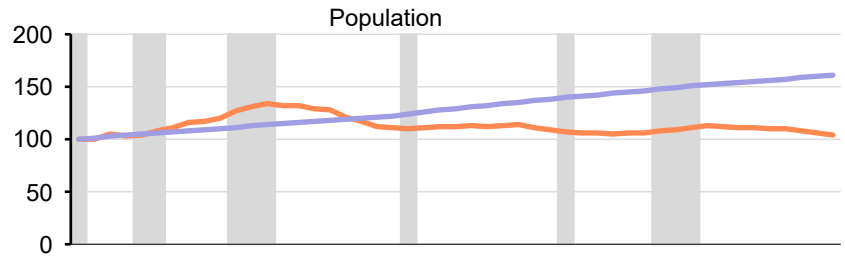
Washakie County, WY

Comparisons

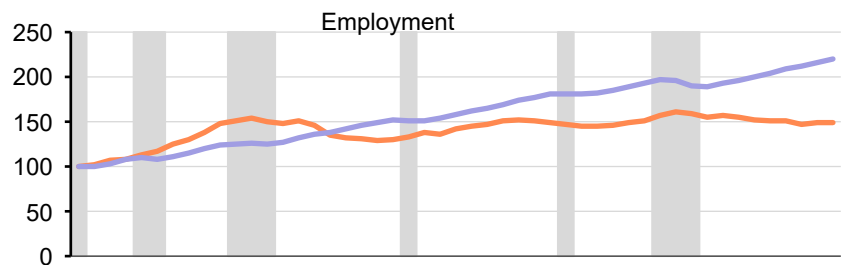
Washakie County, WY compared to United States

Recession Washakie County, WY United States

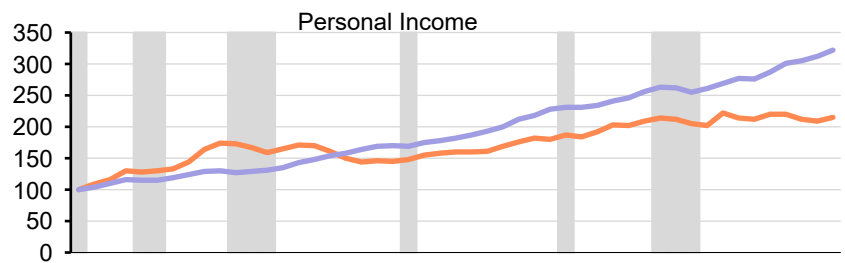
- From 1970 to 2018, population in Washakie County, WY grew by 4% compared to 61% for the United States.



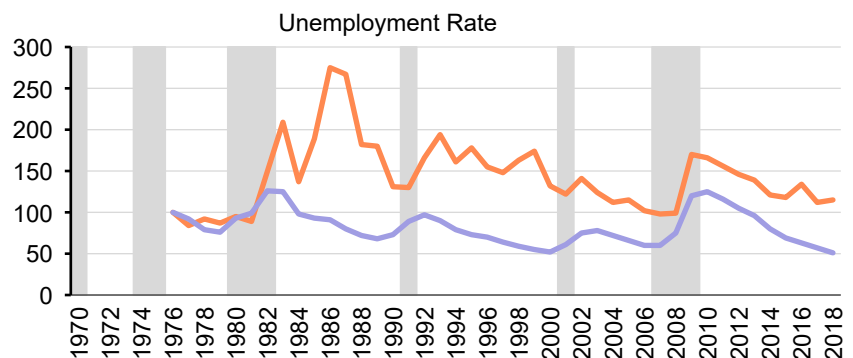
- From 1970 to 2018, employment in Washakie County, WY grew by 49% compared to 120% for the United States.



- From 1970 to 2018, personal income in Washakie County, WY grew by 115% compared to 222% for the United States.



- From 1976 to 2018, the unemployment rate in Washakie County, WY grew by 15% compared to -49% for the United States.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Labor. 2020. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.; reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Washakie County, WY

Comparisons

What do we measure on this page?

This page describes trends in key performance indicators (change in population, employment, real personal income, and the unemployment rate) for the selected area and compared to the benchmark area. Gray vertical bars indicate periods of national recession.

Data are indexed to the start year for each indicator so that data from areas of different sizes can be compared. The charts are useful for showing the relative difference in the rate of change for each indicator.

The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).

Information for a range of locations and measures can be obtained by creating additional EPS reports at <https://headwaterseconomics.org/eps>.

Why is it important?

This page shows long-term economic performance at a glance. It enables the reader to compare performance between places, and evaluate how performance was impacted by national business cycles.

Socioeconomic Measures

Washakie County, WY

Data Sources & Methods

This Socioeconomic Measures report uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **Regional Economic Information System**

Bureau of Economic Analysis, U.S. Department of Commerce
<http://bea.gov/bea/regional/data.htm>
Tel. 202-606-9600

- **Local Area Unemployment Statistics**

Bureau of Labor Statistics, U.S. Department of Labor
<http://www.bls.gov/lau>
Tel. 202-691-6392

- **Quarterly Census of Employment and Wages**

Bureau of Labor Statistics, U.S. Department of Labor
<http://www.bls.gov/cew>
Tel. 202-691-6567

- **Population Division**

Census Bureau, U.S. Department of Commerce
<http://www.census.gov/population/www/>
Tel. 866-758-1060

- **National Bureau of Economic Research**

<http://www.nber.org/cycles/recessions.html>
Tel. 617-868-3900

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Industrial Classifications

Industry data reported in EPS come from data sources that use standard industry classification systems. Starting in the 1930s, the Standard Industrial Classification (SIC) system served as the structure for the collection, aggregation, presentation, and analysis of industry data. Under SIC, which used a four-digit coding structure, an industry consisted of a group of establishments primarily engaged in producing or handling the same product or group of products or in rendering the same services. As the U.S. economy shifted from a primary emphasis on manufacturing to a more complex services economy, SIC became less useful for describing the economy's changing industrial composition.

The North American Industry Classification System (NAICS), developed using a production-oriented conceptual framework, groups establishments into industries based on the activity in which they are primarily engaged. NAICS uses a six-digit hierarchical coding system to classify all economic activity into 20 industry sectors. Five sectors are mainly goods-producing sectors and 15 are entirely services-producing sectors.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated with tildes (~) in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Socioeconomic Measures

Washakie County, WY

Endnotes

- 1 - In addition to the U.S. Census Bureau county classifications offered here, several other county classification systems are available: the Economic Research Service of the U.S. Department of Agriculture offers a county classification system based on economic dependence on particular sectors (for example, "Farming-dependent," Mining-dependent"), economic activity ("Non-metro recreation"), and policy type (for example, "Housing-stress" or "Persistent poverty"). The Economic Research Service's "Rural-Urban Continuum Codes" codes with explanation can be found at <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/>. Headwaters Economics developed a "Three Wests" county typology for all counties in the 11 contiguous western U.S. states based on access to markets via highway or air travel. Its web site (<https://headwaterseconomics.org/economic-development/trends-performance/three-wests-explained/>) offers sortable county data, a journal article on the subject, and an interactive tool that allows users to compare economic and demographic data for "Metro," "Connected," and "Isolated" counties across the West.
- 2 - Population and Housing Unit Estimates. U.S. Census Bureau. <https://www.census.gov/programs-surveys/popest/about.html>.
- 3 - The U.S. Census Bureau provides a tool for mapping migration flows into and out of all counties in the country: <https://flowsmapper.geo.census.gov/map.html>.
- 4 - For a comprehensive cost of living index, see <http://livingwage.mit.edu/pages/about>.
- 5 - A 2006 study documented that workers would accept lower wages in order to live closer to environmental amenities. See: Schmidt L and Courant PN. 2006. Sometimes Close is Good Enough: The Value of Nearby Environmental Amenities. *Journal of Regional Science* 46(5):931-951. See also: Deller SC, Tsai T-H, Marcouiller DW, and English DBK. 2001. The Role of Amenities and Quality of Life in Rural Economic Growth. *American Journal of Agricultural Economics* 83(2): 352-365.
- 6 - The Occupational Outlook Handbook, published by the Bureau of Labor Statistics, contains descriptions of all occupations, median pay, and the education and training required for each: <https://www.bls.gov/ooh/>.
- 7 - To see the possible impact of non-labor income sources on per capita income, see previous sections of this report that show the percent contribution of non-labor to total personal income, or create an EPS Non-Labor Income report at <https://headwaterseconomics.org/eps>.
- 8 - A 2014 study analyzed the impact of types of non-labor income on socioeconomic performance. See: Lawson MM, Rasker R, and Gude PH. 2014. The importance of non-labor income: An analysis of socioeconomic performance in western counties by type of non-labor income. *Journal of Regional Analysis and Policy* 44(2): 175-190.
- 9 - For online SIC and NAICS manuals and definitions of industry codes, see <https://www.census.gov/eos/www/naics/> and https://www.osha.gov/pls/imis/sic_manual.html.
- 10 - Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.
- 11 - According to estimates by the U.S. Department of Labor, from 2008 through 2018 "goods-producing" employment in the U.S. (mining, construction, and manufacturing) will not grow. By 2018, goods-producing sectors will account for 12.9 percent of all jobs, down from 14.2 percent in 2008. In contrast, "service-producing" sectors are expected to account for 96 percent of the growth in new jobs. The fastest growing are projected to be professional and business services, and health care and social assistance. See: Bartsch KJ. 2009. The employment projections for 2008-18. *Monthly Labor Review Online* 132(11): 3-10. <https://www.bls.gov/opub/mlr/2009/11/art1full.pdf>.

Socioeconomic Measures

Washakie County, WY

Endnotes (cont.)

- 12 - The Bureau of Labor Statistics provides industry employment projections to 2024: <https://www.bls.gov/opub/mlr/2015/article/industry-employment-and-output-projections-to-2024.htm>.
- 13 - For an overview of how historical changes in employment have affected rural America, see Whitenar, LA and McGranahan DA. 2003. Rural America: Opportunities and Challenges. Amber Waves 1(1):1-8 available at https://www.agclassroom.org/teen/ars_pdf/social/amber/rural_america.pdf.
- 14 - The Economic Research Service of the U.S. Department of Agriculture is a good source for articles and data on the rural economy: <https://www.ers.usda.gov/topics/rural-economy-population/>.
- 15 - See the Bureau of Labor Statistics' explanation of seasonal adjustments at <https://www.bls.gov/cps/seasfaq.htm>.

- 16 - For more information on unemployment, see related Bureau of Labor Statistics resources available at <https://www.bls.gov/cps/faq.htm>.
- 17 - The U.S. Department of Labor offers an explanation of seasonal and part-time employment: <https://www.dol.gov/general/topic/workhours/seasonalemployment>.
- 18 - For research findings on economic resiliency, see Chapple K and Lester TW. 2010. The resilient regional labour market? The U.S. case. Cambridge Journal of Regions, Economy and Society 3(1):85-104.
- 19 - For an overview of how the Bureau of Labor Statistics treats employment, see <https://www.bls.gov/bls/employment.htm>.
- 20 - For an overview of how the Bureau of Labor Statistics treats pay and benefits, see <https://www.bls.gov/bls/wages.htm>.
- 21 - Employment and wage estimates for more than 800 occupations are available from the Bureau of Labor Statistics. It is helpful to look at services by occupation rather than by sector or industry because wages vary dramatically across occupations associated with different services. For more information, see <https://www.bls.gov/oes/>.

- 22 - For a review of the role of public lands amenities and transportation in economic development, see Rasker R, Gude PH, Gude JA, van den Noort J. 2009. The Economic Importance of Air Travel in High-Amenity Rural Areas. Journal of Rural Studies 25: 343-353. https://headwaterseconomics.org/wp-content/uploads/3wests/Rasker_et_al_2009_Three_Wests.pdf.
- 23 - This article specifically captures the idea that amenity values are capitalized into wages: Knapp TA and Graves PE. 1989. On the Role of Amenities in Models of Migration and Regional Development. Journal of Regional Science 29(1):71-87.
- 24 - Glossary. Bureau of Economic Analysis. https://www.bea.gov/glossary/glossary_a.htm.
- 25 - Regional Economic Accounts: Regional Definitions. Bureau of Economic Analysis. <https://www.bea.gov/regional/definitions/>.
- 26 - For an example of an academic study where proprietors' employment is considered an indication of entrepreneurial activity, see Mack E, Grubestic TH, and Kessler E. 2007. Indices of Industrial Diversity and Regional Economic Composition. Growth and Change 38(3):474-509.
- 27 - Regional Economic Accounts. Bureau of Economic Analysis. <https://www.bea.gov/iTable/definitions.cfm?did=2360&reqld=70>.
- 28 - For a glossary of terms used by the Bureau of Economic Analysis with definitions, see <https://bea.gov/regional/definitions/>.
- 29 - The Decennial Census also reports the number of workers commuting between counties, see <https://www.census.gov/topics/employment/commuting.html>.

Socioeconomic Measures

Washakie County, WY

Endnotes (cont.)

- 30 - According to the Bureau of Economic Analysis: "Estimates of gross commuters' earnings inflow and outflow are derived from the residence adjustment estimates, which are the estimates of the net inflow of the earnings of inter-area commuters. In the personal income accounts, the residence adjustment estimates are added to place-of-work earnings estimates to yield place-of-residence earnings estimates. This conversion process is an important part of the local area economic accounts because personal income is a place-of-residence measure, whereas the data used to estimate over 60 percent of personal income is reported on a place-of-work basis."

- 31 - For a study documenting a negative residential adjustment that is considered a positive indicator, see Mack E, Grubestic TH, and Kessler E. 2007. Indices of Industrial Diversity and Regional Economic Composition. *Growth and Change* 38(3):474-509.

- 32 - For a definition of recession and recovery periods, see the National Bureau of Economic Research: Business Cycle Dating Committee available at www.nber.org/cycles/recessions.html.

- 33 - For a list of national recessions and recovery periods, see www.nber.org/cycles/cyclesmain.html.

- 34 - For information regarding data collection and methodology for labor force statistics compiled by the Bureau of Labor Statistics, see <https://www.bls.gov/lau/laumthd.htm>. Please note that Local Area Unemployment Statistics data prior to 1990 are no longer supported by the Bureau of Labor Statistics.

- 35 - For research findings on economic resiliency, see: Chapple K and Lester TW. 2010. The resilient regional labour market? The U.S. case. *Cambridge Journal of Regions, Economy and Society* 3(1):85-104.



A Summary Profile

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

Summary

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Summary

Washakie County, WY

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Summary

Washakie County, WY

Overview

	Washakie County, Wyoming, WY	United States
Population, 2018	7,885	327,167,434

Trends

Population % change, 1970-2018	4.3%	60.5%
Employment % change, 1970-2018	49.4%	119.9%
Personal Income % change, 1970-2018	115.1%	222.0%

Prosperity

Unemployment rate, 2019	3.9%	3.7%
Average earnings per job, 2018 (2019 \$s)	\$47,804	\$63,443
Per capita income, 2018 (2019 \$s)	\$49,051	\$55,426

Economy

Non-Labor % of personal income, 2018	44.0%	37.4%
Services % of employment, 2018	~58.0%	73.1%
Government % of employment, 2018	17.0%	12.2%

Use Sectors[^]

Timber % of private employment, 2017	0.0%	0.6%
Mining % of private employment, 2017	2.0%	0.4%
Fossil fuels (oil, gas, & coal), 2017	~0.0%	0.4%
Other mining, 2017	~0.8%	0.3%
Agriculture % of employment, 2018	5.9%	1.3%
Travel & Tourism % of private emp., 2017	12.1%	15.9%

Federal Land*

Federal Land % total land ownership	66.9%	27.5%
Forest Service %	2.5%	8.4%
BLM %	63.9%	10.5%
Park Service %	0.0%	3.4%
Military %	0.0%	1.1%
Other %	0.4%	4.1%
Federal land % Type A**	0.0%	37.6%
Federal payments % of gov. revenue, FY201	2.6%	

Development

Residential area % change, 2000-2010	56.2%	12.3%
Wildland-Urban Interface % developed, 2010	na	16.3%

Estimates for data that were not disclosed are indicated with tildes (~).

[^]Data for timber, mining, and travel and tourism-related are from County Business Patterns which excludes proprietors, and data for agriculture are from Bureau of Economic Analysis which includes proprietors.

* The land ownership data source and year vary depending on the selected geography. See following pages for specifics.

** Federal public lands that are managed primarily for natural, cultural, and recreational features. These lands include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS), Waterfowl Production Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS).

Data Sources: Various; see following pages for specifics.

Find more reports like this at headwaterseconomics.org/eps

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Summary

Washakie County, WY

Overview

What do we measure on this page?

Using summary statistics from topical EPS reports, this page compares socioeconomic indicators¹ of the selected area to a benchmark.

Trends: General indicators of economic well-being (population, employment, and real personal income) measured over time.

Prosperity: Common indicators of individual well-being or hardship (unemployment, average earnings per job, and per capita income).

Economy: Three significant sectors of the economy: non-labor income (e.g., government transfer payments, and investment and retirement income), services, and government employment.

Use Sectors: Components of the economy (commodity sectors including timber, mining and agriculture, and industries that include travel and tourism) that could be associated with the use of public lands.

Federal Land: The amount and type of federal land ownership, and the dependence of county governments on payments related to federal lands such as National Park Service (NPS), Forest Service (FS), Bureau of Land Management (BLM), and Fish and Wildlife Service (FWS).

Development: Residential development of private lands, including the wildland-urban interface. The wildland-urban interface data are available and reported only for the 11 western states and do not include Alaska and Hawaii.

Why is it important?

This report allows the user to compare a broad range of socioeconomic measurements. A user can refer to EPS topic-specific reports for more details. For example, when a county shows unusually high unemployment rates, a user may want to create an EPS Socioeconomic Measures report for that county. Or an EPS Timber report could be created for a county that shows a relatively high number of people employed in the timber industry.

This report uses information from the following EPS reports: Socioeconomic Measures, Demographics, Agriculture, Mining, Services, Tourism, Government, Non-Labor Income, Timber, Land Use, Public Land Amenities, Wildland-Urban Interface, and Federal Land Payments. Consult these reports directly for additional information at <https://headwaterseconomics.org/eps>.

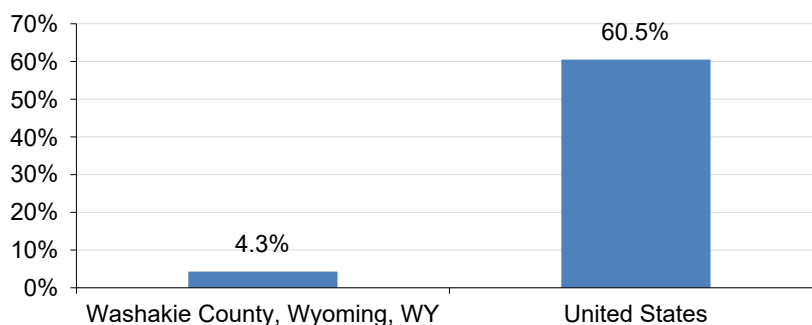
Summary

Washakie County, WY

Population, Employment, and Personal Income

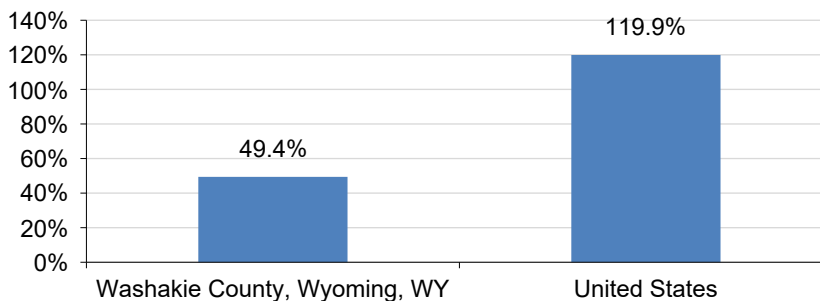
- Between 1970 and 2018, United States had the largest percent change in population (60.5%), and Washakie County, Wyoming, WY had the smallest (4.3%).

Population, Percent Change, 1970-2018



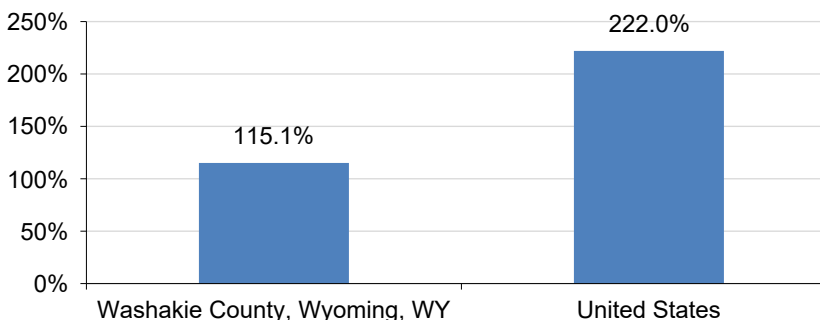
- Between 1970 and 2018, United States had the largest percent change in employment (119.9%), and Washakie County, Wyoming, WY had the smallest (49.4%).

Employment, Percent Change, 1970-2018



- Between 1970 and 2018, United States had the largest percent change in personal income (222%), and Washakie County, Wyoming, WY had the smallest (115.1%).

Personal Income, Percent Change, 1970-2018



Summary

Washakie County, WY

Population, Employment, and Personal Income

What do we measure on this page?

This page describes percent change in population, employment, and real personal income.

The EPS Demographics report provides additional information on population dynamics, while the EPS Socioeconomic Measures report provides additional information on employment and personal income. See <https://headwaterseconomics.org/eps>.

The Bureau of Economic Analysis reports data either by place of residence or by place of work. Population and personal income data on this page are reported by place of residence, and employment data by place of work.²

Why is it important?

One measure of economic performance is whether a location is growing or declining. Standard measures of growth and decline are population, employment, and real personal income.

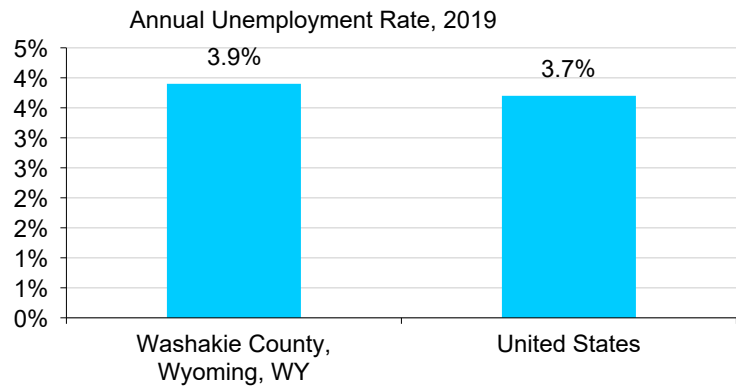
The information on this page helps users understand whether locations are growing or declining at different rates, and makes it easy to see discrepancies between changes in population, employment, and real personal income. If population and employment are growing faster than real personal income, for example, it may be worthwhile to research whether growth has been in low-wage industries and occupations. Alternatively, if personal income is growing faster than employment, it may be caused by growth in high-wage industries and occupations and/or non-labor income sources.

Summary

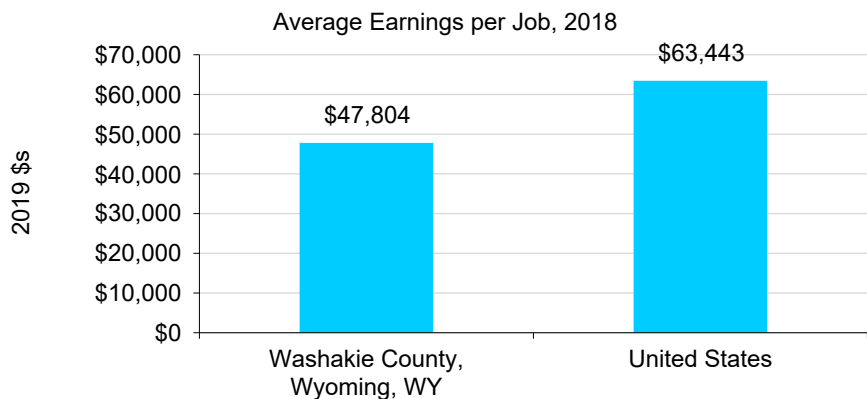
Washakie County, WY

Unemployment, Earnings, and Per Capita Income

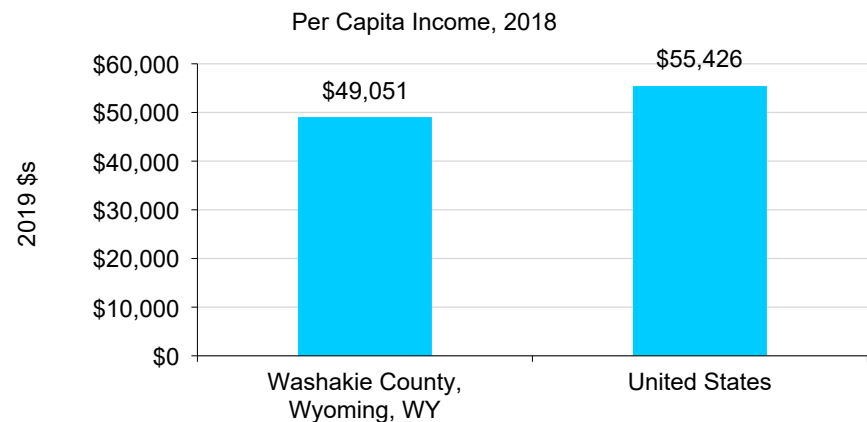
- In 2019, Washakie County, Wyoming, WY had the highest unemployment rate (3.9%), and United States had the lowest (3.7%).



- In 2018, United States had the highest average earnings per job (\$63,443), and Washakie County, Wyoming, WY had the lowest (\$47,804).



- In 2018, United States had the highest per capita income (\$55,426), and Washakie County, Wyoming, WY had the lowest (\$49,051).



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Labor. 2020. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

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Summary

Washakie County, WY

Unemployment, Earnings, and Per Capita Income

What do we measure on this page?

This page describes three measures of individual prosperity: unemployment, average earnings per job, and per capita income.¹

Unemployment Rate: The number of people who are jobless, looking for jobs, and available for work divided by the labor force.³

Average Earnings per Job: Total earnings divided by total employment. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included.

Per Capita Income: Total personal income (from labor and non-labor sources) divided by total population.

Why is it important?

Statistics presented on this page are important indicators of economic well-being.

The annual unemployment rate is the number of people actively seeking but not finding work as a percent of the labor force. This figure can go up during national recessions and/or when more localized economies are affected by area downturns. Seasonal variations in unemployment can be viewed in the EPS Socioeconomic Measures report at <https://headwaterseconomics.org/eps>.

Average earnings per job is an indicator of the quality of local employment. A higher average earning per job indicates relatively more high-wage occupations.⁴ It can be useful to consider earnings against local cost of living indicators.

Per capita income is one of the most important measures of economic well-being. However, it can be misleading. Per capita income is total personal income divided by population. Because per capita income is calculated using total population and not the labor force, per capita income can be relatively low when a disproportionate number of children and/or elderly people are in the population. And because total personal income includes non-labor income sources, per capita income can be relatively high due to the presence of retirees and people with investment income. To investigate the impact of non-labor income sources on total personal income, create the EPS Non-Labor report at <https://headwaterseconomics.org/eps>.

To see how these measurements have changed over time, create an EPS Socioeconomic Measures report at <https://headwaterseconomics.org/eps>.

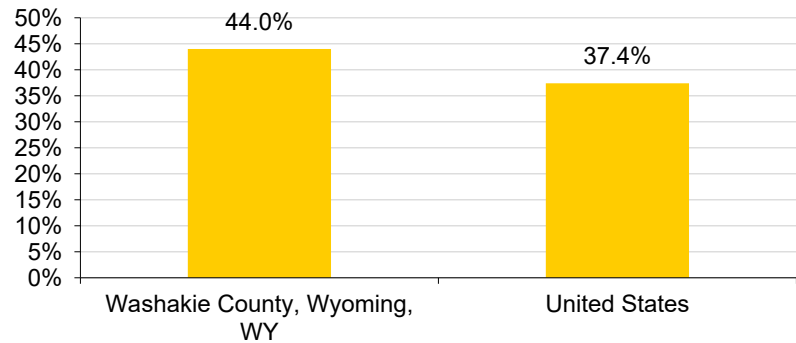
Summary

Washakie County, WY

Non-Labor Income, Services, and Government

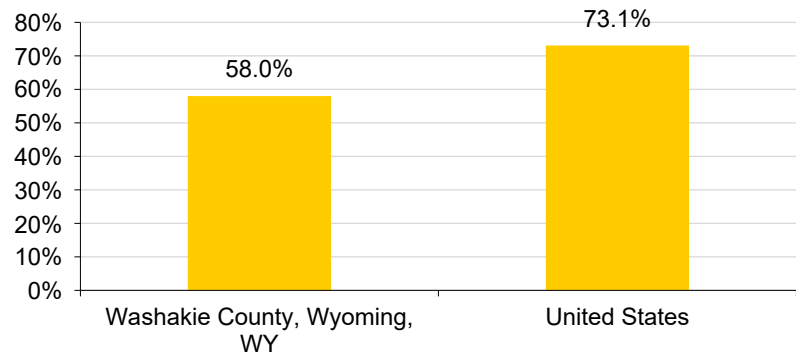
- In 2018, Washakie County, Wyoming, WY had the largest percent of total personal income from non-labor income sources (44%), and United States had the smallest (37.4%).

Non-Labor Income, Percent of Total Personal Income, 2018



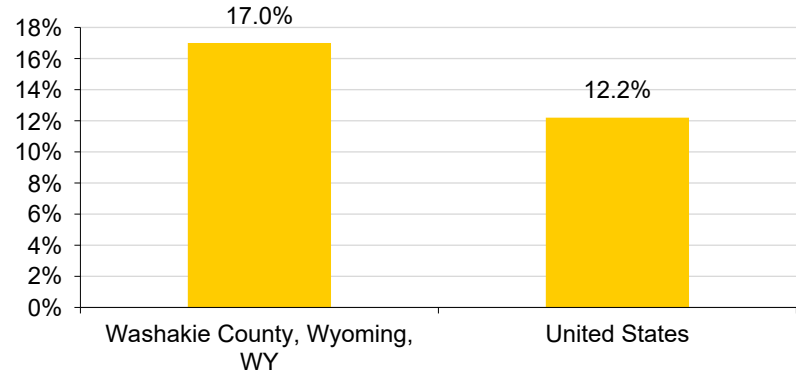
- In 2018, United States had the largest percent of total jobs in services (73.1%), and Washakie County, Wyoming, WY had the smallest (58%).

Services, Percent of Total Employment, 2018



- In 2018, Washakie County, Wyoming, WY had the largest percent of total jobs in government (17%), and United States had the smallest (12.2%).

Government, Percent of Total Employment, 2018



Summary

Washakie County, WY

Non-Labor Income, Services, and Government

What do we measure on this page?

This page describes non-labor income and employment in services and government.¹

Non-Labor Income: Dividends, interest and rent (money earned from investments), and transfer payments (includes government retirement and disability insurance benefits, medical payments such as Medicare and Medicaid, income maintenance benefits, unemployment insurance benefits, etc.). Non-labor income is reported by place of residence.

Services: Employment in the following sectors: Utilities, Wholesale Trade, Retail Trade, Transportation & Warehousing, Information, Finance & Insurance, Real Estate & Rental & Leasing, Professional & Scientific & Tech., Management of Companies & Enterprises, Administrative & Support Services, Educational Services, Health Care & Social Assistance, Arts & Entertainment & Recreation, Accommodation & Food Services, and Other Services.

Government: Employment in federal, state, and local government agencies and government enterprises.

For more detailed information about the role of non-labor income, service industry employment, and government employment in the economy, create an EPS Non-Labor report, an EPS Services report, or an EPS Government report at <https://headwaterseconomics.org/eps>.

Why is it important?

In many counties, non-labor income (for example, retirement and investment income, government transfer payments) can be more than a third of all personal income. As the Baby Boomer generation retires, this source of income will continue to grow. A high dependence on non-labor income can indicate a location with an aging population and/or attractiveness to people with investment income. In some cases, it can also signal hardship, such as when there is a high dependence on Medicaid and income maintenance payments.

Nationally, services account for more than 95 percent of the growth in new jobs since 2000. Despite the strong growth of employment in services, the term "services" is often misunderstood. Services consist of a wide mix of jobs including high-wage, high-skilled occupations (e.g., doctors, engineers, software developers) and low-wage, low-skilled occupations (e.g., restaurant workers, tour bus operators). The service sector typically provides services, such as banking and education, rather than creating tangible objects. However, many service sectors such as utilities, engineering, and architecture are closely associated with goods-producing sectors.

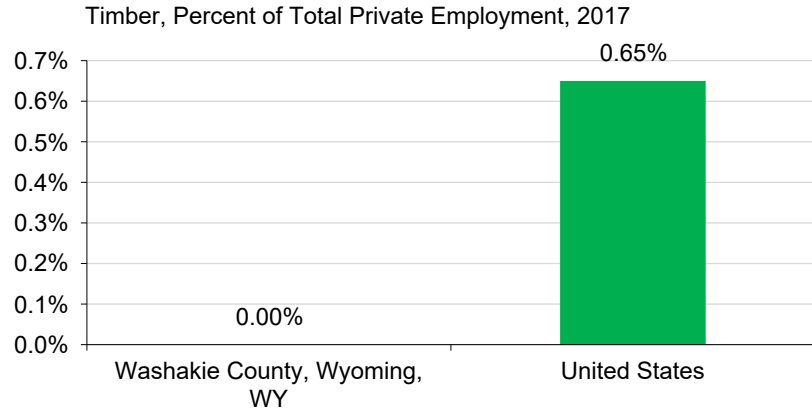
Government can be a major employer in some locations, particularly in rural areas and locations with significant government facilities such as federal land management offices, military bases, prisons, or research facilities. Changes in government employment tend to track population trends. Local government often accounts for much of job growth in the government sector as additional services are demanded by a growing population.

Summary

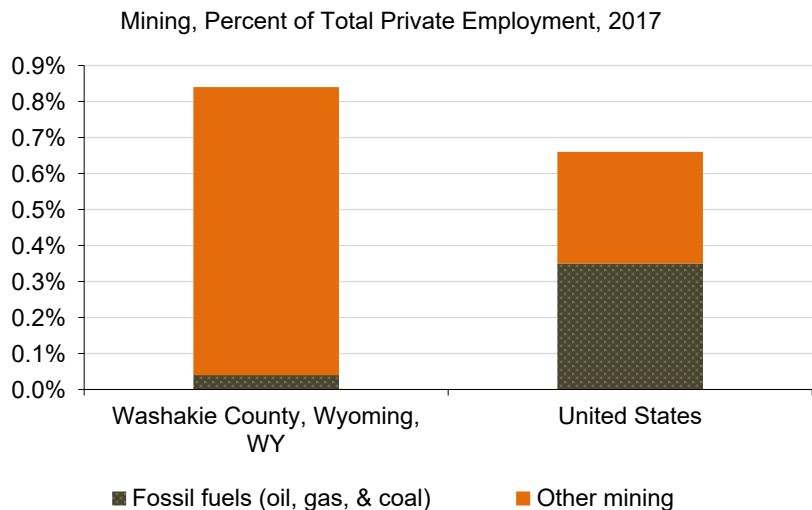
Washakie County, WY

Employment in Commodity Sectors

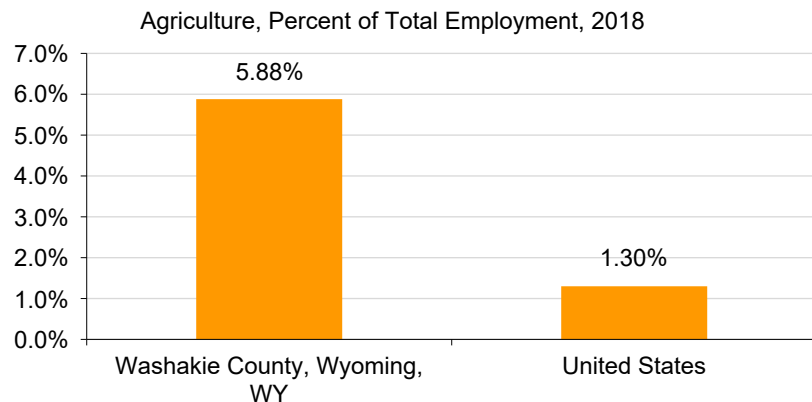
- In 2017, United States had the largest percent of total jobs in timber (0.65%), and Washakie County, Wyoming, WY had the smallest (0%).



- In 2017, United States had the largest percent of total jobs in mining of fossil fuels (0.35%), and Washakie County, Wyoming, WY had the smallest (0.04%).
- In 2017, Washakie County, Wyoming, WY had the largest percent of total jobs in mining unrelated to fossil fuels (0.8%), and United States had the smallest (0.31%).



- In 2018, Washakie County, Wyoming, WY had the largest percent of total jobs in agriculture (5.88%), and United States had the smallest (1.3%).



Summary

Washakie County, WY

Employment in Commodity Sectors

What do we measure on this page?

This page describes employment¹ in three commodity sectors: timber, mining (minerals, oil, gas, and coal), and agriculture. These are sectors of the economy that extract commodities from land (for example, timber harvesting, energy development, and grazing).

Timber: Employment associated with growing and harvesting trees, employment at sawmills and paper mills, and wood products manufacturing.

Mining: Employment associated with oil and gas extraction, coal mining, metals mining, and nonmetallic minerals mining.

Agriculture: Employment associated with all forms of agriculture, including farming and ranching.

County Business Patterns (CBP)⁵ are used in EPS reports as a data source for timber and mining because this data set has fewer data gaps compared to other sources.

The Bureau of Economic Analysis (BEA) is used as the data source for agriculture because CBP data do not include agriculture. However, the BEA data include proprietors, which are not included in CBP data. As a result, the data for agriculture are not strictly comparable to data for timber and mining. The latest year for each data source may vary due to different data release schedules.

For more detailed information about commodity sectors and for industry definitions, create an EPS Timber, Mining, or Agriculture report at <https://headwaterseconomics.org/eps>.

Why is it important?

Opportunities for commodity extraction can stimulate local employment.

Timber industries, mining—including fossil fuel development (oil, natural gas, and coal)—and farming and ranching play important roles in some locations. Information on this page helps explain whether that is the case in the locations selected, and whether locations differ from one another.

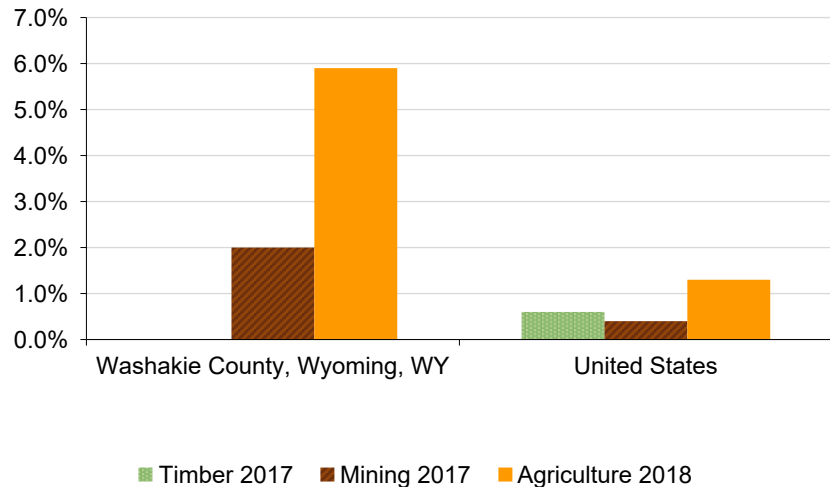
Summary

Washakie County, WY

Employment in Commodities, Travel & Tourism

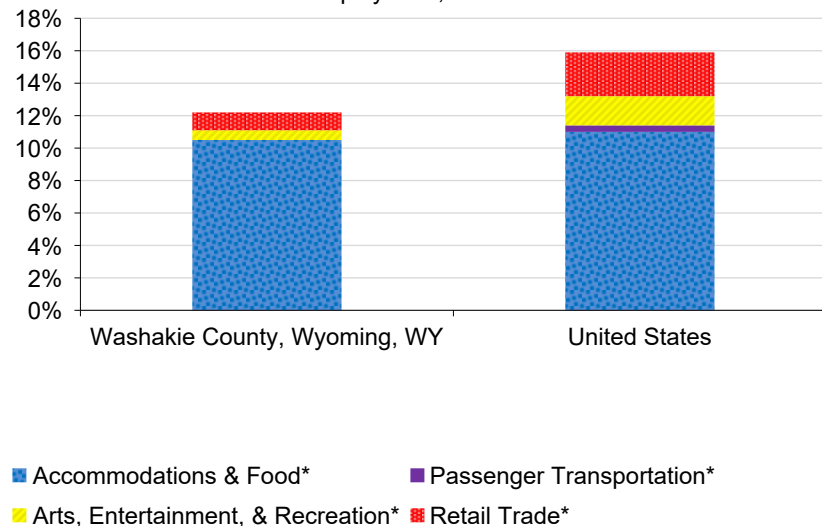
- Washakie County, Wyoming, WY had the largest percent of total jobs in commodity sectors (7.9%), and United States had the smallest (2.3%).
- Agriculture was the largest component of commodity sector employment (5.9% of total jobs) in the Washakie County, WY, and timber was the smallest component (0% of total jobs).

Commodity Sectors, Percent of Total Private Employment**



- In 2017, United States had the largest percent of total jobs in industries that include travel and tourism (15.9%), and Washakie County, Wyoming, WY had the smallest (12.2%).
- In 2017, accommodations & food* was the largest component of travel and tourism-related employment (10.5% of total jobs) in Washakie County, WY, and passenger transportation* was the smallest (0% of total jobs).

Industries that include Travel & Tourism, Percent of Total Private Employment, 2017



* Charted values do not represent the entirety of these sectors, rather their components typically related to travel & tourism.

** Data for timber and mining are from County Business Patterns which excludes proprietors, government, agriculture, and railroad. Data for agriculture are from Bureau of Economic Analysis. The latest year for each data source may vary due to different data release schedules.

Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

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Summary

Washakie County, WY

Employment in Commodities, Travel & Tourism

What do we measure on this page?

This page describes employment for commodity sectors and for industries that are associated with travel and tourism.

Commodity Sectors: Employment in timber, mining (including oil, gas, and coal), and agriculture.

Travel and Tourism: Employment in sectors that provide goods and services to visitors as well as to the local population. These industries are: Retail Trade, Passenger Transportation, Arts & Entertainment & Recreation, and Accommodation & Food Services. There is no single industrial classification for travel and tourism under the North American Industrial Classification System (NAICS). The exact proportion of jobs in these sectors attributable to expenditures by visitors, including business and pleasure travelers, is not known without additional research such as surveys.

County Business Patterns (CBP)⁵ are used in EPS reports as a data source for timber and mining because this data set has fewer data gaps¹ compared to other sources.

The Bureau of Economic Analysis (BEA) is used as a data source for agriculture because CBP data do not include agriculture. However, the BEA data include proprietors, which are not included in CBP data. As a result, the data for agriculture are not strictly comparable to data for timber and mining. The latest year for each data source may vary due to different data release schedules.

For more detailed information about commodity sectors and for industry definitions, create an EPS Timber, Mining, or Agriculture report. For more information about the tourism-related components of the economy, create an EPS Tourism report at <https://headwaterseconomics.org/eps>.

Why is it important?

Commodity extraction can stimulate local employment. It is important to understand the relative size of sectors to put the commodity-related economy into perspective. For example, decisions that permit (or restrict) timber, mining, and grazing activities have a higher chance of impacting a county with a high percentage of its employment in the commodity sectors.

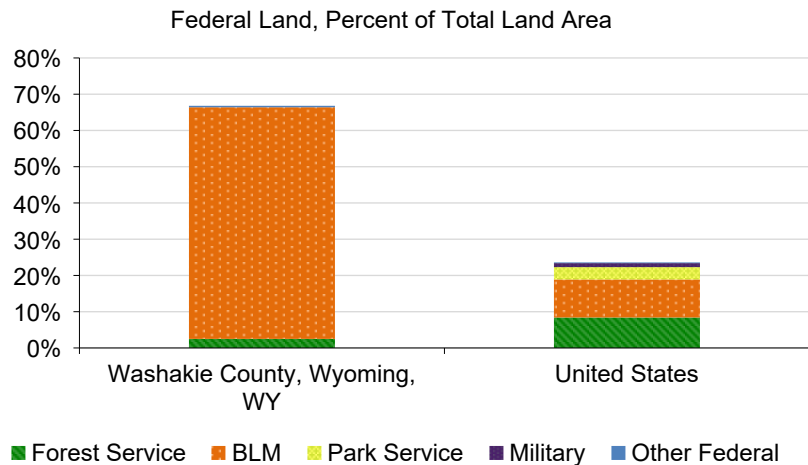
Tourism and recreation can stimulate local employment. Communities can benefit directly from visitors who spend money in hotels, restaurants, ski resorts, gift shops, and elsewhere. Tourism can also help communities retain and attract capital and spur transitions to move diverse economies. This report can be used to understand whether travel-and tourism-related economic activity is present and whether there are differences between locations.

Summary

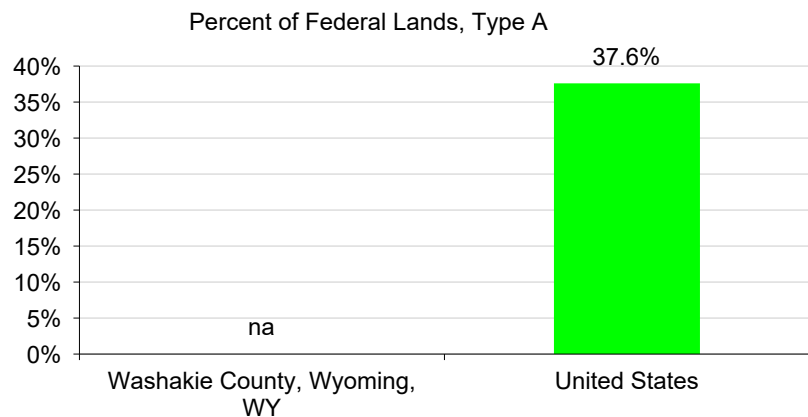
Washakie County, WY

Federal Lands and Federal Land Payments

- Washakie County, Wyoming, WY had the largest percent of total land area in federal ownership (66.9%), and United States had the smallest (23.5%).
- BLM lands were the largest component of federal land ownership (63.9%) in Washakie County, WY, and Park Service lands were the smallest (0%).

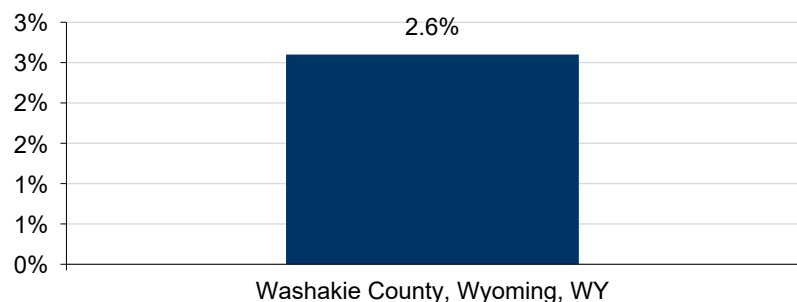


- United States had the largest percent of federal lands in Type A (37.6%), and Washakie County, Wyoming, WY had the smallest (0%).



- In FY 2017, Washakie County, Wyoming, WY had the largest percent of total general government revenue from federal land payments (2.6%), and Washakie County, Wyoming, WY had the smallest (2.6%).

Federal Land Payments, Percent of Total General Government Revenue, 2017



Data Sources: NASA MODIS Land Cover Type Yearly L3 Global 1km MOD12Q1, 2006; U.S. Geological Survey, Gap Analysis Program. 2018. Protected Areas Database of the United States (PADUS) version 2.0; U.S. Department of Commerce. 2020. Census Bureau, Governments Division, Washington, D.C.

Summary

Washakie County, WY

Federal Lands and Federal Land Payments

What do we measure on this page?

This page describes differences in the percent of federal land ownership by agency; the share of federal lands managed primarily for natural, cultural, and recreational features; and the percent of county revenue derived from payments related to federal lands.

Type A Federal Lands: Federal public lands that are managed primarily for natural, cultural, and recreational features. There can be exceptions (for example, oil and gas development within a National Monument area), but generally Type A lands are less likely to be used for commodity production than other federal land types. Type A lands include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS), Waterfowl Production Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS). These definitions of land classifications are not legal or agency-adopted classifications—they are only provided for comparative purposes.

NPS = National Park Service; FS = Forest Service; BLM = Bureau of Land Management; FWS = Fish & Wildlife Service.

For additional information about land ownership and development patterns, create an EPS Land Use report. The EPS Public Land Amenities report provides additional information about the role of environmental amenities in economic development; see <https://headwaterseconomics.org/eps>.

Federal Land Payments: Federal payments that compensate state and local governments for non-taxable federal lands within their borders. Payments are funded by federal appropriations (e.g., PILT), from receipts received by federal agencies from activities on federal public lands (e.g., timber, grazing, and minerals), and from other programs such as the Secure Rural Schools & Community Self-Determination Act.

For additional information about the importance of federal payments to counties, create an EPS Federal Land Payments report at <https://headwaterseconomics.org/eps>.

Why is it important?

Understanding the composition of land ownership and management in an area is important because actions on federal lands may affect the local economy, particularly when federal lands are a large portion of the land base.

Some Type A federal public lands prohibit most forms of commercial use and development. These lands include national parks, wilderness areas, and national monuments. Because these lands are managed primarily for their non-commercial values (i.e., scenery, wildlife, recreation), they potentially play a different economic role than public lands more commonly associated with commodity sectors.^{6, 7}

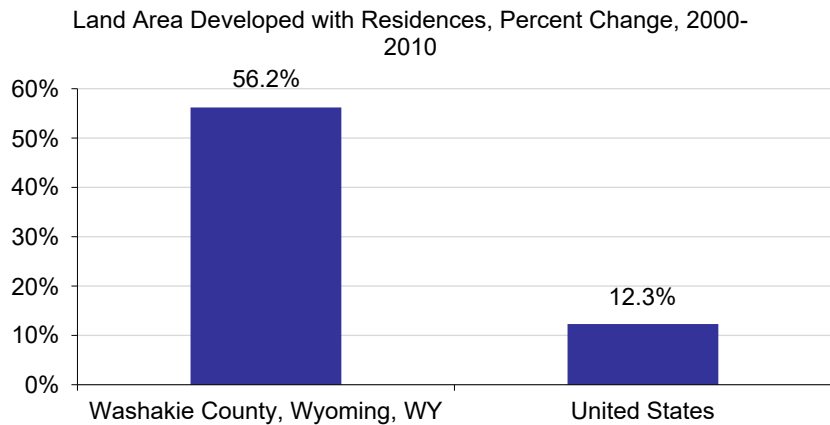
Locations with federal public lands receive government payments—for example, funding through Payments in Lieu of Taxes (PILT), the 25% Fund, or the Secure Rural Schools and Community Self-Determination Act. When these payments are a significant portion of the local county's budget, activities on public lands may affect the fiscal well-being of a county.⁸

Summary

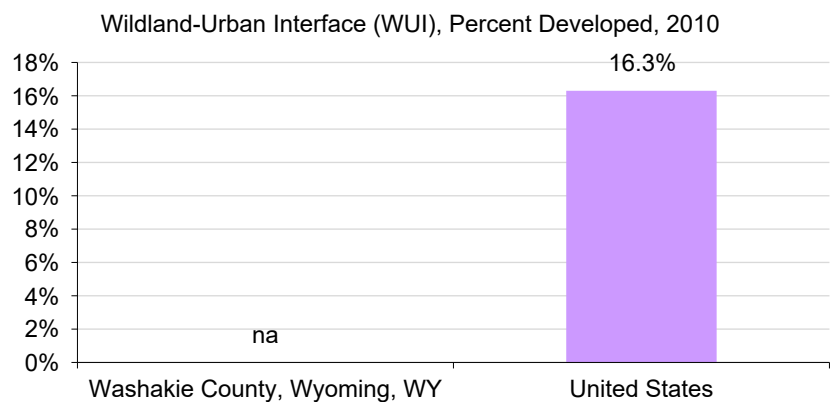
Washakie County, WY

Development and the Wildland-Urban Interface

- Between 2000 and 2010, Washakie County, Wyoming, WY had the largest percent change in residential land area developed (56.2%), and United States had the smallest (12.3%).



- In 2010, United States had the largest proportion of the wildland-urban interface that is developed (16.3%), and United States had the smallest (16.3%).



Data Sources: Theobald, DM. 2013. Land use classes for ICLUS/SERGoM v2013. Unpublished report, Colorado State University; Gude, P.H., Rasker, R., and van den Noort, J. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4):198-205; U.S. Department of Commerce. 2011. TIGER/Line 2010 Census Blocks and 2010 Summary File 1, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Page 18

Summary

Washakie County, WY

Development and the Wildland-Urban Interface

What do we measure on this page?

This page describes residential development on private lands, and the proportion of the wildland-urban interface (WUI) that is developed.⁹ The EPS Land Use report provides additional information on land ownership, management, cover, and development: <https://headwaterseconomics.org/eps>.

This information is available only for the 11 western states and does not include Alaska and Hawaii.

Wildland-Urban Interface (WUI): Private forestlands that are within 500 meters of public forestlands. We use the threshold of 500 meters to identify the existing and potential WUI area because guidelines for the amount of defensible space necessary to protect homes from wildfire range from 40 to 500 meters around a home. We focus on adjacency to public forests because roughly 70 percent of western forests are publicly owned and because wildfire is a natural disturbance in many of these forests, creating a potential risk to adjacent private lands.¹⁰

Why is it important?

The conversion of open space and agricultural land to residential development has occurred at a rapid pace in many parts of the U.S. The popularity of exurban lot sizes in much of the country has exacerbated this trend. (Low-density development results in a larger area of land converted to residential development). The pattern of development can reflect a number of factors, including demographic trends, the increasingly "footloose" nature of economic activity, the availability and price of land, and preferences for homes on larger lots. Locations with a large percent change in the area of residential development often have experienced significant in-migration from more urbanized areas. Counties with a small percent change either experienced little growth or were already highly urbanized in 2000.

Development of homes adjacent to fire-prone federal public lands poses several challenges including the rising cost of protecting homes from wildfires; increased danger to wildland firefighters; and the consumption of funds that might otherwise be used for restoration, recreation, research, and other activities. When protecting homes is a priority, agencies are unable to allow otherwise beneficial fires to burn, even those that could reduce fuel loads.

Summary

Washakie County, WY

Data Sources & Methods

This EPS Summary report uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **County Business Patterns**

Census Bureau, U.S. Department of Commerce
<https://www.census.gov/programs-surveys/cbp.html>
Contacts
<https://www.census.gov/about/contact-us.html>

The EPS Summary report also uses data derived from Geographic Information Systems (GIS) to show more accurate statistics for land ownership:

- **Regional Economic Information Data**

Bureau of Economic Analysis, U.S. Department of Commerce
https://www.bea.gov/iTable/index_regional.cfm
Contacts
<https://www.bea.gov/contacts/search.htm>

- **TIGER/Line County Boundaries**

Bureau of the Census, U.S. Department of Commerce
<https://www.census.gov/geo/maps-data/data/tiger.html>

- **Local Area Unemployment Statistics**

Bureau of Labor Statistics, U.S. Department of Labor
<https://www.bls.gov/lau/>
Contacts
<https://www.bls.gov/bls/contact.htm>

- **Protected Areas Database**

U.S. Geological Survey, Gap Analysis Program
<https://gapanalysis.usgs.gov/padus/>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated with tildes (~) in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Summary

Washakie County, WY

Endnotes

- 1 - Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics estimates these data gaps. Estimates are indicated with tildes (~). Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.
- 2 - For details on Bureau of Economic Analysis terms, see: <https://bea.gov/regional/definitions>.
- 3 - For more information on unemployment, see the Bureau of Labor Statistics resources on this topic at <https://www.bls.gov/bls/unemployment.htm>.
- 4 - The Monthly Labor Review Online, published by the Bureau of Labor statistics, addresses earnings and wages by industry, sex, and educational achievement. Search at <https://www.bls.gov/mlr/>.
- 5- Data from County Business Patterns includes both full- and part-time employment. However, CBP data do not include employment in government, agriculture, railroads, or the self-employed and, as a result, undercount the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing relationships between sectors over time.
- 6 - For examples of literature on the economic role of environmental amenities, see: Booth DE. 1999. Spatial Patterns in the Economic Development of the Mountain West. *Growth and Change* 30(3):384-405; Duffy-Deno KT. 1998. The Effect of Federal Wilderness on County Growth in the Intermountain Western United States. *Journal of Regional Science* 38(1):109-136; Lorah P and Southwick R. 2003. Environmental Protection, Population Change, and Economic Development in the Rural Western United States. *Population and Environment* 24(3):255-272; McGranahan DA. 1999. Natural Amenities Drive Rural Population Change. USDA Economic Research Service, Agricultural Economic Report No. 781. https://www.ers.usda.gov/webdocs/publications/41047/13201_aer781.pdf?v=42061; Rasker R. 2006. An Exploration Into the Economic Impact of Industrial Development Versus Conservation on Western Public Lands. *Society & Natural Resources* 19(3):191-207; Rudzitis G, Johansen HE. 1991. How Important is Wilderness? Results from a United States Survey. *Environmental Management* 15(2):227-233.
- 7- A bibliography of studies documenting the economic role of public lands can be found here: https://headwaterseconomics.org/wp-content/uploads/Annotated_Bib_Value_Public_Lands.pdf.
- 8- An online data visualization and map showing the history of federal land payments to counties can be seen here: <https://headwaterseconomics.org/dataviz/county-payments/>
- 9- For resources related to the wildland-urban interface (WUI), including planning tools and related solutions, see <https://headwaterseconomics.org/wildfire/>.
- 10- For a description of the methods used to define and measure the wildland-urban interface, see: Gude P, Rasker R, and van den Noort J. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4):198-205.



A Profile of Industries that Include Travel & Tourism

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Travel & Tourism

Washakie County, WY

Travel & Tourism Sectors

	Washakie County, Wyoming, WY	United States
Total Private Employment, 2017	2,620	128,591,812
Travel & Tourism Related	318	20,416,477
Retail Trade	28	3,459,374
Gasoline Stations	19	943,917
Clothing & Accessory Stores	0	1,757,843
Misc. Store Retailers	9	757,614
Passenger Transportation	0	499,964
Air Transportation	0	470,353
Scenic & Sightseeing Transport	0	29,611
Arts, Entertainment, & Recreation	15	2,368,928
Performing Arts & Spectator Sports	0	508,311
Museums, Parks, & Historic Sites	0	154,376
Amusement, Gambling, & Rec.	15	1,706,241
Accommodation & Food	275	14,088,211
Accommodation	99	2,111,433
Food Services & Drinking Places	176	11,976,778
Non-Travel & Tourism	2,302	108,175,335

Percent of Total

Travel & Tourism Related	12.1%	15.9%
Retail Trade	1.1%	2.7%
Gasoline Stations	0.7%	0.7%
Clothing & Accessory Stores	0.0%	1.4%
Misc. Store Retailers	0.3%	0.6%
Passenger Transportation	0.0%	0.4%
Air Transportation	0.0%	0.4%
Scenic & Sightseeing Transport	0.0%	0.0%
Arts, Entertainment, & Recreation	0.6%	1.8%
Performing Arts & Spectator Sports	0.0%	0.4%
Museums, Parks, & Historic Sites	0.0%	0.1%
Amusement, Gambling, & Rec.	0.6%	1.3%
Accommodation & Food	10.5%	11.0%
Accommodation	3.8%	1.6%
Food Services & Drinking Places	6.7%	9.3%
Non-Travel & Tourism	87.9%	84.1%

The major industry categories (retail trade; passenger transportation; arts, entertainment, and recreation; and accommodation and food) in the table above are the sum of the sub-categories underneath them and as shown here do not represent NAICS codes. The data does not include employment in government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are indicated with tildes (~).

Travel & Tourism

Washakie County, WY

Travel & Tourism Sectors

What do we measure on this page?

This page describes the number of jobs (full- and part-time) and the share of total jobs in industries that include travel and tourism.

Travel and Tourism: Sectors that provide goods and services to visitors as well as to the local population. These industries are Retail Trade, Passenger Transportation, Arts & Entertainment & Recreation, and Accommodation & Food Services.¹

The exact proportion of jobs in these sectors attributable to expenditures by visitors, including business and pleasure travelers, is not known without additional research such as surveys. Some researchers refer to these sectors as "tourism-sensitive." They could also be called "travel and tourism-potential sectors" because they have the potential of being influenced by expenditures by non-locals. In this report, they are referred to as "industries that include travel and tourism."

There is no single industrial classification for travel and tourism under the North American Industrial Classification System (NAICS). However, there are sectors that provide goods and services to visitors to a local economy. We reviewed the published literature to discern how others identified industries that are part of travel and tourism.² These industries (identified by 3-digit NAICS codes in parentheses³) include:

Retail Trade: Gasoline Stations (447), Clothing and Accessory Stores (448), Miscellaneous Store Retailers (453; includes Gift, Novelty, and Souvenir)

Passenger Transportation: Air Transportation (481), Scenic and Sightseeing Transportation (487)

Arts, Entertainment, and Recreation: Performing Arts and Spectator Sports (711); Museums, Parks, and Historical Sites (712; includes National Parks, Conservation Areas); Amusement, Gambling, and Recreation (713; includes Golf Courses, Alpine and Cross Country Skiing Facilities)

Accommodation and Food: Accommodation (721; includes ski resorts, hotels, casino hotels, campgrounds, guest ranches), Food Services and Drinking Places (722)

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. Compared to other sources, CBP has fewer data gaps (instances when the federal government will not release data to protect confidentiality of individual businesses). It also includes both full- and part-time employment. However, CBP data do not include employment in government, agriculture, railroads, or the self-employed. Also, CBP data are based on mid-March employment and do not account for seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between places, and showing relationships between sectors over time.

Why is it important?

The information on this page is useful for explaining whether sectors that are likely to be associated with travel or tourism exist within the selected location. Travel and tourism related sectors are often a larger component of overall employment in locations where visitors spend money on hotels, restaurants, ski resorts, gift shops, and other expenses associated with recreation.^{4, 5}

While the information in this report is not an exact measure of the size of the travel and tourism sectors, it can be used to understand whether travel and tourism-related economic activity is present, how it has changed over time, and whether there are differences between locations.

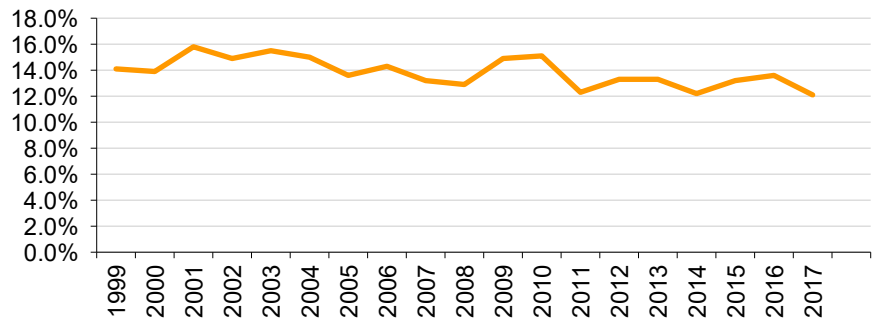
Travel & Tourism

Washakie County, WY

Travel & Tourism Employment Trends

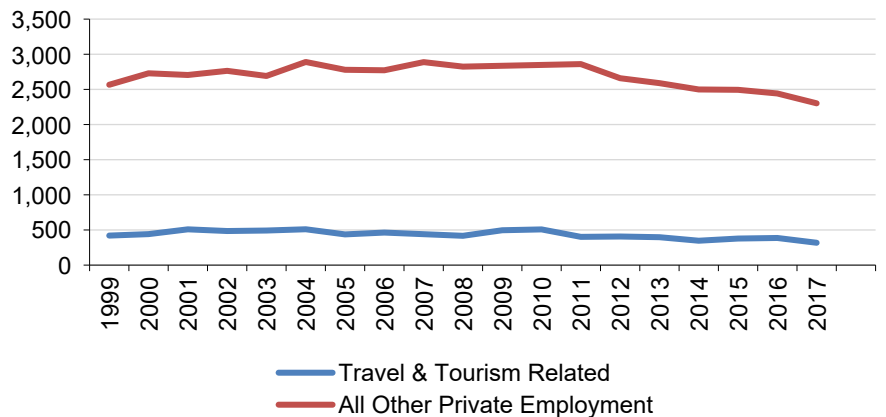
- In 1998, travel & tourism represented 15% of total employment. By 2017, travel & tourism represented 12% of total employment.

Percent of Total Private Employment in Industries that Include Travel & Tourism, Washakie County, WY, 1998-2017



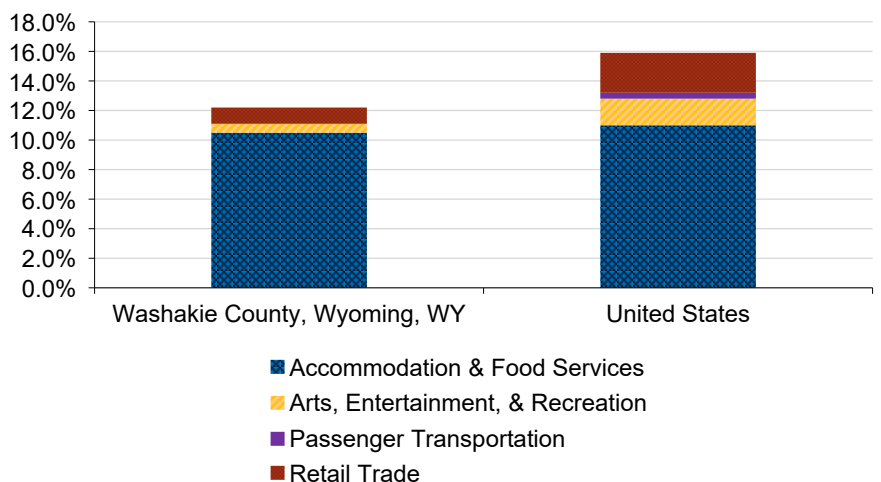
- From 1998 to 2017, travel & tourism employment shrank from 446 to 318 jobs, a 28.7% decrease.
- From 1998 to 2017, non-travel & tourism employment shrank from 2,611 to 2,302 jobs, a 11.8% decrease.

Total Jobs in Industries that Include Travel & Tourism, Washakie County, WY, 1998-2017



- In 2017, United States had the largest percent of total travel & tourism employment (15.9%), and Washakie County, Wyoming, WY had the smallest (12.1%).

Percent of Total Private Employment in Industries that Include Travel & Tourism, 2017



Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

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Data and Graphics | Page 6

Travel & Tourism Employment Trends

What do we measure on this page?

This page describes trends in industries that include travel and tourism as a percent of all jobs and compares industries containing travel and tourism to the rest of the economy. It also shows jobs in industries that include travel and tourism as a percent of total employment.

Importantly, the charts on this page show the size of sectors that generally contain travel and tourism as components. The share of the sectors that corresponds to travel and tourism activities will vary among locations.

It may be useful to supplement the information in this report with surveys and data from: 1) state tourism offices, which sometimes track indicators such as tourism employment, hotel receipts, bed taxes, etc.; 2) local Chambers of Commerce and tourism promotion groups; and 3) visitor information from land management agencies including the U.S. Forest Service,⁶ Bureau of Land Management, Fish & Wildlife Service, and National Park Service offices. In addition, it may be useful to supplement published statistics with computer models such as IMPLAN.⁷

The top two charts on this page start in 1998 because that is the year the U.S. Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS). The major industry categories (Retail Trade; Passenger Transportation; Arts, Entertainment, & Recreation; and Accommodation & Food Services) in the bottom chart are the sum of the sub-categories from the initial page of this report and as shown here do not represent NAICS codes.

Why is it important?

This information is useful to understand whether sectors that are likely to be associated with travel and tourism are growing or declining. It is less useful as a measure of the absolute size of employment in travel and tourism. A detailed knowledge, obtained through surveys and other means, is required to determine the proportion of a sector's employment that is due to local expenditures versus expenditures from visitors.^{8, 9}

In some locations, travel and tourism are significant drivers of the economy. This can be true for "resort" economies but also for areas that have abundant natural and social amenities, and offer recreational opportunities.¹⁰ In some of these places, travel and tourism-related employment is growing faster than overall employment.⁴ While pleasure travel and recreation are important economic activities in and of themselves, they also stimulate other forms of economic development when people move families and businesses to communities they first visited as tourists.

The EPS Public Land Amenities report provides additional information about amenity-led migration:

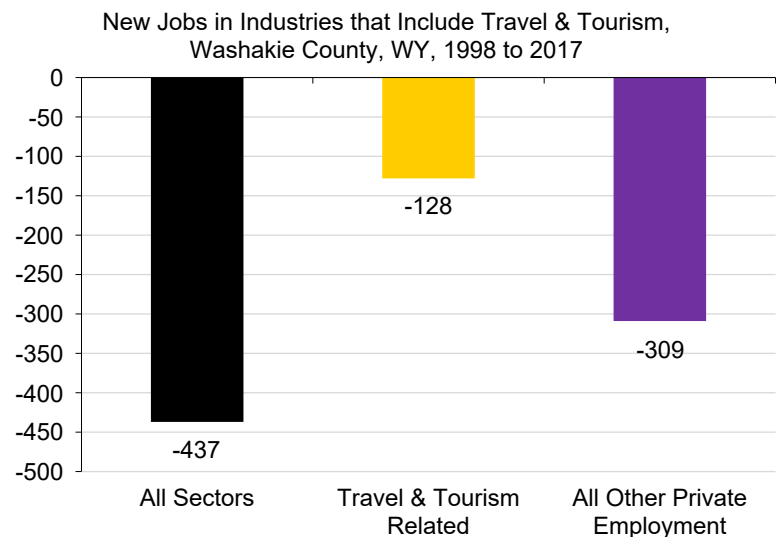
<https://headwaterseconomics.org/eps>.

Travel & Tourism

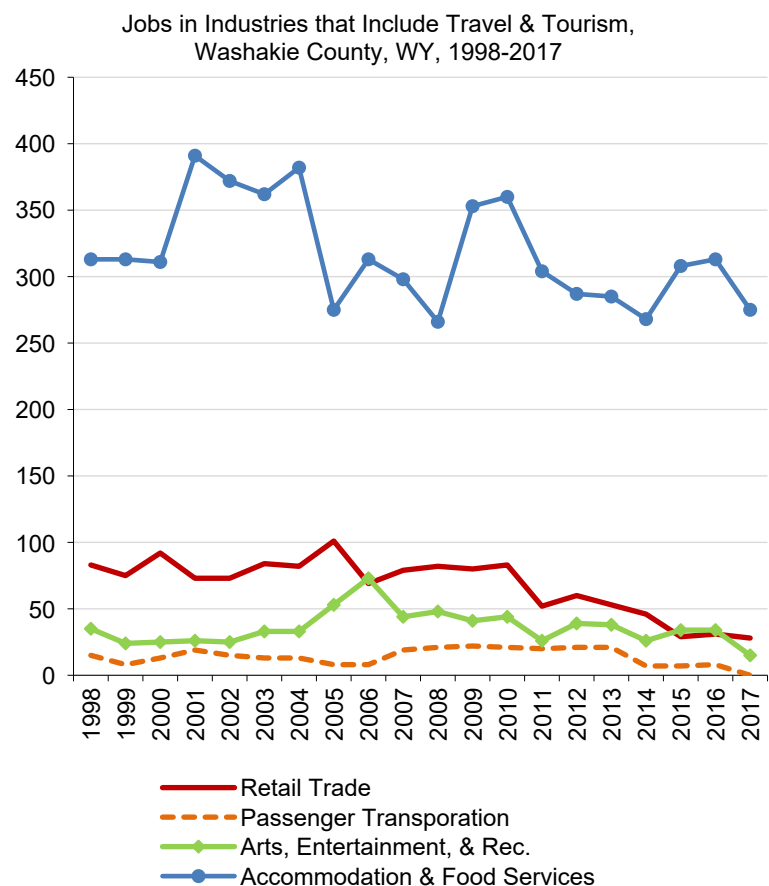
Washakie County, WY

Travel & Tourism Employment Trends (cont.)

- From 1998 to 2017, travel & tourism employment shrank by 128 jobs.
- From 1998 to 2017, non-travel & tourism employment shrank by 309 jobs.



- From 1998 to 2017, retail trade shrank from 83 to 28 jobs, a 66.3% decrease.
- From 1998 to 2017, passenger transportation shrank from 15 to jobs, a 100% decrease.
- From 1998 to 2017, arts, entertainment, and recreation shrank from 35 to 15 jobs, a 57.1% decrease.
- From 1998 to 2017, accommodation and food services shrank from 313 to 275 jobs, a 12.1% decrease.



Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

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Data and Graphics | Page 8

Travel & Tourism Employment Trends (cont.)

What do we measure on this page?

This page compares employment in sectors that include travel and tourism to other sectors and compares how the various industries that include travel and tourism have changed over time.

The charts on this page start in 1998 because that is the year the U.S. Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS). The major industry categories (Retail Trade; Passenger Transportation; Arts, Entertainment, & Recreation; and Accommodation & Food Services) in the bottom chart are the sum of the sub-categories from the initial page of this report and as shown here do not represent NAICS codes.

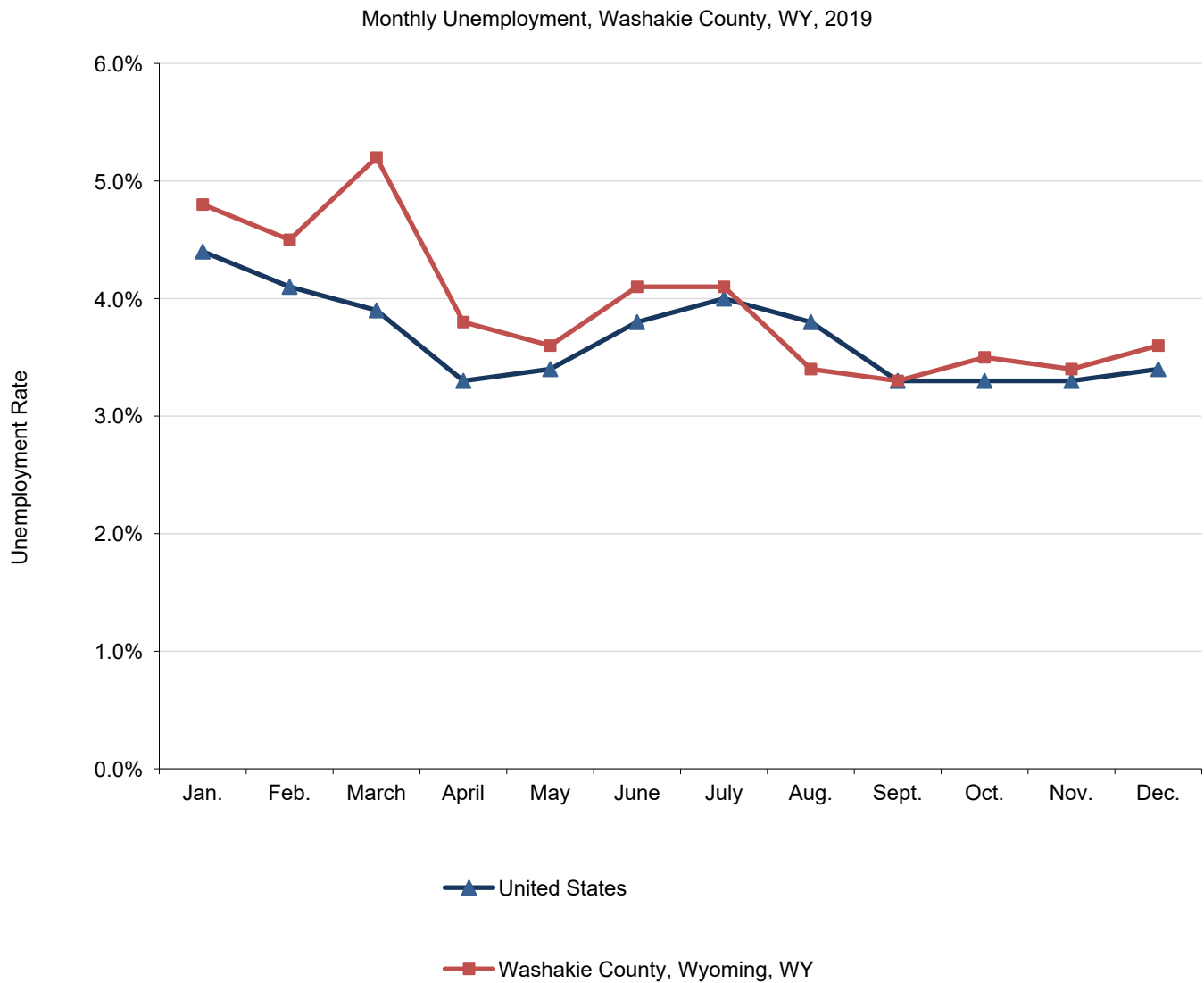
Why is it important?

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In some locations, travel and tourism are significant drivers of the economy. This can be true for "resort" economies but also for areas that have abundant natural and social amenities, and offer recreational opportunities.^{10, 11} In some of these places, travel and tourism-related employment is growing faster than overall employment. While pleasure travel and recreation are important economic activities in and of themselves, they also stimulate other forms of economic development when people move families and businesses to communities they first visited as tourists.

The EPS Public Land Amenities report provides additional information about amenity-led migration:
<https://headwaterseconomics.org/eps>.

Seasonality of Unemployment



- In 2019, Washakie County, WY had the most change in unemployment (biggest absolute value of difference between min and max), and United States had the least (smallest absolute value of difference between min and max).

Seasonality of Unemployment

What do we measure on this page?

This page describes differences in the seasonality of unemployment, which occurs when people are unemployed at times of the year when demand for labor is lower than usual. Tourism is often associated with seasonal unemployment since work is only available for part(s) of the year when visitation is high.

This page uses data from the Bureau of Labor Statistics to show the change in month-to-month unemployment.¹²

Unemployed people are those who are jobless, available for work, and looking for jobs.

People with full- or part-time jobs are considered employed, and those people who are neither employed nor unemployed are not considered to be in the labor force.

Note: If many locations are selected, it may be difficult to read the figure on this page.

Why is it important?

Unemployment rate fluctuations reflect the hiring and layoff patterns that can accompany tourism due to visitation changes in winter holidays and summer vacations. It is possible that some seasonal workers may not live in the location selected and therefore are not accounted in the unemployment figures. Seasonal unemployment also occurs in places that have a relatively high concentration in construction, fishing, and agriculture sectors.

The EPS Socioeconomic Measures report provides further analysis of long-term trends in unemployment:

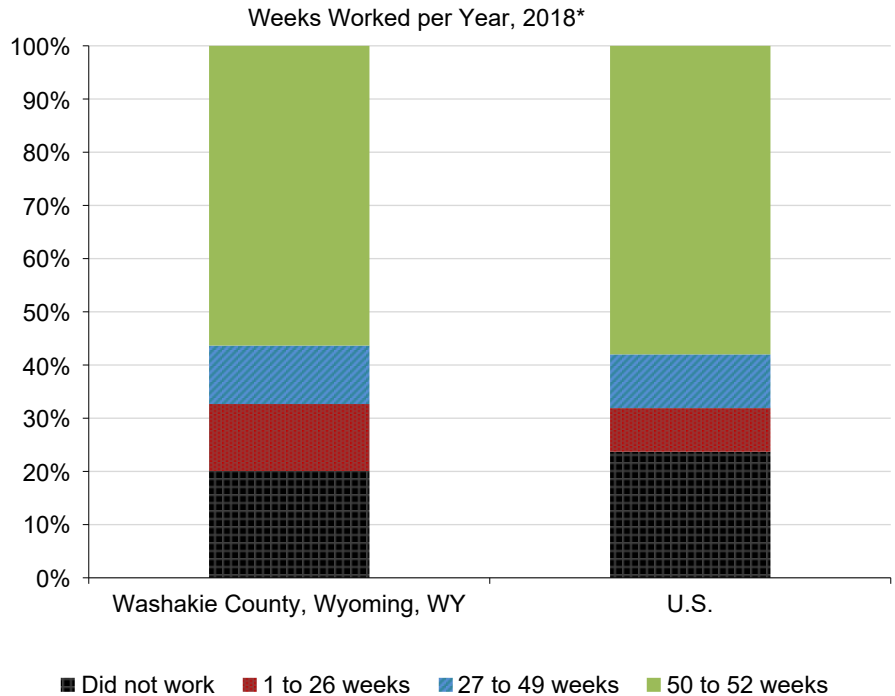
<https://headwaterseconomics.org/eps>.

Travel & Tourism

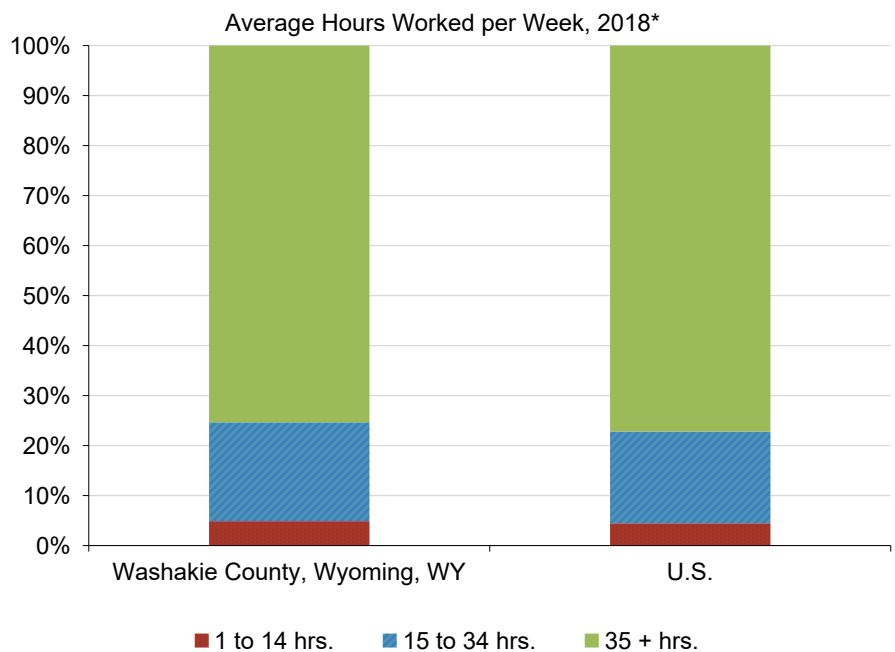
Washakie County, WY

Part-Time Employment

- In 2018, 32.7 percent of workers in Washakie County, WY worked less than 40 weeks over the course of the year, compared to 31.9 percent for United States.



- In 2018, 19.7 percent of workers in Washakie County, WY worked less than 35 hours per week on average, compared to 17.4 percent for the United States.



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Part-Time Employment

What do we measure on this page?

This page describes part-time work, which can be more common in tourism-related industries.

The U.S. Census Bureau provides two standard measures of part-time work: weeks worked per year and average hours worked per week. The Census reports these data for the population of age 16 to 64.

Why is it important?

Places that rely economically on tourism can have higher rates of part-time workers. While part-time work along is not a measure of tourism, it can be used to complement other data in this report and from elsewhere to evaluate the nature and extent of tourism activities in the selected locations.⁷

Travel & Tourism

Washakie County, WY

Wages and Employment

	Washakie County, Wyoming, WY	United States
All Sectors, 2018 (2019 \$s)	\$41,569	\$58,297
Private	\$40,989	\$58,228
Travel & Tourism	\$14,299	\$26,167
Retail Trade	\$20,364	\$24,280
Gasoline Stations	\$18,899	\$22,896
Clothing & Accessories	na	\$23,154
Misc. Store Retailers	\$23,745	\$27,650
Passenger Transportation	\$0	\$86,832
Air Transportation	na	\$90,314
Scenic & Sightseeing	\$0	\$35,345
Arts, Entertainment, & Rec.	\$14,246	\$39,587
Performing Arts & Spectator Sports	na	\$95,825
Museums, Parks, & Historic Sites	na	\$36,379
Amusement, Gambling, & Rec.	\$14,246	\$23,253
Accommodations & Food	\$13,395	\$21,947
Accommodation	\$18,654	\$32,689
Food Services & Drinking Places	\$11,947	\$20,112
Non-Travel & Tourism	\$41,221	\$64,309
Government	\$43,494	\$58,696

This table shows wage data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits; the major industry categories (retail trade, passenger transportation; arts, entertainment, and recreation; and accommodation and food) are the sum of the sub-categories underneath them and as shown here do not represent NAICS codes.

Percent of Total Employment

	Washakie County, Wyoming, WY	United States
Private, 2018	76.3%	85.2%
Travel & Tourism	9.9%	13.6%
Retail Trade	1.2%	2.1%
Gasoline Stations	0.8%	0.6%
Clothing & Accessories	na	0.9%
Misc. Store Retailers	0.4%	0.6%
Passenger Transportation	0.0%	0.4%
Air Transportation	na	0.3%
Scenic & Sightseeing	0.0%	0.0%
Arts, Entertainment, & Rec.	0.7%	1.6%
Performing Arts & Spectator Sports	na	0.3%
Museums, Parks, & Historic Sites	na	0.1%
Amusement, Gambling, & Rec.	0.7%	1.2%
Accommodations & Food	7.9%	9.5%
Accommodation	1.7%	1.4%
Food Services & Drinking Places	6.2%	8.1%
Non-Travel & Tourism	33.4%	71.6%
Government, 2018	23.6%	14.8%

Data Sources: U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

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Wages and Employment

What do we measure on this page?

This page describes wages (in real terms) from employment in industries that include travel and tourism, including sub-sectors, compared to wages from employment in all non-travel-and-tourism sectors combined. It also describes the percent of jobs in each category. These are shown together to illustrate the relative wage levels in industries that include travel and tourism, and how many people are employed in each sub-sector.

The primary purpose of this page is to compare the average annual wages between sectors and to investigate the relative number of people employed in high- and low-wage sectors.

Travel and Tourism: Sectors that provide goods and services to visitors as well as to the local population. These industries are Retail Trade, Passenger Transportation, Arts & Entertainment & Recreation, and Accommodation & Food Services. The exact proportion of jobs in these sectors attributable to expenditures by visitors, including business and pleasure travelers, is not known without additional research such as surveys. Some researchers refer to these sectors as “travel and tourism-potential sectors” because they have the potential of being influenced by expenditures by non-locals. In this report, they are referred to as “industries that include travel and tourism.”

The tables use wage and employment data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{13, 14}

Why is it important?

Industries that contain travel and tourism often pay relatively low wages, though this varies by industry sub-sector and by location. Some important issues to consider are how travel and tourism related industry wages compare to wages in other sectors, whether some components of travel- and tourism-related industries pay higher wages than others, and whether there are significant wage differences between locations.^{15, 16} When comparing wage levels, it is also useful to remember that many travel and tourism related jobs are seasonal and/or part-time.

Travel & Tourism

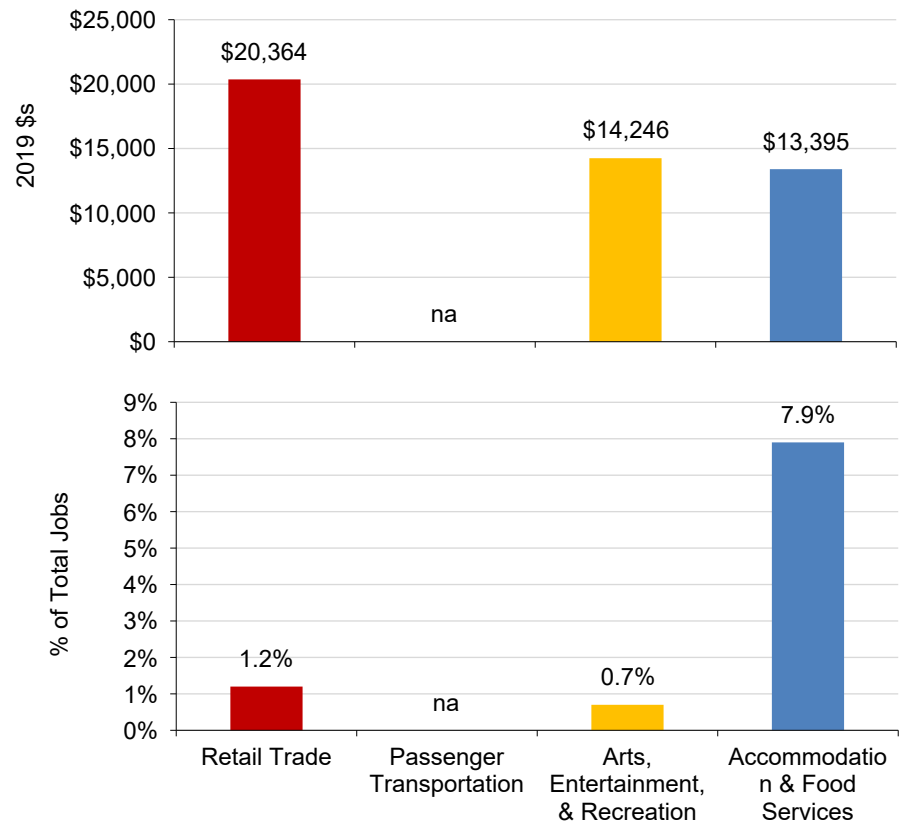
Washakie County, WY

Wages and Employment (cont.)

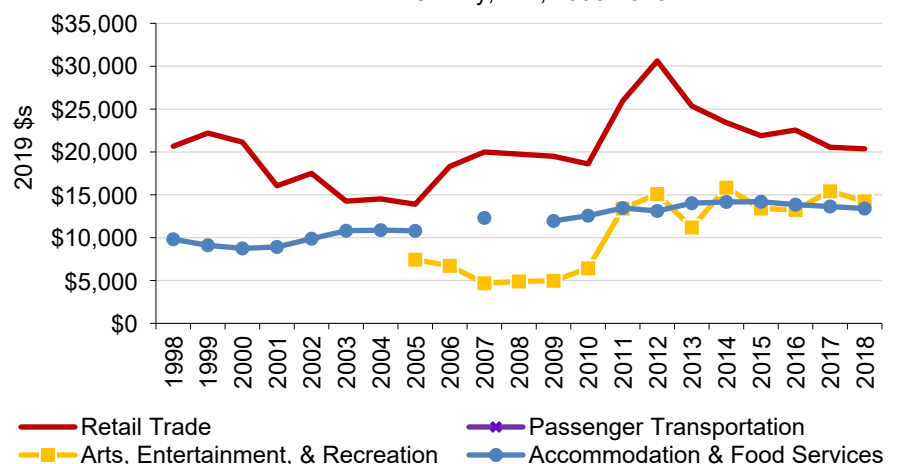
- In 2018, travel & tourism sector average wages, from highest to lowest, were: retail trade (\$20,364); arts, entertainment, & recreation (\$14,246); accommodation & food services (\$13,395); and passenger transportation (\$0).

- In 2018, travel & tourism sector percent of total employment, from highest to lowest, were: accommodation & food services (7.9%); retail trade (1.2%); arts, entertainment, & recreation (0.7%); and passenger transportation (0%).

Avg. Annual Wages and Percent of Total Jobs in Industries that Include Travel & Tourism, Washakie County, WY, 2018



Avg. Annual Wages in Industries that Include Travel & Tourism, Washakie County, WY, 1998-2018



Data Sources: U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

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Wages and Employment (cont.)

What do we measure on this page?

This page describes average wages (in real terms) and employment levels in industries that include travel and tourism. It also shows average wage trends (in real terms) for industries that include travel and tourism.

The chart *Avg. Annual Wages and Percent of Total Jobs in Industries that Include Travel & Tourism* describes how many people are working in relatively high- and low-wage travel and tourism related industries. The chart *Avg. Annual Wages in Industries that Include Travel & Tourism* is useful for comparing wage trends by sector.

The charts use wage and employment data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{13, 14} As a result, the percent-of-employment values may not exactly match values derived from County Business Patterns that are reported on previous pages. The bottom chart on this page starts in 1998 to be consistent with the start date of figures on earlier pages of this report.

The major industry categories (Retail Trade; Passenger Transportation; Arts, Entertainment, and Recreation; and Accommodation and Food Services) are the sum of the sub-categories from the previous page of this report and as shown here do not represent NAICS codes.

If your report results in significant undisclosed data, other sources for travel and tourism wage data include the state-level Bureau of Labor Statistics' Quarterly Census of Employment and Wages <https://www.bls.gov/cew/>; the Bureau of Labor Statistics' Occupational Outlook Handbook, which has detailed industry earnings and wages data at the national level <https://www.bls.gov/ooh/>; and the County Business Patterns database, which reports industry-level employment and payroll and can be used to estimate earnings <https://www.census.gov/programs-surveys/cbp.html>.

Why is it important?

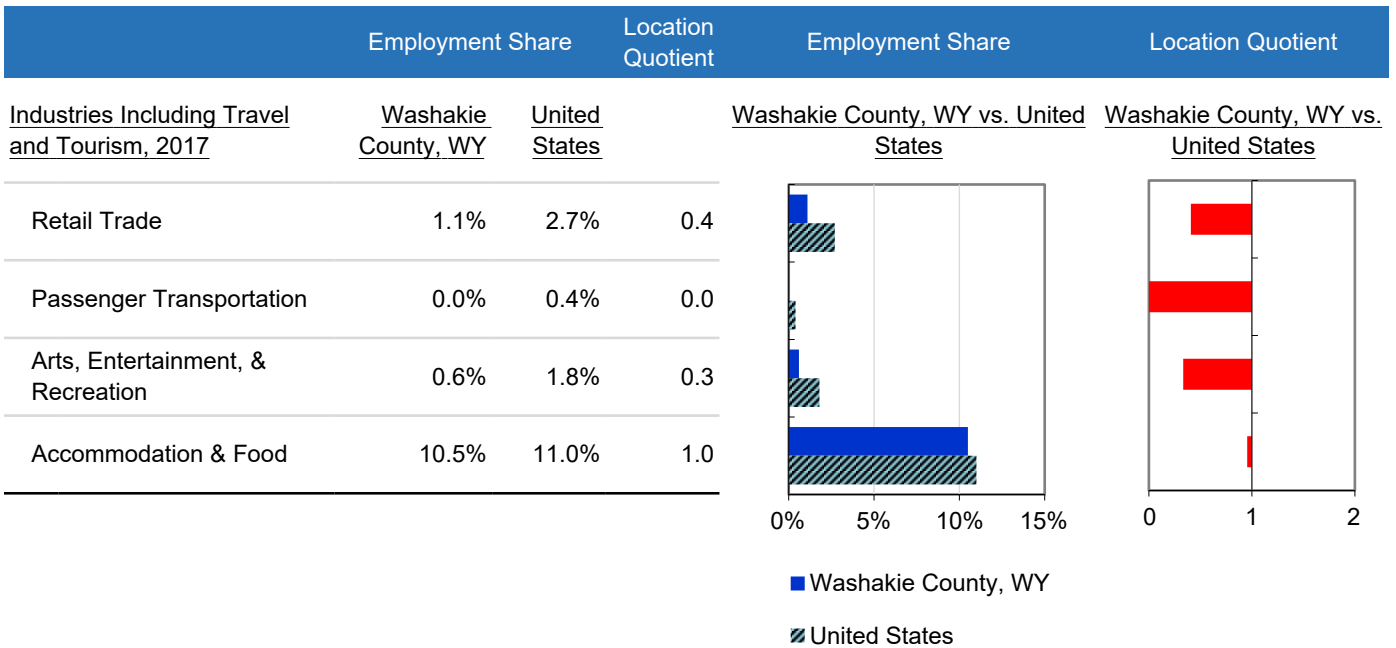
While industries that include travel and tourism often pay relatively low wages, wages and the number of people employed can vary greatly among travel and tourism related industries.

The trend data on this page can be useful for understanding whether wages in sectors that are likely to be associated with travel and tourism have changed over time.

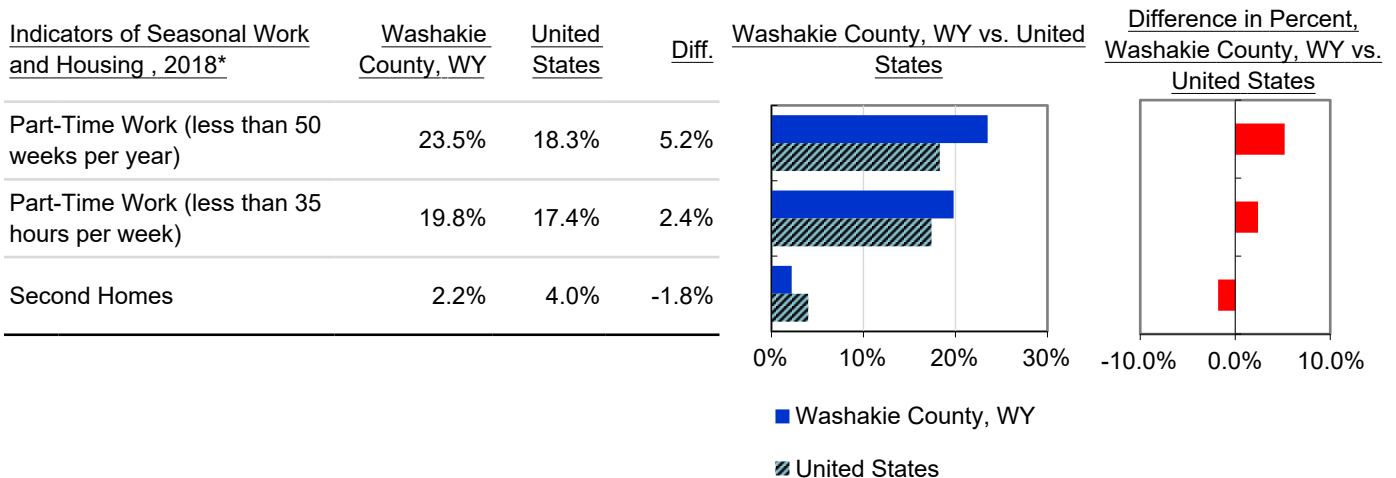
Travel & Tourism

Washakie County, WY

Comparisons



Other Possible Measures of the Presence of Travel and Tourism



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.; U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

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Comparisons

What do we measure on this page?

This page describes whether the region is specialized in travel and tourism related employment. The chart illustrates the difference between the selected location(s) and the selected benchmark area.¹⁷ (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Location Quotient¹⁸: A ratio that compares an industry's share of total employment in a region to the benchmark. More precisely, it is the percent of local employment in a sector divided by the percent employment in the same sector in the benchmark area. In other words, it is a ratio that measures specialization using the benchmark area for comparison. A location quotient of more than 1.0 means the local area is more specialized in that sector relative to the benchmark area. A location quotient of less than 1.0 means it is less specialized.¹⁹

Another way to think about location quotients is as a measure of whether a place produces enough goods or services from an industry to satisfy local demand for those goods or services. Results above or below the 1.0 standard indicate the degree to which a place may import or export a good or service. Although there is no precise cutoff, location quotients above 2.0 indicate a strong industry concentration (and that an area is likely exporting goods or services) and those less than 0.5 indicate a weak industry concentration (and that an area is likely importing goods or services).

Second Homes: The number of second homes is not available as a single variable from the U.S. Census Bureau. We have calculated second homes as a percent of total homes as follows: seasonally occupied homes (Census SF1 H005005) are added to other vacant homes (Census SF1 H005007) and then divided by total homes. By this definition, second homes do not include homes that are vacant because they are for rent or sale.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.²⁰

Why is it important?

Locations with economies that focus on travel and tourism may have a competitive advantages,^{21, 22} but can also be sensitive to business cycles and other changes (for example, a rise in fuel costs) that affect pleasure travel and recreation spending. Natural amenities such as public lands can increase travel and tourism activities, benefiting local communities and in some cases diversify rural economies that have historically been tied to commodity production.^{5, 23, 24} The growth of travel and tourism activities is also associated with in-migration that can lead to business relocation and new business development across a range of business sectors.²⁵

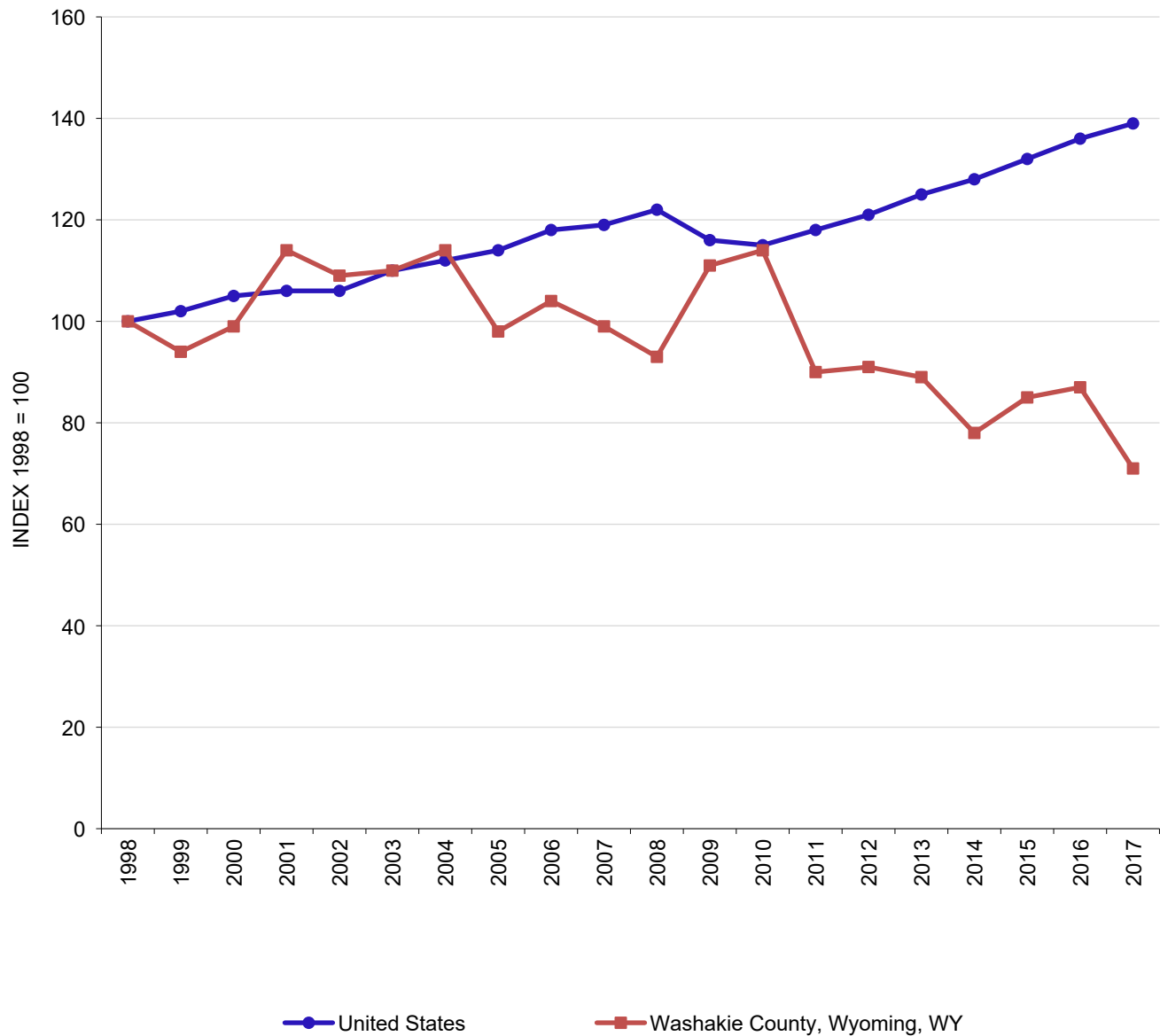
A few caveats: (1) A large location quotient for a particular sector does not necessarily mean that sector is a significant contributor to the economy. (2) LQs greater than 1.0 only suggest potential export capacity when compared to the benchmark area and do not take into account local demand. Local demand may be greater than average, and therefore all goods and services may be consumed locally (i.e., not exported). (3) LQs can change from year to year. (4) LQs can vary when one uses income or wage data rather than employment.

Travel & Tourism

Washakie County, WY

Comparisons Over Time

Employment in Industries that Include Travel & Tourism



- From 1998 to 2017, Washakie County, WY had the fastest rate of change in travel & tourism employment, and Washakie County, WY had the slowest.

Comparisons Over Time

What do we measure on this page?

This page describes the change in travel and tourism employment for all selected locations and the benchmark area.¹⁷ The information is indexed (1998=100) so that data from locations with different-sized economies can be compared. Indexing makes it easier to understand the relative rate of growth or decline of mining employment over time.

Index: Indexed numbers are compared with a base value. In the line chart, employment in 1998 is the base value and is set to 100. The employment values for subsequent years are expressed as 100 times the ratio to the base value. The indexing used in the line chart enables easier comparisons between locations over time. (If many locations are selected, it may be difficult to read the figure on this page.)

The chart begins in 1998 because that is the year the Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS).

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.²⁰

Why is it important?

This information is useful to understand whether sectors likely to be associated with travel and tourism are growing or declining. These data do not measure the absolute size of employment in travel and tourism. Detailed knowledge, obtained through surveys and other means, is required to determine the proportion of a sector's employment that is due to local expenditures versus expenditures from visitors.

Not all locations have attracted or lost travel- and tourism-related employment at the same rate.²⁶ An index makes it clear where the rate of travel-and-tourism-related growth or decline has been the fastest. Lines above 100 indicate positive absolute growth while those below 100 show absolute decline. The steeper the curve, the faster the rate of change.

It may be helpful to look for large year-to-year rises or dips to identify rapid employment changes. If the reasons behind these fluctuations are not evident, it may be helpful to talk with regional experts or local residents to learn more about what caused abrupt changes.

Locations with economies that focus on travel and tourism may have competitive advantages,^{21, 22} but can also be sensitive to business cycles and other changes (for example, a rise in fuel costs) that affect pleasure travel and recreation spending. Natural amenities such as public lands can increase travel and tourism activities, benefiting local communities and in some cases diversify rural economies that have historically been tied to commodity production.^{5, 23, 24} The growth of travel and tourism activities is also associated with in-migration that can lead to business relocation and new business development across a range of business sectors.²⁵

Travel & Tourism

Washakie County, WY

Data Sources & Methods

The EPS Travel & Tourism report uses national statistics from public government sources. All data used in EPS can be readily verified with original sources:

- **County Business Patterns**
Census Bureau, U.S. Department of Commerce
<https://www.census.gov/programs-surveys/cbp.html>
Contacts
<https://www.census.gov/about/contact-us.html>
- **Quarterly Census of Employment and Wages**
Bureau of Labor Statistics, U.S. Department of Labor
<https://www.bls.gov/cew>
Contacts
<https://www.bls.gov/bls/contact.htm>
- **American Community Survey**
U.S. Census Bureau, U.S. Department of Commerce
<https://www.census.gov/programs-surveys/acs/>
<https://www.census.gov/acs/www/data/data-tables-and-tools/index.php>
Contacts
<https://www.census.gov/about/contact-us.html>
- **Local Area Unemployment Statistics**
Bureau of Labor Statistics, U.S. Department of Labor
<https://www.bls.gov/lau/>
Contacts
<https://www.bls.gov/bls/contact.htm>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking—comparing smaller areas such as counties to larger regions, states, and the nation—to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Data Limitations

Much of the data in this report were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. Compared to other sources, CBP has fewer data gaps (instances when the federal government will not release data to protect confidentiality of individual businesses). It also includes both full- and part-time employment.

However, CBP data do not include employment in government, agriculture, railroads, or the self-employed. Also, CBP data are based on mid-March employment and do not account for seasonal fluctuations. Since March is a "shoulder" season for several tourism activities, CBP may underrepresent employment in industries associated with tourism. Despite these limitations, the data are most useful for showing long-term trends, displaying differences between places, and showing relationships between sectors over time.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated in italics in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Endnotes

- 1 - In 2018 the Dept. of Commerce for the first time developed statistics illustrating the economic impact of outdoor recreation in the United States. See the Bureau of Economic Analysis's Outdoor Recreation Satellite Account at <https://www.bea.gov/data/special-topics/outdoor-recreation>.
- 2 - The Federal Reserve Bank of Kansas City has defined travel and tourism as consisting of hotels, air travel, and amusement and recreation services. See Wilkerson CR. 2003. Travel and Tourism: An Overlooked Industry in the U.S. and Tenth District. Economic Review. QIII(2003):45-71. <https://www.kansascityfed.org/publicat/econrev/PDF/3q03wilk.pdf> Wilkerson points out that travel- and tourism-related sectors outperformed the nation, including during recessions.
- 3 - The list of NAICS codes associated with travel and tourism were obtained from Marcouiller DW and Xia X. 2008. Distribution of Income from Tourism-Sensitive Employment. Tourism Economics 14(3):545-565. <http://journals.sagepub.com/doi/abs/10.5367/000000008785633622?journalCode=teua>. For a similar definition of travel and tourism, see Wilkerson C. 2003. Travel and Tourism: An Overlooked Industry in the U.S. and Tenth District. Federal Reserve Bank of Kansas City Economic Review. QIII(2003):45-71. <https://www.kansascityfed.org/publicat/econrev/PDF/3q03wilk.pdf>.
- 4 - It is estimated that outdoor recreation alone generates \$887 billion in consumer spending annually and 7.6 million jobs. Outdoor Industry Association. 2018. Advocacy: Outdoor Recreation Economy. <https://outdoorindustry.org/advocacy/>.
- 5 - Allen T, D Kary, and R Southwick. 2017. The Economic Contributions of Outdoor Recreation. Boulder, CO: Outdoor Industry Association. https://outdoorindustry.org/wp-content/uploads/2015/03/OIA_Recreation_Economy_Contributions_Technical_Report_2017-08-24.pdf.
- 6 - The Forest Service collects information on visitor satisfaction and use. Annual summary reports and individual forest and grassland reports are available from <https://www.fs.fed.us/recreation/programs/nvum>.
- 7 - Stynes DJ and White EM. 2006. Reflections on Measuring Recreation and Travel Spending. Journal of Travel Research. 45:8-16. See <http://journals.sagepub.com/doi/10.1177/0047287506288873>.
- 8 - The U.S. Census Bureau conducts an Economic Census every five years for selected industries. Users can search the Economic Census for information on the number of establishments, sales, employees, and payroll, for selected industries. <https://www.census.gov/programs-surveys/economic-census.html>.
- 9 - The U.S. Department of Commerce developed the U.S. Travel and Tourism Satellite Accounts to estimate the proportion of every sector in the economy that is attributable to travel and tourism at the national level. This information is useful for detecting sectors that have a higher potential to serve the needs of visitors. The resulting ratios should not be applied to local economies. <https://www.bea.gov/data/special-topics/travel-and-tourism>.

Endnotes

- 10 - Outdoor recreation accounted for 2 percent (\$373.3 billion) of GDP in 2016. The outdoor recreation economy grew 3.8 percent in 2016, compared to 2.8 percent in the overall economy.
<https://www.bea.gov/news/2018/outdoor-recreation-satellite-account-prototype-estimates-2012-2016>.
- 11 - Almost half the U.S. population participated in an outdoor activity at least once in 2017. Outdoor Foundation. 2018. Outdoor Participation Report 2018. Washington, DC: Outdoor Foundation.
<https://outdoorindustry.org/resource/2018-outdoor-participation-report/>.
- 12 - For detailed information on how the government measures unemployment, see <https://www.bls.gov/cps/>.
- 13 - For an overview of how the Bureau of Labor Statistics treats employment, see <https://www.bls.gov/bls/employment.htm>.
- 14 - For an overview of how the Bureau of Labor Statistics treats pay and benefits, see <https://www.bls.gov/bls/wages.htm>.
- 15 - Employment and wage estimates are also available from the Bureau of Labor Statistics for more than 800 occupations. Looking at travel and tourism by occupation, rather than by sector or industry, is helpful because wages can vary dramatically across occupations. For more information, see <https://www.bls.gov/oes/>.
- 16 - The EPS Socioeconomic Measures report provides additional information about wages in non-travel-and-tourism industries. <https://headwaterseconomics.org/eps>.
- 17 - The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).
- 18 - $LQ = (e_i/e) \text{ divided by } (E_i/E)$
Where: e_i = Local employment in industry i ; e = Total local employment; E_i = U.S. employment in industry i ;
 E = Total U.S. employment.
- 19 - A succinct definition of a location quotient is offered by Indiana Business Research Center at IU's Kelley School of Business. <http://www.incontext.indiana.edu/2006/march/1.asp>.
- 20 - Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.
- 21 - Reeder RJ and Brown DM. 2005. Recreation, Tourism, and Rural Well-Being. USDA Economic Research Service Economic Research Report No. 7.
https://www.ers.usda.gov/webdocs/publications/46126/15112_err7_1_.pdf?v=41056

Endnotes

- 22 - English DBK, Marcouiller DW, and Cordell HK. 2000. Tourism Dependence in Rural America: Estimates and Effects. *Society and Natural Resources* 13(3):185-202.
https://www.srs.fs.usda.gov/pubs/ja/ja_english004.pdf The study found that counties relatively dependent on tourism have higher growth in per capita income in comparison to non-dependent counties; less economic diversity; fewer manufacturing jobs, in particular in wood products sectors; more expensive housing; faster population growth; and higher levels of education. They also found that average household income in tourism-dependent counties was about the same as in non-dependent counties.

- 23 - For a review of literature on economic diversity, see Sterling A. 1998. On the Economics and Analysis of Diversity. *Electronic Working Papers Series*, No. 28. University of Sussex, Brighton, UK.
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.144.8865&rep=rep1&type=pdf>.

- 24 - A useful book on the evolving competitive environment for rural areas is Galston WA and Baehler KJ. 1995. *Rural Development in the United States: Connecting Theory, Practice, and Possibilities*. Washington, DC: Island Press.

- 25 - Snepenger D, Johnson J, and Rasker R. 1994. Travel Stimulated Entrepreneurial Migration. *Journal of Travel Research* 34(1):40-44. <http://journals.sagepub.com/doi/abs/10.1177/004728759503400105>
Snepenger et al. found that tourism can stimulate permanent migration of entrepreneurs.

- 26 - The Economic Research Service of the U.S. Dept. of Agriculture has developed a widely-used classification system for identifying non-metropolitan recreation counties. See Johnson KM and Beale CL. 2002. Non-Metro Recreation Counties: Their Identification and Rapid Growth. *Rural America* 17(4):2-19.
https://www.ers.usda.gov/webdocs/publications/46984/19347_ra174b_1_.pdf?v=41056.



A Non-Labor Income Profile

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

Non-Labor Income

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Non-Labor Income

Washakie County, WY

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Non-Labor Income

Washakie County, WY

Non-Labor Income

	Washakie County, Wyoming, WY	United States
Total Personal Income (\$1000), 2018*	386,770	18,133,669,749
Non-Labor Income	170,125	6,773,349,574
Dividends, Interest, & Rent	92,235	3,748,412,437
Transfer Payments	77,890	3,024,937,138
Labor Earnings	216,645	11,360,320,174

Percent of Total

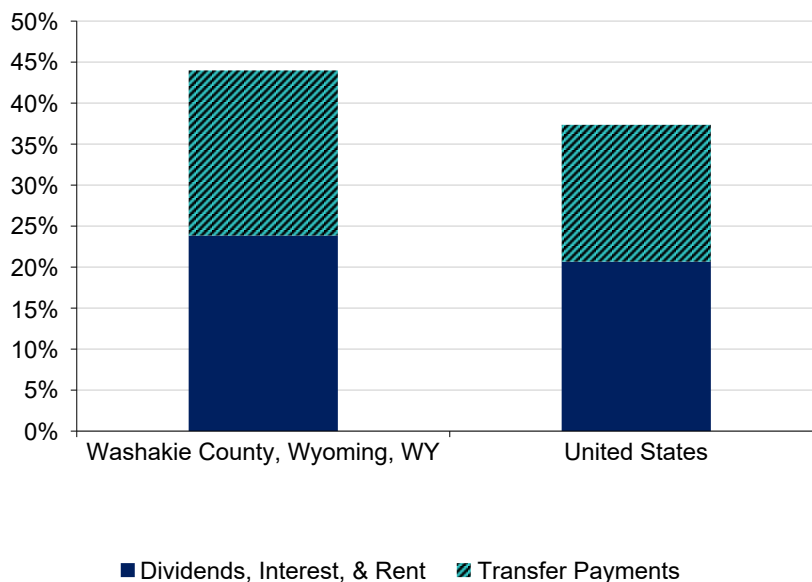
Non-Labor Income	44.0%	37.4%
Dividends, Interest, & Rent	23.8%	20.7%
Transfer Payments	20.1%	16.7%
Labor Earnings	56.0%	62.6%

Non-labor income and Labor earnings may not add to total personal income because of adjustments made by the Bureau of Economic Analysis to account for contributions for social security, cross-county commuting, and other factors.

*(Thousands of 2019 \$s)

- In 2018, Washakie County, Wyoming, WY had the largest percent of total personal income from non-labor sources (44%), and United States had the smallest (37.4%).
- In 2018, dividends, interest, & rent was the largest source of non-labor income in the Washakie County, WY (23.8%), and transfer payments was the smallest (20.1%).

Percent of Total Personal Income from Non-Labor Sources, 2018



Non-Labor Income

Washakie County, WY

Non-Labor Income

What do we measure on this page?

This page compares non-labor sources of income to labor earnings.

Labor Earnings: Net earnings by place of residence, which is earnings by place of work (the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income) less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place-of-residence basis.¹

Non-Labor Income: Dividends, interest and rent, and transfer payments (includes government retirement and disability insurance benefits, medical payments such as Medicare and Medicaid, income maintenance benefits, unemployment insurance benefits, etc.). Non-labor income is reported by place of residence.

Dividends, Interest, and Rent: Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustments. Dividends, interest, and rent are sometimes referred to as "investment income" or "property income."

Transfer Payments: Payments to persons for which no services are currently performed, such as Social Security, Medicare and Medicaid, unemployment, welfare payments, and veterans' benefits. Individuals and nonprofit institutions may be paid by federal, state, and local governments and by businesses.

Why is it important?

In many places non-labor income can be the single largest component of personal income and also the largest source of new personal income.² Non-labor income is growing more than twice as fast as labor income and is one-third or more of all personal income in nearly 90 percent of U.S. counties.³ With the Baby Boom generation reaching retirement age, it is likely non-labor income will continue to be a growing source of personal income.^{4, 5}

A high dependence on non-labor income can indicate a location with an aging population and/or attractiveness to people with investment income. In some cases, it can also signal hardship, such as when there is a high dependence on Medicaid and income maintenance payments.⁶

Many people assume that most income is generated from employment and are unaware of the amount and rapid growth in non-labor income, which often arrives in the form of a dividend check or retirement benefit.

Amenities that attract people with investment and retirement income can contribute to local economic well-being since growth in non-labor income often stimulates other sectors of the economy, including healthcare and real estate. If, on the other hand, contracting populations or industries results in a shrinking labor market, non-labor income may be important as a remaining source of income and can help stabilize downturns.

Non-Labor Income

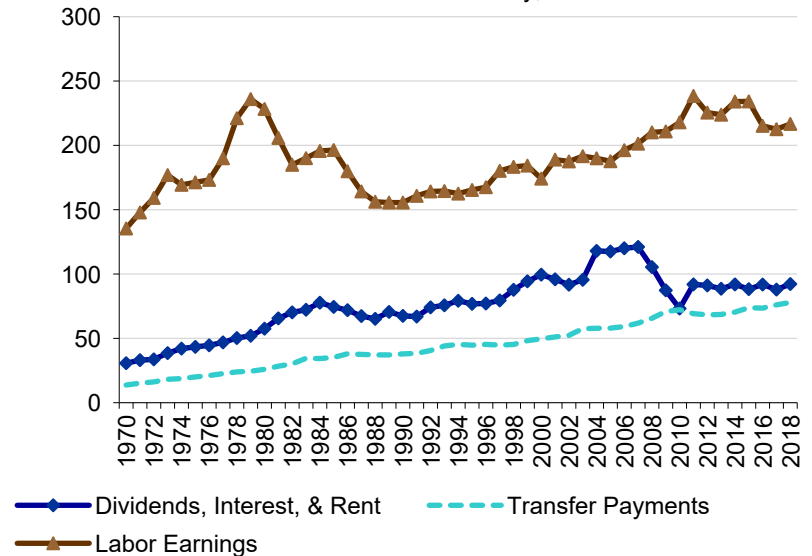
Washakie County, WY

Non-Labor Income Trends

- From 1970 to 2018, dividends, interest, and rent grew from \$31 million to \$92 million, an increase of 200 percent.
- From 1970 to 2018, transfer payments grew from \$14 million to \$78 million, an increase of 467 percent.
- From 1970 to 2018, labor earnings grew from \$135 million to \$217 million, an increase of 60 percent.

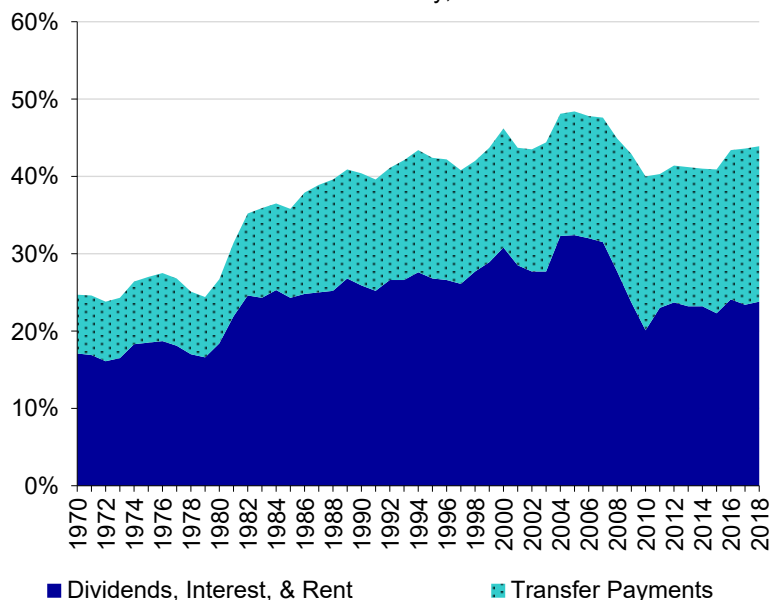
Millions of 2019 \$\$

Components of Non-Labor Income Compared to Labor Earnings, Washakie County, WY



- In 1970, non-labor income represented 24.7 percent of total personal income. By 2018, non-labor income had increased to 43.9 percent of total personal income.
- In 1970, dividends, interest, and rent represented 17.1 percent of total personal income. By 2018, dividends, interest, and rent had increased to 23.8 percent of total personal income.
- In 1970, transfer payments represented 7.6 percent of total personal income. By 2018, transfer payments had increased to 20.1 percent of total personal income.

Non-Labor Income, Percent of Total Personal Income, Washakie County, WY



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Non-Labor Income

Washakie County, WY

Non-Labor Income Trends

What do we measure on this page?

This page describes trends in labor and non-labor sources of income (in real terms) over time.^{7, 8}

Labor Earnings: Net earnings by place of residence, which is earnings by place of work (the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income) less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place-of-residence basis.

Non-Labor Income: Dividends, interest and rent, and transfer payments (includes government retirement and disability insurance benefits, medical payments such as Medicare and Medicaid, income maintenance benefits, unemployment insurance benefits, etc.). Non-labor income is reported by place of residence.

Why is it important?

This page depicts trends and the relative proportion of labor and non-labor sources of income.⁹ The top chart (*Components of Non-Labor Income Compared to Labor Earnings*) is useful to determine whether non-labor income is significant, whether it has grown faster or slower than labor earnings, and whether it is more heavily weighted toward investment income or transfer payments. The bottom chart (*Non-Labor Income, Percent of Total Personal Income*) shows the selected region's dependence on non-labor income sources as a percent of total personal income.

Non-labor income may be an important source of spending power in many communities. Non-labor income from outside a place represents new dollars to that place. When non-labor income is more stable than labor earnings, it can help to stabilize the volatility of a local economy.

A large and growing share of total personal income from non-labor sources does not necessarily indicate a high quality of life. It can point to a relatively small labor market and can include components of non-labor income that are indicators of poverty, such as welfare payments.¹⁰ (For more details on the makeup of non-labor income, see the section "non-labor income components" on the next page.)

Non-Labor Income

Washakie County, WY

Components of Non-Labor Income

	Washakie County, Wyoming, WY	United States
Total Personal Income, 2018*	386,770	18,133,669,749
Total Non-Labor Income	170,125	6,773,349,574
Dividends, Interest, Rent	92,235	3,748,412,437
Age-Related Transfer Payments	54,677	1,733,928,871
Social Security	31,962	989,915,422
Medicare	22,715	744,013,449
Hardship-Related Payments	12,805	913,651,952
Medicaid	8,828	621,049,228
Income maintenance ("welfare")	3,205	264,537,482
Unemployment ins. compensation	773	28,065,242
Other Transfer Payments	10,408	377,356,314
Veterans benefits	2,108	126,938,493
Education and training assistance	727	70,295,954
All other, incl. Workers' comp.	7,573	180,121,867

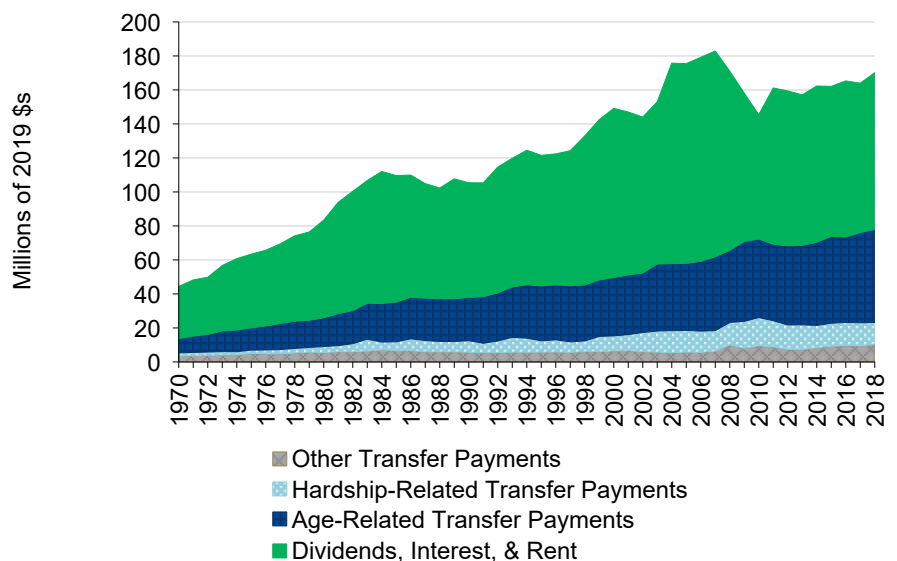
Percent of Total Personal Income, 2018*

Total Non-Labor Income	44.0%	37.4%
Dividends, Interest, Rent	23.8%	20.7%
Age-Related Transfer Payments	14.1%	9.6%
Social Security	8.3%	5.5%
Medicare	5.9%	4.1%
Hardship-Related Payments	3.3%	5.0%
Medicaid	2.3%	3.4%
Income maintenance ("welfare")	0.8%	1.5%
Unemployment ins. compensation	0.2%	0.2%
Other Transfer Payments	2.7%	2.1%
Veterans benefits	0.5%	0.7%
Education and training assistance	0.2%	0.4%
All other, incl. Workers' comp.	2.0%	1.0%

*(Thousands of 2019 \$s)

- From 1970 to 2018, dividends, interest, and rent grew from \$31 million to \$92 million, an increase of 200 percent.
- From 1970 to 2018, age-related transfer payments grew from \$8 million to \$55 million, an increase of 551 percent.
- From 1970 to 2018, income maintenance transfer payments grew from \$2 million to \$13 million, an increase of 615 percent.
- From 1970 to 2018, other transfer payments grew from \$4 million to \$10 million, an increase of 193 percent.

Components of Non-Labor Income, Washakie County, WY



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Non-Labor Income

Washakie County, WY

Components of Non-Labor Income

What do we measure on this page?

This page describes the components of non-labor income and how they have changed over time (in real terms).¹¹

Dividends, Interest, and Rent: Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustments that are sometimes referred to as "investment income" or "property income."¹²

Age-Related Transfer Payments: Medicare and Social Security benefits.

Hardship-Related Transfer Payments: These payments are associated with poverty and include Medicaid, Food Stamps (SNAP), Supplemental Security Income (SSI), Unemployment Insurance, and other income maintenance benefits.

Other Transfer Payments: Payments from veteran's benefits, education and training, Workers Compensation insurance, railroad retirement and disability, other government retirement and disability, and other receipts of individuals and nonprofits.

Why is it important?

Non-labor income has grown rapidly over the last several decades in some locations while in others it has not. Also, some locations are more dependent on non-labor sources of income than others. For example, more than 20 percent of rural counties derive half or more of all personal income from non-labor sources compared with fewer than 5 percent of metro counties.³

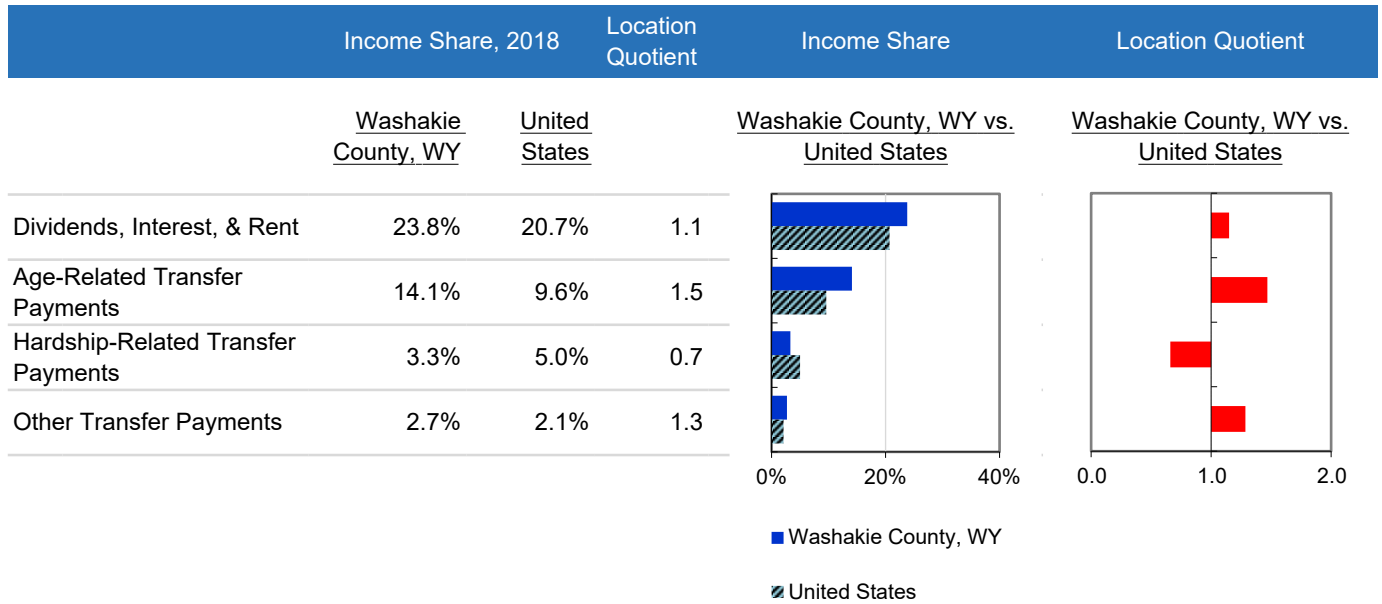
Because non-labor income can be significant, it is important to understand its components. The economy of some locations may rely more on investment income, others on retirement benefits, and still others on welfare-related income streams.² The table shows absolute values and percent of total non-labor income, while the graph shows long-term trends.

Important aspects to consider are: the largest components of non-labor income, whether non-labor income is growing, which components are growing the fastest, whether investment earnings are significant and growing, and whether age-related components of transfer payments are significant and growing.^{7, 13} Also worth considering is whether the growth in non-labor income stems from new investment and age-related income and whether poverty-related components of transfer payments are significant and growing.

Non-Labor Income

Washakie County, WY

Comparisons



- In 2018, age-related transfer payments had the highest location quotient score (1.5) and hardship-related transfer payments had the lowest (0.7).

Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Non-Labor Income

Washakie County, WY

Comparisons

What do we measure on this page?

This page describes the difference between the selected region and the selected benchmark area¹⁴ by comparing components of non-labor income as a share of total personal income and with location quotients. (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Location Quotient (LQ)¹⁵: Generally, the percent of local employment in a sector divided by the percent employment in the same sector in the selected benchmark area.¹⁶ It is a ratio that measures specialization. An LQ greater than 1.0 means the local area is more specialized in that sector relative to the benchmark. An LQ less than 1.0 means it is less specialized. While LQs are normally used to calculate employment specialization, they are used here to measure the relative degree of specialization in non-labor income. Some economists use LQs as a way to calculate basic activities that bring outside money into the local economy. Non-labor income, much of which originates outside of a local market, is a part of the economic base in most locations.

Dividends, Interest, and Rent: Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustments that are sometimes referred to as "investment income" or "property income."

Age-Related Transfer Payments: Payments, including Social Security and Medicare, associated with older populations.

Hardship-Related Transfer Payments: Payments are associated with poverty including Medicaid, food stamps (SNAP), Supplemental Security Income (SSI), Unemployment Insurance, and other income maintenance.

Other Transfer Payments: Payments from veteran's benefits, education and training, Workers Compensation insurance, railroad retirement and disability, other government retirement and disability, and other receipts of individuals and nonprofits.

Why is it important?

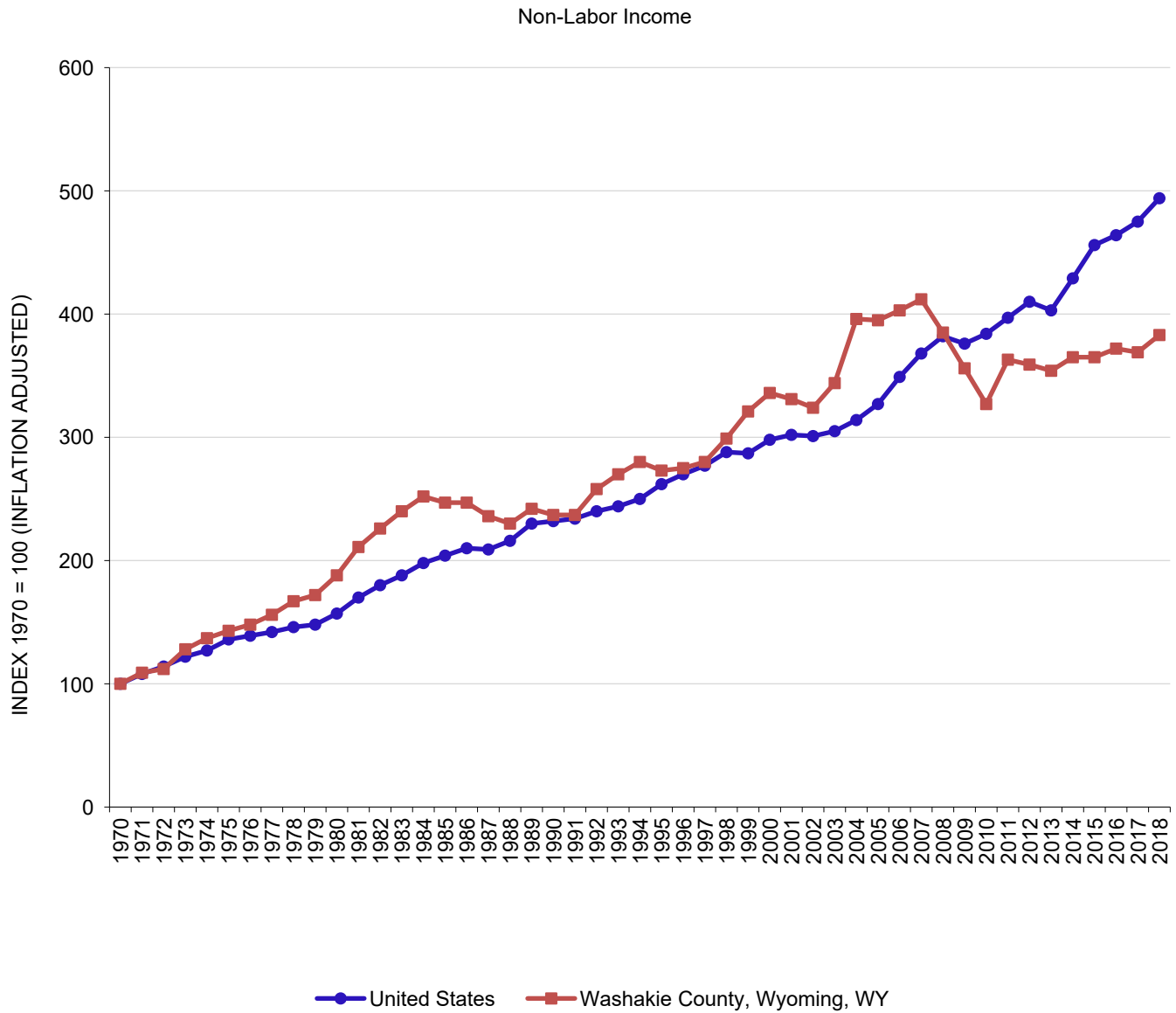
Non-labor income is a growing and often significant part of the economy.³ By comparing a selected location to a benchmark area, we can see whether the region is relatively specialized in non-labor sources of income. As with any sector, specialization has its plusses and minuses. On the one hand, an area that attracts retirement and investment income, for example, may have a high quality of life, a relatively low cost of living, and other competitive and comparative advantages. On the other hand, over-reliance on one form of income can be risky, such as over-reliance on investment income in the face of sharp declines in the stock market.

Less specialization ($LQ < 1.0$) can mean opportunities for expansion by attracting this form of personal income. More specialization ($LQ > 1.0$) is an indication that the region attracts more non-labor income than the benchmark area.

Non-Labor Income

Washakie County, WY

Comparisons Over Time



- * From 1970 to 2018, Washakie County, WY had the fastest rate of change in non-labor income, and Washakie County, WY had the slowest.

Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Non-Labor Income

Washakie County, WY

Comparisons Over Time

What do we measure on this page?

This page compares the change in non-labor income for all selected locations and the benchmark area.¹⁴ The information is indexed (1970=100) so that data from locations with different-sized economies can be compared. Indexing makes it easier to understand the relative rate of growth or decline of non-labor income over time.

Index: Indexed numbers are compared with a base value. In the line chart, non-labor income in 1970 is the base value and is set to 100. The non-labor income values for subsequent years are expressed as 100 times the ratio to the base value. The indexing used in the line chart enables easier comparisons between locations over time. (If many locations are selected, it may be difficult to read the chart on this page.)

Why is it important?

Not all locations have attracted or lost non-labor income at the same rate. An index makes it clear where the rate of non-labor income growth or decline has been the fastest. Lines above 100 indicate positive absolute growth while those below 100 show absolute decline. The steeper the curve, the faster the rate of change.

This line chart can also be used to examine whether there are differences in volatility (i.e., year-to-year fluctuations) of growth or decline between locations.

Non-Labor Income

Washakie County, WY

Data Sources & Methods

This Non-Labor Income report uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **Regional Economic Information System**
Bureau of Economic Analysis, U.S. Department of Commerce
<https://www.bea.gov/regional/>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Non-Labor Income

Washakie County, WY

Endnotes

- 1 - The term "labor" is used in this report to differentiate labor from non-labor sources of income. As defined by the U.S. Department of Commerce, labor earnings are "net earnings by place of residence." For a glossary of terms used by the Bureau of Economic Analysis, see <https://bea.gov/regional/definitions/>.
- 2 - Lawson MM, R Rasker, and PH Gude. 2014. The Importance of Non-labor Income: An Analysis of Socioeconomic Performance in Western Counties by Type of Non-labor Income. *Journal of Regional Analysis & Policy* 44(2): 175-190. <https://headwaterseconomics.org/wp-content/uploads/non-labor-manuscript.pdf>.
- 3 - Economy Surprisingly Dependent on Non-Labor Income. 2017. Bozeman, MT: Headwaters Economics. <https://headwaterseconomics.org/economic-development/trends-performance/economy-surprisingly-dependent-on-non-labor-income/>.
- 4 - For a full discussion of non-labor income, see Lawson M. 2014. *The Role of Non-Labor Income in the West*. Bozeman, MT: Headwaters Economics. <https://headwaterseconomics.org/wp-content/uploads/non-labor-white-paper.pdf>.
- 5 - For more about the attraction of Baby Boomers to places with amenities and a high quality of life, see Cromartie J and Nelson P. 2009. *Baby Boom Migration and Its Impact on Rural America*. USDA-ERS Report No. 79. Washington, DC: USDA Economic Research Service. https://www.ers.usda.gov/webdocs/publications/err79/9346_err79_1_.pdf.
- 6 - To read about rural poverty and welfare, including details on income maintenance programs, see the USDA Economic Research Service's Rural Poverty & Well-being site: <https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/>.
- 7 - For information on population age and trends, see U.S. Census Bureau data: <https://www.census.gov/topics/population/older-aging.html>.
- 8 - For information on the ratio between the elderly and working-age population, see Bureau of Labor Statistics' Current Population Survey: <https://www.bls.gov/cps/>.
- 9 - For more non-labor resources and an interactive tool, see <https://headwaterseconomics.org/economic-development/trends-performance/non-labor/>.
- 10 - For more information on rural poverty, see the USDA Economic Research Service's Rural Poverty & Well-being site: <https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/>.
- 11 - See <https://headwaterseconomics.org/economic-development/trends-performance/non-labor/> for resources on non-labor income, including research and data visualizations.

Non-Labor Income

Washakie County, WY

Endnotes

- 12 - For a glossary of terms used by the Bureau of Economic Analysis, see <https://apps.bea.gov/regional/definitions/>.
- 13 - On the aging of the population and distribution of the elderly, see also Frey WH. 2007. Mapping the Growth of Older America. Living Cities Census Series. Washington, D.C.: Brookings Institution. <https://www.brookings.edu/research/mapping-the-growth-of-older-america/>.
- 14 - The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).
- 15 - $LQ = (e_i/e) \text{ divided by } (E_i/E)$ where e_i = Local components i of non-labor income; e = Total personal income; E_i = U.S. components i of non-labor income; E = Total U.S. personal income.
- 16 - A succinct definition of a location quotient is offered by Indiana Business Research Center at IU's Kelley School of Business. <http://www.incontext.indiana.edu/2006/march/1.asp>.



A Profile of Timber and Wood Products

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Timber

Washakie County, WY

Timber Sectors

	Washakie County, Wyoming, WY	United States
Total Private Employment, 2017	2,620	128,591,812
Timber	0	832,427
Growing & Harvesting	0	66,542
Forestry & Logging	0	54,097
Support Activities for Forestry	0	12,445
Sawmills & Paper Mills	0	269,400
Sawmills & Wood Preservation	0	87,815
Pulp, Paper, & Paperboard Mills	0	101,082
Veneer, Plywood, Engineered Wood	0	80,503
Wood Products Manufacturing	0	496,485
Other Wood Product Mfg.	0	238,842
Converted Paper Product Mfg.	0	244,460
Non-Timber	0	127,759,385

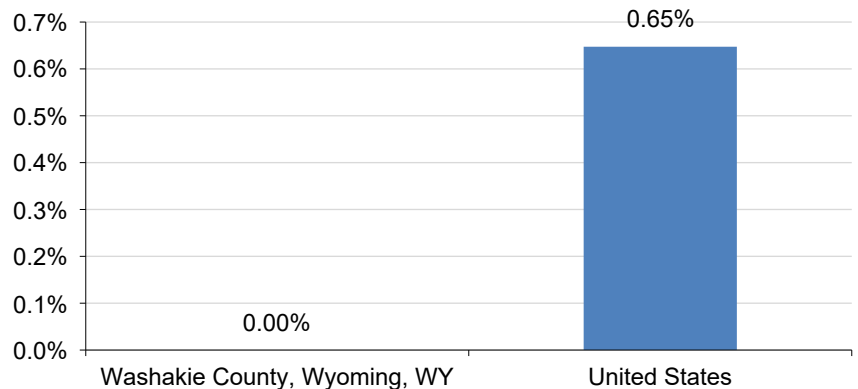
Percent of Total

Timber	0.0%	0.6%
Growing & Harvesting	0.0%	0.1%
Forestry & Logging	0.0%	0.0%
Support Activities for Forestry	0.0%	0.0%
Sawmills & Paper Mills	0.0%	0.2%
Sawmills & Wood Preservation	0.0%	0.1%
Pulp, Paper, & Paperboard Mills	0.0%	0.1%
Veneer, Plywood, Engineered Wood	0.0%	0.1%
Wood Products Manufacturing	0.0%	0.4%
Other Wood Product Mfg.	0.0%	0.2%
Converted Paper Product Mfg.	0.0%	0.2%
Non-Timber	0.0%	99.4%

This table does not include employment data for government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are indicated with tildes (~).

Percent of Total Private Employment in Timber, 2017

- In 2017, United States had the largest percent of total timber employment (0.65%), and Washakie County, Wyoming, WY had the smallest (0%).



Timber Sectors

What do we measure on this page?

This page describes the number of jobs (full- and part-time) and the share of total jobs in the timber industry, broken out by three major categories: growing and harvesting, sawmills and paper mills, and wood products manufacturing.

Growing and Harvesting: Jobs associated with growing and harvesting trees on a long production cycle. This category includes people employed in forest nurseries, as well as those involved in the cutting of trees and transportation of timber.

Sawmills and Paper Mills: Jobs associated with converting logs into lumber, boards, poles, shingles, and other milled products. This category includes those involved in the conversion of logs and wood chips into pulp and paper as well as the creation of veneer and plywood.

Wood Products Manufacturing: Jobs associated with manufacturing. This category includes the production of corrugated boxes, gum and wood chemical products, cabinets, furniture, and other wood manufactured products.

The categories "growing and harvesting," "sawmills and paper mills," and "woods products manufacturing" are aggregations of multiple North American Industry Classification System (NAICS) codes.^{1, 2, 3} They are used in this report to differentiate major components of the timber and wood products industry and to distinguish between different levels of value-added production. The first level of production is the growing and harvesting of trees. This is followed by milling. In some cases the milling results in a final product such as paper, while in others it is an intermediary product such as pulp. Some milled products go on to further value-added production (for example, cabinets). This last level includes products that are typically manufactured after leaving a mill.

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. We use this source because, compared to other sources, it has fewer data gaps (instances when the federal government will not release information to protect the confidentiality of individual businesses). It also includes both full- and part-time employment. The disadvantage of CBP data is that they do not include employment in government, agriculture, railroads, or the self-employed and as a result under-count the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationship between sectors over time.

Why is it important?

Forest and timberland comprise one-quarter of the contiguous United States.^{4, 5} To understand the potential impact of timber-related policies and land management practices, it is important to grasp the relative size of the timber industry and its components, how these have changed over time, and how local trends compare to trends in other locations. Important issues to consider are whether policies or management actions stimulate growth or decline in the industry, how proposed actions relate to ongoing trends shown in the data, whether some locations would be affected more than others, and given the relative size of the industry whether changes to it will affect the broader economy.

Timber

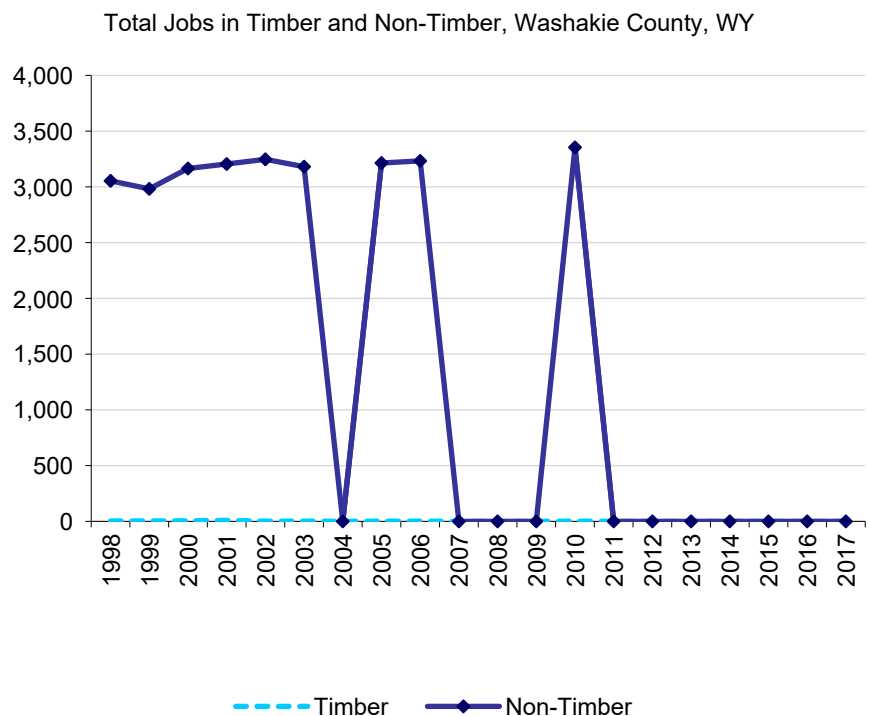
Washakie County, WY

Timber Employment Trends

- In 1998, timber represented 0.1 percent of total employment. By 2017, timber represented 0 percent of total employment.



- From 1998 to 2017, timber employment shrank from 3 to jobs, a 100 percent decrease.
- From 1998 to 2017, non-timber employment shrank from 3,054 to jobs, a 100 percent decrease.



Timber Employment Trends

What do we measure on this page?

This page describes long-term trends in timber employment as a percent of all jobs and compares timber to non-timber employment over time.

The figures on this page start in 1998 because that is the year the U.S. Census Bureau (and County Business Patterns) shifted to using the new North American Industrial Classification System (NAICS).

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. We use this source because, compared to other sources, it has fewer data gaps (instances when the federal government will not release information to protect the confidentiality of individual businesses). It also includes both full- and part-time employment. The disadvantage of CBP data is that they do not include employment in government, agriculture, railroads, or the self-employed and as a result under-count the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationship between sectors over time.

Why is it important?

When the timber industry is a significant driver of the economy, other sectors of the economy, total employment, and total personal income will likely follow trends in the timber industry.^{6, 7} In timber-dependent communities, policies and management actions that impact the timber industry can impact the overall economy. If, on the other hand, jobs in the rest of the economy are growing independently of trends in the timber industry, then policies and management actions that potentially affect the timber industry may have impacts that are limited to that industry.

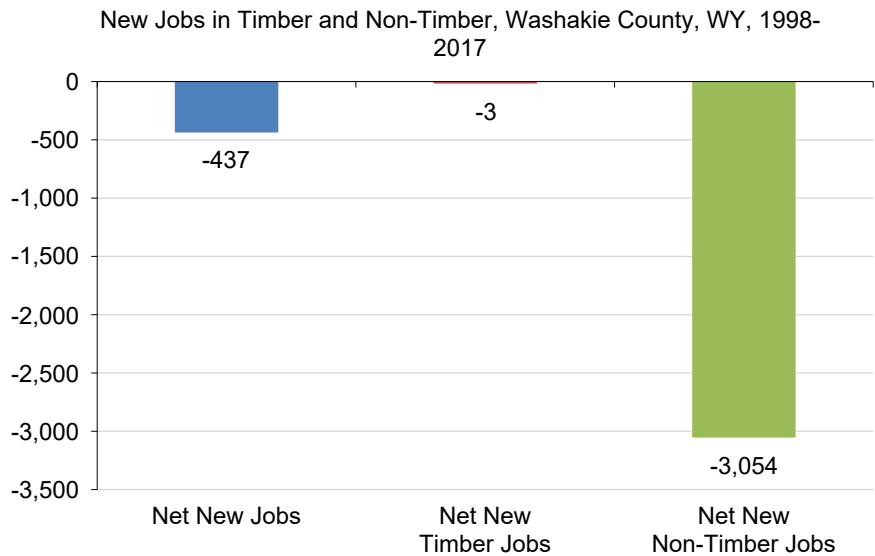
Timber

Washakie County, WY

Timber Employment Trends (cont.)

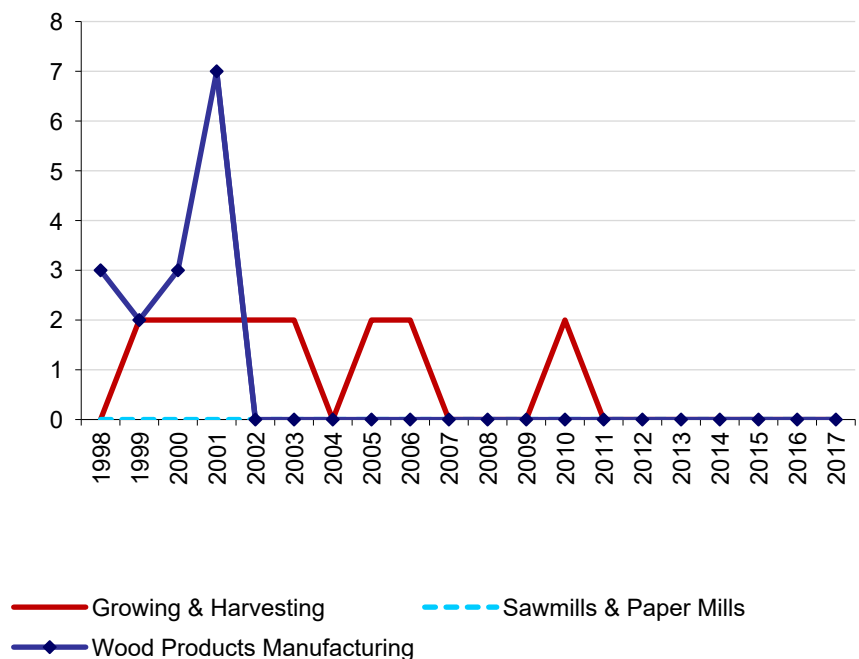
- From 1998 to 2017, timber employment shrank by 3 jobs.

- From 1998 to 2017, non-timber employment shrank by 3,054 jobs.



Jobs in Timber Sectors, Washakie County, WY

- From 1998 to 2017, Mfg shrank from 3 to jobs, a 100% decrease.



Timber Employment Trends (cont.)

What do we measure on this page?

This page describes the change in timber jobs compared to the change in non-timber jobs and compares how employment in various timber sectors has changed over time.⁸

The bottom chart on this page starts in 1998 because that is the year the U.S. Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS).

Data on this page were obtained from County Business Patterns. We use this source because, compared to other sources, it has fewer data gaps (instances when the federal government will not release information to protect confidentiality of individual businesses). It also includes both full- and part-time employment.

The disadvantage of the County Business Patterns data is that they do not include employment in government, agriculture, railroads, or the self-employed and, as a result, undercount the size of industry sectors. Also, County Business Patterns data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationship among sectors over time.

Why is it important?

To understand the importance of timber and wood products in the local economy, it is useful to grasp the source of new jobs and the relative contribution of the timber industry to net new jobs.⁷

Components of the timber industry may create or lose jobs at different rates. A growth in wood products manufacturing employment, for example, can indicate increased value-added activity. Alternatively, a loss of employment at sawmills and paper mills can indicate the closure of a mill with important impacts on the community.

Some places are more dependent on timber-related employment than others. This is important to understand because policies and management activities that impact the timber industry may affect other sectors of the economy.

Locations with economies that focus on resource extraction and commodity production can be subject to boom-and-bust cycles as well as other economic challenges such as slower long-term economic growth.

In the case of timber and wood products, mechanization, rising transportation costs, volatile prices, competition from abroad, shifting public values related to the management of public lands, the restructuring of timber companies as Real Estate Investment Trusts, and other factors have led to business and employment declines in many communities.⁹

Timber

Washakie County, WY

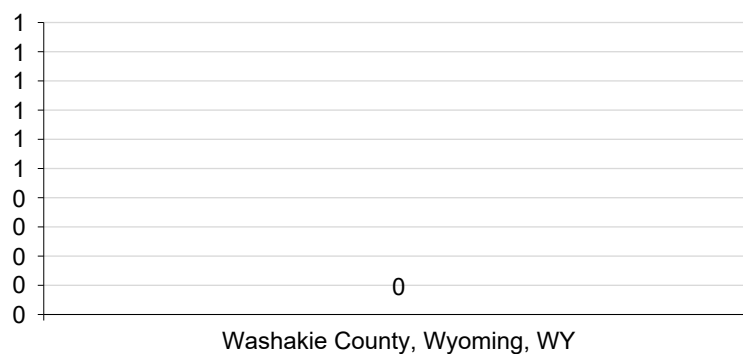
Self-Employment

	Washakie County, Wyoming, WY	United States
Total Proprietors, 2017	707	25,701,671
Timber	na	70,988
Forestry & Logging	na	44,362
Wood Products Manufacturing	na	25,347
Paper Manufacturing	0	1,279
Non-Timber	na	25,630,683

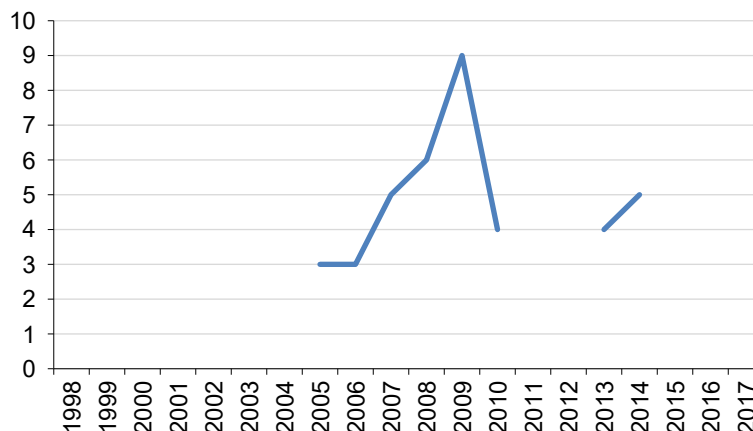
Percent of Total

Timber	na	0.3%
Forestry & Logging	na	0.2%
Wood Products Manufacturing	na	0.1%
Paper Manufacturing	0.0%	0.0%
Non-Timber	na	99.7%

Timber Proprietors, Washakie County, WY, 2017



Timber Proprietors, Washakie County, WY



Data Sources: U.S. Department of Commerce. 2019. Census Bureau, Nonemployer Statistics, Washington, D.C.

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Data and Graphics | Page 10

Self-Employment

What do we measure on this page?

This page describes the number of nonemployer businesses (in most cases self-employed individuals) in timber by sector and location. It offers data to supplement previous pages of this report that do not include the self-employed.

Nonemployer Business: A business with no paid employees, with annual business receipts of \$1,000 or more, and subject to federal income taxes. Nonemployer businesses can be individual proprietorships, partnerships, or corporations. Most nonemployers are self-employed individuals operating very small unincorporated businesses that may or may not be the owner's principal source of income.¹⁰

The U.S. Census Bureau's Nonemployer Statistics database provides the only source of detailed and comprehensive data on the scope, nature, and activities of U.S. businesses with no paid employment and payroll.¹¹

The three timber sub-categories in the upper table Proprietors in Timber are 3-digit NAICS categories from Nonemployer Statistics.¹² They are different from the three summary categories (from County Business Patterns) shown on previous pages.

Depending on the geographies selected, some data may not be available due to disclosure restrictions.

Why is it important?

Significant portions of the timber industry—especially those related to forestry and logging activities that include activities such as cutting, harvesting, and transporting timber—may be conducted by nonemployer businesses. These nonemployer businesses are not reported by County Business Patterns but are reported by Nonemployer Statistics. It is important to use these two data sources in tandem when evaluating the size and trends in timber employment.

Timber

Washakie County, WY

Wages and Employment

Wages*, 2018	Washakie County, Wyoming, WY	United States
All Sectors, 2018 (2019 \$s)	\$41,569	\$58,297
Private	\$40,989	\$58,228
Timber	\$0	\$56,652
Forestry & Logging	\$0	\$46,877
Wood Products Manufacturing	\$0	\$46,690
Paper Manufacturing	\$0	\$69,191
Non-Timber	\$35,075	\$58,238
Government	\$43,494	\$58,696

Percent of Employment*, 2018	Washakie County, Wyoming, WY	United States
Private	76.3%	85.2%
Timber	0.0%	0.6%
Forestry & Logging	0.0%	0.0%
Wood Products Manufacturing	0.0%	0.3%
Paper Manufacturing	0.0%	0.2%
Non-Timber	43.2%	84.7%
Government	23.6%	14.8%

* These tables show data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on previous pages of this report.

Wages and Employment

What do we measure on this page?

This page describes wages (in real terms) from employment in the timber industry, including sub-sectors, compared to wages from employment in all non-timber sectors combined.¹³ It also describes the percent of jobs in each category. These are shown together to illustrate the relative wage levels in timber, including sub-sectors, and how many people are employed in each sub-sector.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{14, 15, 16}

The three timber sub-sectors in the tables are 3-digit NAICS categories from Quarterly Census of Employment and Wages¹⁷ and are different than the three summary categories (from County Business Patterns) shown on the initial pages of this report.

Depending on the locations selected, some data may not be available due to disclosure restrictions.¹⁸

Why is it important?

The timber industry has the potential to provide high-wage jobs, but this may differ by timber sub-sector and by location. Important issues to consider are how timber industry wages compare to wages in other sectors, whether some components of the timber industry pay higher wages than others, and whether there are significant wage differences between locations.

Timber

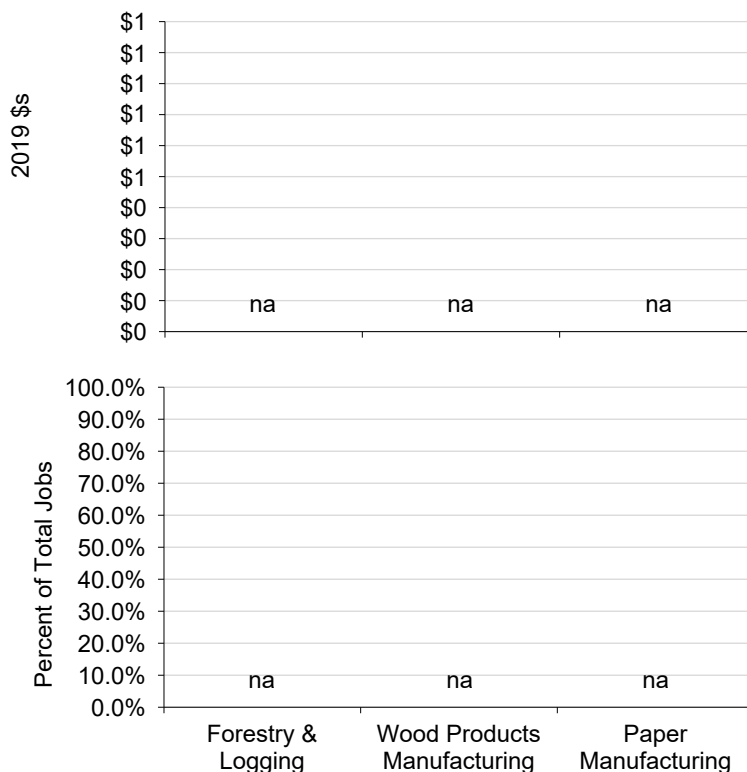
Washakie County, WY

Wages and Employment (cont.)

- In 2018, timber sector average wages, from highest to lowest, were: forestry & logging (\$0), forestry & logging (\$0), and forestry & logging (\$0).

- In 2018, timber sector percent of total employment, from highest to lowest, were: forestry & logging (0%), forestry & logging (0%), and forestry & logging (0%).

Avg. Annual Wages & Percent of Total Employment in Timber Sectors, Washakie County, WY, 2018



Avg. Annual Wages in Timber Sectors, Washakie County, WY



Wages and Employment (cont.)

What do we measure on this page?

This page describes wages (in real terms) and employment levels in different timber sectors. It also shows average wage trends (in real terms) for timber sectors.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors nor the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{14, 15}

The three timber sub-sectors in the tables are 3-digit NAICS categories (from Quarterly Census of Employment and Wages)¹⁷ and are different than the three summary categories (from County Business Patterns) shown on the initial pages of this report.

The chart *Avg. Annual Wages in Timber Sectors* starts in 1998 to be consistent with the start date of figures on earlier pages of this report.

Depending on the locations selected, some data may not be available due to disclosure restrictions.¹⁸

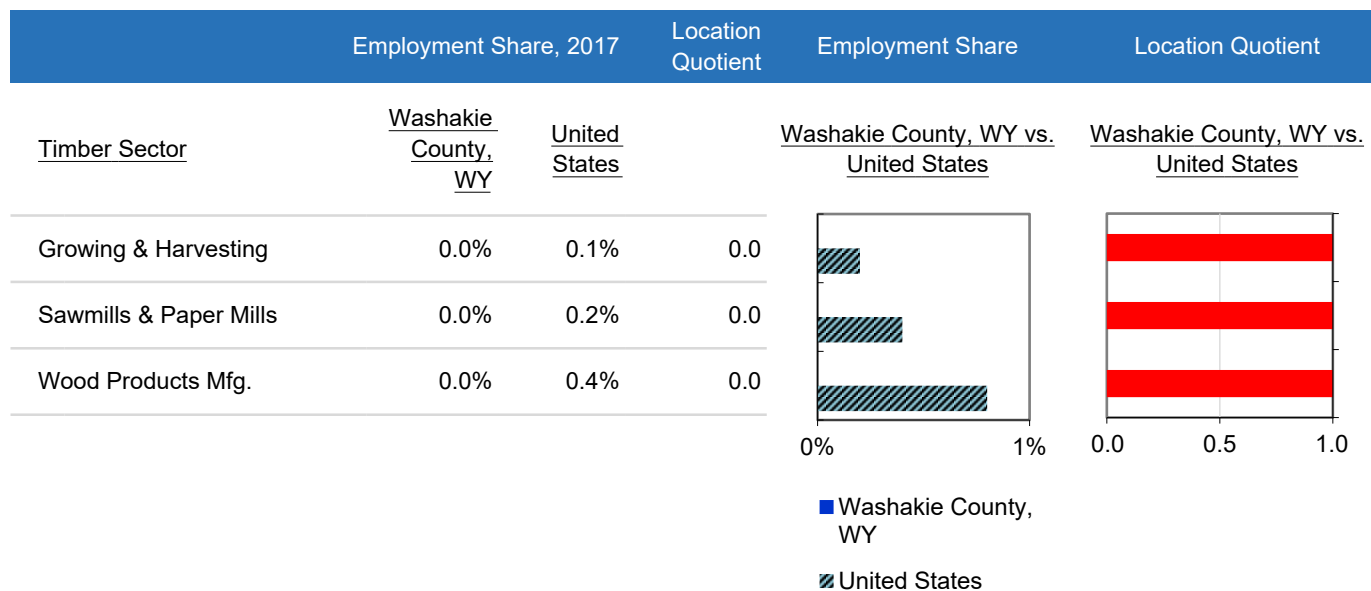
Why is it important?

While the timber industry has the potential to offer high wages, not all components of the timber industry pay the same wages or employ the same number of people. A significant increase in timber jobs that pay above the average for all industries will increase overall average earnings per job. On the other hand, a significant increase in timber jobs that pay below the average for all industries will decrease overall average earnings per job. A modest change in timber employment, especially when this industry is a small share of total employment, will not likely affect average earnings in a local area.

Timber

Washakie County, WY

Comparisons



- In 2017, growing & harvesting had the highest location quotient score (0), and growing & harvesting had the lowest (0).

Comparisons

What do we measure on this page?

This page describes whether the region is specialized (or under-specialized) in timber employment. The chart illustrates the difference between the selected region and the selected benchmark area.¹⁹ (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Location Quotient²⁰: A ratio that compares an industry's share of total employment in a region to the benchmark. More precisely, it is the percent of local employment in a sector divided by the percent employment in the same sector in the benchmark area. In other words, it is a ratio that measures specialization using the benchmark area for comparison. A location quotient of more than 1.0 means the local area is more specialized in that sector relative to the benchmark area. A location quotient of less than 1.0 means it is less specialized.²¹

Another way to think about location quotients is as a measure of whether a place produces enough goods or services from an industry to satisfy local demand for those goods or services. Results above or below the 1.0 standard indicate the degree to which a place may import or export a good or service. Although there is no precise cutoff, location quotients above 2.0 indicate a strong industry concentration (and that an area is likely exporting goods or services) and those less than 0.5 indicate a weak industry concentration (and that an area is likely importing goods or services).

Why is it important?

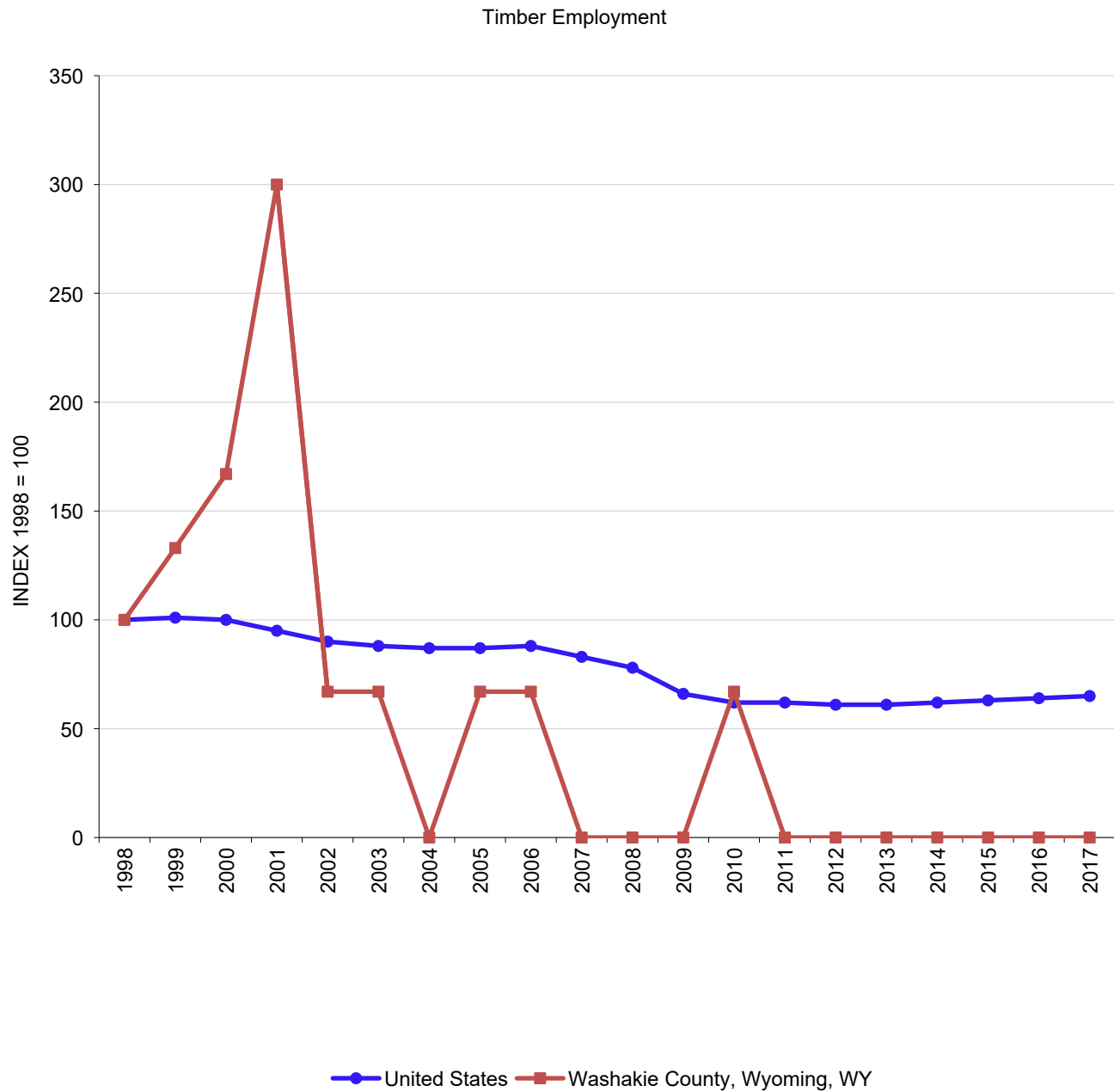
Locations with economies that focus on resource extraction and commodity production can be subject to boom-and-bust cycles as well as other economic challenges such as slower long-term economic growth. In the case of timber and wood products, mechanization, rising transportation costs, volatile prices, competition from abroad, shifting public values related to the management of public lands, the restructuring of timber companies as Real Estate Investment Trusts, and other factors have led to business and employment declines in many communities. In some cases, rural economies that have historically been tied to commodity production are becoming more diverse.^{9, 22}

A few caveats: (1) A large location quotient for a particular sector does not necessarily mean that sector is a significant contributor to the economy. (2) LQs greater than 1.0 only suggest potential export capacity when compared to the benchmark area and do not take into account local demand. Local demand may be greater than average, and therefore all goods and services may be consumed locally (i.e., not exported). (3) LQs can change from year to year. (4) LQs can vary when one uses income or wage data rather than employment.

Timber

Washakie County, WY

Comparisons Over Time



- From 1998 to 2017, Washakie County, WY had the fastest rate of change in timber employment, and Washakie County, WY had the slowest.

Comparisons Over Time

What do we measure on this page?

This page describes the change in mining employment for all selected locations and the benchmark area.¹⁹ The information is indexed (1998=100) so that data from locations with different-sized economies can be compared. Indexing makes it easier to understand the relative rate of growth or decline of mining employment over time.

Index: Indexed numbers are compared with a base value. In the line chart, employment in 1998 is the base value and is set to 100. The employment values for subsequent years are expressed as 100 times the ratio to the base value. The indexing used in the line chart enables easier comparisons between locations over time. (If many locations are selected, it may be difficult to read the figure on this page.)

The chart begins in 1998 because that is the year the Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS).

Why is it important?

Not all locations have attracted or lost timber industries and employment at the same rate.⁸ An index makes it clear where the rate of timber growth or decline has been the fastest. Lines above 100 indicate positive absolute growth while those below 100 show absolute decline. The steeper the curve, the faster the rate of change.

It may be helpful to look for large year-to-year rises or dips in the lines on the chart to identify rapid employment changes. If the reasons behind these fluctuations are not evident, it may be helpful to talk with regional experts or locals to learn more about what caused abrupt changes.²³

Locations with economies that focus on resource extraction and commodity production can be subject to boom-and-bust cycles as well as other economic challenges such as slower long-term economic growth.

Locations with economies that focus on resource extraction and commodity production can be subject to boom-and-bust cycles as well as other economic challenges such as slower long-term economic growth. In the case of timber and wood products, mechanization, rising transportation costs, volatile prices, competition from abroad, shifting public values related to the management of public lands, the restructuring of timber companies as Real Estate Investment Trusts, and other factors have led to business and employment declines in many communities. In some cases, rural economies that have historically been tied to commodity production are becoming more diverse.^{6, 9}

Data Sources & Methods

This EPS Timber report uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **County Business Patterns**
Census Bureau, U.S. Department of Commerce
<https://www.census.gov/programs-surveys/cbp.html>
Contacts:
<https://www.census.gov/about/contact-us.html>
- **Quarterly Census of Employment and Wages**
Bureau of Labor Statistics, U.S. Department of Labor
<https://www.bls.gov/cew/>
Contact
<https://www.bls.gov/bls/contact.htm>
- **Nonemployer Statistics**
Bureau of the Census, U.S. Department of Commerce
<https://www.census.gov/programs-surveys/nonemployer-statistics.html>
Contacts:
<https://www.census.gov/programs-surveys/nonemployer-statistics/about/contact-us.html>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking—comparing smaller areas such as counties to larger regions, states, and the nation—to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Data Limitations

Much of the data in this report were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. Compared to other sources, CBP has fewer data gaps (instances when the federal government will not release data to protect confidentiality of individual businesses). It also includes both full- and part-time employment.

However, CBP data do not include employment in government, agriculture, railroads, or the self-employed. Also, CBP data are based on mid-March employment and do not account for seasonal fluctuations. Since March is a "shoulder" season for several tourism activities, CBP may underrepresent employment in industries associated with tourism. Despite these limitations, the data are most useful for showing long-term trends, displaying differences between places, and showing relationships between sectors over time.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated in italics in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Endnotes

- 1 - The three timber and wood products categories are made up of the following NAICS codes:
Growing and Harvesting: forestry and logging (113), support activities for forestry (1153).
Sawmills and Paper Mills: sawmills and wood preservation (3211), pulp, paper, and paperboard mills (3221), veneer, plywood, and engineered wood product manufacturing (3212).
Wood Products Manufacturing: other wood product manufacturing (3219) and converted paper product manufacturing (3222).
- 2 - For an online listing of all NAICS codes, see: naics.com/search.htm.
- 3 - For additional online manuals and definitions of industry codes, see: bls.gov/bls/naics.htm and census.gov/eos/www/naics.
- 4 - For an illustration of how Americans use their land to create wealth (including forestry), see Merrill D and L Leatherby. 2018. Here's How America Uses Its Land. Bloomberg. <https://www.bloomberg.com/graphics/2018-us-land-use/>.
- 5 - See the U.S. Forest Service's Forest Inventory and Analysis Program at <https://www.fia.fs.fed.us/>.
- 6 - The Forest Service produces a number of publications about the timber industry, including Resources Planning Act (RPA) Assessment reports on the status and trends of the Nation's renewable resources on all forests. See <https://www.fs.fed.us/research/rpa/>.
- 7 - The Bureau of Business and Economic Research's (BBER) Forest Industry Research Program monitors forest products operations in the West and researches the industry's size, diversity, and economic impacts. BBER is located at the University of Montana in Missoula, MT. <http://www.bber.umt.edu/FIR/Default.asp>.
- 8 - The Bureau of Labor Statistics provides an overview and outlook of the timber industry (as part of agriculture, forestry, and fishing). See <https://www.bls.gov/ooh/farming-fishing-and-forestry/>.
- 9 - In 2017 Headwaters Economics analyzed the economic performance of formerly timber-dependent counties. See Lessons from the Timber Transition at <https://headwaterseconomics.org/economic-development/trends-performance/timber-transition/>.
- 10 - Nonemployer definitions can be found at <https://www.census.gov/epcd/nonemployer/view/define.html>.
- 11 - Nonemployer Statistics data can be found at <https://www.census.gov/programs-surveys/nonemployer-statistics.html>.
- 12 - Timber in the table and charts on this page is the sum of the following NAICS codes: Forestry and Logging (113), Wood Products Manufacturing (321), and Paper Manufacturing (322).
- 13 - The EPS Socioeconomic Measures report provides more information on wages in non-timber industries: <https://headwaterseconomics.org/eps>.

Endnotes (cont.)

- 14 - For an overview of how the Bureau of Labor Statistics treats pay and benefits, see <https://www.bls.gov/bls/blswage.htm>.
- 15 - For an overview of how the Bureau of Labor Statistics treats employment, see <https://www.bls.gov/bls/employment.htm>.
- 16 - Employment and wage estimates are also available from the Bureau of Labor Statistics for more than 800 occupations. Looking at timber by occupation rather than by sector or industry is helpful because wages can vary dramatically across occupations. For more information, see <https://www.bls.gov/oes/>.
- 17 - Timber in the tables on this page is the sum of the following NAICS codes: Forestry and Logging (113), Woods Product Manufacturing (321), and Paper Manufacturing (322).
- 18 - If there are significant undisclosed data on this page, other sources for timber wage data include: The Bureau of Labor Statistics' Quarterly Census of Employment and Wages, which has data for industries at the state level (<https://www.bls.gov/cew/>); the Bureau of Labor Statistics' Occupational Outlook Handbook, which has detailed industry earnings and wages data at the national level (<https://www.bls.gov/ooh/>); and the County Business Patterns database, which reports industry-level employment and payroll and can be used to estimate earnings (<https://www.census.gov/programs-surveys/cbp.html>).
- 19 - The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).
- 20 - $LQ = (e_i/e) \text{ divided by } (E_i/E)$
Where: e_i = Local employment in industry i ; e = Total local employment; E_i = U.S. employment in industry i ; E = Total U.S. employment.
- 21 - A succinct definition of a location quotient is offered by Indiana Business Research Center at IU's Kelley School of Business. See <http://www.incontext.indiana.edu/2006/march/1.asp>.
- 22 - For a review of literature on economic diversity, see Sterling A. 1998. On the Economics and Analysis of Diversity. Electronic Working Papers Series, Paper No. 28. Brighton, UK: University of Sussex <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.144.8865&rep=rep1&type=pdf>; and Malizia EE and Shanzai K. 2006. The Influence of Economic Diversity on Unemployment and Stability. Journal of Regional Science 33(2):221-235.
- 23 - Useful resources for investigating trends related to timber harvest on public lands are the National Forest Timber Sales and Timber Cuts and Gross Receipts from Commercial Activities data visualizations available online at <https://headwaterseconomics.org/dataviz/national-forests-timber-cut-sold/> and <https://headwaterseconomics.org/dataviz/national-forests-gross-receipts/>.



A Profile of Service Sectors

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Services

Washakie County, WY

Services Sectors

	Washakie County, Wyoming, WY	United States
Total Private Employment, 2017	2,620	128,591,812
Services Total	~1,913	109,583,608
Utilities	29	644,703
Wholesale trade	78	6,115,476
Retail Trade	364	15,705,808
Transportation and Warehousing	98	4,866,282
Information	~20	3,507,966
Finance and Insurance	90	6,408,168
Real Estate and Rental and Leasing	40	2,148,006
Professional, Scientific, and Tech.	141	8,905,549
Mgmt. of Companies and Enterprises	0	3,462,498
Administrative and Support Services	24	11,897,056
Educational Services	0	3,688,541
Health Care and Social Assistance	607	20,241,438
Arts, Entertainment, and Recreation	28	2,368,928
Accommodation and Food Services	275	14,088,211
Other Services	119	5,534,978
Non-Services	645	18,996,990
Unclassified	0	11,214

This table does not include employment data for government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are indicated with tildes (~).

Services Sectors

What do we measure on this page?

This page describes the number of jobs in each service sector. The information in this report is useful for exploring the growth of services, details on service sectors, and the mix of high- and low-wage services across locations.

Services: Services comprise 15 service-related sectors at the 2-digit level, according to the North American Industrial Classification System (NAICS).¹ Sectors are: Utilities; Wholesale Trade; Retail Trade; Transportation & Warehousing; Information; Finance & Insurance; Real Estate & Rental & Leasing; Professional, Scientific, & Tech.; Mgmt. of Companies & Enterprises; Administrative & Support Services; Educational Services; Health Care & Social Assistance; Arts, Entertainment, & Recreation; Accommodation & Food Services; and Other Services.

Non-Services: Non-services comprise all industries that are not classified by the federal government as services. Non-service sectors are: Mining; Construction; Manufacturing; and Agriculture, Forestry, Fishing, and Hunting.

In the past some non-service industries, such as manufacturing and mining, were sometimes referred to as “goods-producing” sectors. In today’s economy this terminology is no longer useful because many activities that take place in the service industries are part of the process of producing a good. For example, architects who design homes are part of the production process of building a home. Also part of goods production are engineers who design a product that will be manufactured, chemists who design new drugs that become part of pharmaceuticals production, as well as the people who finance these activities and the attorneys who file the patents.

Data on this page were obtained from the U.S. Census Bureau’s County Business Patterns (CBP) series. We use this source because it has fewer data gaps (instances when the federal government will not release information to protect the confidentiality of individual businesses) compared to other sources. It also includes both full- and part-time employment. The disadvantage of CBP data is that they do not include employment in government, agriculture, railroads, or the self-employed and as a result under-count the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationships among sectors over time.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.² These values are indicated with tildes (~).

Why is it important?

Nationally, services account for more than 95 percent of the net growth in new jobs since 2000. Despite the strong growth of employment in services, the term “services” is often misunderstood. Services consist of a wide mix of jobs including high-wage, high-skilled occupations (e.g., doctors, engineers, software developers) and low-wage, low-skilled occupations (e.g., restaurant workers, tour bus operators). The service sector typically provides services, such as banking and education, rather than creating tangible objects. However, many service sectors such as utilities, engineering, and architecture can be closely associated with the production of goods.

Services

Washakie County, WY

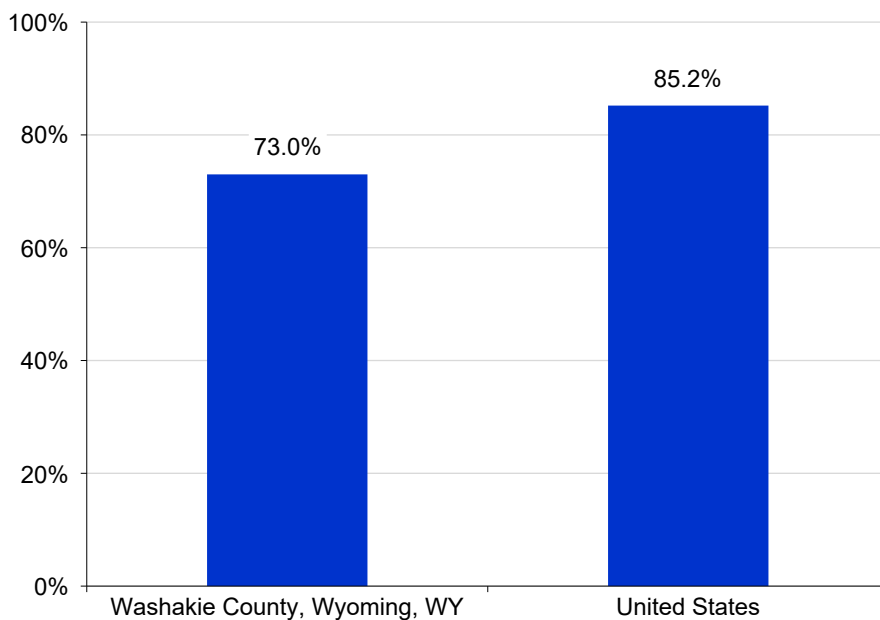
Services Sectors (cont.)

	Washakie County, Wyoming, WY	United States
Services Total, 2017	~73.0%	85.2%
Utilities	1.1%	0.5%
Wholesale trade	3.0%	4.8%
Retail Trade	13.9%	12.2%
Transportation and Warehousing	3.7%	3.8%
Information	~0.8%	2.7%
Finance and Insurance	3.4%	5.0%
Real Estate and Rental and Leasing	1.5%	1.7%
Professional, Scientific, and Tech.	5.4%	6.9%
Mgmt. of Companies and Enterprises	0.0%	2.7%
Administrative and Support Services	0.9%	9.3%
Educational Services	0.0%	2.9%
Health Care and Social Assistance	23.2%	15.7%
Arts, Entertainment, and Recreation	1.1%	1.8%
Accommodation and Food Services	10.5%	11.0%
Other Services	4.5%	4.3%
Non-Services, 2017	24.6%	14.8%
Unclassified, 2017	0.0%	0.0%

This table does not include employment data for government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are indicated with tildes (~).

Percent of Total Private Employment in Services, 2017

- In 2017, United States had the largest percent of total employment in services (85.2%), and Washakie County, Wyoming, WY had the smallest (73%).



Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

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Services Sectors (cont.)

What do we measure on this page?

This page describes the numbers of jobs in services broken out by individual service sectors.

Services consist of 15 service-related sectors shown in the table. Non-services consist of all industries that are not classified by the federal government as services.

Services: Services comprise 15 service-related sectors at the 2-digit level, according to the North American Industrial Classification System (NAICS).¹ Sectors are: Utilities; Wholesale Trade; Retail Trade; Transportation & Warehousing; Information; Finance & Insurance; Real Estate & Rental & Leasing; Professional, Scientific, & Tech.; Mgmt. of Companies & Enterprises; Administrative & Support Services; Educational Services; Health Care & Social Assistance; Arts, Entertainment, & Recreation; Accommodation & Food Services; and Other Services.

Non-Services: Non-services comprise all industries that are not classified by the federal government as services. Non-service sectors are: Mining; Construction; Manufacturing; and Agriculture, Forestry, Fishing, and Hunting.

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. We use this source because it has fewer data gaps (instances when the federal government will not release information to protect the confidentiality of individual businesses) compared to other sources. It also includes both full- and part-time employment. The disadvantage of CBP data is that they do not include employment in government, agriculture, railroads, or the self-employed and as a result under-count the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationships among sectors over time.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.² These values are indicated with tildes (~).

Why is it important?

Nationally, services account for more than 95 percent of the growth in new jobs since 2000. Despite the strong growth of employment in services, the term "services" is often misunderstood. Services consist of a wide mix of jobs including high-wage, high-skilled occupations (e.g., doctors, engineers, software developers) and low-wage, low-skilled occupations (e.g., restaurant workers, tour bus operators). The service sector typically provides services, such as banking and education, rather than creating tangible objects. However, many service sectors such as utilities, engineering, and architecture are closely associated with the production of goods.

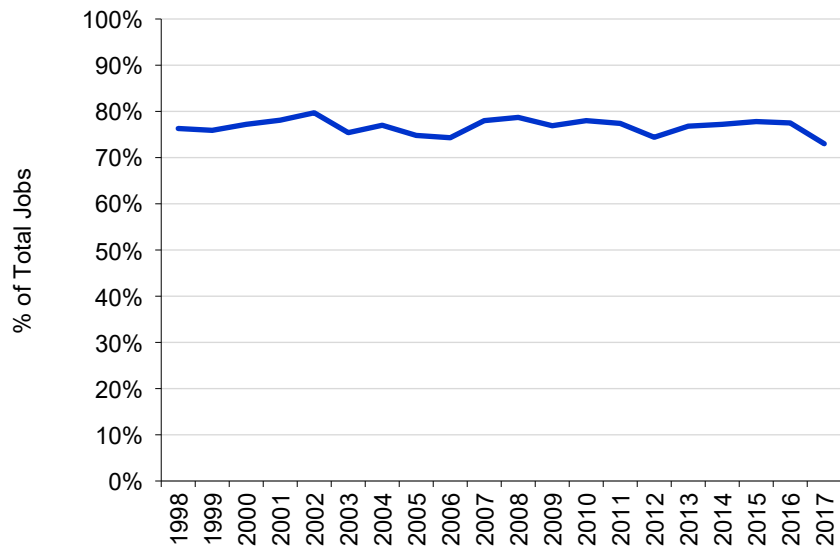
Services

Washakie County, WY

Employment Trends

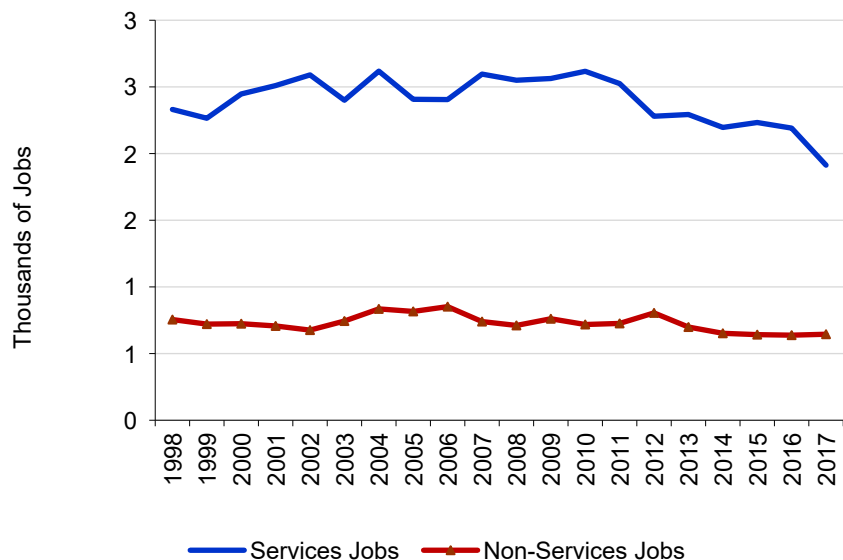
- In 1998, employment in services was 76% of total jobs. In 2017, employment in services was 73% of total jobs.

Percent of Total Private Employment in Services, Washakie County, WY



- From 1998 to 2017, employment in services declined from 2,331 to 1,913 jobs, a decrease of 18 percent.
- From 1998 to 2017, employment in non-services declined from 755 to 645 jobs, a decrease of 15 percent.

Total Jobs in Services and Non-Services, Washakie County, WY



Employment Trends

What do we measure on this page?

This page describes employment trends in services as a percent of all jobs, and compares services to non-services over time.

Why is it important?

Services account for more than 95 percent of the growth in new jobs since 2000.^{3, 4} When services are a large proportion of existing jobs and new jobs in the local economy, it may be important for decision makers to evaluate whether policies and management actions play a role in stimulating new service industry growth. Policies and management actions can create a setting that attracts and retains service businesses.^{5, 6} For example, recreational and environmental amenities can attract "footloose" (i.e., able to live almost anywhere) service workers. Also, it is possible that a shift toward a service-based economy corresponds with a shift in values and expectations that decision makers should be aware of.

The figure at the bottom of this page shows the growth of service industries relative to the rest of the economy. A common trend is for most of the growth coming from services, and for there to be a significant loss of manufacturing jobs. A partial explanation for the loss of manufacturing jobs and the growth of service jobs may be attributed to how industries are counted in official statistics. Some functions, such as accounting and marketing, are sometimes outsourced and therefore now counted as part of services rather than manufacturing. In other words, the U.S. still makes things, but engineering, finance, and marketing are no longer taking place in the factory and therefore these jobs are no longer counted as "manufacturing." According to one estimate, about a quarter of the decline in manufacturing in the last 60 years may be attributable to a shift in how industries are measured.⁷

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. We use this source because it has fewer data gaps (instances when the federal government will not release information to protect the confidentiality of individual businesses) compared to other sources. It also includes both full- and part-time employment. The disadvantage of CBP data is that they do not include employment in government, agriculture, railroads, or the self-employed and as a result under-count the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationships among sectors over time.

The line charts that show employment trends in services begin in 1998 because that is the year the U.S. Census Bureau (and County Business Patterns) shifted to using the new North American Industrial Classification System (NAICS).⁸

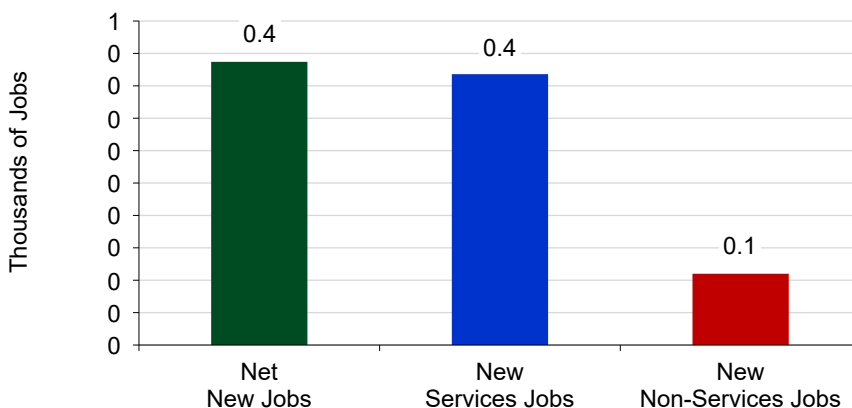
Services

Washakie County, WY

Employment Trends (cont.)

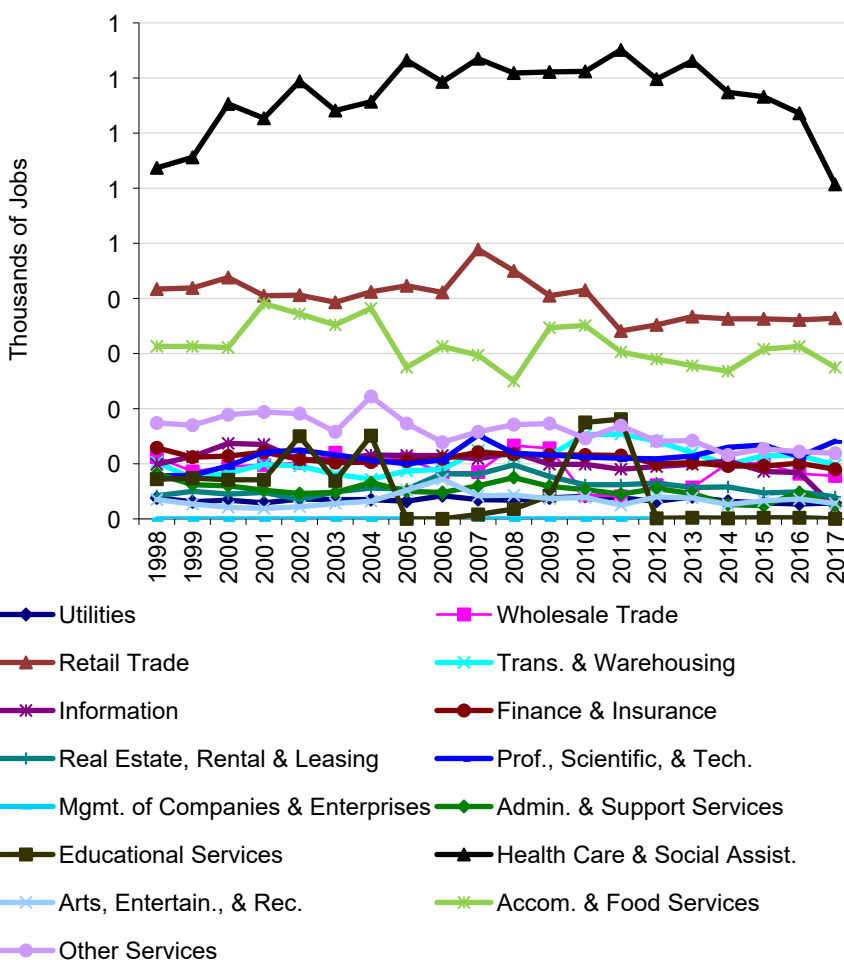
- From 1998 to 2017, employment in services decreased by 418 jobs.
- From 1998 to 2017, employment in non-services decreased by 110 jobs.

New Jobs in Services & Non-Services, Washakie County, WY, 1998-2017



- In 2017, the top three service sectors in terms of employment were health care & social assist. (607 jobs), retail trade (364 jobs), and accom. & food services (275 jobs).

Jobs in Service Sectors, Washakie County, WY, 1998-2017



Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

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Employment Trends (cont.)

What do we measure on this page?

This page compares the size of employment growth in services to non-services and shows employment trends in service sectors.

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. We use this source because it has fewer data gaps (instances when the federal government will not release information to protect the confidentiality of individual businesses) compared to other sources. It also includes both full- and part-time employment. The disadvantage of CBP data is that they do not include employment in government, agriculture, railroads, or the self-employed and as a result under-count the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationships among sectors over time.

The line chart that shows employment trends in services begins in 1998 because that is the year the Census Bureau (and County Business Patterns) shifted to using the new North American Industrial Classification System (NAICS).

Why is it important?

In the U.S., and in many counties and regions across the country, service sectors have created the majority of new jobs in recent decades.⁹ Because the bulk of recent economic growth has been related to services and there are wide discrepancies between the skills and wages of service sectors, it is important to understand the mix of industries that make up services.

The chart New Jobs in Services and Non-Services illustrates whether services or non-services account for new job growth. The line chart Jobs in Service Sectors shows the components of service sectors to indicate which service industries are driving job growth.

Services

Washakie County, WY

Wages and Employment

Wages*, 2018	Washakie County, Wyoming, WY	United States
All Sectors, 2018 (2019 \$s)	\$41,569	\$58,297
Private	\$40,989	\$58,228
Services	\$36,664	\$56,366
Trade, Transportation, Utilities	\$42,460	\$48,464
Information	\$41,291	\$115,829
Financial Activities	\$52,109	\$97,282
Professional and Business	\$43,831	\$76,522
Education and Health	\$40,080	\$51,352
Leisure and Hospitality	\$13,800	\$24,520
Other Services	\$21,400	\$39,157
Non-Services	\$51,021	\$66,999
Natural Resources and Mining	\$47,453	\$60,702
Construction	\$46,181	\$63,856
Manufacturing (Incl. Forest Prod.)	\$54,729	\$69,759
Government	\$43,494	\$58,696

Percent of Employment*, 2018	Washakie County, Wyoming, WY	United States
Total Private	76.3%	85.2%
Services	53.3%	70.3%
Trade, Transport., Utilities	17.1%	18.8%
Information	2.2%	1.9%
Financial Activities	4.1%	5.6%
Professional and Business	3.6%	14.3%
Education and Health	14.6%	15.5%
Leisure and Hospitality	9.0%	11.1%
Other Services	2.8%	3.1%
Non-Services	23.0%	14.9%
Natural Resources and Mining	4.9%	1.3%
Construction	5.9%	4.9%
Manufacturing (Incl. Forest Prod.)	12.1%	8.7%
Government	23.6%	14.8%

* These tables show data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on previous pages of this report.

Wages and Employment

What do we measure on this page?

This page describes wages (in real terms) in service sectors compared to wages in non-service sectors and government. It also describes the percent of jobs in each category. Shown together, these illustrate where the high- and low-wage occupations are located (by geography and industry) and whether the jobs in each category comprise a large or small proportion of total employment.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{10, 11}

Depending on the geographies selected, some data may not be available due to disclosure restrictions. Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses custom data aggregations calculated from various NAICS codes. Occasionally, one or more data values underlying these aggregations are non-disclosed. These values are indicated with tildes (~).

Why is it important?

While nationally nearly all new jobs since 1990 have been in services, they are not equally distributed across the country. Not all counties are able to attract and retain the relatively high-wage services. Some counties may have high average annual wages in a particular sector but few people employed in that sector. Others may have low wages in a particular sector and many people employed in that sector.

Additional research would be needed to determine whether a location has the elements that need to be in place to attract and keep high-wage services workers. Those elements may include access to reliable transportation including airports,¹² amenities,¹³ recreation opportunities, a trained workforce, and good schools.

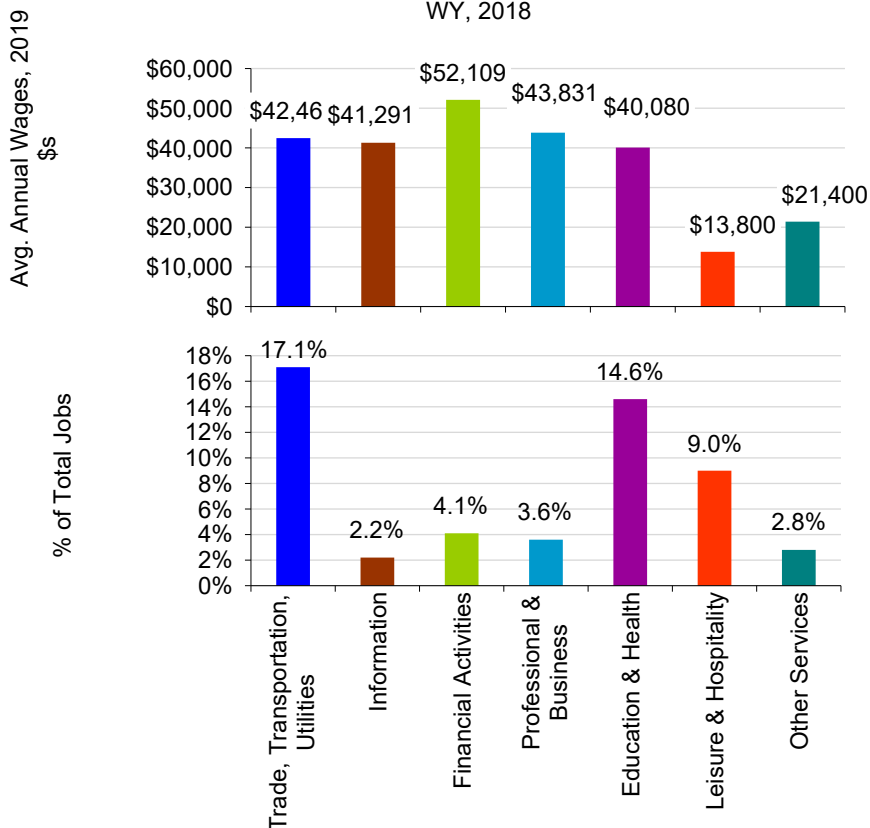
Services

Washakie County, WY

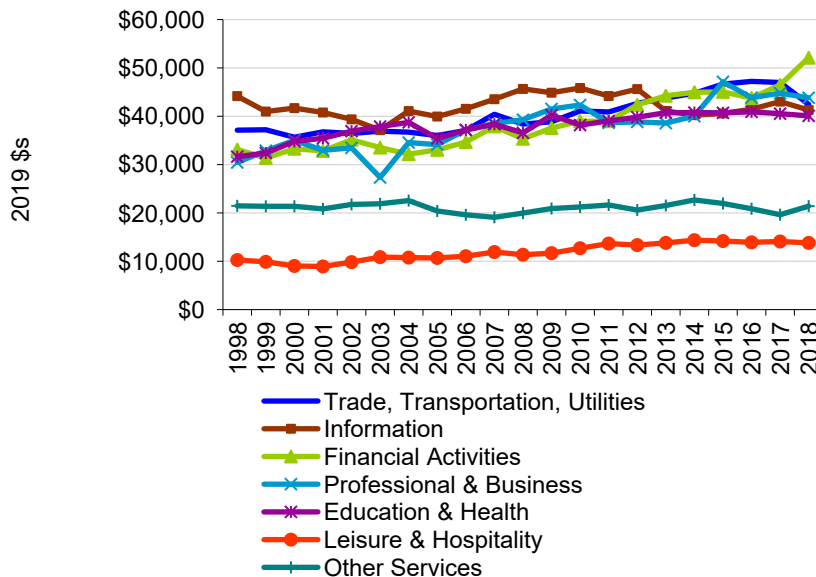
Wages and Employment (cont.)

- In 2018, the three service sectors that paid the highest wages were financial activities (\$52,109), professional & business (\$43,831), and trade, transportation, utilities (\$42,460).
- In 2018, the three service sectors that employed the highest proportion of people were trade, transportation, utilities (17.1% of total jobs), education & health (14.6% of total jobs), and leisure & hospitality (9.0% of total jobs).
- From 1998 to 2018, the three service sectors that had the largest increase in average annual wages were financial activities (from \$33,116 to \$52,109, an increase of 57%), professional & business (from \$30,427 to \$43,831 an increase of 44%), and education & health (from \$31,639 to \$40,080, an increase of 27%).

Avg. Annual Wages & Jobs in Service Sectors, Washakie County, WY, 2018



Avg. Annual Wages in Service Sectors, Washakie County, WY, 1998-2018



Data Sources: U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

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Wages and Employment (cont.)

What do we measure on this page?

This page describes average wages (in real terms) and employment levels in different service sectors. It also shows average wage trends (in real terms) for service sectors at the regional level.

The graph Avg. Annual Wages in Service Sectors is useful for describing how many people are working in relatively high- and low-wage service sectors. The line chart Avg. Annual Wages in Service Sectors is useful for comparing wage trends by service sector.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{10, 11}

Depending on the geographies selected, some data may not be available due to disclosure restrictions.

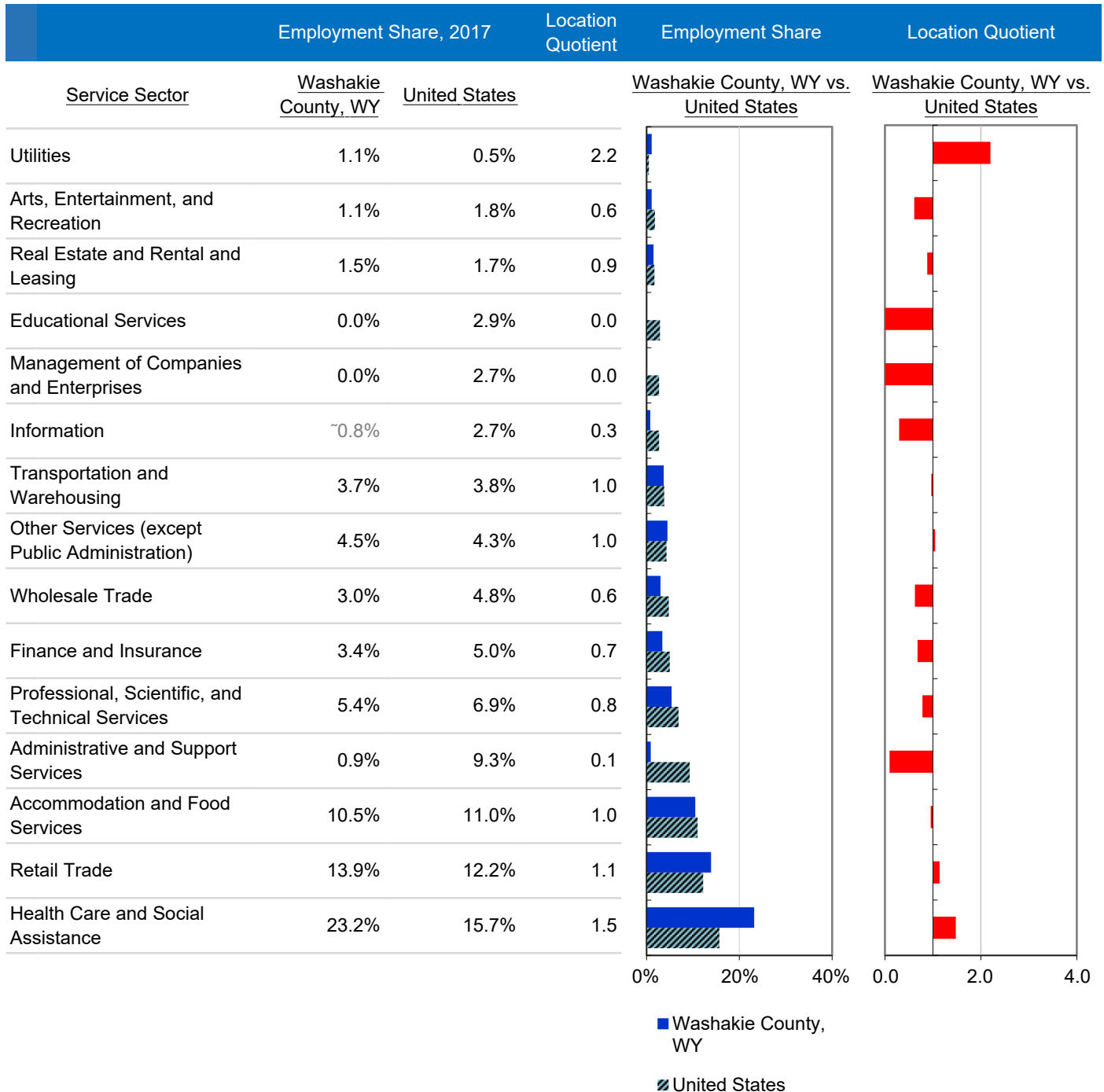
Why is it important?

While much of the growth in the economy has been in service industries, they do not all pay the same wages or employ the same number of people. Sometimes the lowest-wage service occupations employ the most people, and a few high-wage service-related occupations employ only a few people. For a county or region to perform well economically, it helps to have a diversity of service industries and a large number of people employed in the higher-wage components of services.

Services

Washakie County, WY

Comparisons



- In 2017, utilities had the highest location quotient score (2.2) and educational services had the lowest (0).

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

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Comparisons

What do we measure on this page?

This page describes how the region is specialized in services employment. The chart illustrates the difference between the region and the selected benchmark area¹⁴ by comparing jobs in services as a share of total employment and with location quotients. (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Location quotient¹⁵: A ratio that compares an industry's share of total employment in a region to the benchmark. More precisely, it is the percent of local employment in a sector divided by the percent employment in the same sector in the benchmark area. In other words, it is a ratio that measures specialization using the benchmark area for comparison. A location quotient of more than 1.0 means the local area is more specialized in that sector relative to the benchmark area. A location quotient of less than 1.0 means it is less specialized.¹⁶

Another way to think about location quotients is as a measure of whether a place produces enough goods or services from an industry to satisfy local demand for those goods or services. Results above or below the 1.0 standard indicate the degree to which a place may import or export a good or service. Although there is no precise cutoff, location quotients above 2.0 indicate a strong industry concentration (and that an area is likely exporting goods or services) and those less than 0.5 indicate a weak industry concentration (and that an area is likely importing goods or services).

Why is it important?

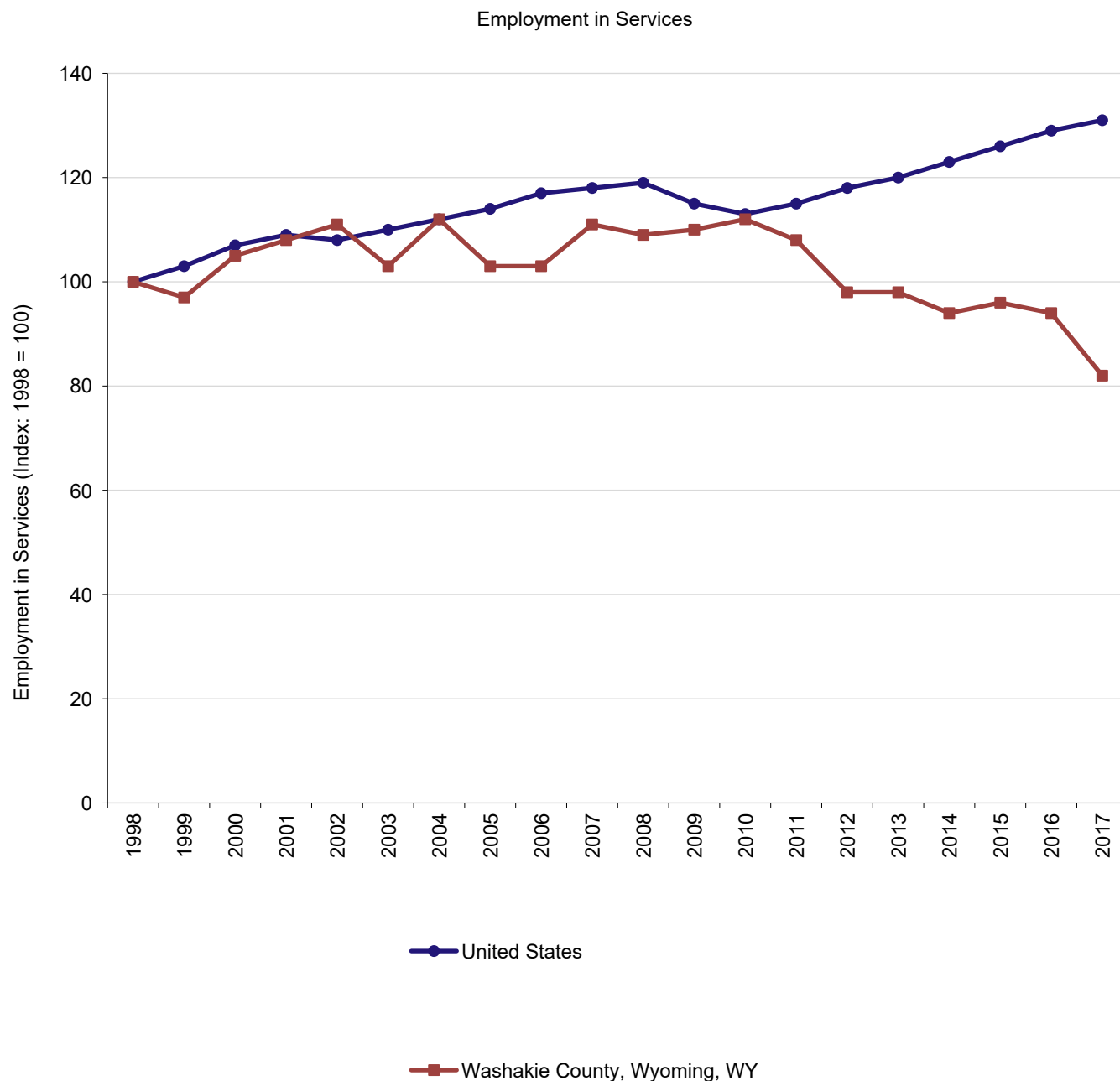
Areas that are less specialized ($LQ < 1.0$) may indicate opportunities for business expansion. Areas that are more specialized ($LQ > 1.0$) may indicate that the selected region produces more than it needs in that particular industry and exports goods and services to outside markets.

A few caveats: (1) A large location quotient for a particular sector does not necessarily mean that sector is a significant contributor to the economy. (2) LQs greater than 1.0 only suggest potential export capacity when compared to the benchmark area and do not take into account local demand. Local demand may be greater than average, and therefore all goods and services may be consumed locally (i.e., not exported). (3) LQs can change from year to year. (4) LQs can vary when one uses income or wage data rather than employment.

Services

Washakie County, WY

Comparisons Over Time



- From 1998 to 2017, Washakie County, WY had the fastest rate of change in services employment and Washakie County, WY had the slowest.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

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Comparisons Over Time

What do we measure on this page?

This page compares the change in services employment for all selected locations and the benchmark area.¹⁴ The information is indexed (1998=100) so that data from locations with different-sized economies can be compared. Indexing makes it easier to understand the relative rate of growth or decline of services employment over time.¹

Index: Indexed numbers are compared with a base value. In the line chart, employment in 1998 is the base value and is set to 100. The employment values for subsequent years are expressed as 100 times the ratio to the base value. The indexing used in the line chart enables easier comparisons between geographies over time. (If many locations are selected, it may be difficult to read the figure on this page.)

The line chart begins in 1998 because that is the year the Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS).

Why is it important?

Not all locations have attracted or lost service sectors and employment at the same rate.¹⁷

An indexed chart illustrates where the rate of services growth or decline has been the fastest. Lines above 100 indicate positive absolute growth while those below 100 show absolute decline. The steeper the curve, the faster the rate of change.

This line chart can also be used to examine differences in volatility (i.e., year-to-year fluctuations) of growth or decline between locations.

Data Sources & Methods

The EPS Services report uses statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **County Business Patterns**

Census Bureau, U.S. Department of Commerce

<https://www.census.gov/programs-surveys/cbp.html>

Contacts:

<https://www.census.gov/about/contact-us.html>

- **Quarterly Census of Employment and Wages**

Bureau of Labor Statistics, U.S. Department of Labor

<https://www.bls.gov/cew>

Contacts:

<https://www.bls.gov/bls/contact.htm>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated in italics in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Endnotes

- 1 - The definitions of the service sectors can be found in the online NAICS manual available from the U.S. Census Bureau at <https://www.census.gov/eos/www/naics/>, and a description of services specifically is available from <https://www.census.gov/econ/services.html>.
- 2 - Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.
- 3 - The Bureau of Labor Statistics provides a detailed overview of service industries (<https://www.bls.gov/iag/tgs/iag07.htm>) as well as projections of where new jobs will be created (<https://www.bls.gov/careeroutlook/2017/data-on-display/projections-industry-sectors.htm?view=full>). For example, "...of the 11.5 million new jobs BLS projects over the decade, about 10.5 million—more than 90 percent—will be in service-providing industries."
- 4 - For a review of the role of services in the western U.S., see Shumway JM and Otterstrom SM. 2001. Spatial Patterns of Migration and Income Change in the Mountain West: The Dominance of Service-Based, Amenity-Rich Counties. *Professional Geographer* 53(4): 492–502. <https://onlinelibrary.wiley.com/doi/abs/10.1111/0033-0124.00299>.
- 5 - To read more about the attraction of high-skilled service workers to places with amenities and quality of life (referred to by some as the "creative class"), see the U.S. Department of Agriculture's Economic Research Service: <https://www.ers.usda.gov/amber-waves/2007/april/the-creative-class-a-key-to-rural-growth/> (*The Creative Class: Key to Rural Growth*). This website links to creative class and amenity scores for every county in the nation. It may also be useful to run the EPS Land Use report to learn about the presence of national parks and other forms of protected lands, and the EPS Public Land Amenities report to investigate whether a connection exists between local amenities and economic growth. Reports can be downloaded at <https://headwaterseconomics.org/eps>.
- 6 - For a critique of the Creative Class, see: Hoyman M and Faricy C. 2008. It Takes a Village: A Test of the Creative Class, Social Capital, and Human Capital Theories. *Urban Affairs Review* 44: 311-332. <http://uar.sagepub.com/content/44/3/311>.
- 7 - See Berlingieri G. 2014. Outsourcing and the shift from manufacturing to services. VOX. Washington, DC: Center for Economic and Policy Research. <https://voxeu.org/article/outsourcing-and-shift-manufacturing-services>.
- 8 - For an overview of how historical changes in employment have affected rural America, see Whitenar LA and McGranahan DA. 2003. Rural America: Opportunities and Challenges. *Amber Waves* 1(1): 1-8. https://www.agclassroom.org/teen/ars_pdf/social/amber/rural_america.pdf.

Endnotes (cont.)

- 9 - To compare employment trends in services to other sectors, run the EPS Socioeconomic Measures report at <https://headwaterseconomics.org/eps>. Charts in that report display all sectors over time. It may be useful to see whether employment in services follows employment in other sectors. For example, in the early 1980s in counties with mining activity, service employment often went up and down with mining employment. In some counties this relationship held until the early 1990s, after which service employment began to grow even when mining declined. By viewing line charts and the relationships among sectors over time, one can develop hypotheses that can be tested via other means (for example, by closer examination of the components of the service sector, and by a review of the literature).
- 10 - For an overview of how the Bureau of Labor Statistics treats employment, see <https://www.bls.gov/bls/employment.htm>. For an overview of how the Bureau of Labor Statistics treats pay and benefits, see <https://www.bls.gov/bls/wages.htm>.
- 11 - Employment and wage estimates are available from the Bureau of Labor Statistics for more than 800 occupations. Looking at services by occupation rather than by sector or industry is helpful since wages vary dramatically across occupations associated with different services. For more information, see <https://www.bls.gov/oes>.
- 12 - For a peer-reviewed journal article and interactive web tool on the importance of transportation to attracting high-wage "knowledge-based" workers to areas with high amenities, see Rasker R, Gude PH, Gude JA, and van den Noort J. 2009. The Economic Importance of Air Travel in High-Amenity Rural Areas. *Journal of Rural Studies* 25(2009): 343-353, available at <https://headwaterseconomics.org/dataviz/three-wests/>, and https://headwaterseconomics.org/wp-content/uploads/Rasker_et_al_2009_Three_Wests.pdf.
- 13 - Knapp TA and Graves PE. 1989. On the Role of Amenities in Models of Migration and Regional Development. *Journal of Regional Science* 29(1): 71-87. This article specifically captures the idea that amenity values are capitalized into wages.
- 14 - The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).
- 15 - $LQ = (e_i/e) \text{ divided by } (E_i/E)$
Where: e_i = Local employment in industry i ; e = Total local employment; E_i = U.S. employment in industry i ; E = Total U.S. employment.
- 16 - A succinct definition of a location quotient is offered by Indiana Business Research Center at IU's Kelley School of Business. <http://www.incontext.indiana.edu/2006/march/1.as>.
- 17 - To verify the growth in services nationwide, in terms of jobs and personal income, visit the Bureau of Economic Analysis' interactive web site and select tables SA05 and SA25: <https://apps.bea.gov/iTable/iTable.cfm?acrdn=7&isuri=1&reqid=70&step=1#reqid=70&step=1&isuri=1>.



A Profile of Public Land Amenities

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

Public Land Amenities

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Public Land Amenities

Washakie County, WY

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Public Land Amenities

Washakie County, WY

Land Ownership

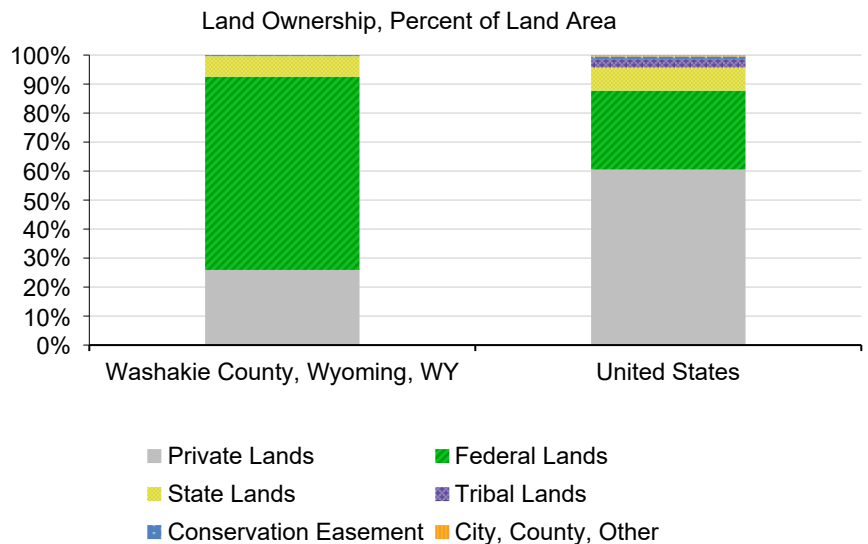
	Washakie County, Wyoming, WY	United States
Total Area (Acres)	1,435,330	2,303,091,014
Private Lands	373,381	1,406,717,148
Conservation Easement	5,525	21,237,199
Federal Lands	960,077	632,461,561
Forest Service	36,090	192,648,950
BLM	917,809	242,857,628
National Park Service	0	78,366,536
Military	0	24,412,029
Other Federal	6,178	94,176,418
State Lands	101,874	184,973,953
State Trust Lands*	100,734	51,983,763
Other State	1,140	132,990,190
Tribal Lands	0	67,946,824
City, County, Other	0	10,989,958

Percent of Total

Private Lands	26.0%	61.1%
Conservation Easement	0.4%	0.9%
Federal Lands	66.9%	27.5%
Forest Service	2.5%	8.4%
BLM	63.9%	10.5%
National Park Service	0.0%	3.4%
Military	0.0%	1.1%
Other Federal	0.4%	4.1%
State Lands	7.1%	8.0%
State Trust Lands*	7.0%	2.3%
Other State	0.1%	5.8%
Tribal Lands	0.0%	3.0%
City, County, Other	0.0%	0.5%

* Most state trust lands are held in trust for designated beneficiaries, principally public schools. Managers typically lease and sell these lands for a diverse range of uses to generate revenues for the beneficiaries.

- Washakie County, Wyoming, WY has the largest share of federal public lands (66.9%), and United States has the smallest (27.5%).
- United States has the largest share of state public lands (8%), and Washakie County, Wyoming, WY has the smallest (7.1%).
- United States has the largest share of private lands (61.1%), and Washakie County, Wyoming, WY has the smallest (26%).



U.S. Geological Survey, Gap Analysis Program. 2018. Protected Areas Database of the United States (PADUS) version 2.0; Rasker, R. 2006. "An Exploration Into the Economic Impact of Industrial Development Versus Conservation on Western Public Lands." Society and Natural Resources. 19(3): 191-207

Public Land Amenities

Washakie County, WY

Land Ownership

What do we measure on this page?

This page describes the share of the selected location that is private and the share that is managed by various public agencies.

Public Land Amenities: The qualities of public lands that make a region an attractive place to live, recreate, and work such as scenic vistas, recreational opportunities, and wildlife habitat. Nearby public lands may impact a local economy by creating a setting that attracts and retains people and businesses. Recreational opportunities may attract tourists. And the opportunities to hunt, fish, and view wildlife may be important to local residents and serve as a magnet that keeps them from leaving.^{1, 2, 3}

This report displays a number of indicators that are commonly present when public land amenities play a role in economic development. No single indicator is sufficient proof of an economic contribution by public lands. Rather, when taken as a whole, these data may indicate that one of the economic contributions of public lands is a setting that attracts and retains people and business. The information presented in this report should be coupled with additional research, including surveys of area residents and business leaders, to discern whether and how public land amenities play an economic role in an area.

No publicly available federal database contains statistics on the area of land by ownership. The data presented in this report were calculated using Geographic Information System (GIS) tools. Two primary GIS datasets were used: U.S. Census Bureau's TIGER/Line County Boundaries⁴ and U.S. Geological Survey's Protected Areas Database (PADUS).⁵

Although every attempt was made to use the best available land ownership data, the data sometimes have errors or become outdated. Please report any inaccuracies to eps@headwaterseconomics.org.

Why is it important?

Public lands provide recreational, environmental, and lifestyle amenities that can stimulate economic growth.⁶ While amenities alone are typically not sufficient to foster growth, they have increasingly been shown to contribute to population growth and economic development.

Many factors can contribute to economic growth, including access to raw materials, workforce quality, availability of investment capital, and transportation networks. In recent decades, amenities have also become increasingly important for people who can choose where to live and work and for businesses that are not subject to location constraints.⁷ Employers now advertise public land amenities to attract and retain a talented workforce. Communities are taking advantage of nearby public lands to attract new businesses and retirement and investment income.⁸ Thus, amenities provided by public lands can be considered an economic asset.⁹

Public Land Amenities

Washakie County, WY

Types of Federal Lands

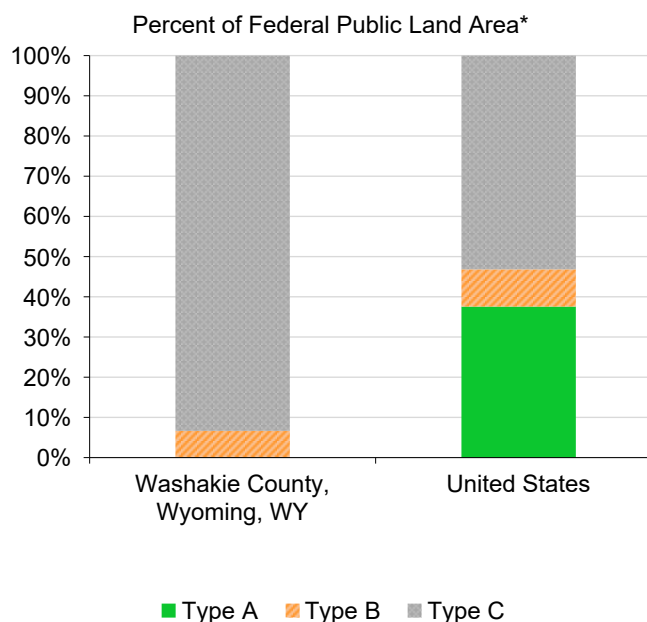
	Washakie County, Wyoming, WY	United States
Total Area of Type A, B, and C (Acres)	1,057,714	690,953,496
Type A	334	259,556,739
Type B	69,985	63,979,938
Type C	987,395	367,416,819

Percent of Total

Type A	0.0%	37.6%
Type B	6.6%	9.3%
Type C	93.4%	53.2%

* Year for data varies by geography and source. See data sources below for more information.

- United States has the largest share of Type A land (37.6%), and Washakie County, Wyoming, WY has the smallest (0%).
- United States has the largest share of Type B land (9.3%), and Washakie County, Wyoming, WY has the smallest (6.6%).
- Washakie County, Wyoming, WY has the largest share of Type C land (93.4%), and United States has the smallest (53.2%).



Type A lands include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments, (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Waterfowl Production Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS).

Type B lands include Wilderness Study Areas (NPS, FWS, FS, BLM), Inventoried Roadless Areas (FS).

Type C lands include Public Domain Lands (BLM), O&C Lands (BLM), National Forests and Grasslands (FS).

NPS = National Park Service; FS = Forest Service; BLM = Bureau of Land Management; FWS = Fish and Wildlife

Data Sources: U.S. Geological Survey, Gap Analysis Program. 2018. Protected Areas Database of the United States (PADUS) version 2.0; Rasker, R. 2006. "An Exploration Into the Economic Impact of Industrial Development Versus Conservation on Western Public Lands." Society and Natural Resources. 19(3): 191-207.

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Public Land Amenities

Washakie County, WY

Types of Federal Lands

What do we measure on this page?

This page describes the acreage and share of federal public lands managed for various purposes under differing statutory authority. For purposes of this section, federal public lands have been defined as Type A, B, or C.^{10, 11} Private lands and areas managed by state agencies and local government are not included in this classification.

Type A lands tend to have more managerial and commercial use restrictions than Type C lands, represent smaller proportions of total land management areas (except within Alaska), and have a designation status less easily changed than Type B lands. They may be described as areas having uncommon bio-physical and/or cultural character worth preserving. In the peer-reviewed academic literature these lands are often referred to as “protected public lands.”³

Type B lands are similar to Type A lands in terms of activities allowed. They may be described as areas worth preserving that have limited development and motorized transportation.

Type C lands generally have no special designations. They represent the bulk of federal land management areas and may allow a wider range of uses or compatible activities including timber production, mining and energy development, grazing, recreation, and large-scale watershed projects and fire management options. Type C lands may be described as areas where the landscape may be altered within the objectives and guidelines of multiple use.

The classifications offered on this page are categories of relative degrees of management priority, categorized by land designation. Lands such as wilderness and national monuments, for example, are more likely to be managed for conservation and recreation, even though there may exist exceptions (e.g., a pre-existing mine in a wilderness area or oil and gas development in a national monument). Forest Service and BLM lands without designations are more likely to allow commercial activities such as mining and timber harvesting.

Why is it important?

Some types of federal lands, such as national parks, national monuments, and wilderness, can be associated with above-average economic growth. These lands by themselves do not guarantee economic growth but when combined with other factors, such as an educated workforce and access to major markets via airports, they have been shown to be statistically significant predictors of growth.^{3, 12, 13, 14, 15}

The acreage in particular land types may not be the only indicator of quality. For example, Wild and Scenic Rivers may provide amenity values far greater than their land acreage would indicate.

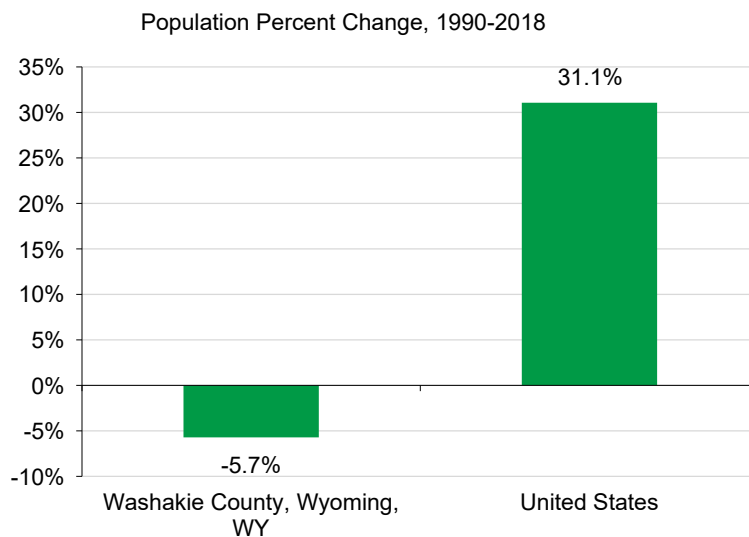
Public Land Amenities

Washakie County, WY

Population Trends

	Washakie County, Wyoming, WY	United States
Population 1990	8,363	249,622,814
Population 2000	8,252	282,162,411
Population 2018	7,885	327,167,434
Population Change 1990-2018	-478	77,544,620
Percent Change 1990-2018	-5.7%	31.1%

- Between 1990 and 2018, United States had the largest percent change in population (31.1%), and Washakie County, Wyoming, WY has the smallest (-5.7%).



Public Land Amenities

Washakie County, WY

Population Trends

What do we measure on this page?

This page depicts the size of the population of the selected location(s) and population change since 1990.

Why is it important?

Rapid population increase may indicate that amenities of public lands play a role in stimulating growth in an area.¹⁶ This trend can be seen in many counties and regions during the 1990s and early 2000s.¹⁷

Population growth by itself is not sufficient evidence that the amenities of public lands contribute to growth. This indicator should be considered together with all other indicators in this report, and with the recommended additional reading, as a resource that helps the user understand amenity-driven growth.¹⁸

Public Land Amenities

Washakie County, WY

Births, Deaths, and Migration

	Washakie County, Wyoming, WY	United States
Population Change, 2000-2019	-452	46,067,566
Average Annual Population Change	-60	2,430,692
From Natural Change	9	1,482,215
Births	95	4,036,514
Deaths	86	2,554,300
From Net Migration	-66	906,133
International Migration	1	906,133
Domestic Migration	-67	na
From Residual	-2	42,344

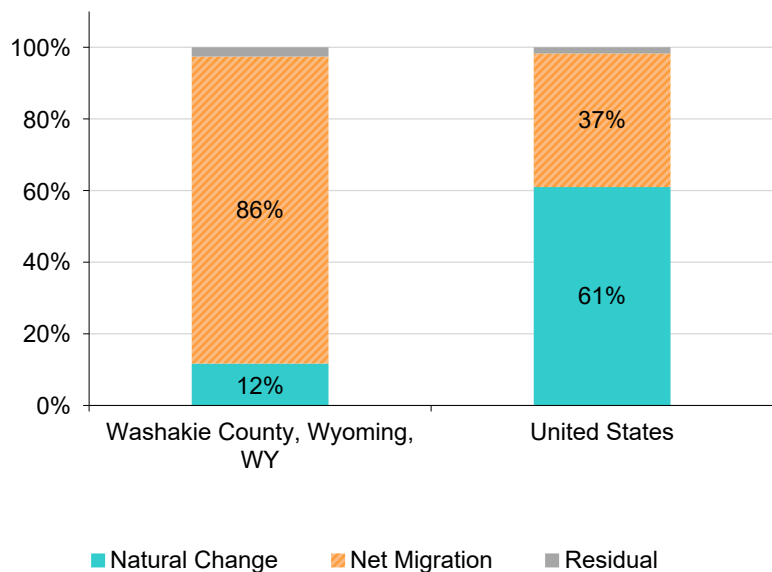
Factors Contributing to Population Change*, 2000-2019

Natural Change	11.7%	61.0%
Net Migration	85.7%	37.3%
Residual	2.6%	1.7%

* The absolute value of the individual component of population change divided by the sum of the absolute values of the three components (natural change, net migration, and the residual).

Factors Contributing to Population Change*, 2000-2019

- From 2000 to 2019, United States had the largest share of population change from natural change (61%), and Washakie County, Wyoming, WY had the smallest (11.7%).
- From 2000 to 2019, Washakie County, Wyoming, WY had the largest share of population change from migration (85.7%), and United States had the smallest (37.3%).



Public Land Amenities

Washakie County, WY

Births, Deaths, and Migration

What do we measure on this page?

This page describes components of population change. Total population change is the sum of natural change (births minus deaths) and migration (international and domestic).

The purpose of this page is to discern how much of the growth in population is due to net in-migration, shown in the orange bar in the chart Factors Contributing to Population Change.

The U.S. Census Bureau makes a minor statistical correction called a "residual" as part of its estimates of foreign-born immigrants.¹⁹ Because of this correction, natural change plus net migration may not add to total population.²⁰

Why is it important?

A growing body of literature has shown that public lands can play a role in stimulating amenity migration, defined as the permanent movement to a locality by people who have been influenced to move in part by the presence of environmental, recreational, social, and cultural amenities.^{21, 22, 23, 24}

It is useful to understand the components of population change because they show whether growth (or decline) is led by migration, and whether it derives from international or domestic migration. If migration accounts for significant population growth, it may be helpful to look for links with other potential amenity variables such as a rise in relatively footloose business (such as services) and the growth of non-labor income such as investments and retirement.

In-migration by itself is not sufficient evidence that public land amenities contribute to growth. There are other reasons for migration that may not be related to amenities, such as the migration of oil and gas workers into an area for fossil fuels production.

Public Land Amenities

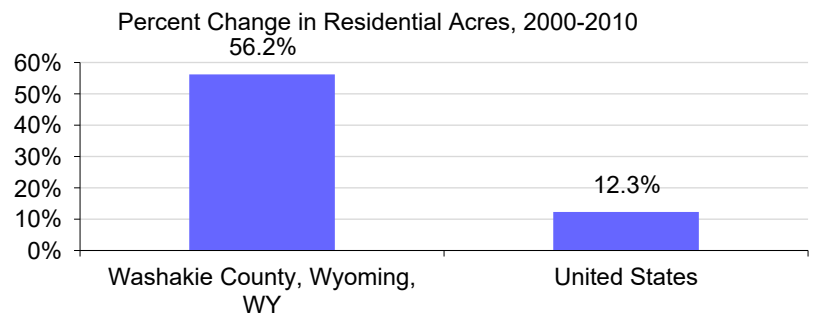
Washakie County, WY

Residential Development

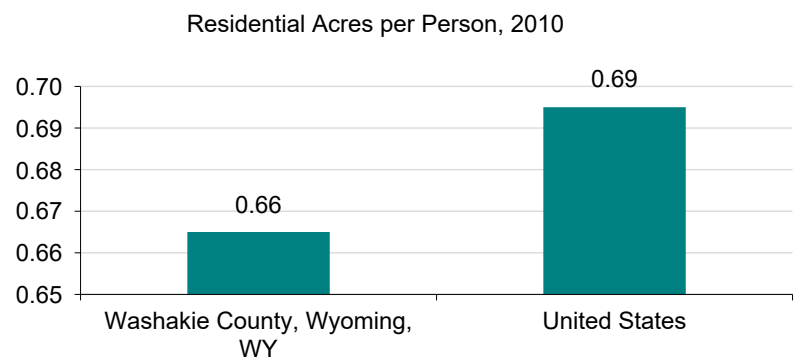
	Washakie County, Wyoming, WY	United States
Residential Acres 2000	3,591	190,918,648
Residential Acres 2010	5,609	214,475,717
Change in Res. Acres 2000-2010	2,018	23,557,069
Percent Change	56.2%	12.3%
Residential Acres/Person, 2000	0.44	0.67
Residential Acres/Person, 2010	0.66	0.69
Change in Res. Ac./Person 2000-2010	0.22	0.02
Total Residential Units 2018*	3,868	136,384,292
Second Homes in 2018*	87	5,465,886
Percent Second Homes	2.2%	4.0%

* The data in this table are calculated by ACS using annual surveys conducted during 2014-2018 and are representative of average characteristics during this period.

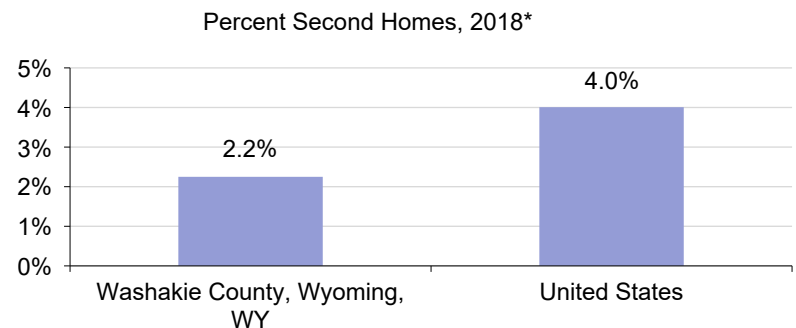
- From 2000 to 2010, Washakie County, Wyoming, WY had the largest percent change in residential development (56.2%), and United States had the smallest (12.3%).



- From 2000 to 2010, United States had the largest average acreage in residential development per person (0.69 acres), and Washakie County, Wyoming, WY had the smallest (0.66 acres).



- In 2000, United States had the largest share of second homes as a percent of total homes (4%), and Washakie County, Wyoming, WY had the smallest (2.2%).



Data Sources: Theobald, DM. 2013. Land use classes for ICLUS/SERGoM v2013. Unpublished report, Colorado State University; U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Public Land Amenities

Washakie County, WY

Residential Development

What do we measure on this page?

This page describes the conversion of open space to residential development, residential acres per person, and the percent of homes that are second homes.

The rate of development is expressed as the percent change in acres used for residential development from 2000 to 2010 (the latest years available from the Decennial Census). Land consumption is expressed in terms of residential acres per person. These figures refer only to residential development and do not include lot sizes greater than 40 acres. Per capita consumption of land used for housing is a measure of the pattern of development. Areas with negative values of change in residential acres/person indicate more dense development in 2010 than in 2000. Large positive values of change indicate that an area was substantially more sprawled in 2010 than it was in 2000.

Second Homes: Residences intended for use only in certain seasons or for weekends or other occasional use throughout the year.

Comparisons are made between 2000 and 2010. These are the latest published data available from the Decennial Census.

Why is it important?

One of the characteristics of growth that is associated with the presence of public land amenities is a rapid conversion of open space (including agricultural lands) for residential development, and a relatively high proportion of homes as second homes.

Several papers are available that describe reasons for open space loss and the impact of housing on protected areas.^{25, 26, 27}

Public Land Amenities

Washakie County, WY

Service Sector

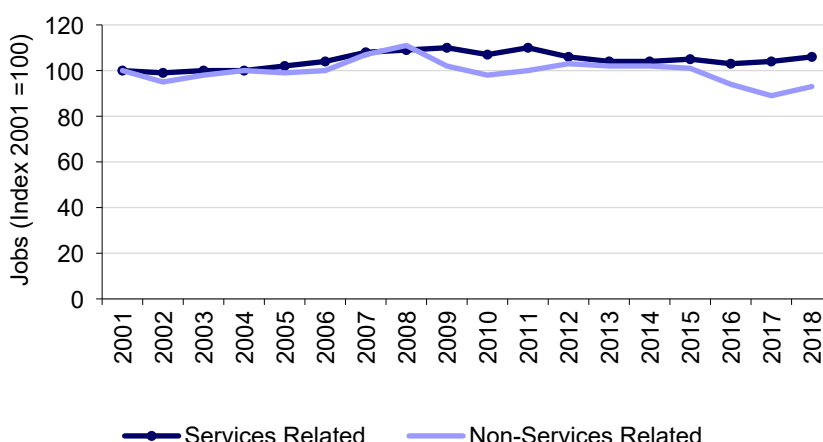
	Washakie County, Wyoming, WY	United States
Total Non-Government Employment, 2018	4,415	176,203,000
Services Related	~3,085	146,801,300
Non-Services Related	~1,354	29,401,700

Percent of Total

Services Related	~69.9%	83.3%
Non-Services Related	~30.7%	16.7%

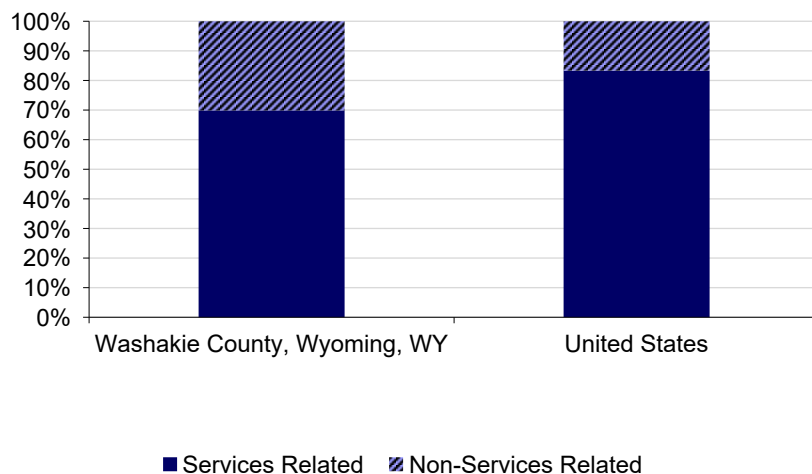
Services & Non-Services Related Jobs, Washakie County, WY

- From 2001 to 2018, services related jobs in the region grew by 6 percent. Over the same period, non-services related jobs shrank by 7 percent.



Services & Non-Services Related Jobs, Percent of Total Non-Government Employment, 2018

- In 2018, United States had the largest share of total jobs in services related industries (83.3%), and Washakie County, Wyoming, WY had the smallest (69.9%).



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Public Land Amenities

Washakie County, WY

Service Sector

What do we measure on this page?

This page describes the number of jobs and share of total jobs in services related industries and non-services related industries.

Services: Utilities; Wholesale Trade; Retail Trade; Transportation & Warehousing Information; Finance & Insurance; Real Estate, Rental & Leasing; Professional, Scientific, & Tech.; Mgmt. of Companies & Enterprises; Administrative & Support Services; Educational Services; Health Care & Social Assistance; Arts, Entertainment, & Recreation; Accommodation & Food Services; and Other Services.

Non-Services: Mining; Construction; Manufacturing; and Agriculture, Forestry, Fishing, and Hunting.

The EPS Services report provides more detail on the components of services; the EPS Tourism report provides more information on industries that include travel and tourism, including some service industries: <https://headwaterseconomics.org/eps>.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.²⁸ These values are indicated with tildes (~).

Why is it important?

One characteristic of growth associated with the presence of public land amenities is above-average growth in services occupations and businesses.^{29, 30} Some services-related jobs are associated with a growth in recreation and tourism. There are also services occupations and businesses that, due to telecommunications technology and transportation networks, are relatively "footloose," i.e., able to move to locations in part for quality of life reasons, including the amenities provided by public lands. Examples of potentially footloose occupations and businesses include architects, software developers, engineers, financial and management consultants, and researchers.³¹

Growth in services by itself is not sufficient evidence that the amenities of public lands contribute to growth. This indicator should be taken together with all other indicators in this report, and with the recommended additional reading, as a resource that helps the user understand amenity-driven growth. This work may have to be supplemented with additional resources, such as surveys of local residents and businesses.

Public Land Amenities

Washakie County, WY

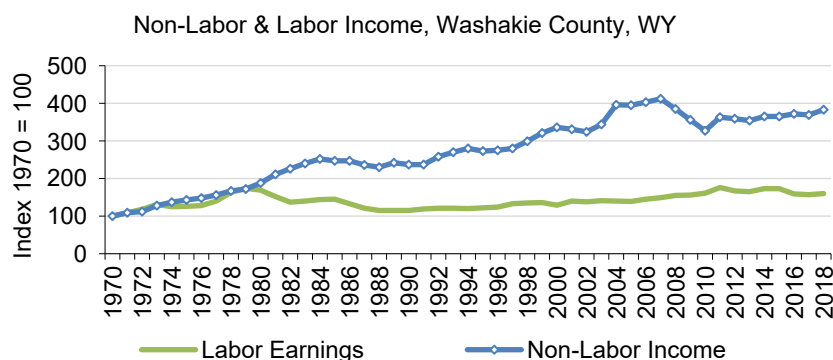
Non-Labor Income

	Washakie County, Wyoming, WY	United States
Personal Income, 2018, (thous. of 2019 \$s)	386,770	18,133,669,749
Non-Labor Income	170,125	6,773,349,574
Dividends, Interest, and Rent	92,235	3,748,412,437
Age-Related Transfer Payments	54,677	1,733,928,871
Hardship-Related Transfer Payments	12,805	913,651,952
Other Transfer Payments	10,408	377,356,314
Labor Earnings	216,645	11,360,320,174

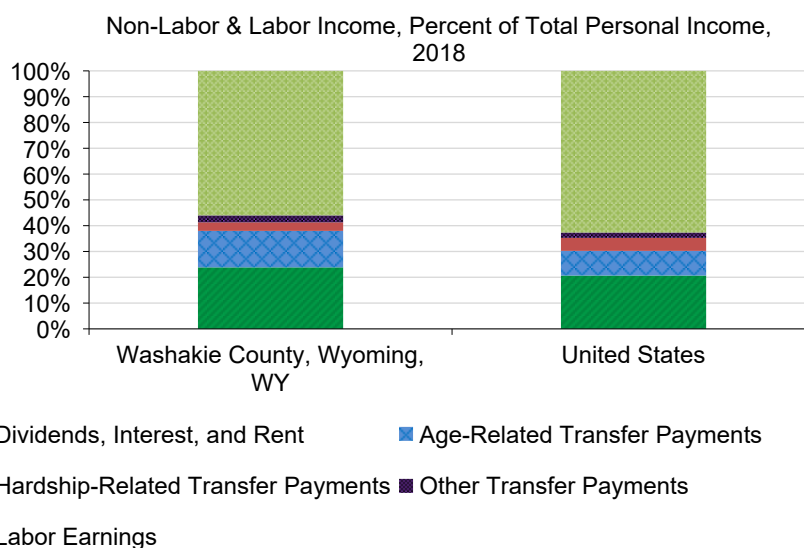
Percent of Total

Non-Labor Income	44.0%	37.4%
Dividends, Interest, and Rent	23.8%	20.7%
Age-Related Transfer Payments	14.1%	9.6%
Hardship-Related Transfer Payments	3.3%	5.0%
Other Transfer Payments	2.7%	2.1%
Labor Earnings	56.0%	62.6%

- From 1970 to 2018, non-labor income in the Washakie County, WY grew by 283 percent. Over the same period, labor income grew by 60 percent.



- In 2018, Washakie County, Wyoming, WY had the largest share of total personal income in non-labor income (44%), and United States had the smallest (37.4%).
- In 2018, Washakie County, WY had the largest share of non-labor income in dividends, interest, and rent (23.8%), and the smallest share in other transfer payments (2.7%).



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Non-Labor Income

What do we measure on this page?

This page describes components of non-labor income and compares non-labor income to labor earnings. It also shows how non-labor income has changed over time compared to labor earnings.

Non-Labor Income: Dividends, interest, rent, and transfer payments (includes government retirement and disability insurance benefits, medical payments such as mainly Medicare and Medicaid, income maintenance benefits, unemployment insurance benefits, etc.). Non-labor income is reported by place of residence.

Dividends, Interest, and Rent: Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustments. Dividends, interest, and rent are sometimes referred to as "investment income" or "property income."

Age-Related Transfer Payments: Payments, including Social Security and Medicare, associated with older populations.

Hardship-Related Transfer Payments: Payments associated with poverty and welfare, including Medicaid and income maintenance.

Other Transfer Payments: Payments from veteran's benefits, education and training, Workers Compensation insurance, railroad retirement and disability, other government retirement and disability, and other receipts of individuals and nonprofits.

Labor Earnings: Net earnings by place of residence, which is earnings by place of work (the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income) less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place of residence basis.

The EPS Non-Labor report provides a more detailed analysis of non-labor income and its components:

<https://headwaterseconomics.org/eps>.

Why is it important?

One characteristic of population and income growth influenced by public land amenities is a rapid growth of non-labor income, in particular investment income (dividends, interest, and rent) and age-related transfer payments.³² Because retirees are not tied to a place for work, they are relatively mobile and are often freer to choose where they live.³³ Amenities provided by public lands can attract (and retain) retirees. This is particularly important as the Baby Boom generation (born 1946 to 1964) continues to retire.^{34, 35}

Public Land Amenities

Washakie County, WY

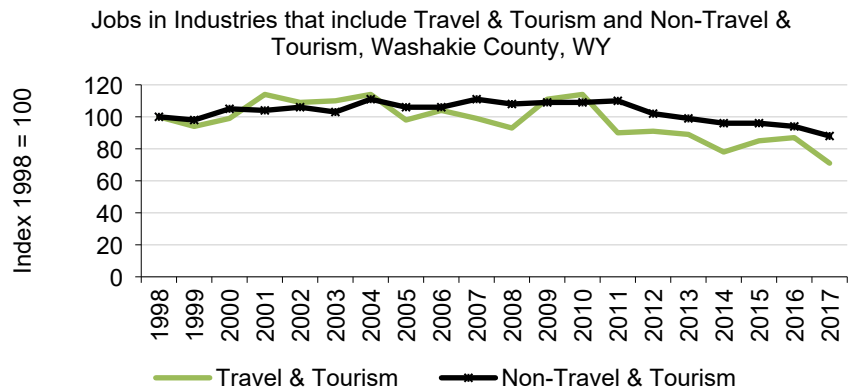
Travel and Tourism

	Washakie County, Wyoming, WY	United States
Total Private Employment, 2017	2,620	~128,591,812
Travel & Tourism Related	~318	~20,416,477
Retail Trade	28	3,459,374
Passenger Transportation	~0	499,964
Arts, Entertainment, & Recreation	~15	2,368,928
Accommodation & Food	275	14,088,211
Non-Travel & Tourism	~2,302	108,175,335

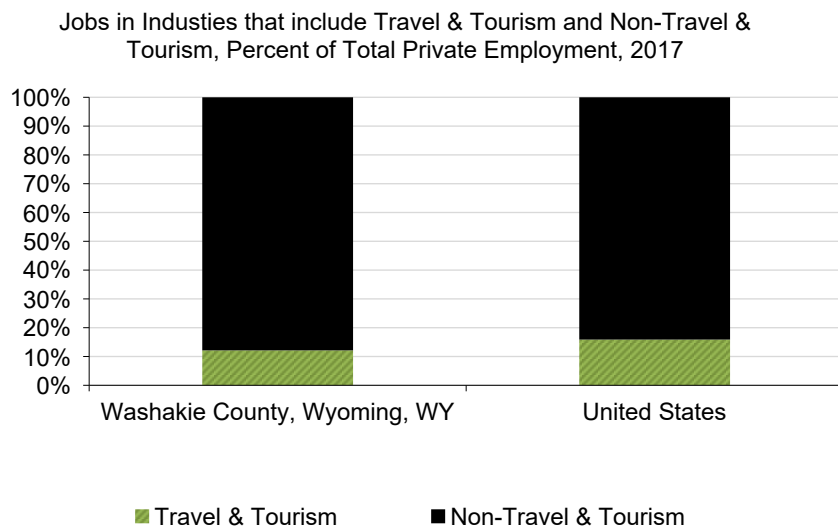
Percent of Total

Travel & Tourism Related	~12.1%	~15.9%
Retail Trade	1.1%	2.7%
Passenger Transportation	~0.0%	0.4%
Arts, Entertainment, & Recreation	~0.6%	1.8%
Accommodation & Food	10.5%	11.0%
Non-Travel & Tourism	~87.9%	84.1%

- From 1998 to 2017, industries associated with travel and tourism in the region shrank by 29 percent. Over the same period, non-travel and tourism industries shrank by 12 percent.



- In 2017, United States had the largest share of jobs in industries associated with travel and tourism (15.9%), and Washakie County, Wyoming, WY had the smallest (12.1%).



Data Sources: U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.

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Public Land Amenities

Washakie County, WY

Travel and Tourism

What do we measure on this page?

This page describes the number of jobs and share of total jobs in industries that include travel and tourism. It also compares employment trends in industries that include travel and tourism to all other industries.

The EPS Tourism report provides details on industries that include travel and tourism businesses:

<https://headwaterseconomics.org/eps>.

Travel and Tourism: Sectors that provide goods and services to visitors as well as to the local population.

The exact proportion of jobs in these sectors attributable to expenditures by visitors, including business and pleasure travelers, is not known without additional research such as surveys. Some researchers refer to these sectors as “tourism-sensitive.” They could also be called “travel and tourism-potential sectors” because they have the potential of being influenced by expenditures by non-locals. In this report, they are referred to as “industries that include travel and tourism.”

There is no single industrial classification for travel and tourism under the North American Classification System (NAICS).³⁶ However, there are sectors that, at least in part, provide goods and services to visitors to a local economy. Specific industries that are closely related to travel and tourism include Gasoline Stations, Clothing & Accessory Stores, and Miscellaneous Store Retailers; Air Transportation, and Scenic & Sightseeing Transportation; Performing Arts & Spectator Sports, Museums, Parks, & Historical Sites, and Amusement, Gambling, & Recreation; and Accommodation, Food Services & Drinking Places.

Data on this page were obtained from the U.S. Census Bureau’s County Business Patterns (CBP) series. Compared to other sources, CBP has fewer data gaps (instances when the federal government will not release data to protect confidentiality of individual businesses). It also includes both full- and part-time employment. However, CBP data do not include employment in government, agriculture, railroads, or the self-employed and, as a result, under-count the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between places, and showing relationships between sectors over time.

The line chart begins in 1998 because that is the year the U.S. Census Bureau and CBP shifted to using NAICS.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps. Estimates for data that were not disclosed are indicated with tildes (~).

Why is it important?

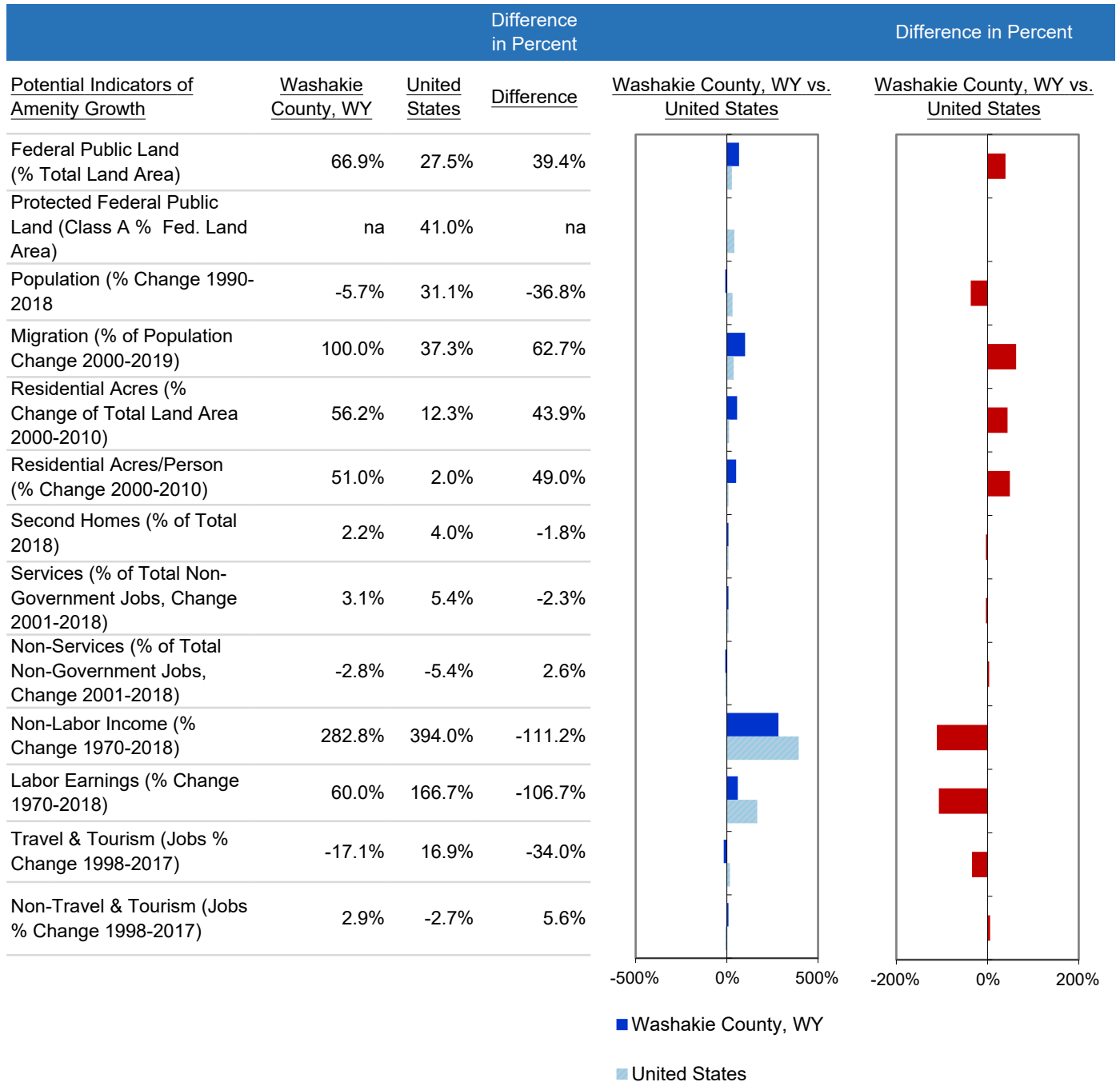
This page is useful for explaining whether sectors associated with travel or tourism are growing or shrinking in the selected location(s).

Public lands can play a role in stimulating local employment by providing opportunities for recreation.³⁷ Communities adjacent to public lands benefit economically from visitors who spend money in hotels, restaurants, ski resorts, gift shops, and elsewhere. In addition, some migrants to communities with high levels of environmental and recreational amenities visit first as tourists and then return permanently with their families and businesses.³⁸ Public lands can therefore also stimulate growth in non-tourism sectors via in-migration.³⁹

Public Land Amenities

Washakie County, WY

Comparisons



- The region is most different from United States in non-labor income (% change 1970-2018), (111.2% smaller), and is least different in second homes (% of total 2018), (1.8% smaller).

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.; U.S. Department of Commerce. 2019. Census Bureau, County Business Patterns, Washington, D.C.; Theobald, DM. 2013. Land use classes for ICLUS/SERGoM v2013. Unpublished report, Colorado State University; U.S. Geological Survey, Gap Analysis Program. 2018. Protected Areas Database of the United States (PADUS) version 2.0; U.S. Department of Commerce. 2014. Census Bureau, Population Division, Washington, D.C.; U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Public Land Amenities

Washakie County, WY

Comparisons

What do we measure on this page?

This page compares indicators that, when taken as a whole (and supplemented with published literature), offer ways of thinking about the economic contribution of public land amenities.

The charts illustrate difference between the selected location(s) and the selected benchmark area. If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.

Why is it important?

Public land amenities are the qualities of public lands that make a region an attractive place to live, recreate, and work. This report offers a number of indicators that can provide insight into whether and how amenities on public lands contribute to the local and regional economy.

When a location has a high proportion of public lands, and when many of these lands are designated as wilderness, national park, and national monument (Type A), then it is likely that the level of environmental and recreation amenities is high. When a location also has a high rate of population growth due largely to in-migration, combined with a conversion of lands for residential development and a high proportion of second homes, then it is likely that amenity-driven growth is taking place. In addition, when the economy has a high rate of growth in service industry jobs, travel- and tourism-related sectors, and non-labor income, then amenities are likely to play a role in economic development.

When many of the indicators in the selected region are comparatively high, then it is likely that public land amenities are contributing to economic growth.

However, even when taken as a group, these indicators may not be sufficient evidence that the amenities of public lands contribute to growth. These indicators should be studied together with the existing literature to fully understand amenity-driven growth.^{40, 41, 42, 43, 44} This work may have to be supplemented with local research, such as surveys of local residents and businesses, to measure the economic role of public land amenities.

Public Land Amenities

Washakie County, WY

Data Sources & Methods

This EPS report also uses published statistics on population, employment, and personal income from government sources that are available to the public and cover the entire country. The contact information for these databases is:

The EPS Public Land Amenities report uses national data sources derived from Geographic Information Systems (GIS) to represent land ownership and residential development. The contact information for these databases is:

- **County Business Patterns**

Census Bureau, U.S. Department of Commerce.
<https://www.census.gov/programs-surveys/cbp.html>

Contacts:
<https://www.census.gov/about/contact-us.html>

- **Regional Economic Accounts**

Bureau of Economic Analysis, U.S. Department of Commerce

<https://www.bea.gov/regional/>

Contacts:
<https://www.bea.gov/contacts/search.htm>

- **Population Estimates**

Census Bureau, U.S. Department of Commerce.
<https://www.census.gov/programs-surveys/popest.html>

Contacts:
<https://www.census.gov/about/contact-us.html>

- **2010 Decennial U.S. Census**

U.S. Census Bureau, U.S. Department of Commerce.
https://www.census.gov/history/www/programs/demographic/decennial_census.html

Contacts:
<https://www.census.gov/about/contact-us.html>

- **TIGER/Line County Boundaries**

Bureau of the Census, U.S. Department of Commerce
<https://www.census.gov/geo/maps-data/data/tiger.html>

- **Protected Areas Database**

U.S. Geological Survey, Gap Analysis Program
<https://gapanalysis.usgs.gov/padus/>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated with tildes (~) in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Public Land Amenities

Washakie County, WY

Endnotes

- 1 - For a general analysis of the role of amenities in economic development, see McGranahan DA. 1999. *Natural Amenities Drive Rural Population Change*. USDA Economic Research Service, Agricultural Economic Report No. 781. For a review of literature on the role of amenities in National Forests, see: Garber-Yonts, B. E. 2004. *The Economics of Amenities and Migration in the Pacific Northwest: Review of Selected Literature with Implications for Natural Forest Management*. USDA, Forest Service, Pacific Northwest Research Station, General Technical Report, PNW-GTR-617.
https://www.ers.usda.gov/webdocs/publications/41047/13201_aer781.pdf?v=42061.
- 2 - For resources describing the economic benefits of public lands, see:
<https://headwaterseconomics.org/public-lands/public-lands-research/>.
- 3 - For an annotated bibliography of peer-reviewed literature on the value of amenities provided by public lands, see: https://headwaterseconomics.org/wp-content/uploads/Annotated_Bib_Value_Public_Lands.pdf.
- 4 - U.S. Census Bureau TIGER/Line Boundaries are available at <https://census.gov/geo/maps-data/data/tiger-line.html>.
- 5 - The U.S. Geological Survey Protected Areas Database (PADUS) is available at <https://gapanalysis.usgs.gov/padus/>.
- 6 - For an analysis of the economic role of protected public lands, see Eichman H, Hunt GL, Kerkvliet J, and Plantinga AJ. 2010. Local Employment Growth, Migration, and Public Land Policy: Evidence from the Northwest Forest Plan. *Journal of Agricultural and Resource Economics* 35(2):316-333. A recent book on the value of public lands may also be useful: Davis S. 2018. *In Defense of Public Lands: The Case Against Privatization and Transfer*. Philadelphia, PA: Temple University Press.
- 7 - For a review of the literature on the relationship between public land amenities and economic development and migration, see Garber-Yonts BE. 2004. *The Economics of Amenities and Migration in the Pacific Northwest: Review of Selected Literature with Implications for National Forest Management*. PNW-GTR-617. Corvallis, OR: USDA Forest Service Pacific Northwest Research Station.
https://www.fs.fed.us/pnw/pubs/pnw_gtr617.pdf
- 8 - For an example of a survey conducted to assess the public's perceptions of quality of life and how public lands actions may affect these, see Reed P and Brown G. 2003. Public land management and quality of life in neighboring communities - The Chugach National Forest planning experience. *Forest Science* 49(4):479-498.
- 9 - For an extensive slide show and references on the economic contribution of federal public lands, see https://headwaterseconomics.org/wp-content/uploads/Public_Lands_Slideshow.pdf
- 10 - The definitions of land classifications (Type A, B, and C) are not legal or agency-approved and are provided only for comparative purposes.

Endnotes (cont.)

- 11 - Land defined as either Type A, B, or C includes areas managed by the National Park Service, the Forest Service, the Bureau of Land Management, or the Fish and Wildlife Service. Lands administered by other federal agencies (including the Army Corps of Engineers, Bureau of Reclamation, Department of Agriculture, Department of Defense, Department of Energy, and Department of Transportation) were not classified into Type A, B, or C. Therefore, the total acreage of Type A, B, and C lands may not add to the Total Federal Land Area reported on page 1 of this report.
- 12 - Studies, articles, and literature reviews on the economic contribution of protected public lands are available at <https://headwaterseconomics.org/public-lands/public-lands-research/>.
- 13 - For an analysis on the effect of wilderness designations on local economies, in particular on resource-based industries, see Garber-Yonts BE. 2004. *The Economics of Amenities and Migration in the Pacific Northwest: Review of Selected Literature with Implications for Natural Forest Management*. USDA, Forest Service, Pacific Northwest Research Station, General Technical Report, PNW-GTR-617; and Holmes TP, Bowker JM, Englin J, Hjerpe E, Loomis JB, Philips S, and Richardson R. 2016. A Synthesis of the Economic Values of Wilderness. *Journal of Forestry* 114(3):320-328.
- 14 - For analysis of the role of transportation in high-amenity areas, see Rasker R, Gude PH, Gude JA, and van den Noort J. 2009. The Economic Importance of Air Travel in High-Amenity Rural Areas. *Journal of Rural Studies* 25(2009):343-353.
- 15 - For an analysis of the effect of wilderness on growth, see: Duffy-Deno KT. 1998. The Effect of Federal Wilderness on County Growth in the Intermountain Western United States. *Journal of Regional Science* 38(1):109-136.
- 16 - For a discussion of population and economic growth in relation to amenities and the restructuring of the economy that began to take place in the 1980s, see Rudzitis G. 1989. Migration, Places, and Nonmetropolitan Development. *Urban Geography* 10(4):396-411.
- 17 - For a discussion of the relationship between environmental amenities and population growth, see Hunter LM, Boardman JD, and Onge JMS. 2005. The Association Between Natural Amenities, Rural Population Growth, and Long-Term Residents' Economic Well-Being. *Rural Sociology* 70(4):452-469. See also Nelson PB. 1997. Migration, Sources of Income, and Community Change in the Non-Metropolitan Northwest. *Professional Geographer* 49(4):419-430. For analysis of the reasons for migration to the rural West, see Cromartie JB and Wardwell JM. 1999. Migrants Settling Far and Wide in the Rural West. *Rural Development Perspectives* 14(2):2-8.
- 18 - For a critical examination of whether amenities play a role in development (including a review of the literature), see Gottlieb PD. 1994. Amenities as an Economic Development Tool: Is there Enough Evidence? *Economic Development Quarterly* 8(3):270-285.

Endnotes (cont.)

- 19 - International Migration consists of people who have moved into the local geography directly from a foreign country.
- 20 - For a glossary of terms used by the Bureau of the Census, see <https://www.census.gov/programs-surveys/popest/about/glossary.html>. For methods used by the Bureau of the Census, see <https://www.census.gov/programs-surveys/popest/technical-documentation/methodology.html>
- 21 - For a regional example of the causes and consequences of "amenity migration," see Loeffler R and Steinicke E. 2007. Amenity Migration in the U.S. Sierra Nevada. *Geographical Review* 97(1):67-88.
- 22 - For a discussion of the role of amenities in people's migration decisions, see Knapp TA and Graves PE. 1989. On the Role of Amenities in Models of Migration and Regional Development. *Journal of Regional Science* 29(1):71-87.
- 23 - For a review of the theory that people decide where to live first and then create jobs, see Vias AC. 1996. Jobs Follow People in the Rural Rocky Mountain West. *Rural Development Perspectives* 14(2):14-23.
- 24 - A book on the international phenomenon of people moving to places for their amenities: Moss LAG, ed. 2006. *The Amenity Migrants: Seeking and Sustaining Mountains and Their Cultures*. Oxfordshire, UK: CABI.
- 25 - For an analysis of the reasons for a loss of open space, see Kline JD. 2006. Public Demand for Preserving Local Open Space. *Society & Natural Resources* 19(7):645-659. Also Vias AC and Carruthers JI. 2005. Regional Development and Land Use Change in the Rocky Mountain West, 1982-1997. *Growth and Change* 36(2):244-272.
- 26 - For an analysis of the ecological effects of exurban development, see Hansen AJ, Knight RL, Marzluff JM, Powell S, Brown K, Gude PH, and Jones K. 2005. Effects of Exurban Development on Biodiversity: Patterns, Mechanisms, and Research Needs. *Ecological Applications* 15(6):1893-1905. See also Gude PH, Hansen AJ, Rasker R, and Maxwell B. 2006. Rates and Drivers of Rural Residential Development in the Greater Yellowstone. *Landscape and Urban Planning* 77:131-151.
- 27 - The effect of housing development on protected public lands is analyzed by Radeloff VC, Stewart SI, Hawbaker TJ, Gimmi U, Pidgeon AM, Flather CH, Hammer RB and Helmers DP. 2010. Housing Growth in and Near United States Protected Areas Limits Their Conservation Value. *Proc. National Academy of Sciences* 107(2):940-945.
- 28 - Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Endnotes (cont.)

- 29 - For an analysis of the relationship between amenities and the growth of service-based economies, see Shumway JM and Otterstrom SM. 2001. Spatial Patterns of Migration and Income Change in the Mountain West: The Dominance of Service-Based, Amenity-Rich Counties. *Professional Geographer* 53(4):492-502.
- 30 - See also Beyers W and Lindahl D. 1996. Lone Eagles and High Fliers in the Rural Producer Services. *Rural Development Perspectives* 11:2-10; and Beyers WB and Nelson PB. 2000. Contemporary Development Forces in the Nonmetropolitan West: New Insights from Rapidly Growing Communities. *Journal of Rural Studies* 16(4):459-474.
- 31 - For an analysis of the growth of "footloose" and knowledge-based industries whose owners are attracted by amenities, see Rasker R, Gude PH, Gude JA, and van den Noort J. 2009. The Economic Importance of Air Travel in High-Amenity Rural Areas. *Journal of Rural Studies* 25(2009):343-353.
- 32 - For a discussion of the relationship between amenities and an aging population, see Wright SD, Caserta M, and Lund DE. 2003. Older Adults' Attitudes, Concerns, and Support for Environmental Issues in the "New West." *The International Journal of Aging and Human Development* 57(2):151-179; Nelson PB. 1999. Quality of Life, Nontraditional Income, and Economic Growth: New Development Opportunities for the Rural West. *Rural Development Perspectives* 14 (2):32-37; Walters WH. 2002. Place Characteristics and Later-Life Migration. *Research on Aging* 24(2):243-277.
- 33 - Conway KS and Houtenville AJ. 2003. Out with the Old, In with the Old: A Closer Look at Younger Versus Older Elderly Migration. *Social Science Quarterly* 84(2):309-328; Clark DE and Hunter WJ. 1992. The Impact of Economic Opportunity, Amenities and Fiscal Factors on Age-Specific Migration Rates. *Journal of Regional Science* 32(3):349-65.
- 34 - Cromartie J and Nelson P. 2009. Baby Boom Migration and Its Impact on Rural America. USDA-ERS Report No. 79. Washington, DC: USDA Economic Research Service.
https://www.ers.usda.gov/webdocs/publications/err79/9346_err79_1_.pdf.
- 35 - For a discussion and analysis of the aging baby boom and amenity retirement migration, see: Haas WH and Serow WJ. 2002. The Baby Boom, Amenity Retirement Migration, and Retirement Communities: Will the Golden Age of Retirement Continue? *Research on Aging* 24(1):150-164.
- 36 - The list of NAICS codes associated with travel and tourism were obtained from: Marcouiller DW and Xia X. 2008. Distribution of Income from Tourism-Sensitive Employment. *Tourism Economics* 14(3):545-565.
<http://journals.sagepub.com/doi/abs/10.5367/000000008785633622?journalCode=teua>.
- 37 - For a discussion about the relationship between recreation opportunities and economic growth, see: Johnson KM and Beale CL. 2002. Nonmetro Recreation Counties: Their identification and rapid growth. *Rural America* 17(4):12-19.

Endnotes (cont.)

- 38 - For an example of how tourism can stimulate permanent migration, see: Johnson JD and Rasker R. 1995. The Role of Economic and Quality of Life Values in Rural Business Location. *Journal of Rural Studies* 11(4):405-416.
- 39 - For a review of the importance of quality of life to business location decisions, see Salvesen D and Renski H. 2003. *The Importance of Quality of Life in the Location Decisions of New Economy Firms*. Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina.
<http://curs.unc.edu/files/2013/05/neweconomyreport.pdf>.
- 40 - For an analysis of the wages people are willing to forego to live in proximity to amenities, see Schmidt L and Courant PN. 2006. Sometimes Close is Good Enough: The Value of Nearby Environmental Amenities. *Journal of Regional Science* 46(5):931-951.
- 41 - For an analysis of the distribution of amenity-driven activity in the Intermountain West, comparing "New West" to "Old West" communities, see Winkler R, Field DR, Luloff AE, Krannich RS, and Williams T. 2007. Social Landscapes of the Inter-Mountain West: A Comparison of "Old West" and "New West" Communities. *Rural Sociology* 72(3):478-501.
- 42 - For a detailed discussion of the history and challenges of economic analysis related to federal public lands, see: Nelson RH. 2006. Valuing Nature: Economic Analysis and Public Land Management, 1975–2000. *American Journal of Economics and Sociology* 65(3):525-557.
- 43 - For results of a national survey of rural elected officials and their environmental and economic development attitudes, see: Foster RH and McBeth MK. 1996. Urban-Rural Influences in U.S. Environmental and Economic Development Policy. *Journal of Rural Studies* 12(4):387-397. The authors found that "Empirical studies have demonstrated the importance of environmental quality of life factors in the lives of rural residents" and that "rural-based officials were more likely to see the importance of environmental quality of life features in the lives of rural residents."
- 44 - For a discussion of the relationship between amenities and tourism, see: Marcouiller DW, Kim K-K, and Deller SC. 2004. Natural Amenities, Tourism and Income Distribution. *Annals of Tourism Research* 31(4):1031-1050.



A Demographic Profile

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

Demographics

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Demographics

Washakie County, WY

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Demographics

Washakie County, WY

Population

	Washakie County, Wyoming, WY	United States
Population (2018*)	8,129	322,903,030
Population (2010*)	8,271	303,965,272
Population Change (2010*-2018*)	-142	18,937,758
Population Pct. Change (2010*-2018*)	-1.7%	6.2%

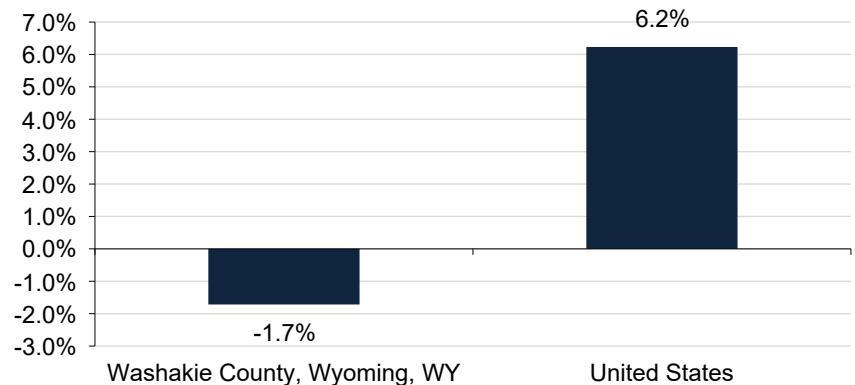
High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

- From 2010* to 2018*, Washakie County, Wyoming, WY had the smallest estimated absolute change in population (-142).
- From 2010* to 2018*, United States had the largest estimated relative change in population (6.2%), and Washakie County, Wyoming, WY had the smallest (-1.7%).

Percent Change in Population, 2010*-2018*



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018; 2010 represents 2006-2010.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Data and Graphics | Page 4

Demographics

Washakie County, WY

Population

What do we measure on this page?

This page describes the total population and change in total population.^{1, 2}

Data in this report comes from the U.S. Census Bureau's American Community Survey (ACS).³ The ACS is conducted nationwide every year by the U.S. Census Bureau to collect demographic, social, economic, and housing information. For more information about ACS data and accuracy, see the Methods section at the end of this report.

Why is it important?

Population growth is generally an indication of a healthy economy. No growth or long-term decline generally occur when an area is struggling.

Growth can benefit the general population of a place, especially by providing economic opportunities, but it can also stress communities and lead to income stratification. When considering the benefits of growth, it is important to distinguish between standard of living (such as earnings per job and per capita income) and quality of life (such as leisure time, crime rate, and sense of well-being).

The size of a population and economy (metropolitan, micropolitan, or rural) can have an important bearing on economic activities as well as opportunities and challenges for area businesses.

CHANGES IN BOUNDARIES: Data describing change over time can be misleading when geographic boundaries have changed. The Census provides documentation about changes in boundaries at this site: www.census.gov/geo/reference/boundary-changes.html

Demographics

Washakie County, WY

Age and Gender

	Washakie County, Wyoming, WY	United States
Total Population, 2018*	8,129	322,903,030
Under 5 years	434	19,836,850
5 to 9 years	484	20,311,494
10 to 14 years	561	20,817,419
15 to 19 years	580	21,204,226
20 to 24 years	408	22,286,970
25 to 29 years	373	22,779,537
30 to 34 years	410	21,788,439
35 to 39 years	436	20,730,622
40 to 44 years	548	20,032,588
45 to 49 years	432	20,827,879
50 to 54 years	589	21,761,694
55 to 59 years	581	21,611,374
60 to 64 years	607	19,675,357
65 to 69 years	545	16,409,942
70 to 74 years	422	12,125,477
75 to 79 years	371	8,549,216
80 to 84 years	157	5,948,463
85 years and over	191	6,205,483
Total Female	3,992	163,918,840
Total Male	4,137	158,984,190

Change in Median Age, 2010*-2018*

Median Age^ (2018*)	43.5	37.9
Median Age^ (2010*)	42.2	36.9
Median Age % Change	3.1%	2.7%

^ Median age is not available for metro/non-metro or regional aggregations.

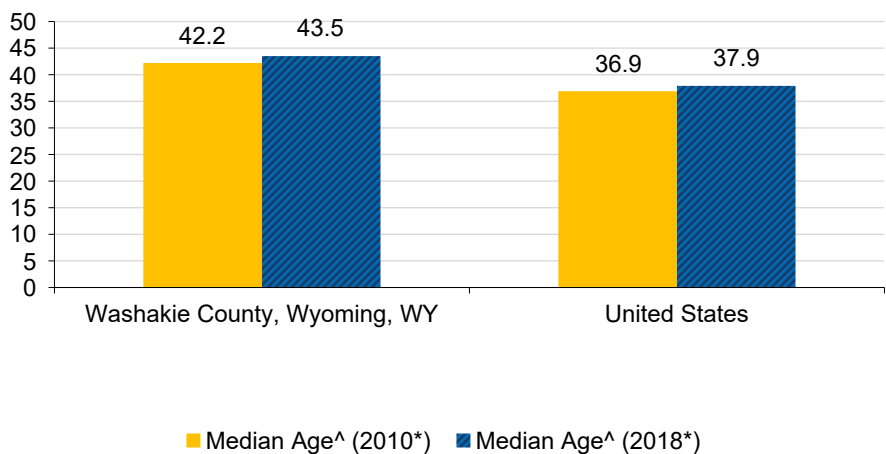
High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

Median Age, 2010* & 2018*

- From 2010* to 2018* , the median age estimate increased the most in Washakie County, Wyoming, WY (42.2 to 43.5, a 3.1% increase) and increased the least in United States (36.9 to 37.9, a 2.7% increase).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018; 2010 represents 2006-2010.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Age and Gender

What do we measure on this page?

This page describes population distribution by age and gender, and the change in median age.

Median Age: The age that divides the population into two numerically equal groups (half the people are younger than this age and half are older).

Why is it important?

Different locations have different age distributions. For example, in counties with a large number of retirees, the age distribution may be skewed toward categories 65 years and older.⁴ In counties with universities, the age distribution will be skewed toward 18- to 29-year-olds. In many counties, the largest segment of the population is the Baby Boomer generation (people born between 1946 and 1964).

The change in median age is one indicator of whether the population has gotten older or younger.⁵

CHANGES IN BOUNDARIES: Data describing change over time can be misleading when geographic boundaries have changed. The Census provides documentation about changes in boundaries at this site: www.census.gov/geo/reference/boundary-changes.html

Demographics

Washakie County, WY

Age and Gender

	2010*	2018*
Total Population, 2010*-2018*	8,271	8,129
Under 18	2,098	1,942
18-34	1,465	1,308
35-44	888	984
45-64	2,396	2,209
65 and over	1,424	1,686

Percent of Total

Under 18	25.4%	23.9%
18-34	17.7%	16.1%
35-44	10.7%	12.1%
45-64	29.0%	27.2%
65 and over	17.2%	20.7%

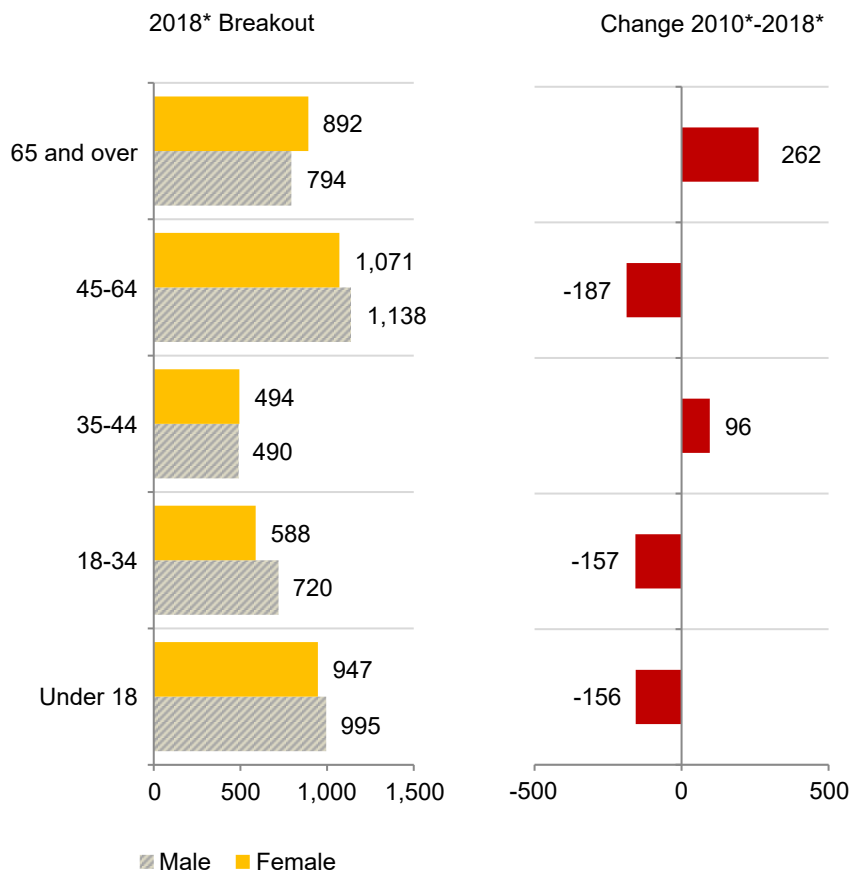
High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

- * In 2018*, the age category with the highest estimate for number of women was 45-64 (1,071), and the age category with the highest estimate for number of men was 45-64 (1,138).

- * From 2010* to 2018*, the age category with the largest estimated increase was 65 and over (262), and the age category with the largest estimated decrease was 45-64 (-187).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018; 2010 represents 2006-2010.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Age and Gender

What do we measure on this page?

This page describes the change in age and gender distribution over time, and the change in age distribution, with five age-group categories.⁶

Why is it important?

Understanding the age distribution can help highlight whether policy changes and management actions might affect some age groups more than others. It also may highlight the need to understand the different needs, values, and attitudes of different age groups. If an area has a large retired population or soon-to-be-retired population, for example, the needs and interests of the public may differ than an area with a large number of minors or young adults.

For many locations, a significant development is the aging of the population, and in particular the retirement of the “Baby Boomer” generation (those born between 1946 and 1964).^{7, 8, 9} As this generation continues to enter retirement age, their mobility, spending patterns, and consumer demands (for health care and housing, for example) can affect how communities develop economically.^{10, 11, 12}

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Demographics

Washakie County, WY

Race

	Washakie County, Wyoming, WY	United States
Total Population, 2018*	8,129	322,903,030
White alone	7,293	234,904,818
Black or African American alone	**1	40,916,113
American Indian alone	**52	2,699,073
Asian alone	**0	17,574,550
Native Hawaii & Other Pacific Is. alone	**0	582,718
Some other race alone	*445	15,789,961
Two or more races	*338	10,435,797

Percent of Total

White alone	89.7%	72.7%
Black or African American alone	0.0%	12.7%
American Indian alone	**0.6%	0.8%
Asian alone	**0.0%	5.4%
Native Hawaii & Other Pacific Is. alone	**0.0%	0.2%
Some other race alone	*5.5%	4.9%
Two or more races	*4.2%	3.2%

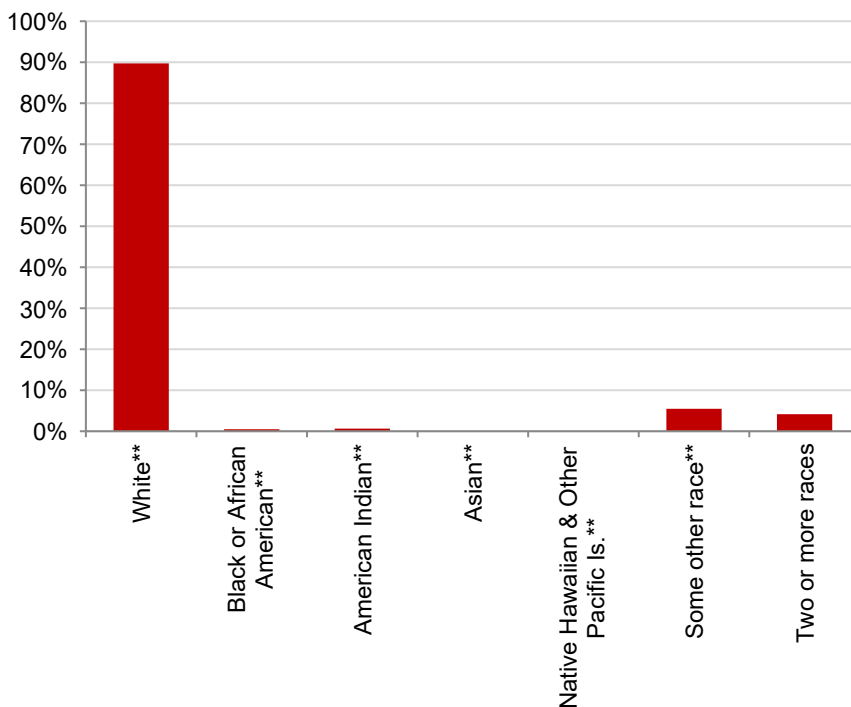
High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

Population by Race, Percent of Total, Washakie County, WY, 2018*

- * In the 2014-2018 period, the racial category with the highest estimated percent of the population in the Washakie County, WY was white alone (89.7%), and the racial category the lowest estimated percent of the population was asian alone (0.0%).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

** Percentages are by an individual race alone unless otherwise noted

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Race

What do we measure on this page?

This page describes the number of people who self-identify as belonging to a particular race.

Race: Race is a self-identification data item in which respondents choose the race or races with which they most closely identify. In 1997 the U.S. Office of Management and Budget (OMB) revised the standards for how the federal government collects and presents data on race and ethnicity.¹³

Race Alone Categories: The minimum five race categories required by the OMB, plus the some-other-race-alone categories included by the U.S. Census Bureau with the approval of the OMB. The categories are: White alone, Black or African-American alone, American Indian or Alaska Native alone, Asian alone, Native Hawaiian or Other Pacific Islander alone, and Some Other Race alone.

Some Other Race: All other responses not included in the "White," "Black or African American," "American Indian and Alaska Native," "Asian," and "Native Hawaiian or Other Pacific Islander" race categories described above. Respondents providing write-in entries such as multiracial, mixed, interracial, or a Hispanic/Latino group (for example, Mexican, Puerto Rican, or Cuban) in the Some Other Race write-in space are included in this category.

Two or More Races: People may have chosen to provide two or more races either by checking two or more race response check boxes, by providing multiple write-in responses, or by a combination of check boxes and write-in responses.

Race categories include both racial and national-origin groups. The concept of race is separate from the concept of Hispanic origin, which is discussed elsewhere in this report.¹⁴ Percentages for the various race categories add to 100 percent and should not be combined with the percent Hispanic.

Why is it important?

The United States hit a tipping point in 2015 in its racial and ethnic make-up: more toddlers under the age of five are now minorities than non-Hispanic whites.¹⁵ The racial composition of a place can indicate different needs, values, and attitudes sometimes held by different racial groups.

Federal agencies use information on race and ethnicity to implement a number of programs and to promote and enforce equal opportunities, such as in employment or housing, under the Civil Rights Act.

According to the U.S. Census Bureau, many federal programs are put into effect based on Census race data (i.e., promoting equal employment opportunities; assessing racial disparities in health and environmental risks).¹⁶

It is important to consider whether proposed policies and management actions could have disproportionately high and adverse effects on minority populations. This consideration, broadly referred to as "environmental justice," is a requirement of Executive Order 12898.¹⁷ The Social Science Research Council hosts a useful resource on the health and welfare of racial and ethnic groups.¹⁸

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Demographics

Washakie County, WY

Ethnicity

	Washakie County, Wyoming, WY	United States
Total Population, 2018*	8,129	322,903,030
Hispanic or Latino (of any race)	1,153	57,517,935
Not Hispanic or Latino	6,976	265,385,095
White alone	6,666	197,181,177
Black or African American alone	**1	39,715,917
American Indian alone	**29	2,135,479
Asian alone	**0	17,367,169
Native Hawaii & Oth.Pacific Is. alone	**0	525,102
Some other race	**13	754,496
Two or more races	*267	7,705,755

Percent of Total

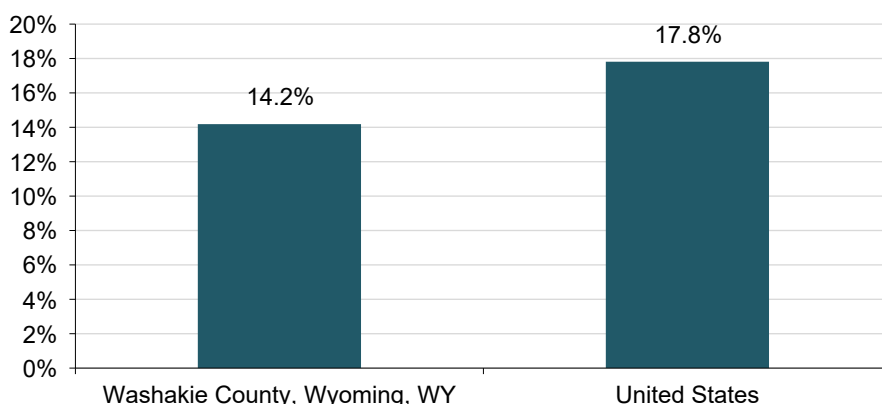
Hispanic or Latino (of any race)	14.2%	17.8%
Not Hispanic or Latino	85.8%	82.2%
White alone	82.0%	61.1%
Black or African American alone	0.0%	12.3%
American Indian alone	**0.4%	0.7%
Asian alone	**0.0%	5.4%
Native Hawaii & Oth.Pacific Is. alone	**0.0%	0.2%
Some other race	**0.2%	0.2%
Two or more races	*3.3%	2.4%

High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

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Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

Hispanic Population, Percent of Total, Washakie County, WY, 2018*



- In the 2014-2018 period, United States had the highest estimated percent of the population that self-identify as Hispanic or Latino of any race (17.8%), and Washakie County, Wyoming, WY had the lowest (14.2%).

* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Ethnicity

What do we measure on this page?

This page describes the number of people who self-identify as Hispanic. The information also is presented according to race. The term “Hispanic” refers to a cultural identification; Hispanics can be of any race.

Ethnicity: There are two minimum categories for ethnicity: Hispanic or Latino, and Not Hispanic or Latino. The federal government considers race and Hispanic origin to be two separate and distinct concepts. Hispanics and Latinos may be of any race.^{13, 19}

Hispanic or Latino Origin: People who identify with the terms “Hispanic” or “Latino” are those who classify themselves in one of the specific Hispanic or Latino categories listed on the U.S. Census Bureau questionnaire (Mexican, Puerto Rican, or Cuban, as well as those who indicate that they are “other Spanish, Hispanic, or Latino”). Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person’s parents or ancestors before their arrival in the United States. People who identify their origin as Spanish, Hispanic, or Latino may be of any race.¹⁴

Why is it important?

Hispanics are one of the fastest growing segments of the U.S. population. The U.S. Census Bureau reported that 17.3 percent of the population in the U.S. self-identified as being Hispanic in 2016. The Census Bureau predicts that 28.6 percent of the population in the U.S. will be Hispanic by 2060.²⁰ The ethnic composition of a place can indicate different needs, values, and attitudes sometimes held by different ethnic groups.

According to the Census Bureau: “Data on ethnic groups are important for putting into effect a number of federal statutes (i.e., enforcing bilingual election rules under the Voting Rights Act; monitoring and enforcing equal employment opportunities under the Civil Rights Act). Data on Ethnic Groups are also needed by local governments to run programs and meet legislative requirements (i.e., identifying segments of the population who may not be receiving medical services under the Public Health Act; evaluating whether financial institutions are meeting the credit needs of minority populations under the Community Reinvestment Act).”

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Demographics

Washakie County, WY

Tribal

	Washakie County, Wyoming, WY	United States
Total Population, 2018*	8,129	322,903,030
Total Native American, 2018*	52	2,699,073
American Indian Tribes	43	2,073,342
Alaska Native Tribes	0	113,549
Non-Specified Tribes	8	433,217

Percent of Total

Total Native American	0.6%	0.8%
American Indian Tribes	0.5%	0.6%
Alaska Native Tribes	0.0%	0.0%
Non-Specified Tribes	0.1%	0.1%

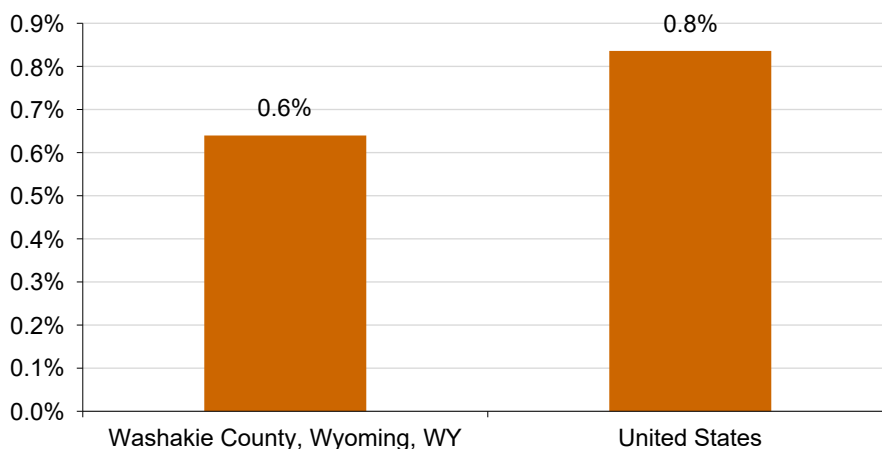
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Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

Native American Population, Percent of Total, Washakie County, WY, 2018*

- In the 2014-2018 period, United States had the highest estimated percent of the population that self-identified as American Indian and Alaska Native (0.8%) and Washakie County, Wyoming, WY had the lowest (0.6%).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Tribal

What do we measure on this page?

This page describes, in general terms, the number of people who self-identify as American Indian and Alaska Native alone or in combination with one or more other races.²¹

American Indian: This category shows self-identification among people of American Indian descent. Census data are available for 36 tribes or Selected American Indian categories: Apache, Arapaho, Blackfeet, Cherokee, Cheyenne, Chickasaw, Chippewa, Choctaw, Colville, Comanche, Cree, Creek, Crow, Delaware, Hopi, Houma, Iroquois, Kiowa, Lumbee, Menominee, Navajo, Osage, Ottawa, Paiute, Pima, Potawatomi, Pueblo, Puget Sound Salish, Seminole, Shoshone, Sioux, Tohono O'odham, Ute, Yakama, Yaqui, Yuman, and "All other tribes." In this report, people who self-identified as members of the Delaware, Houma, Menominee, and Ottawa tribes are included in the "All other tribes" category, along with all other federally recognized tribes not separately listed.²²

Alaska Native: This category shows self-identification among people of Alaska Native descent. U.S. Census Bureau data are available for seven Alaska Native race and ethnic categories: Alaska Athabaskan, Aleut, Inupiat, Tlingit-Haida, Tsimshian, Yupik, and All other tribes.

Non-Specified Tribes: This category includes respondents who checked the "American Indian or Alaska Native" response category on the U.S. Census questionnaire or wrote in the generic term "American Indian" or "Alaska Native," or tribal entries not elsewhere classified.

International Indian Tribes: This category shows people who self-identified as Canadian and French American Indian, Central American Indian, Mexican American Indian, South American Indian, or Spanish American Indian.

Why is it important?

The American Indian and Alaska Native identity of a place can indicate different needs, values, and attitudes sometimes held by different groups.

Many tribal people have unique historical and current ties to the land,^{23, 24} and some tribes have unique legal rights to certain activities, such as hunting, fishing, and plant-gathering.

Policies and management actions may have disproportionately high and adverse effects on tribes and it is helpful to know whether native peoples live in a particular area.^{25, 26}

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Demographics

Washakie County, WY

Tribal

	Washakie County, Wyoming, WY	United States
Total Population, 2018*	8,129	322,903,030
Total Native American	**52	2,699,073
American Indian Tribes; Specified	**43	2,073,342
Apache	**0	73,484
Arapaho	**1	8,664
Blackfeet	**0	30,374
Cherokee	**42	290,917
Cheyenne	**0	11,901
Chickasaw	**0	26,112
Chippewa	**0	118,234
Choctaw	**0	97,491
Colville	**0	8,885
Comanche	**0	11,380
Cree	**0	2,526
Creek	**0	43,374
Crow	**0	11,497
Hopi	**0	16,689
Iroquois	**0	45,934
Kiowa	**0	7,589
Lumbee	**0	74,362
Navajo	**0	329,271
Osage	**0	9,245
Paiute	**0	13,050
Pima	**0	23,144
Potawatomi	**0	20,307
Pueblo	**0	60,415
Puget Sound Salish	**0	14,257
Seminole	**0	14,378
Shoshone	**0	10,284
Sioux	**0	121,834
Tohono O'Odham	**0	26,653
Ute	**0	8,943
Yakama	**0	9,224
Yaqui	**0	25,053
Yuman	**0	8,301
All other tribes	**0	278,244
American Indian; Not Specified	**0	82,361
Alaska Native Tribes; Specified	**0	113,549
Alaska Athabaskan	**0	16,252
Aleut	**0	12,548
Inupiat	**0	30,908
Tlingit-Haida	**0	15,244
Tsimshian	**0	2,306
Yupik	**0	36,291
Alaska Native; Not Specified	**8	350,856
American Indian or Alaska Native; Not Specified	**8	433,217
International Indian Tribe	**0	187,711

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Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Tribal

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International Indian Tribes: This category shows people who self-identified as Canadian and French American Indian, Central American Indian, Mexican American Indian, South American Indian, or Spanish American Indian.

Why is it important?

The American Indian and Alaska Native identity of a place can indicate different needs, values, and attitudes sometimes held by different groups.

Many tribal people have unique historical and current ties to the land,^{23, 24} and some tribes have unique legal rights to certain activities, such as hunting, fishing, and plant-gathering.

Policies and management actions may have disproportionately high and adverse effects on tribes and it is helpful to know whether native peoples live in a particular area.^{25, 26}

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Demographics

Washakie County, WY

Occupations and Industries

	Washakie County, Wyoming, WY	United States
Civilian employees > 16 years, 2018*	3,835	152,739,884
Management, professional, & related	1,241	57,945,862
Service	566	27,272,863
Sales and office	681	33,711,613
Farming, fishing, and forestry	115	1,068,481
Construction, extract, maint, & repair	360	7,761,195
Production, transportation	667	20,255,871

Percent of Total

Management, professional, & related	32.4%	37.9%
Service	14.8%	17.9%
Sales and office	17.8%	22.1%
Farming, fishing, and forestry	3.0%	0.7%
Construction, extract, maint, & repair	9.4%	5.1%
Production, transportation	17.4%	13.3%

	Washakie County, Wyoming, WY	United States
Civilian employees > 16 years, 2018*	3,835	152,739,884
Ag, forestry, fishing & hunting, mining	427	2,793,463
Construction	271	9,874,923
Manufacturing	387	15,550,889
Wholesale trade	114	4,025,876
Retail trade	389	17,240,297
Transport, warehousing, and utilities	251	7,984,110
Information	42	3,164,287
Finance and ins, and real estate	142	10,015,304
Prof, mgmt, admin, & waste mgmt	165	17,455,119
Edu, health care, & social assistance	806	35,293,449
Arts, entertain, rec, accomod, & food	331	14,800,927
Other services, except public admin	300	7,461,333
Public administration	210	7,079,907

Percent of Total

Ag, forestry, fishing & hunting, mining	11.1%	1.8%
Construction	7.1%	6.5%
Manufacturing	10.1%	10.2%
Wholesale trade	3.0%	2.6%
Retail trade	10.1%	11.3%
Transport, warehousing, and utilities	6.5%	5.2%
Information	1.1%	2.1%
Finance and ins, and real estate	3.7%	6.6%
Prof, mgmt, admin, & waste mgmt	4.3%	11.4%
Edu, health care, & social assistance	21.0%	23.1%
Arts, entertain, rec, accomod, & food	8.6%	9.7%
Other services, except public admin	7.8%	4.9%
Public administration	5.5%	4.6%

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* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Occupations and Industries

What do we measure on this page?

This page describes what people do for work in terms of the type of work (by occupation) and where they work (by industry).

Employment by Occupation: Refers to the Standard Occupational Classification (SOC) system in which workers are classified into occupations with similar job duties, skills, education, and/or training, regardless of industry.^{27, 28}

Employment by Industry: Refers to employment by industry, listed according to the North American Industry Classification System (NAICS). For a more detailed analysis of long-term employment and personal income earned by industry, run an EPS Measures report. See <https://headwaterseconomics.org/eps>.

Why is it important?

Employment statistics are usually reported by industry. This is a useful way to show the relative diversity of the economy and the degree of dependence on certain sectors. Employment by occupation offers additional information that describes what people do for a living and the type of work they do, regardless of the industry. For example, management and professional occupations generally offer higher wages and require formal education, and these occupations could exist in any number of industries. Managers could be working for a software firm, a mine, or a construction company. Occupation information describes what people do, while employment by industry describes where people work.²⁹

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Demographics

Washakie County, WY

Labor

	Washakie County, Wyoming, WY	United States
Population 16 to 64, 2018*	4,871	208,516,291
WEEKS WORKED PER YEAR:		
Worked 50 to 52 weeks	2,747	120,848,767
Worked 27 to 49 weeks	534	21,070,794
Worked 1 to 26 weeks	613	17,177,351
Did not work	977	49,419,379
HOURS WORKED PER WEEK:		
Worked 35 or more hours per week	2,931	122,858,929
Worked 15 to 34 hours per week	772	29,138,783
Worked 1 to 14 hours per week	191	7,099,200
Did not work	977	49,419,379
Mean usual hours worked for workers	40.4	38.7

Percent of Total

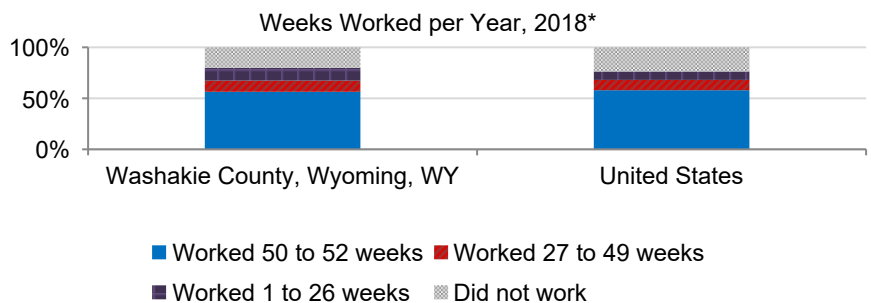
WEEKS WORKED PER YEAR:		
Worked 50 to 52 weeks	56.4%	58.0%
Worked 27 to 49 weeks	11.0%	10.1%
Worked 1 to 26 weeks	12.6%	8.2%
Did not work	20.1%	23.7%
HOURS WORKED PER WEEK:		
Worked 35 or more hours per week	60.2%	58.9%
Worked 15 to 34 hours per week	15.8%	14.0%
Worked 1 to 14 hours per week	3.9%	3.4%
Did not work	20.1%	23.7%

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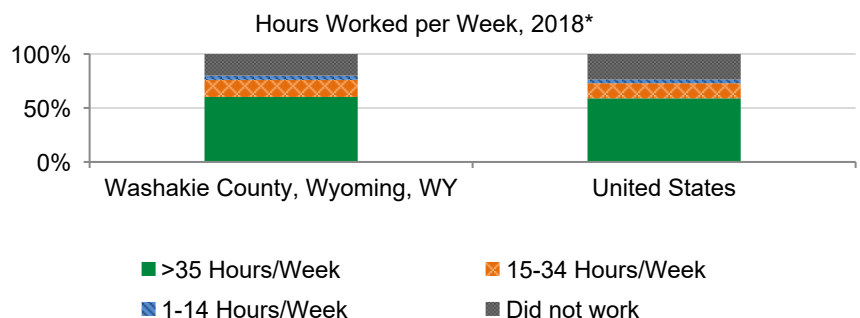
Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

- In the 2014-2018 period, United States had the highest estimated percent of people that worked 50 to 52 weeks per year (58.0%), and Washakie County, Wyoming, WY had the lowest (56.4%).



- In the 2014-2018 period, Washakie County, Wyoming, WY had the highest estimated percent of people that worked 35 or more hours per week (60.2%), and United States had the lowest (58.9%).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Labor

What do we measure on this page?

This page describes workers by hours worked per week and by weeks worked per year.

Weeks worked per year and hours worked per week are irrespective of each other. For example, regardless of whether an individual worked 10 or 40 hours per week, if (s)he worked 50 weeks per year, (s)he will be recorded as having "worked 50 to 52 weeks per year."

Labor force participation should be not confused with the unemployment rate, which is a measure of the people who are jobless and looking for work. To see long-term trends of unemployment, run an EPS Measures report. See <https://headwaterseconomics.org/eps>.

Why is it important?

Fewer hours worked per week or weeks worked per year may indicate that the local economy is suffering from underemployment which results in lower real incomes and a lower standard of living.³⁰ For example, labor incomes in agriculture and other seasonal employment are consistently among the lowest incomes in industrial classes as reported by the U.S. Census.

However, shorter work weeks and fewer weeks worked per year also can be indicative of worker preference. Part-time jobs (those that average fewer than 35 hours/week) are often ideal for students, people who are responsible for taking care of their dependents, and the elderly who wish to remain active in the workplace but do not want to work a full schedule. Advances in computer technologies enable workers to telecommute and work shorter and more flexible hours. And, in some cases, young adults seek out seasonal-, tourism-, or recreation-related employment by choice.

The Bureau of Labor Statistics offers data tables on workers by category.³¹ For example, in 2006, before the Great Recession, 3.9 million people in the county were employed part-time for economic reasons (slack work or business conditions or could only find a part-time job). By 2008, toward the end of the recession, this number had risen to 7.3 million people.³²

Data on age and income distribution should be examined to better understand the degree to which the data on this page are related to under-employment and economic hardship versus worker preference.

Most employment statistics count full-time, part-time, and seasonal employment as the same—that is, a single job. In places where a relatively large percent of the employment base is either part-time or seasonally employed, this may explain falling wages or rates of employment that outpace population change.

For more information about changes in wages, employment, and population over time, create an EPS Socioeconomic Measures report. See <https://headwaterseconomics.org/eps>.

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Demographics

Washakie County, WY

Commuting

	Washakie County, Wyoming, WY	United States
Workers 16 years and over, 2018*	3,707	150,571,044
PLACE OF WORK:		
Worked in county of residence	3,308	108,881,476
Worked outside county of residence	399	41,689,568
TRAVEL TIME TO WORK:		
Less than 10 minutes	2,207	17,826,270
10 to 14 minutes	631	19,237,418
15 to 19 minutes	382	21,793,999
20 to 24 minutes	93	20,709,756
25 to 29 minutes	41	9,186,086
30 to 34 minutes	50	19,662,993
35 to 39 minutes	8	4,294,255
40 to 44 minutes	54	5,632,909
45 to 59 minutes	25	11,770,783
60 or more minutes	93	13,033,642
Mean travel time to work (minutes)	12	25.3

Percent of Total

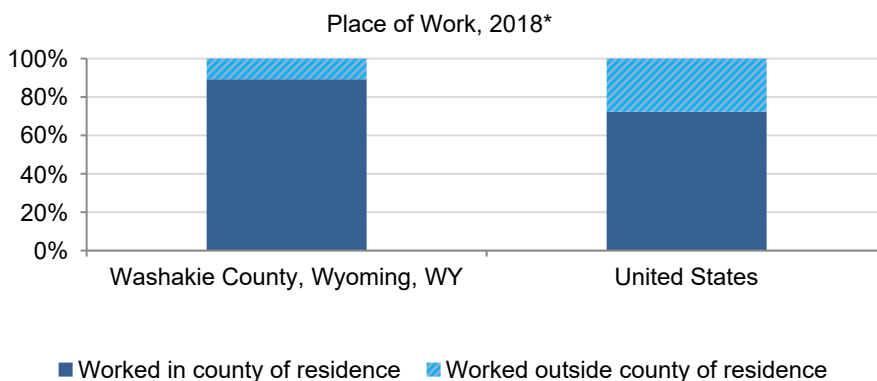
PLACE OF WORK:		
Worked in county of residence	89.2%	72.3%
Worked outside county of residence	10.8%	27.7%
TRAVEL TIME TO WORK:		
Less than 10 minutes	59.5%	11.8%
10 to 14 minutes	17.0%	12.8%
15 to 19 minutes	10.3%	14.5%
20 to 24 minutes	2.5%	13.8%
25 to 29 minutes	1.1%	6.1%
30 to 34 minutes	1.3%	13.1%
35 to 39 minutes	0.2%	2.9%
40 to 44 minutes	1.5%	3.7%
45 to 59 minutes	0.7%	7.8%
60 or more minutes	2.5%	8.7%

High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

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Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

- * In the 2014-2018 period, United States had the highest estimated percent of people that worked outside the county of residence (27.7%), and Washakie County, Wyoming, WY had the lowest (10.8%).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Commuting

What do we measure on this page?

This page describes workers by place of work and by travel time to work. These data do not include those who work from home.

Why is it important?

The longest commute times tend to occur in larger metro areas or in counties surrounding metro areas. However, fast-growing micropolitan communities or some rural areas, such as resort communities, where the cost of living has gone up, are also experiencing large commute times.³³

Economic development is sometimes affected by commuting in unanticipated ways: strategies aimed at increasing jobs in a community will not necessarily mean jobs for residents. Conversely, creating job opportunities for residents does not always require bringing jobs into that community.

High out-commuting rates can also separate tax revenues from demands for services, which complicates fiscal planning for local governments. "Bedroom communities"—those with high levels of out-commuting—may struggle to provide social services, housing, and water and sewer facilities without an adequate source of business tax revenue. Higher levels and longer distance of commuting likely indicate a housing-job imbalance. This can result from unaffordable housing prices or other residential constraints.³⁴

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Demographics

Washakie County, WY

Income

	Washakie County, Wyoming, WY	United States
Per Capita Income (2018 \$s)	\$27,556	\$32,621
Median Household Income^ (2018 \$s)	\$53,426	\$60,293
Total Households, 2018*	3,422	119,730,128
Less than \$10,000	125	7,584,305
\$10,000 to \$14,999	174	5,507,051
\$15,000 to \$24,999	288	11,146,961
\$25,000 to \$34,999	401	11,117,434
\$35,000 to \$49,999	587	15,124,821
\$50,000 to \$74,999	772	20,910,222
\$75,000 to \$99,999	541	14,937,330
\$100,000 to \$149,999	331	17,533,125
\$150,000 to \$199,999	102	7,513,313
\$200,000 or more	101	8,355,566
Gini Coefficient^	0.39	0.48

Percent of Total

Less than \$10,000	3.7%	6.3%
\$10,000 to \$14,999	5.1%	4.6%
\$15,000 to \$24,999	8.4%	9.3%
\$25,000 to \$34,999	11.7%	9.3%
\$35,000 to \$49,999	17.2%	12.6%
\$50,000 to \$74,999	22.6%	17.5%
\$75,000 to \$99,999	15.8%	12.5%
\$100,000 to \$149,999	9.7%	14.6%
\$150,000 to \$199,999	3.0%	6.3%
\$200,000 or more	3.0%	7.0%

^ Median Household Income and Gini Coefficient are not available for metro/non-metro or regional aggregations.

High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

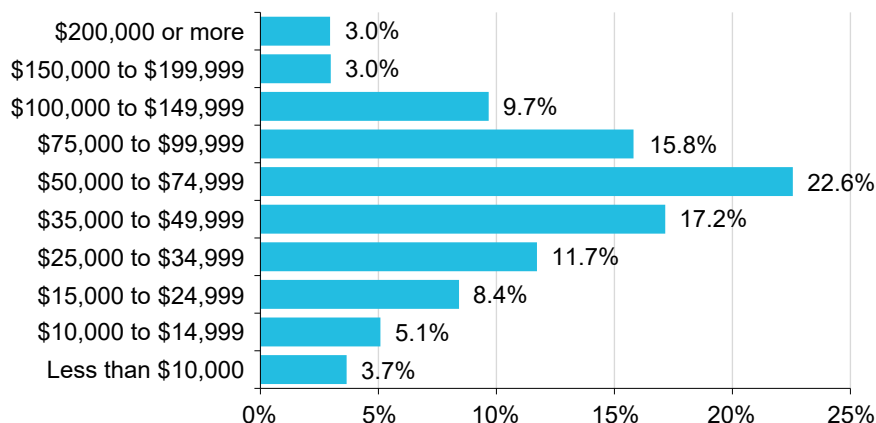
Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

- In the 2014-2018 period, the income category in the Washakie County, WY with the most households was \$50,000 to \$74,999 (22.6% of households). The income category with the fewest households was \$200,000 or more (3.0% of households).

- In the 2014-2018 period, the bottom 40% of households in the Washakie County, WY accumulated approximately 14.7% of total income, and the top 20% of households accumulated approximately 50.4% of total income.

Household Income Distribution, Washakie County, WY, 2018*



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Income

What do we measure on this page?

This page describes per capita income and the distribution of household income.

Per Capita Income: Total personal income divided by total population of an area.⁵⁰

Household: All the people who occupy a housing unit as their usual place of residence.

Gini Coefficient: A summary value of the inequality of income distribution. A value of 0 represents perfect equality and a value of 1 represents perfect inequality. The lower the Gini coefficient, the more equal the income distribution.

The per capita income shown on this page is from the U.S. Census Bureau. The U.S. Census Bureau and Bureau of Economic Analysis (BEA) define income differently and derive the estimates using different techniques.⁵¹

Why is it important?

One important consideration of proposed policies and management actions is whether low-income populations could experience disproportionately adverse effects as a result. Analyzing income differences within and between locations helps to highlight areas where the population or a sub-population may be experiencing economic hardship.

The distribution of income is related to important aspects of economic well-being. Large numbers of households in the lower end of income distribution indicate economic hardship. A bulge in the middle can be interpreted as the size of the middle class. A figure that shows a proportionally large number of households at both extremes indicates a location characterized by "haves" and "have-nots."³⁵

Income distribution has always been a central concern of economic theory and economic policy. Classical economists were mainly concerned with the distribution of income among the main factors of production: land, labor, and capital. Modern economists have also addressed this issue but have been more concerned with the distribution of income across individuals and households.³⁶

According to the Census Bureau, "Researchers believe that changes in the labor market and... household composition affected the long-run increase in income inequality. The wage distribution has become considerably more unequal with workers at the top experiencing real wage gains and those at the bottom real wage losses.... At the same time, long-run changes in society's living arrangements have taken place also tending to exacerbate household income differences. For example, divorces, marital separations, births out of wedlock, and the increasing age at first marriage have led to a shift away from married-couple households to single-parent families and nonfamily households. Since non-married-couple households tend to have lower income and less equally distributed income than other types of households... changes in household composition have been associated with growing income inequality."³⁷

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Demographics

Washakie County, WY

Poverty Prevalence

	Washakie County, Wyoming, WY	United States
People, 2018*	7,949	314,943,184
Families, 2018*	2,302	78,697,103
People Below Poverty	984	44,257,979
Families below poverty	184	7,930,699

Percent of Total

People Below Poverty	12.4%	14.1%
Families below poverty	8.0%	10.1%

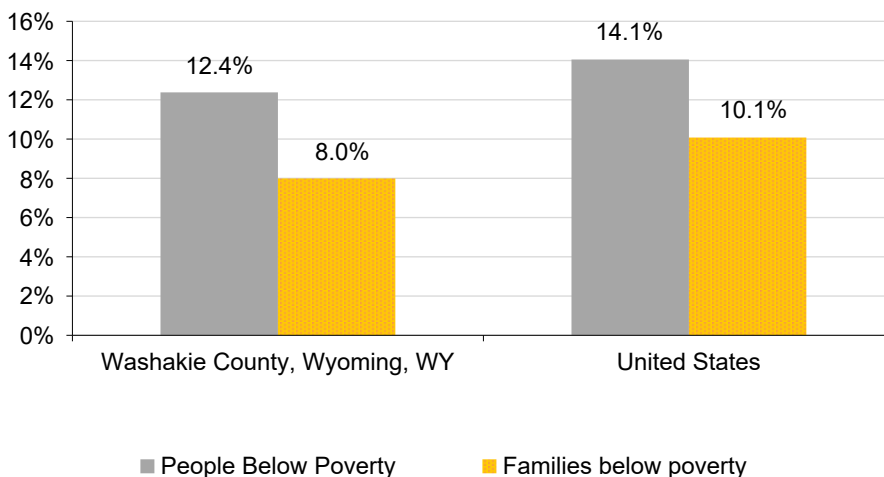
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Individuals & Families Below Poverty, 2018*

- In the 2014-2018 period, United States had the highest estimated percent of individuals living below poverty (14.1%), and Washakie County, Wyoming, WY had the lowest (12.4%).
- In the 2014-2018 period, United States had the highest estimated percent of families living below poverty (10.1%), and Washakie County, Wyoming, WY had the lowest (8.0%).



Poverty Rate by Age & Family Type~

	Washakie County, Wyoming, WY	United States
People, 2018*	12.4%	14.1%
Under 18 years	20.0%	19.5%
65 years and older	1.8%	9.3%
Families, 2018*	8.0%	10.1%
Families with related children < 18 years	16.9%	15.9%
Married couple families	5.1%	5.0%
with children < 18 years	12.4%	7.1%
Female householder, no husband present	38.8%	27.8%
with children < 18 years	49.0%	37.5%

~Poverty rate by age and family type is calculated by dividing the number of people by demographic in poverty by the total population of that demographic.

* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Poverty Prevalence

What do we measure on this page?

This page describes the number of individuals and families living below the poverty line.

Family: A group of two or more people who reside together and who are related by birth, marriage, or adoption.

Poverty: Following the Office of Management and Budget's Directive ¹⁴, the U.S. Census Bureau uses a set of income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or an unrelated individual falls below the relevant poverty threshold, then the family or an unrelated individual is classified as being "below the poverty level."

Why is it important?

Poverty is an important indicator of economic well-being. Understanding the extent of poverty is important for several reasons. For example, people with limited income may have different needs and values. Also, proposed policies and activities may need to be analyzed in the context of whether people who are economically disadvantaged could experience disproportionately adverse effects.

Poverty rates are often reported in aggregate, which can hide important differences. The bottom table shows poverty for various types of individuals and families. This is important because aggregate poverty rates (for example, families below poverty) may hide some important information (for example, the poverty rate for single mothers with children).^{38, 39}

Demographics

Washakie County, WY

Poverty by Race and Ethnicity

	Washakie County, Wyoming, WY	United States
Total Population in Poverty, 2018*	984	44,257,979
White alone	877	26,730,734
Black or African American alone	0	9,490,587
American Indian alone	15	673,665
Asian alone	0	1,989,768
Native Hawaii & Other Pacific Is. alone	0	103,304
Some other race	76	3,497,625
Two or more races	16	1,772,296
All Ethnicities in Poverty, 2018*		
Hispanic or Latino (of any race)	161	11,849,315
Not Hispanic or Latino (of any race)	823	19,205,816

Percent of Total^

White alone	89.1%	60.4%
Black or African American alone	0.0%	21.4%
American Indian alone	1.5%	1.5%
Asian alone	0.0%	4.5%
Native Hawaii & Other Pacific Is. alone	0.0%	0.2%
Some other race	7.7%	7.9%
Two or more races	1.6%	4.0%
Hispanic or Latino (of any race)	16.4%	26.8%
Not Hispanic or Latino (of any race)	83.6%	43.4%

^ Percent of total population in poverty by race and ethnicity is calculated by dividing the number of people in poverty in each racial or ethnic category by the total population.

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Percent of People by Race and Ethnicity Who Are Below Poverty~, 2018*

	Washakie County, Wyoming, WY	United States
White alone	12.2%	11.6%
Black or African American alone	na	24.2%
American Indian alone	30.0%	25.8%
Asian alone	na	11.5%
Native Hawaiian & Oceanic alone	na	18.3%
Some other race alone	19.4%	22.6%
Two or more races alone	4.8%	17.5%
Hispanic or Latino alone	14.8%	21.0%
Non-Hispanic/Latino alone	12.5%	10.0%

~Poverty prevalence by race and ethnicity is calculated by dividing the number of people by race in poverty by the total population of that race.

* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Poverty by Race and Ethnicity

What do we measure on this page?

This page describes the number of people living in poverty by race and ethnicity. It also shows the share of all people living in poverty by race and ethnicity, and the share of each race and ethnicity living in poverty.

Race: Race is a self-identification data item in which U.S. Census respondents choose the race or races with which they most closely identify.

Race categories include both racial and national-origin groups. The concept of race is separate from the concept of Hispanic origin. Percentages for the various race categories add to 100 percent and should not be combined with the percent Hispanic.

Ethnicity: There are two minimum categories for ethnicity: Hispanic or Latino, and Not Hispanic or Latino. The federal government considers race and Hispanic origin to be two separate and distinct concepts. Hispanics and Latinos may be of any race.

Poverty: Following the Office of Management and Budget's Directive ¹⁴, the Census Bureau uses a set of income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or an unrelated individual falls below the relevant poverty threshold, then the family or an unrelated individual is classified as being "below the poverty level."

Poverty thresholds are updated every year by the U.S. Census Bureau to reflect changes in the Consumer Price Index. The poverty thresholds are the same for all parts of the country. They are not adjusted for regional, state or local variations in the cost of living.⁴⁰

Why is it important?

Understanding levels of poverty for different races and ethnicities can be important. People with limited income and from different races and ethnicities may have different needs and values. Proposed policies and activities may need to be analyzed in the context of whether minorities and people who are economically disadvantaged could be disproportionately impacted.^{41, 42}

Demographics

Washakie County, WY

Household Earnings

	Washakie County, Wyoming, WY	United States
Total households, 2018*	3,422	119,730,128
Labor earnings	2,654	93,010,497
Social Security (SS)	1,265	37,017,540
Retirement income	722	22,256,123
Supplemental Security Income (SSI)	*120	6,449,860
Cash public assistance income	**47	2,939,063
SNAP (previously Food Stamps)	*169	14,635,287

Percent of Total[^]

Labor earnings	77.6%	77.7%
Social Security (SS)	37.0%	30.9%
Retirement income	21.1%	18.6%
Supplemental Security Income (SSI)	*3.5%	5.4%
Cash public assistance income	**1.4%	2.5%
SNAP (previously Food Stamps)	*4.9%	12.2%

[^] Total may add to more than 100% due to households receiving more than 1 source of income.

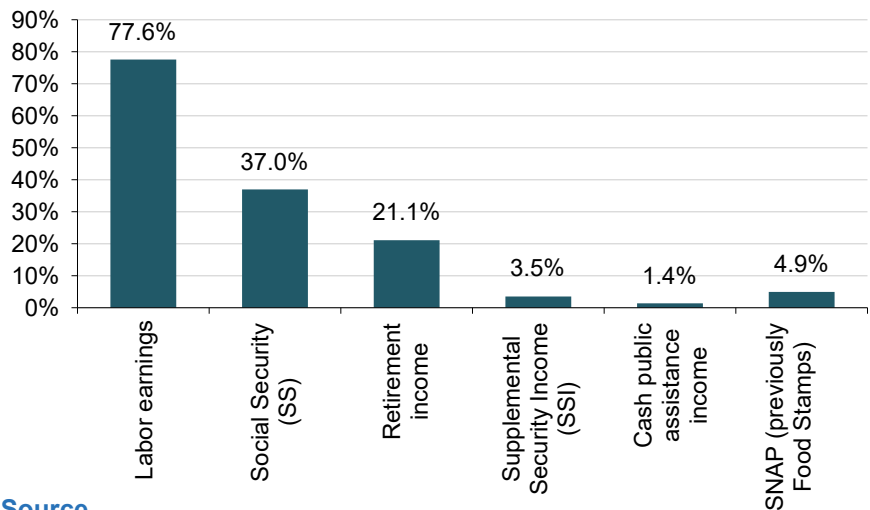
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- In the 2014-2018 period, the highest estimated percent of public assistance in the Washakie County, WY was in the form of Social Security (SS) (37.0%), and the lowest was in the form of Cash public assistance income (1.4%).

Percent of Households Receiving Earnings, by Source, 2018*



Mean Annual Household Earnings by Source

	Washakie County, Wyoming, WY	United States
Mean earnings, 2018 (2018 \$s)	\$61,705	\$86,966
Mean Social Security income	\$20,586	\$19,346
Mean retirement income	*\$26,055	\$26,805
Mean Supplemental Security Income	*\$8,564	\$9,963
Mean cash public assistance income	**\$1,274	\$3,183

* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Household Earnings

What do we measure on this page?

This page describes household earnings by source.

Labor Earnings: Refers to households that receive wage or salary income and also those that receive net income from self-employment.

Social Security: Households that receive income that includes Social Security pensions and survivor benefits, permanent disability insurance payments made by the Social Security Administration before deductions for medical insurance, and Railroad Retirement insurance. It does not include Medicare reimbursement.

Retirement Income: Households that receive: 1) retirement pensions and survivor benefits from a former employer, labor union, U.S. military, or federal, state, or local government; 2) disability income from companies, unions, the U.S. military, or federal, state, or local government; 3) periodic receipts from annuities and insurance; and 4) regular income from IRA and Keogh plans. It does not include Social Security income.

Supplemental Security Income (SSI): Households that receive assistance from the Social Security Administration that guarantees a minimum level of income for needy aged, blind, or disabled individuals.

Cash Public Assistance Income: Households that receive public assistance that includes general assistance and Temporary Assistance to Needy Families (TANF). It does not include separate payments received for hospital or other medical care (vendor payments) or Supplemental Security Income (SSI) or noncash benefits such as Supplemental Nutrition Assistance Program (SNAP).

Supplemental Nutrition Assistance Program (SNAP): Households that receive coupons or cards that can be used to purchase food. Prior to 2008, this program was referred to as Food Stamps. The U.S. Census Bureau's American Community Survey (ACS) does not report mean dollar amounts for this item.

Why is it important?

Earnings are not the only source of income, and for many families and communities a significant portion of income can be in the form of additional sources such as retirement and Social Security. While some payments may be an indication of an aging population or an influx of retirees (retirement payments), other measures (for example, SSI or SNAP) are an indication of economic hardship.

Additional information on "non-labor" sources of income are available by running an EPS Non-labor report: See <https://headwaterseconomics.org/eps>.

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Demographics

Washakie County, WY

Education

	Washakie County, Wyoming, WY	United States
Total Population 25 yrs or older, 2018*	5,662	218,446,071
No high school degree	590	26,948,057
High school graduate	5,072	191,498,014
Associates degree	701	18,338,323
Bachelor's degree or higher	1,220	68,867,051
Graduate or professional	371	26,396,124

Percent of Total

No high school degree	10.4%	12.3%
High school graduate	89.6%	87.7%
Associates degree	12.4%	8.4%
Bachelor's degree or higher	21.5%	31.5%
Graduate or professional	6.6%	12.1%

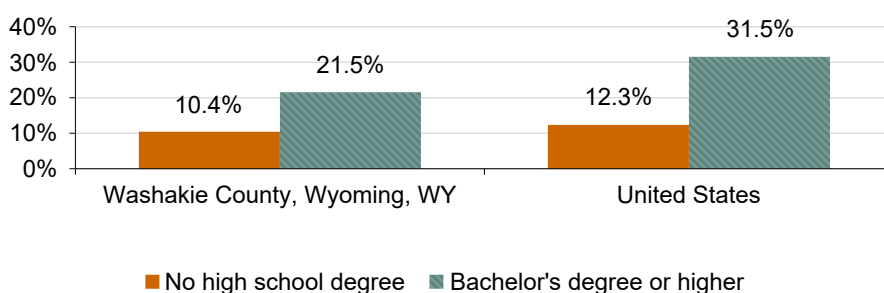
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- In the 2014-2018 period, United States had the highest percent of people over age 25 with a bachelor's degree or higher (31.5%), and Washakie County, Wyoming, WY had the lowest (21.5%).
- In the 2014-2018 period, United States had the highest percent of people over age 25 with no high school degree (12.3%), and Washakie County, Wyoming, WY had the lowest (10.4%).

Educational Attainment, 2018*



	Washakie County, Wyoming, WY	United States
Total Population over 3 years old, 2018*	7,819	311,230,839
Enrolled in school:	1,739	81,415,106
Enrolled in nursery school, preschool	88	4,947,516
Enrolled in kindergarten	69	4,083,735
Enrolled in grade 1 to grade 4	389	16,263,019
Enrolled in grade 5 to grade 8	459	16,544,964
Enrolled in grade 9 to grade 12	598	17,004,975
Enrolled in college	136	22,570,897
Not enrolled in school	6,080	229,815,733

Percent of Total

Enrolled in school:	22.2%	26.2%
Enrolled in nursery school, preschool	1.1%	1.6%
Enrolled in kindergarten	0.9%	1.3%
Enrolled in grade 1 to grade 4	5.0%	5.2%
Enrolled in grade 5 to grade 8	5.9%	5.3%
Enrolled in grade 9 to grade 12	7.6%	5.5%
Enrolled in college	1.7%	7.3%
Not enrolled in school	77.8%	73.8%

* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Education

What do we measure on this page?

This page describes levels of educational attainment.

Educational Attainment: This refers to the level of education completed by people 25 years and over in terms of the highest degree or the highest level of schooling completed.

School Enrollment: The U.S. Census Bureau's American Community Survey (ACS) defines people as enrolled in school if they were attending a public or private school or college at any time during the three months prior to taking the survey. People enrolled in vocational, technical, or business school such as post-secondary vocational, trade, hospital school, and on-the-job training were not reported as enrolled in school.

Why is it important?

Education is one of the most important indicators of the potential for economic success, and lack of education is closely linked to poverty. Studies show that areas with a higher-than-average-educated workforce grow faster, have higher incomes, and suffer less during economic downturns than other areas.^{43, 44} In 2017, the Bureau of Labor Statistics reported that the higher the rate of educational achievement, the lower the unemployment rate and the higher the wages.⁴⁵

Understanding differences in education levels can highlight whether certain people might be disproportionately impacted by policies, plans, and management actions, and can inform communication and outreach efforts.

School enrollment can be an important indicator of the level of access to education, a community's potential for economic growth, and the number of dependents in a community that are not of working age. Some government agencies also use this information for funding allocations.

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Demographics

Washakie County, WY

Language

	Washakie County, Wyoming, WY	United States
Population 5 yrs or older, 2018*	7,695	303,066,180
Speak only English	7,180	237,956,495
Speak a language other than English	515	65,109,685
Spanish or Spanish Creole	437	40,256,297
Other Indo-European languages	67	11,014,379
Asian and Pacific Island languages	11	10,570,681
Other languages	0	3,207,613
Speak English less than "very well"	94	25,647,781

Percent of Total

Speak only English	93.3%	78.5%
Speak a language other than English	6.7%	21.5%
Spanish or Spanish Creole	5.7%	13.3%
Other Indo-European languages	0.9%	3.6%
Asian and Pacific Island languages	0.1%	3.5%
Other languages	0.0%	1.1%
Speak English less than "very well"	1.2%	8.5%

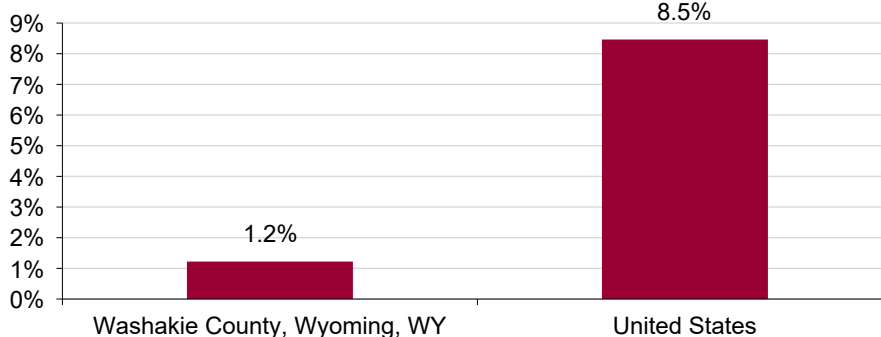
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Percent of Population that 'Speaks English Less Than Very Well', 2018*

- In the 2014-2018 period, United States had the highest estimated percent of people that spoke English less than 'very well' (8.5%), and Washakie County, Wyoming, WY had the lowest (1.2%).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Language

What do we measure on this page?

This page measures the primary language people speak at home.

Language Spoken at Home: The language used by respondents five years and older at home, either "English only" or a non-English language which is used in addition to English or in place of English.⁴⁶

Why is it important?

If a significant portion of the population is classified as speaking English "less than very well," public outreach, meetings, plans, and implementation may need to be conducted in multiple languages. Community leaders and policy makers should be prepared to use interpreters of languages other than English to communicate effectively with diverse publics.

CHANGES IN BOUNDARIES: Data describing change over time can be misleading when geographic boundaries have changed.
The Census provides documentation about changes in boundaries at this site: www.census.gov/geo/reference/boundary-changes.html

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Demographics

Washakie County, WY

Housing Characteristics

	Washakie County, Wyoming, WY	United States
Total Housing Units, 2018*	3,868	136,384,292
Occupied	3,422	119,730,128
Vacant	446	16,654,164
For rent	225	2,822,053
Rented, not occupied	30	615,344
For sale only	19	1,304,850
Sold, not occupied	4	653,988
Seasonal, recreational, occasional	87	5,465,886
For migrant workers	3	36,850
Other vacant	78	5,755,193
Year Built		
Built 2010 or later	121	5,622,664
Built 2000 to 2009	368	19,435,745
Built 1990 to 1999	338	19,018,824
Built 1980 to 1989	248	18,425,173
Built 1970 to 1979	953	20,898,334
Built 1940 to 1969	1,404	35,575,605
Median year structure built^	1971	1977

Percent of Total

Occupancy		
Occupied	88.5%	87.8%
Vacant	11.5%	12.2%
For rent	5.8%	2.1%
Rented, not occupied	0.8%	0.5%
For sale only	0.5%	1.0%
Sold, not occupied	0.1%	0.5%
Seasonal, recreational, occasional	2.2%	4.0%
For migrant workers	0.1%	0.0%
Other vacant	2.0%	4.2%
Year Built		
Built 2010 or later	3.1%	4.1%
Built 2000 to 2009	9.5%	14.3%
Built 1990 to 1999	8.7%	13.9%
Built 1980 to 1989	6.4%	13.5%
Built 1970 to 1979	24.6%	15.3%
Built 1940 to 1969	36.3%	26.1%

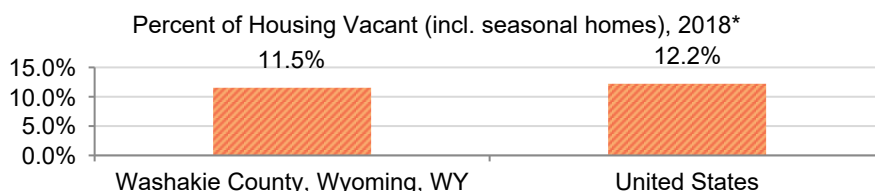
^ Median year structure built is not available for metro/non-metro or regional aggregations.

High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

* In the 2014-2018 period, United States had the highest estimated percent of the vacant housing (12.2%), and Washakie County, Wyoming, WY had the lowest (11.5%).



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Housing Characteristics

What do we measure on this page?

This page describes whether housing is occupied or vacant, for rent or seasonally occupied, and the year built.

Rent: The number of homes for rent was defined as occupied housing units that were for rent, vacant housing units that were for rent, and vacant units rented but not occupied at the time of interview.

Seasonal, Recreational, or Occasional Use: Refers to vacant units used or intended for use only in certain seasons or for weekends or other occasional use throughout the year.

For Migrant Workers: Refers to housing units intended for occupancy by migratory workers employed in farm work during the crop season.

Why is it important?

Vacancy status is an indicator of the housing market and provides information on the stability and quality of housing for certain areas. The data is used to assess the demand for housing, to identify housing turnover within areas, and to better understand the population within the housing market over time. These data also serve to aid in the development of housing programs to meet the needs of persons at different economic levels.

Seasonal or recreational homes (i.e., “second homes”) are often an indicator of the desirability of a place for recreation and tourism. This could also be used as an indicator of recreational and scenic amenities, which can be a source of economic growth.

While the late 1990s and early 2000s were a period of rapid home development throughout the country, there have been other periods when housing grew at a fast rate (the late 1970s, for example, in many parts of the country). The relative growth rate of housing is an indicator of overall economic growth but may indicate challenges such as the need to prepare for risk of wildfire, flooding, and other natural disasters. The year the home was built also provides information on the age of the housing stock, which can be used to forecast future demand of services such as energy consumption and fire protection.

Housing that is classified as available for migrant workers can be used as an indicator of a certain type of economic activity, in particular crop agriculture.

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Demographics

Washakie County, WY

Housing Affordability

	Washakie County, Wyoming, WY	United States
Owner-occupied mortgaged homes, 2018*	1,532	48,198,598
Cost >30% of household income	309	13,750,273
Specified renter-occupied units, 2018*	793	43,285,318
Rent >30% of household income	228	20,141,357
Median monthly mortgage cost [^] , 2018*	\$1,179	\$1,558
Median gross rent [^] , 2018*	\$628	\$1,023

Percent of Total

Cost >30% of household income	20.2%	28.5%
Rent >30% of household income	28.8%	46.5%

[^] Median monthly mortgage cost and median gross rent are not available for metro/non-metro or regional aggregations.

High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

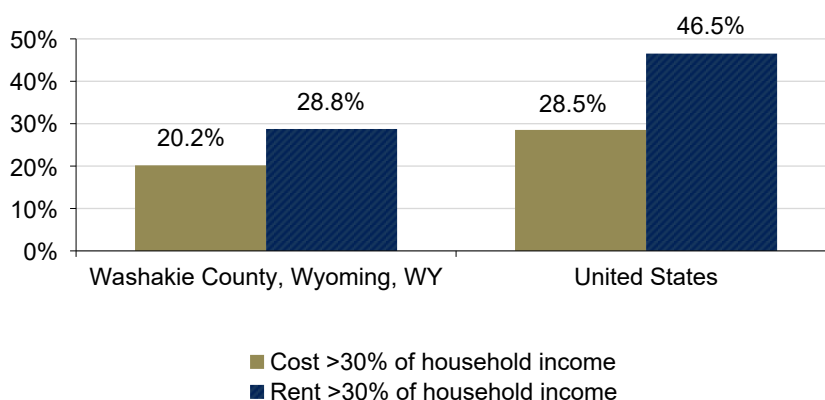
Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

- In the 2014-2018 period, United States had the highest percent of owner-occupied households where > 30% of household income was spent on mortgage costs (28.5%), and Washakie County, Wyoming, WY had the lowest (20.2%).

- In the 2014-2018 period, United States had the highest percent of renter-occupied households where > 30% of household income was spent on gross rent (46.5%), and Washakie County, Wyoming, WY had the lowest (28.8%).

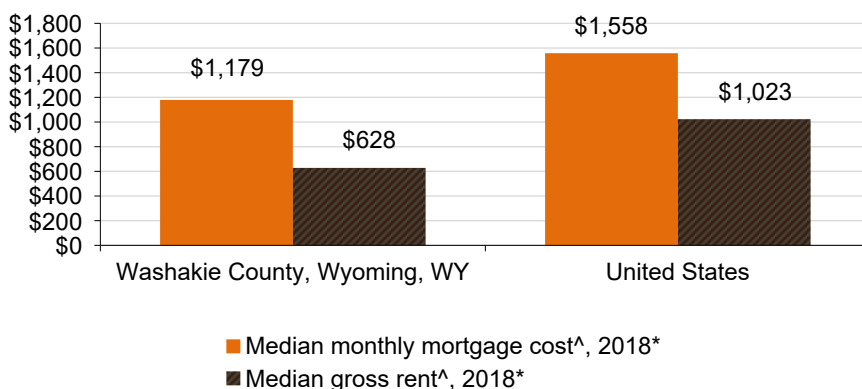
Housing Costs as a Percent of Household Income, 2018*



- In the 2014-2018 period, United States had the highest estimated monthly mortgage costs for owner-occupied homes (\$1,558), and Washakie County, Wyoming, WY had the lowest (\$1,179).

- In the 2014-2018 period, United States had the highest estimated monthly gross rent for renter-occupied homes (\$1,023), and Washakie County, Wyoming, WY had the lowest (\$628).

Median Monthly Mortgage Costs and Gross Rent, 2018*



* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Housing Affordability

What do we measure on this page?

This page describes whether housing is affordable for homeowners and renters.⁴⁷

Owner-Occupied Housing Unit: A housing unit is owner-occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for.

Renter-Occupied Housing Unit: All occupied units that are not owner-occupied are classified as renter-occupied, whether they are rented for cash rent or occupied without payment of cash rent.

Household: A household includes all the people who occupy a housing unit as their usual place of residence.

Monthly Costs (owner-occupied): The sum of payment for mortgages, real estate taxes, various insurances, utilities, fuels, mobile home costs, and condominium fees.

Gross Rent: The amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else).

The lowest ownership costs and gross rent share of household income reported in the U.S. Census Bureau's American Community Survey is 15 percent. Many government agencies define as excessive (or unaffordable) housing costs that exceed 30 percent of monthly household income.

Why is it important?

An important indicator of economic hardship is whether housing is affordable.⁴⁸ This page measures housing affordability in terms of the share of household income that is devoted to a mortgage and related costs (for homeowners) and rent and related costs (for renters). An income share devoted to housing that is below 15 percent is a good proxy for highly affordable, while the income share devoted to housing that is above 30 percent is a good proxy for unaffordable.

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Demographics

Washakie County, WY

Comparisons

Indicators		Washakie County, WY	United States	Percent difference Washakie County, WY vs. United States
Demographics	Population Growth (% change, 2010*-2018*)	-1.7%	6.2%	
	Median Age (2018*)	43.5	37.9	
	Percent Population White Alone (2018*)	89.7%	72.7%	
	Percent Population Hispanic or Latino (2018*)	14.2%	17.8%	
	Percent Population American Indian or Alaska Native (2018*)	-0.6%	0.8%	
	Percent of Population 'Baby Boomers' (2018*)	28.6%	24.6%	
Income	Median Household Income (2018*)	\$53,426	\$60,293	
	Per Capita Income (2018*)	\$27,556	\$32,621	
	Percent Individuals Below Poverty (2018*)	-12.4%	14.1%	
	Percent Families Below Poverty (2018*)	-8.0%	10.1%	
	Percent of Households with Retirement and Social Security Income (2018*)	58.1%	49.5%	
	Percent of Households with Public Assistance Income (2018*)	-9.8%	20.1%	
Structure	Percent Population 25 Years or Older without High School Degree (2018*)	-10.4%	12.3%	
	Percent Population 25 Years or Older with Bachelor's Degree or Higher (2018*)	21.5%	31.5%	
	Percent Population That Speak English Less Than 'Very Well' (2018*)	-1.2%	8.5%	
	Percent of Houses that are Seasonal Homes (2018*)	-2.2%	4.0%	
	Owner-Occupied Homes where > 30% of Household Income Spent on Mortgage (2018*)	-20.2%	28.5%	
	Renter-Occupied Homes where > 30% of Household Income Spent on Rent (2018*)	-28.8%	46.5%	

-400%-300%-200%-100% 0% 100%

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Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

* ACS 5-year estimates used. 2018 represents average characteristics from 2014-2018; 2010 represents 2006-2010.

Data Sources: U.S. Department of Commerce. 2019. Census Bureau, American Community Survey Office, Washington, D.C.

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Demographics

Washakie County, WY

Comparisons

What do we measure on this page?

This page compares key demographic, income, and social indicators from the selected region to the United States overall.

The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act.

Race: Race is a self-identification data item in which respondents choose the race or races with which they most closely identify. In 1997 the U.S. Office of Management and Budget (OMB) revised the standards for how the Federal government collects and presents data on race and ethnicity.

Poverty: Following the Office of Management and Budget's Directive 14, the U.S. Census Bureau uses a set of income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or an unrelated individual falls below the relevant poverty threshold, then the family or an unrelated individual is classified as being "below the poverty level."

Baby Boomers: Baby boomers are defined as having been born between 1946-1964. The reported percent of population that are "Baby Boomers" has some associated error since ACS generally reports age classes in 5-year increments (55 to 59 years, 60 to 64 years, etc.).

Social Security: Refers to households that receive income that includes Social Security pensions and survivor benefits, permanent disability insurance payments made by the Social Security Administration before deductions for medical insurance, and Railroad Retirement insurance. It does not include Medicare reimbursement.

Retirement Income: Consists of households that receive: 1) retirement pensions and survivor benefits from a former employer, labor union, U.S. military, or federal, state, or local government; 2) disability income from companies, unions, the U.S. military, or federal, state, or local government; 3) periodic receipts from annuities and insurance; and 4) regular income from IRA and Keogh plans. It does not include Social Security income.

Median Age, Median Household Income, and Per Capita Income are not calculated for multi-location regions due to data availability.

Why is it important?

This page shows a quick comparison of indicators covered in this report and shows how the region is different from the selected benchmark area. If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.

The chart offers an at-a-glance view of whether groups of indicators are atypical compared to the benchmark. For example, this page may show that a selected area has an older population, relatively unaffordable housing, and language barriers. In combination, these indicators can help community leaders, local government staff, policy makers and others improve outreach strategies and consider whether the impacts of projects and policies could have disproportionate impacts on certain segments of the population.

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Data Sources & Methods

EPS uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **American Community Survey**

U.S. Census Bureau, U.S. Department of Commerce

<https://www.census.gov/programs-surveys/acs/>

<https://www.census.gov/acs/www/data/data-tables-and-tools/index.php>

Contacts:

<https://www.census.gov/about/contact-us.html>

EPS core approaches: EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking—comparing smaller areas such as counties to larger regions, states, and the nation—to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

About the American Community Survey (ACS): All data used in this report is based on the U.S. Census Bureau's American Community Survey (ACS), a nationwide survey conducted annually by the U.S. Census Bureau that provides current demographic, social, economic, and housing information about communities. The ACS is not the same as the Decennial U.S. Census, which is conducted every 10 years.

Estimates based on five years of sampling are available for all areas, whereas estimate based on annual and three-year sampling are only available for areas with larger population sizes. Data used in this report are five-year ACS estimates which are consistently available for locations with small populations such as towns. Five-year estimates are displayed for all locations because data obtained using the same survey technique is ideal for comparisons. The disadvantage is that multi-year estimates cannot be used to describe any particular year in the period, only the average value over the full period.

Data Accuracy: ACS is based on a survey and is subject to error. The U.S. Census Bureau reports the accuracy of the data by providing margins of error. In this report, we alert the user to the data accuracy using color-coded text and symbols in the tables: **BLACK** indicates a coefficient of variation <12%; **ORANGE** (preceded with one dot) indicates between 12 and 40%; and **RED BOLD** (preceded with two dots) indicates a coefficient of variation >40%. The coefficient of variation is a measure of relative error in the estimate and is calculated directly from the margin of error as the ratio of the standard error to the estimate itself. Less populated areas tend to have lower accuracy. If data have consistently low accuracy throughout a report, we suggest running another demographics report at a larger geographic scale.

Endnotes

- 1 - A useful resource on rural population change is the U.S. Department of Agriculture's Economic Research Service web page: <https://www.ers.usda.gov/topics/rural-economy-population/population-migration/>.
- 2 - William H. Frey's website provides links to publications, issues, media stories, data tools and resources on migration, population redistribution, and demography of both rural and urban populations in the U.S.: freymigration.org.
- 3 - For a description of the U.S. Census Bureau's ACS methodology and data accuracy, see <https://www.census.gov/programs-surveys/acs/methodology.html>.
- 4 - The U.S. Department of Health and Human Services' Administration on Aging has a host of resources about older Americans at <https://aoa.acl.gov/>.
- 5 - The U.S. Census Bureau publishes age data estimates for the U.S., states, counties, and metropolitan areas. See <https://www.census.gov/topics/population/age-and-sex.html>.
- 6 - The non-profit Population Reference Bureau offers a helpful video on population pyramids at <http://www.prb.org/Multimedia/Video/2009/distilleddemographics1.aspx>.
- 7 - Grayson KV and Victoria VA. 2010. The Next Four Decades: Older Population in the United States: 2010 to 2050. U.S. Census Bureau. <https://www.census.gov/prod/2010pubs/p25-1138.pdf>.
- 8 - Jacobsen LA and Mather M. 2010. U.S. Social and Economic Trends Since 2000. Population Bulletin 65(1):1-16. Washington DC: Population Reference Bureau.
- 9 - Cromartie J and Nelson P. 2009. Baby Boom Migration and Its Impact on Rural America. USDA-ERS Report No. 79. Washington, DC: USDA Economic Research Service. https://www.ers.usda.gov/webdocs/publications/err79/9346_err79_1_.pdf
- 10 - The U.S. Census Bureau has many resources that describe the trends in aging in the U.S. and its implications. See for example: An Aging Nation: The Older Population in the United States <https://www.census.gov/prod/2014pubs/p25-1140.pdf>; and The Graying of America: More Adults Than Kids by 2035 <https://www.census.gov/library/stories/2018/03/graying-america.html?eml=gd>.
- 11 - Frey WH. 2006. America's Regional Demographics in the '00 Decade: The Role of Seniors, Boomers and New Minorities. Washington, DC: The Brookings Institution. <https://www.brookings.edu/research/americas-regional-demographics-in-the-00s-decade-the-role-of-seniors-boomers-and-new-minorities/>
- 12 - Frey WH. 2007. Mapping the Growth of Older America. Washington, DC: Brookings Institution. <https://www.brookings.edu/research/mapping-the-growth-of-older-america/>.

Endnotes

- 13 - OMB. 1997. Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. Federal Register 62(210):58782-58790. <https://www.gpo.gov/fdsys/pkg/FR-1997-10-30/pdf/97-28653.pdf>.
- 14 - For a primer on how the Census 2010 handles race and Hispanic origin, see: Humes KR, Jones NA, and Ramirez RR. 2011. Overview of Race and Hispanic Origin. U.S. Census Bureau. <https://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>.
- 15 - <https://www.census.gov/newsroom/press-releases/2017/school-enrollment.html>
- 16 - https://factfinder.census.gov/help/en/ethnic_groups.htm
- 17 - <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>
- 18 - A Century Apart: New Measures of Well-Being for U.S. Racial and Ethnic Groups is available at <http://www.measureofamerica.org/acenturyapart/>.
- 19 - Additional U.S. Census Bureau information on the Hispanic population (Who's Hispanic in America?) is available at https://www.census.gov/newsroom/cspan/hispanic/2012.06.22_cspan_hispanics.pdf.
- 20 - U.S. Census Bureau. Facts for Features: Hispanic Heritage Month 2016 <https://census.gov/newsroom/facts-for-features/2016/cb16-ff16.html>.
- 21 - See U.S. Census Bureau Tribal Affairs at <https://www.census.gov/aian/>.
- 22 - The U.S. Department of Interior's Indian Affairs oversees the Bureau of Indian Affairs and Bureau of Indian Education. Indian Affairs resources and contacts are available at <https://bia.gov/index.htm>.
- 23 - The U.S. Forest Service Office of Tribal Relations, formed in 2004, is a useful source of information and policies related to agency-tribal relations. See <https://www.fs.fed.us/spf/tribalrelations/index.shtml>.
- 24 - In 2016 the Bureau of Land Management published a Tribal Relations Manual and Handbook. See <https://www.blm.gov/programs/cultural-heritage-and-paleontology/tribal-consultation>.
- 25 - The American Indian Heritage Foundation hosts an American Indian Resource Directory with a list of all American Indian tribes, including Federally recognized tribes. This and other resources are available at <http://www.indians.org/index.html>.
- 26 - For an indispensable publication on environmental justice, see: Council on Environmental Quality. 1997. Environmental Justice: Guidance under the National Environmental Policy Act. Washington, DC: CEQ. https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf.

Endnotes

- 27 - The Census Bureau provides industry and occupation code lists and definitions: <https://www.census.gov/topics/employment/industry-occupation/guidance/code-lists.html>.
- 28 - Occupations are also defined by U.S. Bureau of Labor Statistics: <https://www.bls.gov/soc/>.
- 29 - The Bureau of Labor Statistics provides The Occupational Outlook Handbook, which is an analysis of the prospects for different types of jobs, including training and education needed, earnings, working conditions, and what workers do on the job: <https://www.bls.gov/ooh/>.
- 30 - Maynard DC and Feldman DC. (Eds.) 2011. Underemployment: Psychological, economic and social challenges. New York, NY: Springer.
- 31 - Labor Force Statistics from Current Population Survey. Bureau of Labor Statistics. <https://www.bls.gov/cps/lfcharacteristics.htm>.
- 32 - Involuntary Part-Time Work on the Rise. Bureau of Labor Statistics. <https://www.bls.gov/cps/lfcharacteristics.htm>.
- 33 - <https://www.census.gov/newsroom/press-releases/2017/acs-5yr.html>
- 34 - Aldrich L, Beale C, and Kasse K. 1997. Commuting and the Economic Functions of Small Towns and Places. Rural Development Perspectives 12(3):26-31. <https://naldc.nal.usda.gov/download/34577/PDF>.
- 35 - For useful remarks and scholarly references on the level and distribution of economic well-being, see Federal Reserve System Chairman Ben S. Bernanke's speech on February 6, 2007: <https://www.federalreserve.gov/newsevents/speech/Bernanke20070206a.htm>.
- 36 - For an analysis of trends in the distribution of wealth in the U.S., see Saez E and Zucman G. 2016. Wealth inequality in the United States since 1913: Evidence from capitalized income tax data. The Quarterly Journal of Economics 131(2):519-578.
- 37 - Income Inequality. U.S. Census Bureau. 2010. <https://www.census.gov/topics/income-poverty/income-inequality/about/middle-class.html>.
- 38 - The University of Michigan's National Poverty Center has a range of resources on poverty in the United States at <http://www.npc.umich.edu/poverty/>.
- 39 - For more information on rural poverty, see USDA Economic Research Service Briefing Room, Rural Income, Poverty, and Welfare: High Poverty Counties at <https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/>.
- 40 - The specific thresholds used for tabulation of income for particular years are shown at <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>.

Endnotes

- 41 - The University of Michigan's National Poverty Center hosts a body of research on race and ethnicity as they relate to poverty. See <http://npc.umich.edu/research/ethnicity/>.
- 42 - The U.S. Census Bureau briefing on "Poverty Areas" shows that Blacks and Hispanics are disproportionately affected by poverty. "Four times as many Blacks and three times as many Hispanics lived in poverty areas than lived outside them." For more information, see <https://www.census.gov/population/socdemo/statbriefs/povarea.html>.
- 43 - The Bureau of Labor Statistics shows a tight relationship between employment projections and educational attainment. See <https://www.bls.gov/emp/documentation/education-training-system.htm>.
- 44 - Card D. 1999. The Causal Effect of Education on Earnings in Ashenfelter O and Card D, eds., Handbook of Labor Economics, Vol. 3A. New York: Elsevier. Pp. 1801-63.
- 45 - Employment Projections. 2017. Bureau of Labor Statistics. <https://www.bls.gov/emp/chart-unemployment-earnings-education.htm>.
- 46 - The Modern Language Association has developed an online mapping tool that shows languages spoken for most areas of the United States. See https://apps.mla.org/map_main.
- 47 - The U.S. Census Bureau's American Housing Survey has additional information on housing and housing affordability. See <https://www.census.gov/programs-surveys/ahs/>.
- 48 - For current calculations on housing affordability, see the National Association of Realtors' Housing Affordability Index, available at <https://www.nar.realtor/topics/housing-affordability-index>.
- 49 - Federal Register 59(32). See <https://www.gpo.gov/fdsys/pkg/FR-1994-02-16/html/94-3685.htm>.
- 50 - For a description of the U.S. Census Bureau's ACS definition of per capita income, see <https://www.census.gov/quickfacts/fact/note/US/INC910216>.
- 51 - For an explanation of the discrepancies between the Census Bureau and the Bureau of Economic Analysis, see <http://www.incontext.indiana.edu/2003/jan-feb03/details.asp>.



A Profile of Land Use

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by
Headwaters Economics'
Economic Profile System (EPS)
<https://headwaterseconomics.org/eps>

July 1, 2020

Land Use

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



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The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



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The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Land Use

Washakie County, WY

Land Ownership

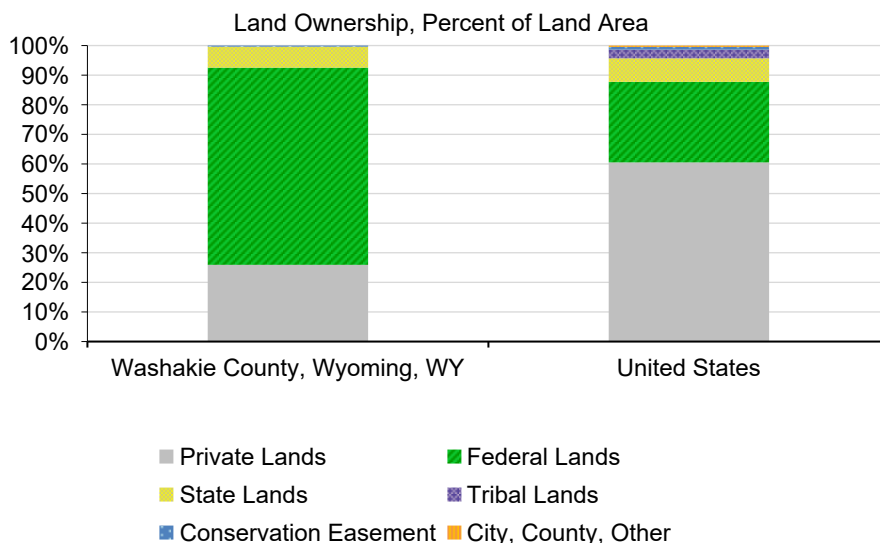
	Washakie County, Wyoming, WY	United States
Total Acres	1,435,330	2,303,091,014
Private Lands	373,381	1,406,717,148
Conservation Easement	5,525	21,237,199
Federal Lands	960,077	632,461,561
Forest Service	36,090	192,648,950
BLM	917,809	242,857,628
National Park Service	0	78,366,536
Military	0	24,412,029
Other Federal	6,178	94,176,418
State Lands	101,874	184,973,953
State Trust Lands*	100,734	51,983,763
Other State	1,140	132,990,190
Tribal Lands	0	67,946,824
City, County, Other	0	10,989,958

Percent of Total

Private Lands	26.0%	61.1%
Conservation Easement	0.4%	0.9%
Federal Lands	66.9%	27.5%
Forest Service	2.5%	8.4%
BLM	63.9%	10.5%
National Park Service	0.0%	3.4%
Military	0.0%	1.1%
Other Federal	0.4%	4.1%
State Lands	7.1%	8.0%
State Trust Lands*	7.0%	2.3%
Other State	0.1%	5.8%
Tribal Lands	0.0%	3.0%
City, County, Other	0.0%	0.5%

* Most state trust lands are held in trust for designated beneficiaries, principally public schools. Managers may lease and sell these lands for a diverse range of uses to generate revenues for the beneficiaries.

- Washakie County, Wyoming, WY has the largest share of federal public lands (66.9%), and United States has the smallest (27.5%).
- United States has the largest share of state public lands (8%), and Washakie County, Wyoming, WY has the smallest (7.1%).
- United States has the largest share of private lands (61.1%), and Washakie County, Wyoming, WY has the smallest (26%).



Data Sources: U.S. Geological Survey, Gap Analysis Program. 2018. Protected Areas Database of the United States (PADUS) version 2.0

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Data and Graphics | Page 4

Land Use

Washakie County, WY

Land Ownership

What do we measure on this page?

This page describes the share of the selected location that is private and the share that is managed by various public agencies.

The data presented in this report were calculated using Geographic Information System (GIS) tools. Two primary GIS datasets were used: U.S. Census Bureau's TIGER/Line County Boundaries¹ and U.S. Geological Survey's Protected Areas Database (PADUS).^{2, 3}

Although every attempt was made to use the best available GIS land ownership dataset, the data sometimes have errors or become outdated. Please report any inaccuracies to eps@headwaterseconomics.org.

Why is it important?

Decisions made by public land managers may influence the local economy, particularly if public lands represent a large portion of the land base. Agency management actions that affect water quality, access to recreation, scenery (as well as other quality-of-life amenities), and the extent and type of resource extraction are particularly important in areas where much of the land is managed by public agencies.

Federal and state land managers, private land owners, and others are constrained in different ways by laws and regulations that dictate how different lands can be managed. Adjacency can offer challenges and opportunities.

In addition, where a large portion of land is owned and managed by federal agencies, local governments may rely heavily on federal PILT ("Payments in Lieu of Taxes") and revenue-sharing payments such as those from the Secure Rural Schools and Community Self-Determination Act or BLM Taylor Grazing Act.

The EPS Federal Land Payments report provides additional information about payments made to counties with federal public lands: <https://headwaterseconomics.org/eps>.

Land Use

Washakie County, WY

Types of U.S. Forest Service Lands

	Washakie County, Wyoming, WY	United States
Total Acres (2009)	1,435,330	2,303,091,014
Forest Service Lands	36,003	192,750,310
Unspecified Designated Area Type	36,003	146,630,207
National Wilderness	0	36,155,579
National Monument	0	3,661,327
National Recreation Area	0	2,950,660
National Game Refuge	0	1,198,099
National Wild River	0	568,059
National Recreation River	0	398,207
National Scenic River	0	289,617
National Scenic Area	0	230,459
Primitive Area	0	173,762
National Volcanic Monument	0	167,427
Special Management Area	0	164,707
Protection Area	0	45,051
Recreation Management Area	0	43,900
National Scenic and Wildlife Area	0	39,171
Scenic Recreation Area	0	12,645
National Botanical Area	0	8,256
National Scenic and Research Area	0	6,637
National Historic Area	0	6,540

Percent of Total

Forest Service Lands	2.5%	8.4%
Unspecified Designated Area Type	2.5%	6.4%
National Wilderness	0.0%	1.6%
National Monument	0.0%	0.2%
National Recreation Area	0.0%	0.1%
National Game Refuge	0.0%	0.1%
National Wild River	0.0%	0.0%
National Recreation River	0.0%	0.0%
National Scenic River	0.0%	0.0%
National Scenic Area	0.0%	0.0%
Primitive Area	0.0%	0.0%
National Volcanic Monument	0.0%	0.0%
Special Management Area	0.0%	0.0%
Protection Area	0.0%	0.0%
Recreation Management Area	0.0%	0.0%
National Scenic and Wildlife Area	0.0%	0.0%
Scenic Recreation Area	0.0%	0.0%
National Botanical Area	0.0%	0.0%
National Scenic and Research Area	0.0%	0.0%
National Historic Area	0.0%	0.0%

County specific acreages for Forest Service National Game Refuges are not available for the following states: Arkansas, Florida, Georgia, Louisiana, North Carolina, South Carolina, and Tennessee.

Land Use

Washakie County, WY

Types of U.S. Forest Service Lands

What do we measure on this page?

This page describes the acreage and share of different U.S. Forest Service land designations.

All acreages on this page were reported by the U.S. Forest Service's Land Areas Report.^{4, 5} The total acreage of Forest Service land on this page may differ from that reported on previous pages because of differences in data sources.

Why is it important?

These data allow the user to see the range and scale of U.S. Forest Service land designations that may impact the economic value and uses of associated lands.

Land Use

Washakie County, WY

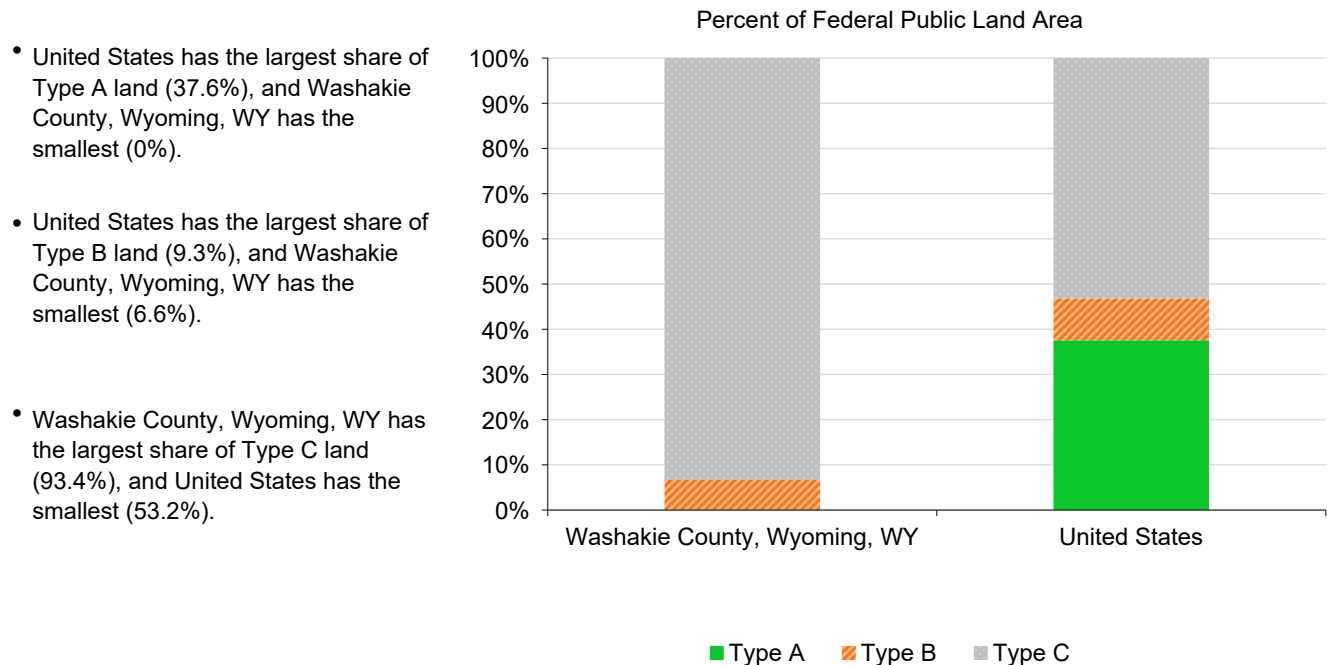
Types of Federal Lands

	Washakie County, Wyoming, WY	United States
Total Acres of Type A, B, and C Lands	1,057,714	690,953,496
Type A	334	259,556,739
Type B	69,985	63,979,938
Type C	987,395	367,416,819

Percent of Total*

Type A	0.0%	37.6%
Type B	6.6%	9.3%
Type C	93.4%	53.2%

* Percent of total federal lands classified as either Type A, B, or C.



Type A lands include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments, (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Waterfowl Production Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS).

Type B lands include Wilderness Study Areas (NPS, FWS, FS, BLM), Inventoried Roadless Areas (FS).

Type C lands include Public Domain Lands (BLM), O&C Lands (BLM), National Forests and Grasslands (FS).

Data Sources: U.S. Geological Survey, Gap Analysis Program. 2018. Protected Areas Database of the United States (PADUS) version 2.0; Rasker, R. 2006. "An Exploration Into the Economic Impact of Industrial Development Versus Conservation on Western Public Lands." Society and Natural Resources. 19(3): 191-207.

Types of Federal Lands

What do we measure on this page?

This page describes the acreage and share of federal public lands managed for various purposes under differing statutory authority. For purposes of this section, federal public lands have been defined as Type A, B, or C.^{6, 7} Private lands and areas managed by state agencies and local government are not included in this classification.

Type A lands tend to have more managerial and commercial use restrictions than Type C lands, represent smaller proportions of total land management areas (except within Alaska), and have a designation status less easily changed than Type B lands. They may be described as areas having uncommon bio-physical and/or cultural character worth preserving.

Type B lands are similar to Type A lands in terms of activities allowed. They may be described as areas worth preserving that have limited development and motorized transportation.

Type C lands generally have no special designations. They represent the bulk of federal land management areas and may allow a wider range of uses or compatible activities including timber production, mining and energy development, grazing, recreation, and large-scale watershed projects and fire management options. Type C lands may be described as areas where the landscape may be altered within the objectives and guidelines of multiple use.

The classifications offered on this page are categories of relative degrees of management priority, categorized by land designation. Lands such as wilderness and national monuments, for example, are more likely to be managed for conservation and recreation, even though there may exist exceptions (e.g., a pre-existing mine in a wilderness area or oil and gas development in a national monument). Forest Service and BLM lands without designations are more likely to allow commercial activities such as mining and timber harvesting.

Why is it important?

Some types of federal lands, such as National Parks, National Monuments, and Wilderness, can be associated with above-average economic growth. These lands by themselves do not guarantee economic growth but when combined with other factors, such as an educated workforce and access to major markets via airports, they have been shown to be statistically significant predictors of growth.^{8, 9, 10, 11}

The acreage in particular land types may not be the only indicator of quality. For example, Wild and Scenic Rivers may provide amenity values far greater than their land acreage would indicate.

Land Use

Washakie County, WY

Forest, Grassland, and Other Land Cover

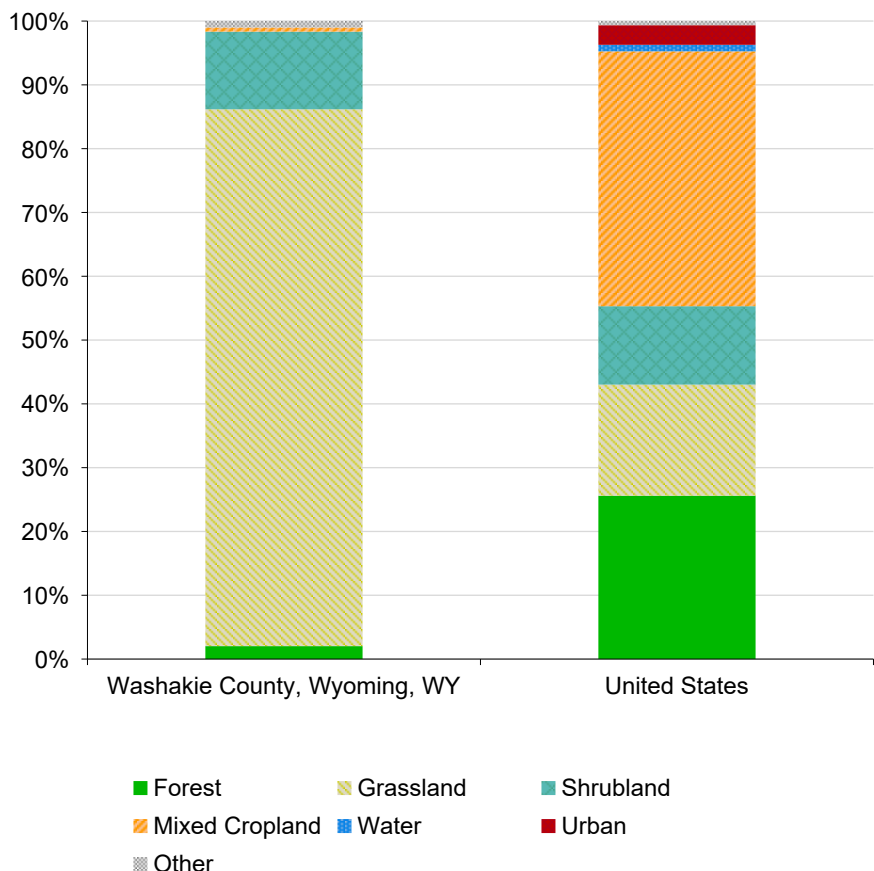
	Washakie County, Wyoming, WY	United States
Total Acres (2006)	1,435,330	2,303,091,014
Forest	28,707	575,772,754
Grassland	1,191,324	391,525,472
Shrubland	172,240	276,370,922
Mixed Cropland	9,133	898,205,495
Water	0	23,030,910
Urban	0	69,092,730
Other	14,353	14,656,376

Percent of Total

Forest	2.0%	25.0%
Grassland	83.0%	17.0%
Shrubland	12.0%	12.0%
Mixed Cropland	0.6%	39.0%
Water	0.0%	1.0%
Urban	0.0%	3.0%
Other	1.0%	0.6%

Land Cover, Percent of Land Area, 2006

- United States has the largest share of forest cover (25%), and Washakie County, Wyoming, WY has the smallest (2%).
- Washakie County, Wyoming, WY has the largest share of grassland cover (83%), and United States has the smallest (17%).
- Washakie County, Wyoming, WY has the largest share of shrubland cover (12%), and United States has the smallest (12%).



Data Sources: NASA MODIS Land Cover Type Yearly L3 Global 1km MOD12Q1, 2006.

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Data and Graphics | Page 10

Forest, Grassland, and Other Land Cover

What do we measure on this page?

This page describes the acreage and share of various land cover types.

The National Land Cover Database (NLCD) was selected to describe cover types because it is publicly available and has a relatively small number of general classes that are easily summarized.¹²

NLCD is based primarily on a decision-tree classification of Landsat satellite data, and uses a 16-class land cover classification scheme that has been applied consistently across the United States.¹³ These classes were summarized into seven classes as follows:

Forest: An aggregate of the following NLCD classes: Evergreen Forest, Deciduous Forest, and Mixed Forest.

Grassland: An aggregate of the following NLCD classes: Grasslands, Sedge, Lichens, and Moss.

Shrubland: An aggregate of the following NLCD classes: Dwarf Scrub and Shrub/Scrub.

Mixed Cropland: An aggregate of the following NLCD classes: Pasture/Hay and Cultivated Crops.

Water: The same in the original NLCD Open Water classification.

Urban: An aggregate of the four Developed classes within NLCD.

Other: An aggregate of the following NLCD classes: Barren Land, Perennial Ice/Snow, and the two Wetlands classifications.

Why is it important?

The mix of land cover influences a range of socioeconomic and natural factors, including potential and suitable economic activities, the availability of recreation opportunities, water storage, the potential for wildfire, and other cultural and economic factors.

For data on development in wildfire-prone areas, create an EPS Wildland-Urban Interface report at <https://headwaterseconomics.org/eps>.

Land Use

Washakie County, WY

Residential Development (Acres)

	Washakie County, Wyoming, WY	United States
Total Private Land, Acres (2000-2010)	373,381	1,406,717,148
Total Residential, 2000	3,591	190,918,648
Urban/Suburban, 2000	948	31,001,465
Exurban, 2000	2,643	159,917,167
Total Residential, 2010	5,609	214,475,717
Urban/Suburban, 2010	1,033	37,816,640
Exurban, 2010	4,576	176,659,056
Percent Change in Total Residential	56.2%	12.3%

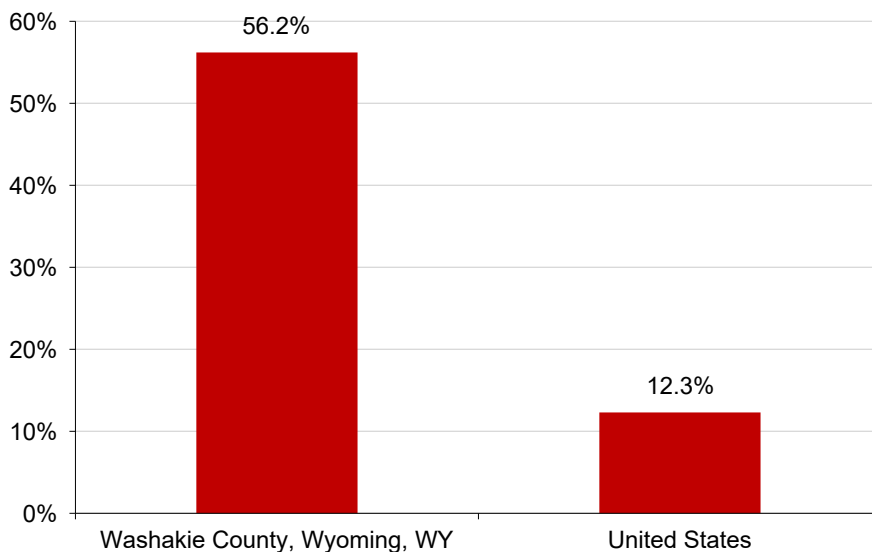
Percent of Total*

Total Residential, 2000	1.0%	13.6%
Urban/Suburban, 2000	0.3%	2.2%
Exurban, 2000	0.7%	11.4%
Total Residential, 2010	1.5%	15.2%
Urban/Suburban, 2010	0.3%	2.7%
Exurban, 2010	1.2%	12.6%

* The percentages in this table represent the percent of private land developed at various housing densities, and should not sum to 100%.

Percent Change in Area, Total Residential Development, 2000-2010

- From 2000 to 2010, Washakie County, Wyoming, WY had the largest percent change in residential development (56.2%), and United States had the smallest (12.3%).



Data Sources: Theobald, DM. 2013. Land use classes for ICLUS/SERGoM v2013. Unpublished report, Colorado State University.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Page 12

Land Use

Washakie County, WY

Residential Development (Acres)

What do we measure on this page?

This page describes the area (in acres) used for housing and the rate at which this area is growing.

Comparisons in development patterns are made between 2000 and 2010. The data can also be used to draw comparisons between locations. These are the latest published data available from the Decennial Census.

Statistics are provided for residential areas developed at relatively high densities (urban/suburban areas where the average residential lot sizes are less than 1.7 acres) and those developed at relatively low densities (exurban areas where the average lot sizes are between 1.7 and 40 acres). Urban/suburban areas, as shown here, combine “urban” housing densities (less than 0.25 acres per unit) and “suburban” housing densities (0.25–1.7 acres per unit). Urban and suburban are represented in one class because they often represent a small proportion of the land area within counties. Lot sizes greater than 40 acres are more typical of working agricultural landscapes and are not considered residential, and therefore are not discussed here.

Locations with a large percent change in the area of residential development often have experienced significant in-migration from more urbanized areas. Counties with a small percent change either experienced little growth or were already highly urbanized in 2000.¹⁴

Why is it important?

In the past decade, the conversion of open space and agricultural land to residential development has continued at a rapid pace in many parts of the U.S. The popularity of exurban lot sizes in much of the country has exacerbated this trend. Low-density development results in a larger area of land converted to residential development.¹⁵

This pattern of development reflects several factors, including demographic trends, the increasingly “footloose” nature of economic activity, the availability and price of land, and preferences for homes on larger lots. Development patterns can affect resident’s quality of life and safety, and impact protected areas as development increasingly pushes up against public land boundaries.¹⁶ Human-wildlife conflicts and wildfire threats may become more serious issues as development continues. In addition, there may be new demands for recreation opportunities and concern about commodity uses of the landscape.

For data on development in wildfire-prone areas, create an EPS Wildland-Urban Interface report at <https://headwaterseconomics.org/eps>.

Land Use

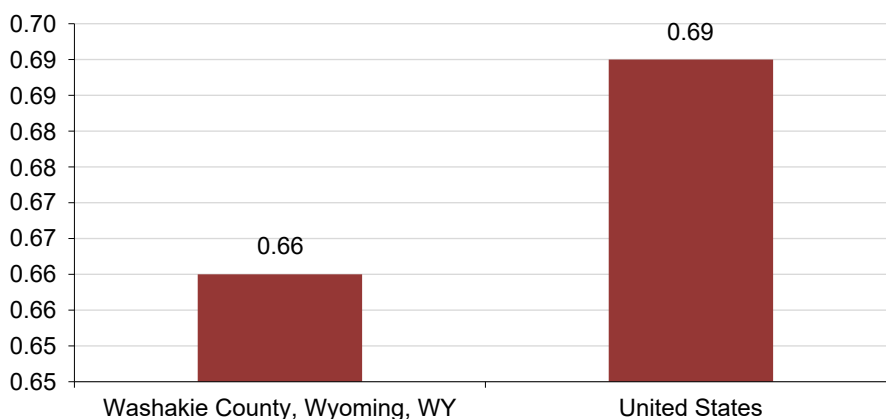
Washakie County, WY

Residential Development (Population Density)

	Washakie County, Wyoming, WY	United States
Residential Acres/Person, 2000	0.44	0.67
Residential Acres/Person, 2010	0.66	0.69
Change in Residential Acres/Person, 2000-2010*	0.22	0.02
Private Acres/Person, 2010	43.66	4.50

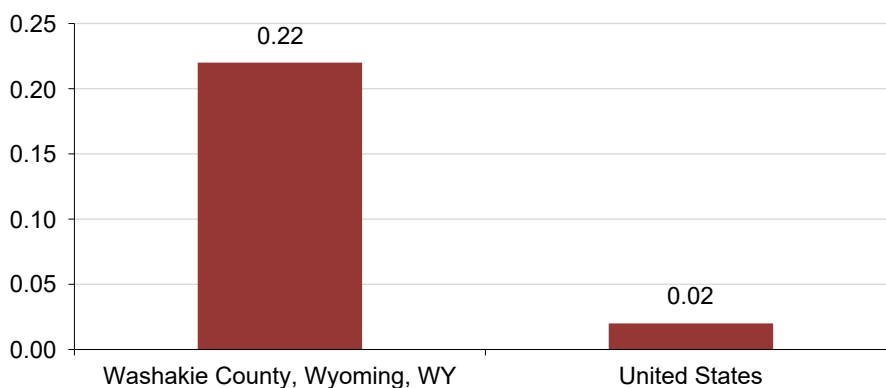
Average Residential Acres per Person, 2010

- In 2010, Washakie County, Wyoming, WY had the largest average acreage in residential development per person (43.66 acres), and United States had the smallest (4.5 acres).



Change in Average Residential Acres per Person, 2000-2010

- From 2000 to 2010, Washakie County, Wyoming, WY had the largest change in average acreage in residential development per person (0.22 acres), and United States had the smallest (0.02 acres).



Residential Development (Population Density)

What do we measure on this page?

This page describes the degree to which development patterns have changed (becoming more or less dense) between 2000 and 2010.

Per capita consumption of land used for housing is a measure of the pattern of development (i.e., denser or more sprawling). Comparisons in development patterns are made between 2000 and 2010. The data can also be used to draw comparisons between locations. These are the latest published data available from the Decennial Census.

Land consumption is expressed as the average number of acres that each person uses for housing (the average lot size) within a selected location. Importantly, these figures refer only to residential development and do not include farms or ranches greater than 40 acres. Population density is also displayed as the acres of private land per person.

Areas with negative values of change in residential acres/person were more densely developed in 2010 than in 2000. Large positive values of change indicate that an area was substantially more sprawling in 2010 than it was in 2000. It is important to note that a small change does not indicate that the selected location is not sprawling, but rather that the pattern of development has not changed substantially over the time period.

Why is it important?

Outside of urban areas, large lot development has increased since the 1970s in many parts of the country.

Population growth is a metric often used to describe human impacts. However, in most locations land consumption is outpacing population growth. In these areas, land consumption (the area of land used for residential development) is strongly related to the loss of natural areas and impacts on ecological processes. Impacts include changes in ecosystem structure; effects on crucial wildlife habitat; and exposure to humans through hunting, exotic species, and disease.¹⁵

The pattern of land consumption in 2010 shown in the top graph (*Average Residential Acres per Person*) is equally important as the change in land consumption shown in the bottom graph (*Change in Average Residential Acres per Person*). Locations where the average number of residential acres per person is greater than one acre have considerable sprawling development.

Data Sources & Methods

The EPS Land Use report uses national data sources to represent land cover and residential development. In an effort to report more accurate statistics for land ownership, a compilation of state-level data was used. All the data in this report were the result of calculations made in Geographic Information Systems (GIS). The contact information for databases used in this profile is:

- **TIGER/Line County Boundaries**

Bureau of the Census, U.S. Department of Commerce
<https://www.census.gov/geo/maps-data/data/tiger.html>

- **Protected Areas Database**

U.S. Geological Survey, Gap Analysis Program
<https://gapanalysis.usgs.gov/padus/>

- **Developed Areas**

Theobald, DM. 2013. Land use classes for
ICLUS/SERGoM v2013.
Unpublished report, Colorado State University.

- **National Land Cover Database**

Multi-Resolution Land Characteristics Consortium
<https://www.mrlc.gov/>

- **USDA Forest Service**

Land Areas Report, Oracle LAR Database
<https://www.fs.fed.us/land/staff/lar-index.shtml>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking—comparing smaller areas such as counties to larger regions, states, and the nation—to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Endnotes

- 1 - U.S. Census Bureau TIGER/Line Boundaries are available at <https://census.gov/geo/maps-data/data/tiger-line.html>.
- 2 - The U.S. Geological Survey Protected Areas Database (PADUS) is available at <https://gapanalysis.usgs.gov/padus/>.
- 3 - If accurate measurements of water surface area are needed, the U.S. Geological Survey's national hydrography dataset can be used: <https://nhd.usgs.gov/>.
- 4 - A copy of the most recent Forest Service Land Areas Report, including detailed tables, is available at <https://www.fs.fed.us/land/staff/lar-index.shtml>.
- 5 - U.S. Forest Service Land Areas Report definitions of terms are available at https://www.fs.fed.us/land/staff/lar/definitions_of_terms.htm.
- 6 - The definitions of land classifications (Type A, B, and C) are not legal or agency-approved, and are provided only for comparative purposes.
- 7 - Land defined as either Type A, B, or C includes areas managed by the National Park Service, the Forest Service, the Bureau of Land Management, or the Fish and Wildlife Service. Lands administered by other federal agencies (including the Army Corps of Engineers, Bureau of Reclamation, Department of Agriculture, Department of Defense, Department of Energy, and Department of Transportation) were not classified into Type A, B, or C. Therefore, the total acreage of Type A, B, and C lands may not add to the Total Federal Land Area reported on page 1 of this report.
- 8 - Studies, articles, and literature reviews on the economic contribution of protected public lands are available at <https://headwaterseconomics.org/public-lands/public-lands-research/>.
- 9 - An annotated bibliography of studies on the economic contributions of public lands can be found at https://headwaterseconomics.org/wp-content/uploads/Annotated_Bib_Value_Public_Lands.pdf.
- 10 - For an analysis on the effect of wilderness designations on local economies, in particular on resource-based industries, see Duffy-Deno KT. 1998. The Effect of Federal Wilderness on County Growth in the Intermountain Western United States. *Journal of Regional Science* 38(1):109-136. For the results of a national survey of residents in counties with Wilderness, see Rudzitis G and Johansen HE. 1991. How Important is Wilderness? Results from a United States Survey. *Environmental Management* 15(2):227-233.
- 11 - For analysis of the role of transportation in high-amenity areas, see Rasker R, Gude PH, Gude JA, and van den Noort J. 2009. The Economic Importance of Air Travel in High-Amenity Rural Areas. *Journal of Rural Studies* 25(2009):343-353.

Endnotes (cont.)

- 12 - Land cover data is available from many sources. Other commonly used datasets in the United States are the U.S. Geological Survey's National Land Cover Dataset and state and regional GAP datasets available from the U.S. Geological Survey's National Biological Information Infrastructure. Information about these and many other land cover datasets can be viewed at <https://landcover.usgs.gov/landcoverdata.php>.
- 13 - For more information about the National Land Cover Database, see <https://www.mrlc.gov/>.
- 14 - For an overview of past national land-use trends, see Brown DG, Johnson KM, Loveland TR, and Theobald DM. 2005. Rural land-use trends in the conterminous United States, 1950–2000. *Ecological Applications* 15(6):1851–1863; Theobald DM. 2005. Landscape Patterns of Exurban Growth in the USA from 1980 to 2020. *Ecology and Society* 10(1):32.
- 15 - The following paper provides an overview of the ecological effects of residential development: Hansen AJ, Knight R, Marzluff J, Powell S, Brown K, Hernandez P, and Jones K. 2005. Effects of exurban development on biodiversity: patterns, mechanisms, research needs. *Ecological Applications* 15(6):1893-1905.
- 16 - The following papers focus on the effects of land-use change on nearby protected landscapes: Hansen AJ and DeFries R. 2007. Ecological mechanisms linking protected areas to surrounding lands. *Ecological Applications* 17(4):974-988; and Gude PH, Hansen AJ, Rasker R, Maxwell B. 2006. Rates and Drivers of Rural Residential Development in the Greater Yellowstone. *Landscape and Urban Planning* 77:131-151.



A Profile of Agriculture

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by
Headwaters Economics'
Economic Profile System (EPS)
<https://headwaterseconomics.org/eps>

July 1, 2020

Agriculture

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

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*The term "farm" in this report describes all forms of agricultural production, including livestock operations.

Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Agriculture

Washakie County, WY

Farm Employment

	Washakie County, Wyoming, WY	United States
Total Employment, 2018	5,320	200,746,000
Farm Employment	313	2,604,000
Farm Proprietors Employment	177	1,790,000
Non-Farm Employment	5,007	198,142,000

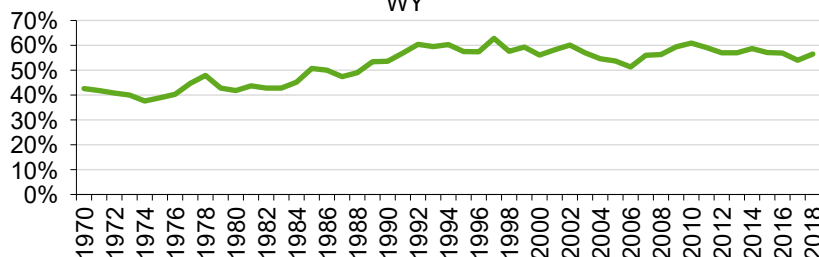
Percent of Total

Farm Employment	5.9%	1.3%
Farm Proprietors Employment	3.3%	0.9%
Non-Farm Employment	94.1%	98.7%

All employment data on this page are reported by place of work.

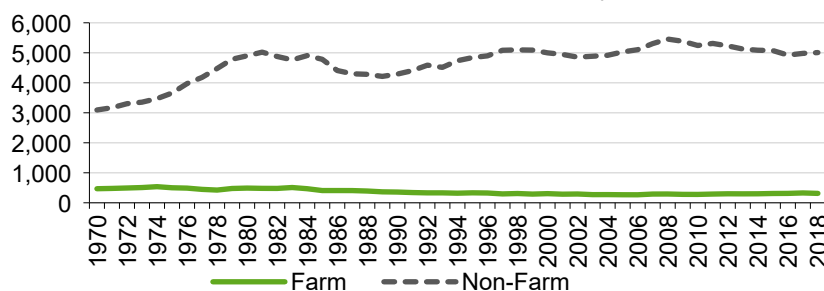
- In 1970, farm proprietors represented 42.6 percent of all farm employment. By 2018, farm proprietors represented 56.5 percent of all farm employment.

Farm Proprietors as a Percent of Farm Jobs, Washakie County, WY



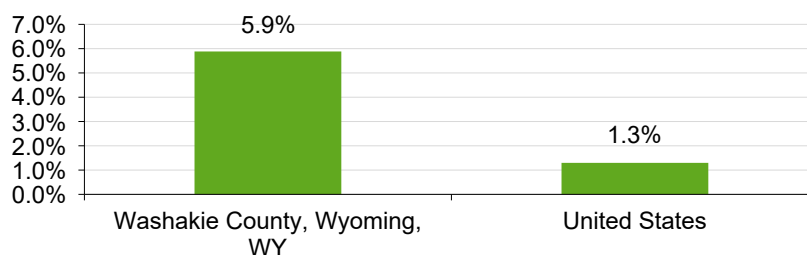
- From 1970 to 2018, farm employment shrank from 469 to 313 jobs, a 33.3 percent decrease.
- From 1970 to 2018, non-farm employment grew from 3,093 to 5,007 jobs, a 61.9 percent increase.

Farm and Non-Farm Jobs, Washakie County, WY



- In 2018, Washakie County, Wyoming, WY had the largest percent of total farm employment (5.88%), and United States had the smallest (1.3%).

Farm Jobs as a Percent of Total Employment, 2018



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Farm Employment

What do we measure on this page?

This page describes the number of farm jobs (full- and part-time), including proprietors, and farm jobs as a share of total employment for the selected location(s). It also shows long-term trends for farm proprietors as a share of all farm jobs, and for farm versus non-farm jobs.^{1, 2}

Farm: Refers to all forms of agricultural production, including livestock operations.

Total Employment: Full- and part-time workers, wage and salary jobs (employees), and proprietors (the self-employed).

Farm Employment: The number of workers (full- and part-time) engaged in the production of agricultural commodities. It includes sole proprietors, partners, and hired laborers.

Farm Proprietors: Those who are self-employed (full- and part-time) as non-corporate farm operators. They can be sole proprietors or partners. For the purpose of defining "farm" proprietors, a farm is an establishment that produces or normally would be expected to produce at least \$1,000 worth of farm products in a typical year.

Non-Farm Employment: Full- and part-time non-farm wage and salary employment and non-farm self-employment.

Data on this page are from the U.S. Bureau of Economic Analysis. These data portray long-term trends in employment and personal income of people employed in farming. This source also provides data on long-term trends in production expenses, different sources of crop and livestock income, and net profits, which are presented later in this report. The Census of Agriculture also provides employment information, but does so only every five years. The Census of Agriculture is used elsewhere in this report because of its detailed information on the size and number of farms by type.

Why is it important?

Farming and ranching can be a significant portion of the landscape and the local economy.

Nationwide trends indicate that, with gains in production efficiency, fewer people are working in farming. The land in farms is valuable for a number of reasons including the production of food and the preservation of rural communities, open space, scenic vistas, and wildlife habitat.

The growth or decline in the number of farm proprietors could indicate new agricultural entrepreneurs and/or the consolidation of agricultural enterprises.

Agriculture

Washakie County, WY

Farm Income*

	Washakie County, Wyoming, WY	United States
Earnings by Place of Work (\$1000), 2018	254,320	12,735,846,874
Farm Earnings	8,295	69,154,776
Farm Proprietors' Income	1,789	37,811,574
Non-Farm Earnings	246,025	12,666,692,097

Percent of Total

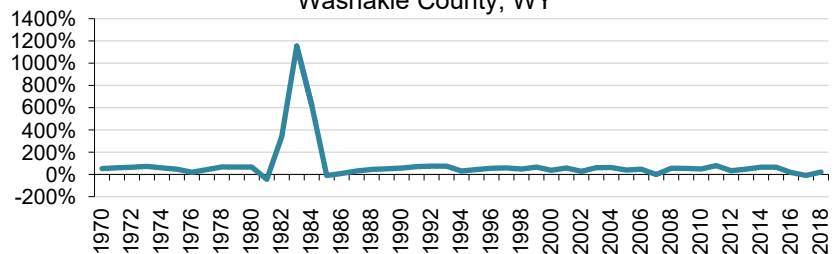
Farm Earnings	3.3%	0.5%
Farm Proprietors' Income	0.7%	0.3%
Non-Farm Earnings	96.7%	99.5%

Farm business income shown here is different than farm personal income shown on the previous page.

* Thousands of 2019 \$s

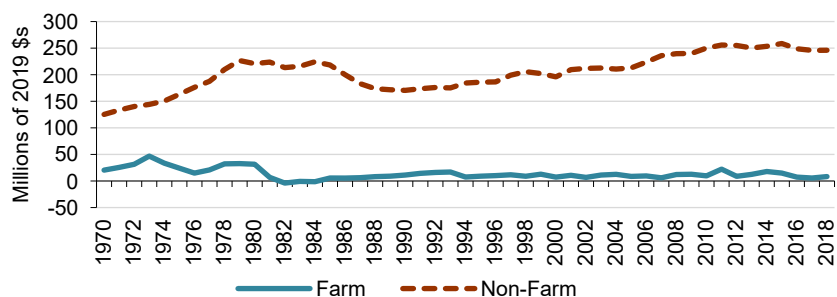
- In 1970, farm proprietors' income represented 52.7 percent of all farm earnings. By 2018, farm proprietors' income represented 21.6 percent of all farm earnings.

Farm Proprietors' Income as a Percent of Farm Earnings, Washakie County, WY



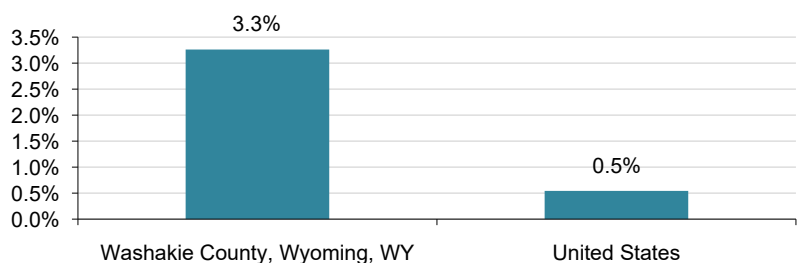
- From 1970 to 2018, farm earnings shrank from \$20.4 million to \$8.3 million, a 59.4 percent decrease.
- From 1970 to 2018, non-farm earnings grew from \$125.3 million to \$246.0 million, a 96.4 percent increase.

Farm and Non-Farm Earnings, Washakie County, WY



- In 2018, Washakie County, Wyoming, WY had the largest percent of total earnings from farm earnings (3.26%), and United States had the smallest (0.54%).

Farm Earnings as a Percent of Total Earnings, 2018



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Farm Income

What do we measure on this page?

This page describes earnings (in real terms and by place of work) derived from farm employment, and farm earnings as a share of all labor earnings. It also shows long-term trends in farm proprietors' income as a share of all farm earnings, and farm versus non-farm earnings.^{1, 3}

Farm: All forms of agricultural production, including livestock operations.

Earnings by Place of Work: The sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income (farm and non-farm). It does not include non-labor sources of income. Non-labor sources include Dividends, Interest and Rent, as well as Transfer Payments (e.g., Social Security, Medicare). For some farm owners, Rent may represent a significant source of income—for example, renting land to a neighboring farm, or rental income in the form of leasing subsurface rights, such as for oil and gas development. For more information on non-labor income, run an EPS Non-Labor report at <https://headwaterseconomics.org/eps>.

Farm Earnings: Net income from sole proprietors, partners, and hired laborers arising directly from the production of agricultural commodities, either livestock or crops. It includes net farm proprietors' income, wages and salaries, pay-in-kind, and supplements to wages and salaries of hired farm laborers. It specifically excludes income from non-family-farm corporations.

Farm Proprietors' Income: Income received by sole proprietorships and partnerships in the operation of farms. It excludes income that is received by corporate farms.

Non-Farm Earnings: The sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income for all industries, excluding farms.

The personal income information on this page does not include income received by corporate farms. The U.S. Department of Commerce provides farm "business" income data on corporations, in terms of production expenses, sources of income, and net profits. These data are presented in the next section of this report.

Why is it important?

The farm earnings trends shown on this page can be viewed alongside the employment trends on the previous page of this report. In some cases, farm earnings may decline (in absolute or relative terms) while farm employment stays the same or increases. In other cases, farm earnings may increase (in absolute or relative terms) while farm employment stays the same or declines. The same trends apply to farm proprietors and their income and point to declining or improving farm wages. For more information on earnings, see the Wages portion of this report.

Agriculture

Washakie County, WY

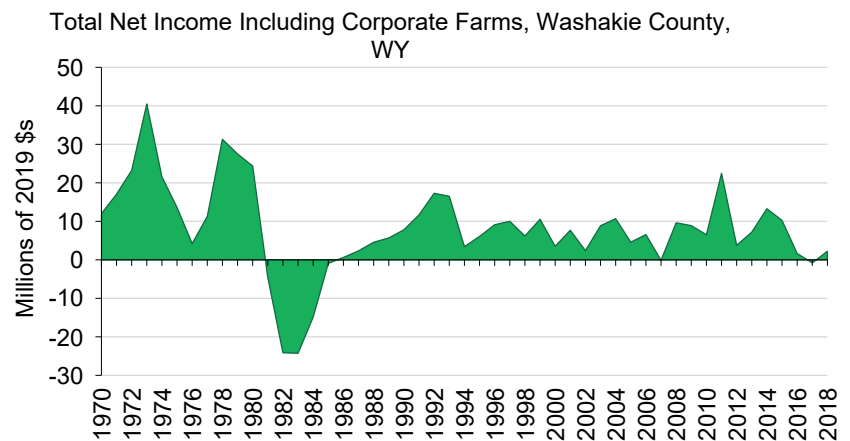
Farm Business Income*

	Washakie County, Wyoming, WY	United States
Total Cash Receipts & Other Income (\$1000), 2018	52,628	437,758,323
Cash Receipts from Marketing	48,871	394,804,021
Livestock & Products	23,505	196,877,151
Crops	25,367	197,926,871
Other Income	3,756	42,954,302
Government Payments	1,226	13,915,054
Imputed Rent & Misc. Income	2,531	29,039,247
Total Production Expenses	49,170	389,326,403
Net Income: Receipts - Expenses	3,457	48,431,919
Value of Inventory Change	-1,241	-8,929,722
Total Net Income Including Corp. Farms	2,216	39,502,197
Ratio: Total Cash Receipts & Other Income/Total Production Expenses	1.07	1.12

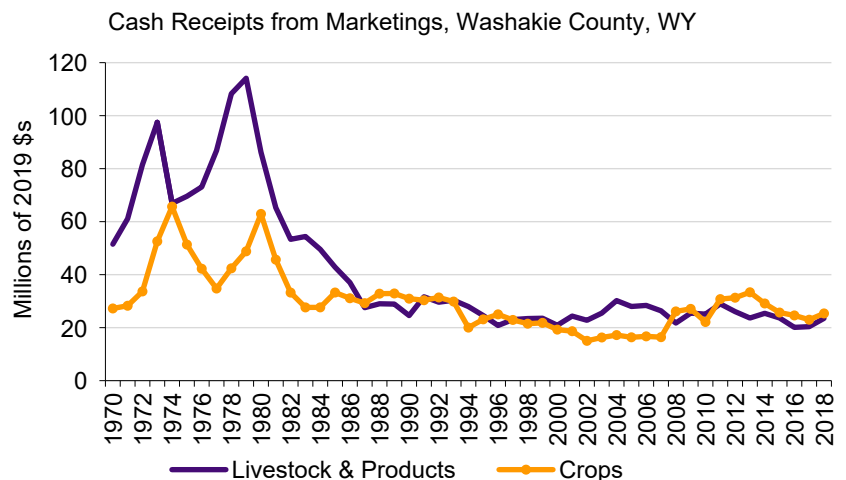
Farm business income shown here is different than farm personal income shown on the previous page.

* Thousands of 2019 \$\$s

- From 1970 to 2018, net income including corporate farms shrank from \$12.0 million to \$2.2 million, a 81.5 percent decrease.



- From 1970 to 2018, cash receipts from livestock and products shrank from \$51.5 million to \$23.5 million, a 54.4 percent decrease.
- From 1970 to 2018, cash receipts from crops shrank from \$27.2 million to \$25.4 million, a 6.9 percent decrease.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Farm Business Income

What do we measure on this page?

This page describes components of farm business income and expenses (in real terms), and shows a ratio of gross income to production expenses as a measure of profitability. It also shows trends in net farm business income and cash receipts.¹ The farm data on this page are for all forms of agricultural production, including livestock operations. The farm business income reported on this page represents business revenues minus expenses and operating costs. This is a different form of income than farm labor earnings, which are the wages and salaries of farm employees.

Total Cash Receipts & Other Income: The gross cash receipts of all farms. It consists of: the cash receipts from farm marketing of crops and livestock; the cash receipts from other farm-related activities, including recreational services, sales of forest products, and custom-feeding services performed by farm operators; the payments to farmers under several federal government farm subsidy programs; the imputed value of home consumption, which is the value of the farm products produced and consumed on farms; and the imputed gross rental value of farm dwellings.

Total Production Expenses: Expenditures incurred by farm operators in the production of agricultural commodities, including livestock and crops. The major categories of production expenses are intermediate product expenses, which provide inputs to the production process (feed, livestock and poultry, seed, fertilizer, etc.), labor expenses (cash wages, employer contributions to Social Security, perquisites, and contract labor expenses), and other expenses (interest, net rent paid to non-operator landlords, capital consumption, property taxes, etc.).

Value of Inventory Change: The estimated value of net change in the farm inventories of livestock and crops that are held for sale during a given calendar year. This estimate is added to the estimate of realized net income so that the estimate of farm proprietors' income for a given year will include only the farm income from production during that year, or from "current" production. This estimate is added to Realized Net Income to calculate Total Net Income Including Corporate Farms.

Total Net Income Including Corporate Farms: The net income received by the sole proprietorships, partnerships, and corporations that operate farms. It is Realized Net Income plus the Value of Inventory Change.

Ratio (Total Cash Receipts & Other Income divided by Total Production Expenses): This is not an official Bureau of Economic Analysis calculation, but is another measure of farm business profitability.

The datasource for this page (U.S. Dept. of Commerce) was selected due of the high level of detail and long-term trends.⁴

Why is it important?

These data help answer important questions concerning the long-term health of the farm economy. In some places, farm business profits have been highly volatile and rising expenses and/or declining cash receipts have narrowed profitability. In other places, despite the volatility present in commodities markets, farming remains highly profitable.

In the early 1970s a period of high profitability in the agricultural sector was followed by a period of rapid decline—partly due to global economically and politically induced market volatility during that time. For example, the 1973 oil crisis, coupled with the 1973–1974 stock market crash, led to a major recession. The U.S. grain embargo against the Soviet Union in 1980 also negatively impacted farm profits. Since the mid-1980s, farm profits have generally increased.

Trends in livestock and crop production also closely follow commodity prices, which are available from the U.S. Department of Commerce.⁵ Additional insights on agriculture are available from the Economic Research Service of the U.S. Department of Agriculture, including data, charts, and maps showing trends.⁶

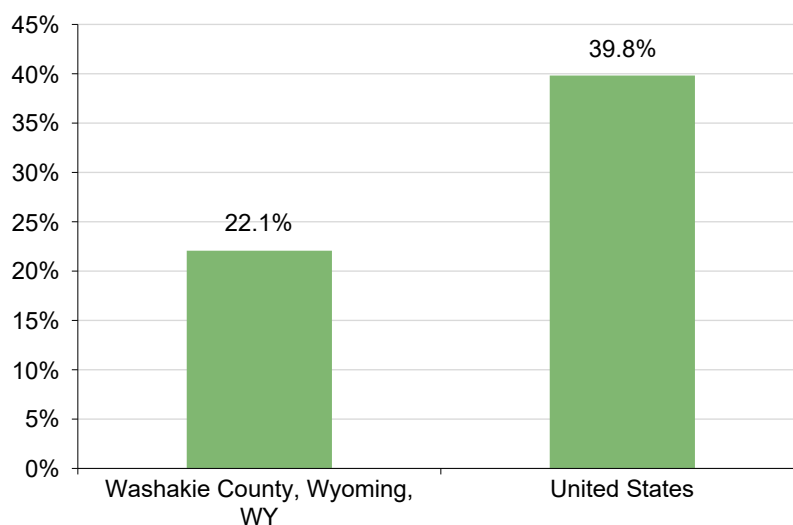
Agriculture

Washakie County, WY

Number and Size of Farms

	Washakie County, Wyoming, WY	United States
Number of Farms, 2017	246	2,042,220
Land in Farms (Acres), 2017	316,161	900,217,576
Average Farm Size (Acres)	1,285	441
Approximate Land Area (Acres)	1,432,747	2,260,681,965
Approximate Percent of Land Area in Farms	22.1%	39.8%

Approximate Percent of Land Area in Farms, 2017



- In 2017, United States had the largest percent of land area in farms (39.8206200578948%), and Washakie County, Wyoming, WY had the smallest (22.066771034942%).

Number and Size of Farms

What do we measure on this page?

This page describes the number of farms, acres in farms, average farm size, total acres, and percent of total acres in farms.

Farm: All forms of agricultural production, including livestock operations. These data exclude leased public land from total land in farms.

Information on this page comes from the U.S. Department of Agriculture's Census of Agriculture⁷, which is conducted every five years. The advantage of the Census of Agriculture is that it provides a high level of detail that makes it possible to see the role that farms play in the local economy and landscape, and to compare differences between locations. The disadvantages of this data source are that, like all forms of census, the accuracy of the data depends on the survey methods and the quality of the responses. Also, with this data source it is not possible to display continuous long-term trends.

Why is it important?

Even when agriculture is a small component of the economy, the industry can represent a large portion of the land base.

In many areas private agricultural lands are being converted to other uses, including residential development. The conversion of farm and ranch land is important for a number of reasons including the loss of food production and open space, the decline of rural communities, the change in demand on water resources, the spread of development in wildfire-prone areas, the loss of access to lands for recreation and hunting, and the loss of wildlife habitat.

To see how land is being converted to residential development, create an EPS Land Use report at <https://headwaterseconomics.org/eps>.

Farms and ranches continue to be important even as they increasingly operate alongside a larger, non-agricultural economy.⁸ They contribute to local economic diversity, the scenery they provide can be part of the mix of amenities that attract and retain people and businesses across a range of industries, and they contribute an important part of local culture and community vitality.

Agriculture

Washakie County, WY

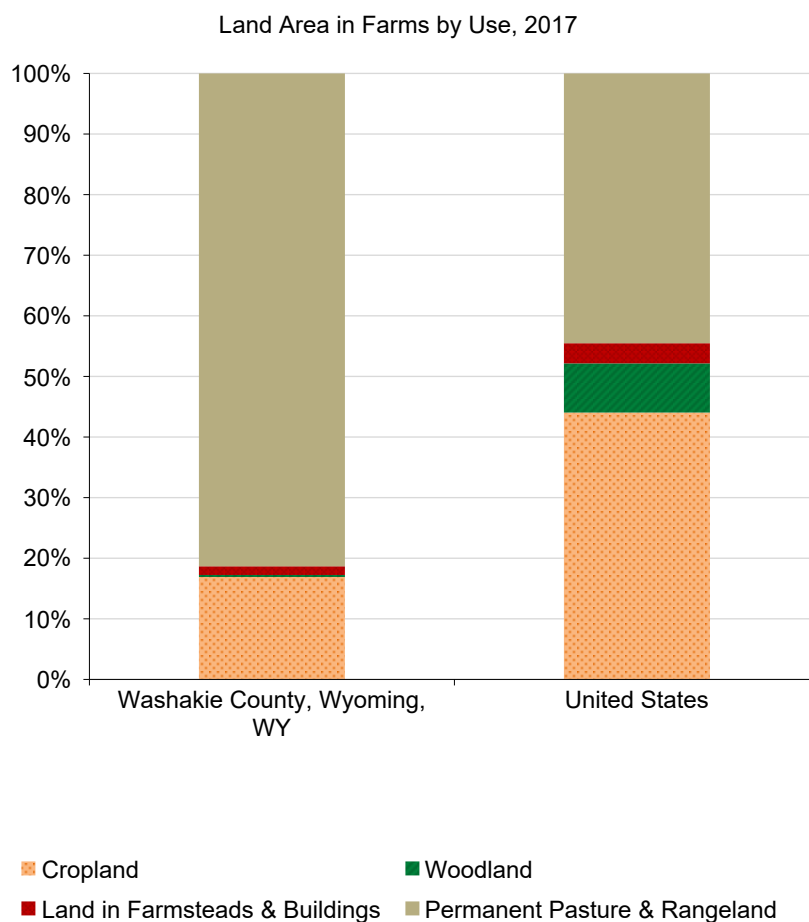
Acres of Farm Land

	Washakie County, Wyoming, WY	United States
Land in Farms (Acres), 2017	316,161	900,217,576
Cropland	53,438	396,433,817
Woodland	1,055	73,092,054
Land in Farmsteads & Buildings	4,542	29,920,527
Permanent Pasture & Rangeland	257,126	400,771,178

Percent of Total

Cropland	16.9%	44.0%
Woodland	0.3%	8.1%
Land in Farmsteads & Buildings	1.4%	3.3%
Permanent Pasture & Rangeland	81.3%	44.5%

- In 2017, United States had the largest percent of land area in cropland (44%), and Washakie County, Wyoming, WY had the smallest (16.9%).
- In 2017, United States had the largest percent of land area in woodland (8.1%), and Washakie County, Wyoming, WY had the smallest (0.3%).
- In 2017, United States had the largest percent of land area in farmsteads and buildings (3.3%), and Washakie County, Wyoming, WY had the smallest (1.4%).
- In 2017, Washakie County, Wyoming, WY had the largest percent of land area in permanent pasture and rangeland (81.3%), and United States had the smallest (44.5%).



Data Sources: U.S. Department of Agriculture. 2019. National Agricultural Statistics Service, Census of Agriculture, Washington, D.C.

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Acres of Farm Land

What do we measure on this page?

This page describes how much farm land (in acres) is used for different production purposes.⁹ The data were obtained from the U.S. Department of Agriculture's Census of Agriculture, which is conducted every five years.

The four categories of farm land use are cropland, woodland, farmsteads and buildings, and permanent pastureland.

Farm: All forms of agricultural production, including livestock operations. These data exclude leased public land from total land in farms.

Cropland: Includes harvested cropland, cropland used only for pasture and grazing, and "other cropland" (i.e., idled cropland or cropland used for cover crops or soil improvement).

Woodland: Includes natural or planted woodlots or timber tracts, for wood products and woodland pasture.

Farmsteads and Buildings: Includes livestock facilities, ponds, roads (private access roads and driveways but not public roads), and wasteland (e.g., ditches).

Permanent Pastureland and Rangeland: Includes permanent pasture and rangeland, other than cropland and woodland, and encompasses grazable land that does not qualify as woodland pasture or cropland pasture.

Why is it important?

Even when agriculture is a small component of the economy in terms of jobs, the industry can represent a large portion of the land base.

Not all agricultural land is used in the same manner. How farm and ranch lands are used can have important economic, environmental, and policy implications. For example, cropland may require water from surrounding lands; woodland can provide important habitat and store water; and pasturelands may be associated with public lands grazing and can provide open vistas that are important for attracting tourists and new migrants. Some lands may be less valuable (e.g., pastureland) and therefore more vulnerable to conversion for urban and suburban uses than other lands (e.g., cropland).

Farms and ranches continue to be important even as they increasingly operate alongside a larger, non-agricultural economy.⁸ They contribute to local economic diversity, the scenery they provide can be part of the mix of amenities that attract and retain people and businesses across a range of industries, and they contribute an important part of local culture and community vitality.

Agriculture

Washakie County, WY

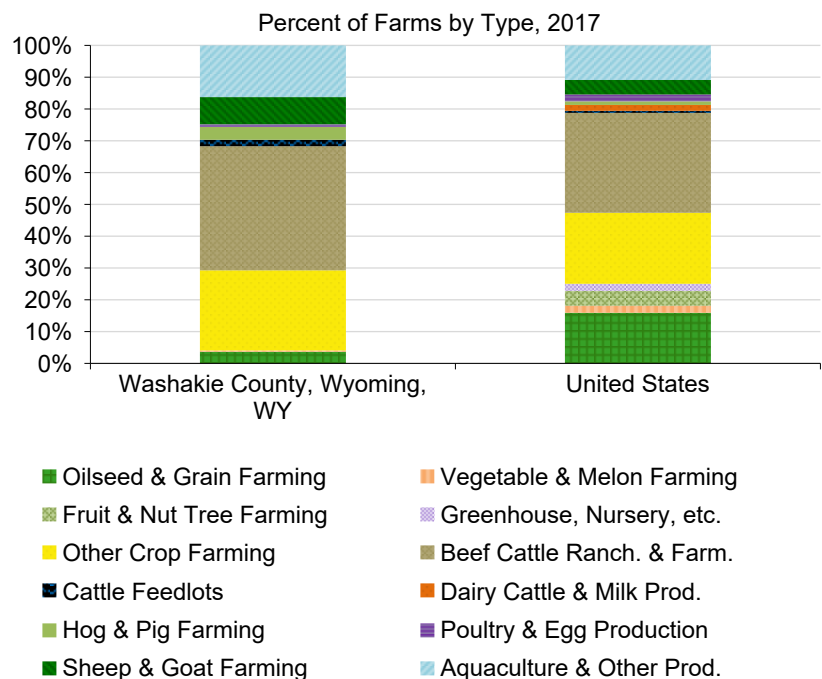
Types of Farms

	Washakie County, Wyoming, WY	United States
All Farms, 2017	246	2,042,220
Oilseed & Grain Farming	9	325,033
Vegetable & Melon Farming	1	45,165
Fruit & Nut Tree Farming	0	95,441
Greenhouse, Nursery, etc.	0	45,477
Other Crop Farming	62	455,974
Beef Cattle Ranch. & Farm.	96	641,496
Cattle Feedlots	5	13,379
Dairy Cattle & Milk Prod.	0	37,750
Hog & Pig Farming	10	23,048
Poultry & Egg Production	2	44,260
Sheep & Goat Farming	21	92,974
Animal Aquaculture & Other Animal Prod.	40	222,223

Percent of Total

Oilseed & Grain Farming	3.7%	15.9%
Vegetable & Melon Farming	0.4%	2.2%
Fruit & Nut Tree Farming	0.0%	4.7%
Greenhouse, Nursery, etc.	0.0%	2.2%
Other Crop Farming	25.2%	22.3%
Beef Cattle Ranch. & Farm.	39.0%	31.4%
Cattle Feedlots	2.0%	0.7%
Dairy Cattle & Milk Prod.	0.0%	1.8%
Hog & Pig Farming	4.1%	1.1%
Poultry & Egg Production	0.8%	2.2%
Sheep & Goat Farming	8.5%	4.6%
Aquaculture & Other Prod.	16.3%	10.9%

- In 2017, United States had the largest percent of oilseed and grain farming (15.9%), and Washakie County, Wyoming, WY had the smallest (3.7%).
- In 2017, Washakie County, Wyoming, WY had the largest percent of beef cattle ranching and farming (39%), and United States had the smallest (31.4%).



Data Sources: U.S. Department of Agriculture. 2019. National Agricultural Statistics Service, Census of Agriculture, Washington, D.C.

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Agriculture

Washakie County, WY

Types of Farms

What do we measure on this page?

This page describes the number and percent of all farms according to what they produce.

Farm: All forms of agricultural production, including livestock operations. These data exclude leased public land from total land in farms.

Other Crop Farming (NAICS code 1119): Establishments primarily engaged in (1) growing crops (except oilseed and/or grain; vegetable and/or melon; fruit and tree nut; and greenhouse, nursery, and/or floriculture products). These establishments grow crops, such as tobacco, cotton, sugarcane, hay, sugar beets, peanuts, agave, herbs and spices, and hay and grass seeds; or (2) growing a combination of crops (except a combination of oilseed(s) and grain(s) and a combination of fruit(s) and tree nut(s)).

Beef Cattle Ranching & Farming (NAICS code 112111): Establishments primarily engaged in raising cattle (including cattle for dairy herd replacements).

Aquaculture & Other Animal Production (NAICS codes 11251 & 1129): Aquaculture establishments are primarily engaged in the farm-raising and production of aquatic animals or plants in controlled or selected aquatic environments. Establishments classified as Other Animal Production are primarily engaged in raising animals and insects (except cattle, hogs and pigs, poultry, sheep and goats, and aquaculture) for sale or product production. These establishments are primarily engaged in one of the following: bees, horses and other equine, rabbits and other fur-bearing animals, etc., and producing products such as honey and other bee products. Establishments primarily engaged in raising a combination of animals with no one animal or family of animals accounting for one-half of the establishment's agricultural production are included in this industry group.

The Census of Agriculture data on farms by type are only reported by the number of farms. They are not reported by employment, income, or acreage.¹⁰

Why is it important?

Not all agricultural land is used in the same manner. Different types of farms have different economic potential and relationships with other natural resources including water and wildlife. Some lands may be less valuable (e.g., pastureland) and therefore more vulnerable to conversion for urban and suburban uses than other lands (e.g., cropland).

To see how land is being converted to residential development, create an EPS Land Use report at <https://headwaterseconomics.org/eps>.

Agriculture

Washakie County, WY

Wages and Employment

Wages*, 2018	Washakie County, Wyoming, WY	United States
Total Private & Public, (2019 \$s)	\$40,834	\$57,266
Total Private	\$40,264	\$57,198
Farm	\$39,390	\$35,724
Crop Production	\$39,390	\$34,075
Animal Production	na	\$39,149
Non-Farm	~\$34,255	\$57,340

Percent of Employment*, 2018	Washakie County, Wyoming, WY	United States
Total Private	76.3%	85.2%
Farm	1.7%	0.6%
Crop Production	1.7%	0.4%
Animal Production	na	0.2%
Non-Farm	~41.5%	84.7%

* These tables show data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on previous pages of this report.

Wages and Employment

What do we measure on this page?

This page describes wages (in real terms) from farm employment compared to wages from non-farm employment. It also describes the percent of jobs in each category. These are shown together to illustrate the relative wage levels in farming (including sub-sectors) and how many people are employed in each sub-sector.

The primary purpose of this page is to compare the average annual wages between sectors, and to investigate the relative number of people employed in high- and low-wage sectors.

Farm: All forms of agricultural production, including livestock operations.¹¹

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{12, 13}

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Estimates for data that were not disclosed are indicated with tildes (~).

Why is it important?

Farm employment often pays below-average wage rates, but this can vary by farm sub-sector and by location.¹⁴ It is important to consider how farm industry wages compare to wages in other sectors, whether crop and animal production pay different wages, and whether there are significant wage differences between locations.

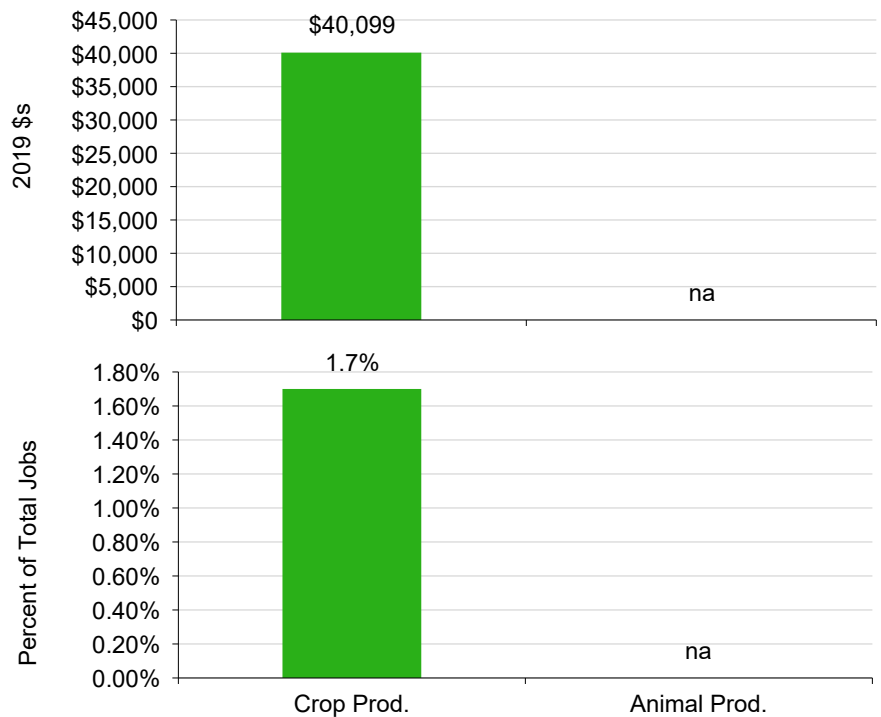
For more information on employment and wages in non-farm industries, create an EPS Socioeconomic Measures report at <https://headwaterseconomics.org/eps>.

Agriculture

Washakie County, WY

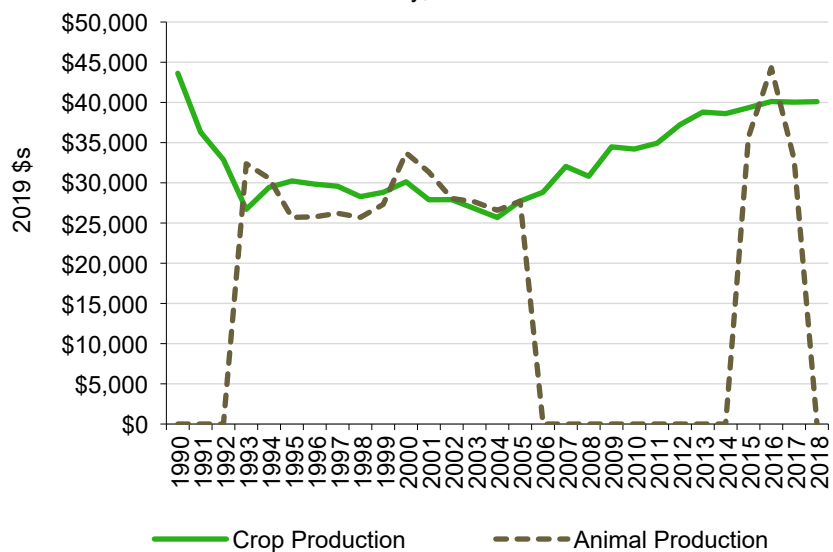
Wages and Employment (cont.)

Avg. Annual Wages & Percent of Total Employment in Crop & Animal Production, Washakie County, WY, 2018



- From 1990 to 2018, average annual wages in crop production shrank from \$43,631 to \$40,099, a 8.1 percent decrease.

Avg. Annual Wages in Crop & Animal Production, Washakie County, WY



Wages and Employment (cont.)

What do we measure on this page?

This page describes average wages (in real terms) and employment levels in crop and animal production. It also shows average wage trends (in real terms) for these farm sectors.

The chart Avg. Annual Wages & Percent of Total Employment in Crop & Animal Production is useful for describing how many people are working in relatively high- and low-wage farm sectors. The chart Avg. Annual Wages in Crop & Animal Production is useful for comparing wage trends by farm sector.

Farm: All forms of agricultural production, including livestock operations. The components of Farm on this page (NAICS 111 crop production and NAICS 112 animal production) do not include agricultural services (NAICS 115 support activities for agriculture and forestry) because this category mixes farm and non-farm services.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.¹²

The chart Avg. Annual Wages in Crop and Animal Production starts in 1990 because this is the first year these wage data are available from the Bureau of Labor Statistics.

Depending on the locations selected, some data may not be available due to disclosure restrictions.¹⁵

Why is it important?

Not all components of the farm industry pay the same wages or employ the same number of people. It may be important to consider how farm industry wages compare to wages in other sectors, whether crop and animal production pay different wages, and whether there are significant wage differences between locations.

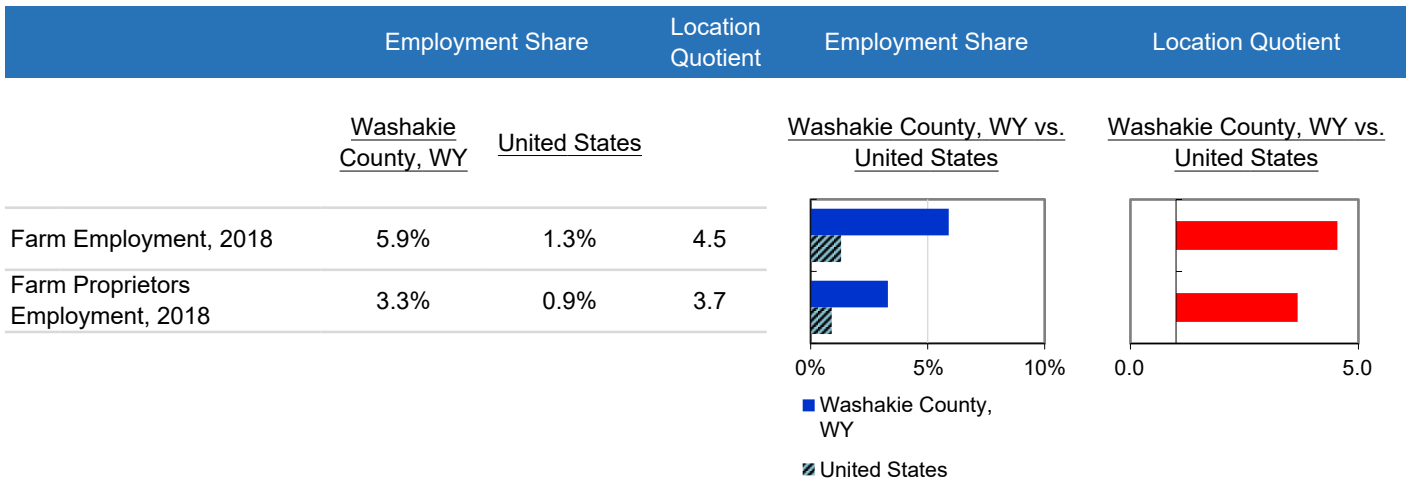
A significant increase in farm jobs that pay below the average for all industries will decrease overall average earnings per job. On the other hand, a significant increase in farm jobs that pay above the average for all industries will increase overall average earnings per job. A modest change in farm employment, especially when this industry is a small share of total employment, will not likely affect average earnings in a local area.

The Bureau of Labor Statistics' Quarterly Census of Employment and Wages data for industries is available at <https://www.bls.gov/cew/>; the Bureau of Labor Statistics' Occupational Outlook Handbook, which has detailed industry earnings and wages data at the national level, is available at <https://www.bls.gov/ooh/>; the U.S. Census Bureau's County Business Patterns database, which reports industry-level employment and payroll and can be used to estimate earnings, is available at <https://www.census.gov/programs-surveys/cbp.html>.

Agriculture

Washakie County, WY

Comparisons



- In 2018, farm employment, 2018 had the highest location quotient score (4.5) and farm proprietors employment, 2018 had the lowest (3.7).

Comparisons

What do we measure on this page?

This page describes whether the region is specialized in farm employment.^{1, 16} The chart illustrates the difference between the selected location(s) and the selected benchmark area. (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Location quotient¹⁷: A ratio that compares an industry's share of total employment in a region to the benchmark. More precisely, it is the percent of local employment in a sector divided by the percent employment in the same sector in the benchmark area. In other words, it is a ratio that measures specialization using the benchmark area for comparison. A location quotient of more than 1.0 means the local area is more specialized in that sector relative to the benchmark area. A location quotient of less than 1.0 means it is less specialized.¹⁸

Another way to think about location quotients is as a measure of whether a place produces enough goods or services from an industry to satisfy local demand for those goods or services. Results above or below the 1.0 standard indicate the degree to which a place may import or export a good or service. Although there is no precise cutoff, location quotients above 2.0 indicate a strong industry concentration (and that an area is likely exporting goods or services) and those less than 0.5 indicate a weak industry concentration (and that an area is likely importing goods or services).

Farm: All forms of agricultural production, including livestock operations.

Why is it important?

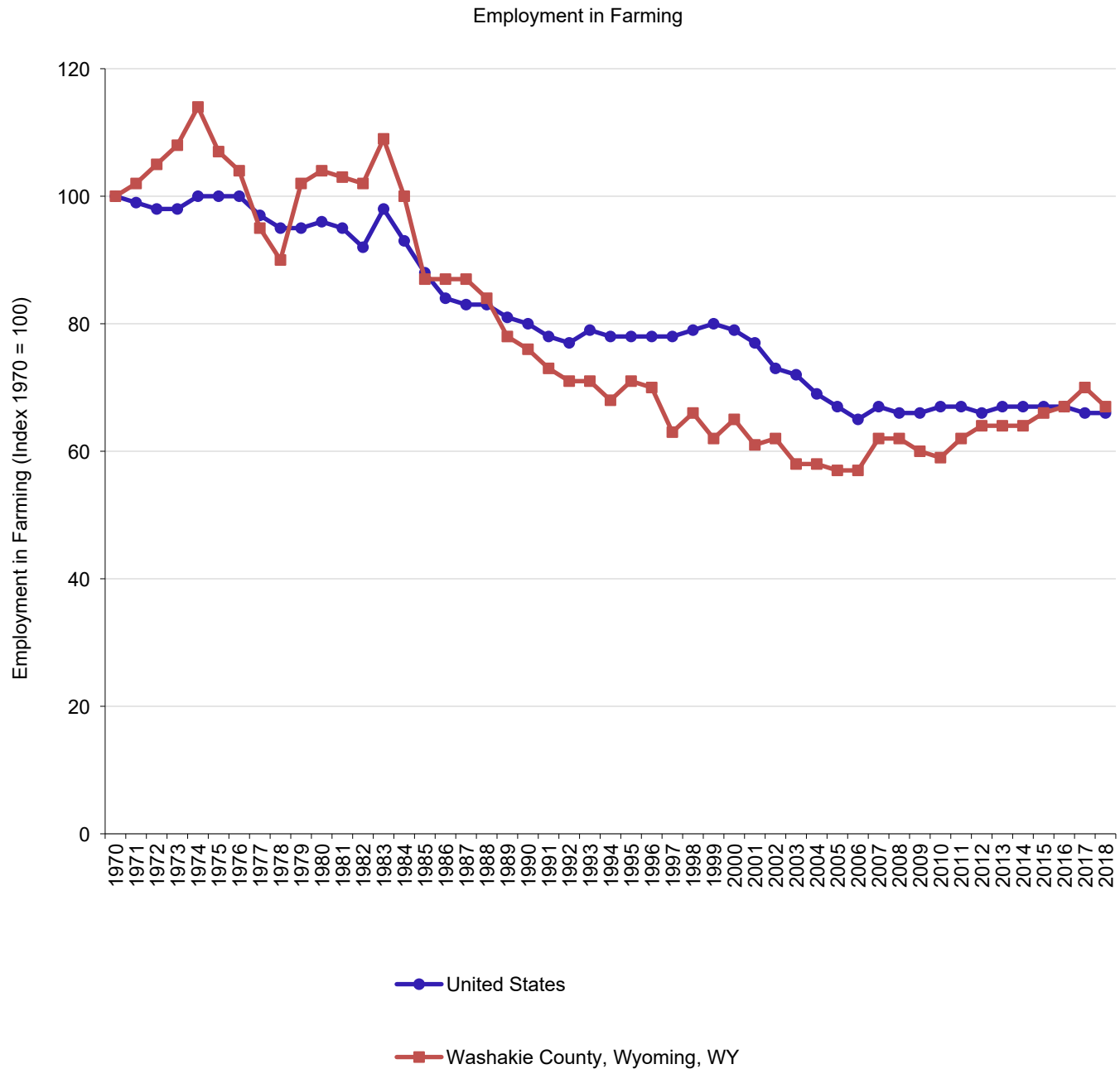
Agricultural employment in most parts of the U.S. has been declining, largely as a result of mechanization and other efficiencies of scale, for most of the last century. Nevertheless, it is still an important source of jobs in many places. This page shows a measure of importance (employment share) relative to the U.S.

A few caveats: (1) A large location quotient for a particular sector does not necessarily mean that sector is a significant contributor to the economy. (2) LQs greater than 1.0 only suggest potential export capacity when compared to the U.S. and do not take into account local demand. Local demand may be greater than a national average, and therefore all goods and services may be consumed locally (i.e., not exported). (3) LQs can change from year to year. (4) LQs can vary when one uses income or wage data rather than employment.

Agriculture

Washakie County, WY

Comparisons Over Time



- From 1970 to 2018, Washakie County, WY had the fastest rate of change in farm employment and Washakie County, WY had the slowest.

Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Page 22

Comparisons Over Time

What do we measure on this page?

This page describes the change in farm employment for all selected locations and the benchmark area. The information is indexed (1970=100) so that data from locations with different-sized economies can be compared and to make it easier to understand the relative rate of growth or decline of farm employment over time.^{1, 3}

Index: Indexed numbers are compared with a base value. In the line chart, employment in 1970 is the base value and is set to 100. The employment values for subsequent years are expressed as 100 times the ratio to the base value. The indexing used in the line chart enables easier comparisons between geographies over time. An indexed chart is used primarily to show relative rates of growth.

Farm: All forms of agricultural production, including livestock operations.

Why is it important?

Agricultural employment in most parts of the U.S. has been declining, largely as a result of mechanization and other efficiencies of scale, for most of the last century. However, this is not the case everywhere. In addition, not all locations have lost or attracted farm employment at the same rate.¹⁹ An index makes it clear where the rate of farm decline or growth has been the fastest. Lines below 100 indicate absolute decline while those above 100 show absolute growth. The steeper the curve, the faster the rate of change.

It may be helpful to look for large year-to-year rises or dips in the lines to identify rapid employment changes. If the reasons behind these fluctuations are not evident, it may be helpful to talk with regional experts or local citizens to learn more about what caused abrupt changes.

Data Sources & Methods

This EPS Summary report uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **Quarterly Census of Employment and Wages**
Bureau of Labor Statistics, U.S. Department of Labor
<https://www.bls.gov/cew>
Contacts
<https://www.bls.gov/bls/contact.htm>
- **BEA Regional Economic Accounts**
Bureau of Economic Analysis, U.S. Department of Commerce
<https://www.bea.gov/regional/>
Contacts
Contacts: <https://www.bea.gov/contacts/>
- **Census of Agriculture**
USDA National Agriculture Statistics Service
<http://www.agcensus.usda.gov>
Contacts
https://www.agcensus.usda.gov/Contact_Us/

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated with tildes (~) in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Endnotes

- 1 - The Economic Research Service of the U.S. Department of Agriculture provides a number of easy-to-use references on farm businesses, production, and employment: <https://www.ers.usda.gov/Publications>.
- 2 - Bureau of Economic Analysis data in this report describe only the employment and personal income of people working directly in agricultural operations and do not include the subcategory Forestry, Fishing, Related Activities, and Other (BEA line code 100). We do not include BEA line code 100 because it mixes farm-related categories (e.g., soil preparation) with non-farm-related categories (e.g., hunting). It is not possible to disaggregate BEA line code 100.
- 3 - For the Economic Research Service's outlook on farm commodities, see <https://www.ers.usda.gov/topics/farm-economy/commodity-outlook.aspx>.
- 4 - Detailed tables on farm income and expenses, such as how much is spent on hired farm labor, feed, fertilizer, and petroleum products, are available from the U.S. Department of Commerce at <https://www.bea.gov/regional/>.
- 5 - Long-term commodity prices can be found at the National Agricultural Statistics Service of the U.S. Department of Agriculture: https://www.nass.usda.gov/Charts_and_Maps/Agricultural_Prices/index.php.
- 6 - Economic Research Service, USDA: <https://www.ers.usda.gov/>.
- 7 - The Census of Agriculture can be viewed at <https://www.agcensus.usda.gov/>.
- 8 - The Economic Research Service of the U.S. Department of Agriculture provides a website on major land uses: <https://www.ers.usda.gov/data-products/major-land-uses.aspx>. To browse Economic Research Service publications by topic, see <https://www.ers.usda.gov/topics.aspx>.
- 9 - The Census of Agriculture can be viewed at <https://www.agcensus.usda.gov/>.
- 10 - A description of the form used in the 2012 Census of Agriculture, and definitions of terms, is available at https://agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_US/usappxb.pdf.
- 11 - What we show as Farm in the tables on this page is the sum of the following NAICS codes: crop production (111) and animal production (112). It does not include NAICS code 115 (support activities for agriculture and forestry) because this category mixes farm and non-farm services.
- 12 - For an overview of how the Bureau of Labor Statistics treats employment, see <https://www.bls.gov/bls/employment.htm>. For an overview of how the Bureau of Labor Statistics treats pay and benefits, see <https://www.bls.gov/bls/wages.htm>.

Endnotes (cont.)

- 13- Employment and wage estimates are also available from the Bureau of Labor Statistics for over 800 occupations. Looking at farming by occupation, rather than by sector or industry, is helpful since wages can vary dramatically across occupations. For more information on the most recent employment and wage estimates for Agriculture, Forestry, Fishing and Hunting (NAICS 11) by occupation, see <https://www.bls.gov/oes/>.
- 14- The Census of Agriculture website provides county-level farm data. See <https://www.agcensus.usda.gov/>.
- 15- If there are significant undisclosed data on this page, options for accessing wages data for farm sectors include: The Bureau of Labor Statistics' Quarterly Census of Employment and Wages data for industries (<https://www.bls.gov/cew/>); the Bureau of Labor Statistics' Occupational Outlook Handbook, which has detailed industry earnings and wages data at the national level (<https://www.bls.gov/ooh/>); and the U.S. Census Bureau's County Business Patterns database, which reports industry-level employment and payroll and can be used to estimate earnings (<https://www.census.gov/programs-surveys/cbp.html>).
- 16- For a review of literature on economic diversity, see Sterling, Andrew. 1998. "On the Economics and Analysis of Diversity." Electronic Working Papers Series, University of Sussex, available at: sussex.ac.uk/Units/spru/publications/imprint/sewps/sewp28/sewp28.pdf; and Malizia EE and K Shanzai. 2006. "The Influence of Economic Diversity on Unemployment and Stability." Journal of Regional Science 33(2):221-235.
- 17- $LQ = (e_i/e) \text{ divided by } (E_i/E)$
Where: e_i = Local employment in industry i ; e = Total local employment; E_i = U.S. employment in industry i ; E = Total U.S. employment.
- 18- A succinct definition of a location quotient is offered by Indiana Business Research Center at IU's Kelley School of Business. See <http://www.incontext.indiana.edu/2006/march/1.asp>.
- 19- The Bureau of Labor Statistics provides an overview and outlook for farm occupations: <https://www.bls.gov/ooh/management/farmers-ranchers-and-other-agricultural-managers.htm>.



A Profile of Mining, Including Oil & Gas

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

Mining, Including Oil & Gas

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Mining, Including Oil & Gas

Washakie County, WY

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Mining, Including Oil & Gas

Washakie County, WY

Mining Sectors

	Washakie County, Wyoming, WY	United States
Total Private Employment, 2017	2,620	128,591,812
Mining	53	578,098
Oil & Gas Extraction	~1	394,604
Oil & Gas Extraction	0	108,985
Drilling Oil & Gas Wells	~1	68,818
Support for Oil & Gas Operations	0	216,801
Coal Mining	0	54,313
Coal Mining	0	50,317
Support Activities for Coal Mining	0	3,996
Metal Ore Mining	0	40,827
Metal Ore Mining	0	36,761
Support Activities for Metal Mining	0	4,066
Nonmetallic Minerals Mining	~1	88,354
Nonmetallic Minerals Mining	~1	86,101
Support for Nonmetal Minerals	0	2,253
Mining Related	~20	263,418
Oil & Gas Pipeline & Related Const.	0	211,970
Pipeline Transportation	~20	51,448
Non-Mining	2,567	128,013,714

Percent of Total, 2017

Mining	2.0%	0.4%
Oil & Gas Extraction	~0.0%	0.3%
Oil & Gas Extraction	0.0%	0.1%
Drilling Oil & Gas Wells	~0.0%	0.1%
Support for Oil & Gas Operations	0.0%	0.2%
Coal Mining	0.0%	0.0%
Coal Mining	0.0%	0.0%
Support Activities for Coal Mining	0.0%	0.0%
Metal Ore Mining	0.0%	0.0%
Metal Ore Mining	0.0%	0.0%
Support Activities for Metal Mining	0.0%	0.0%
Nonmetallic Minerals Mining	~0.0%	0.1%
Nonmetallic Minerals Mining	~0.0%	0.1%
Support for Nonmetal Minerals	0.0%	0.0%
Mining Related	~0.8%	0.2%
Oil & Gas Pipeline & Related Const.	0.0%	0.2%
Pipeline Transportation	~0.8%	0.0%
Non-Mining	98.0%	99.6%

This table does not include employment data for government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are indicated with tildes (~).

Mining, Including Oil & Gas

Washakie County, WY

Mining Sectors

What do we measure on this page?

This page describes the number of jobs (full- and part-time) and the share of total jobs in the mining industry, broken out into four sub-sectors: oil and gas extraction, coal mining, metal ore mining, and nonmetallic minerals mining.

According to the North American Industrial Classification system (NAICS), Mining (NAICS code 21) consists of Oil and Gas Extraction (NAICS 211), Mining Except Oil and Gas (NAICS 212), and Support Activities for Mining (NAICS 213).¹ In addition, we add the category "Mining Related" which captures oil and gas pipeline industries and associated employment.²

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. We use this source because, compared to other sources, it has fewer data gaps (instances when the federal government will not release information to protect the confidentiality of individual businesses). It also includes both full- and part-time employment. The disadvantage of CBP data is that they do not include employment in government, agriculture, railroads, or the self-employed and as a result may undercount the size of industry sectors. Also, CBP data are based on mid-March employment and do not take into account seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between locations, and showing the relationship between sectors over time.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.³

Why is it important?

To understand the economic impact of mining, it is important to grasp the relative size of the mining industry and its components, how these have changed over time, and how local trends compare to trends in other locations. For mining-dependent communities, it can be important to consider whether management action and policies stimulate growth or decline in the industry, how proposed actions and policies relate to ongoing trends, and given the relative size of the industry whether changes to it will affect the broader economy.

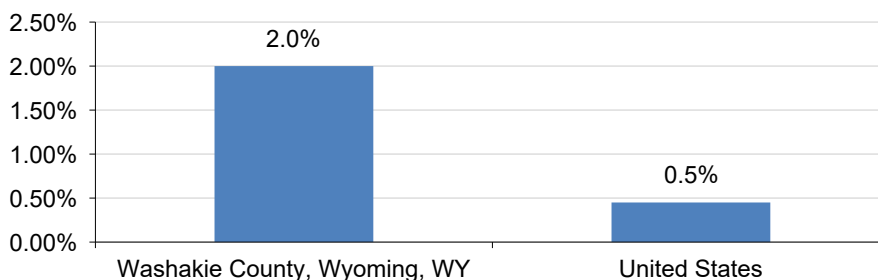
Mining, Including Oil & Gas

Washakie County, WY

Mining Employment Trends

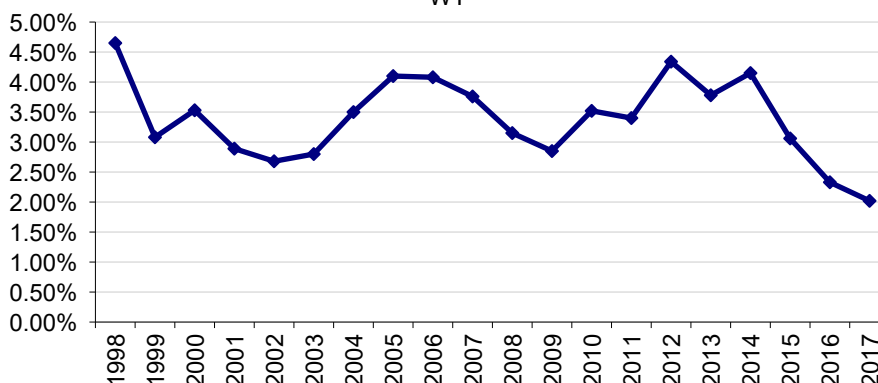
- In 2017, Washakie County, WY had the largest percent of total mining employment (2.02%), and United States had the smallest (0.45%).

Percent of Total Private Employment in Mining, 2017



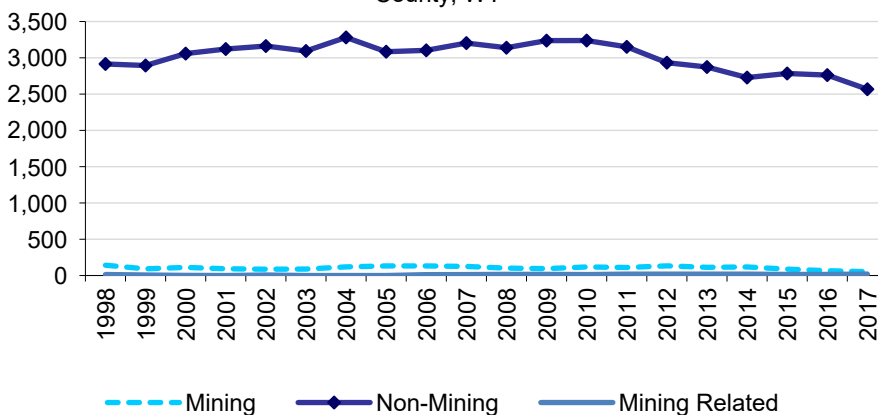
- In 1998, mining represented 4.65 percent of total employment. By 2017, mining represented 2.02 percent of total employment.

Percent of Total Private Employment in Mining, Washakie County, WY



- From 1998 to 2017, mining employment shrank from 142 to 53 jobs, a 62.7 percent decrease.
- From 1998 to 2017, non-mining employment shrank from 2,915 to 2,567 jobs, a 11.9 percent decrease.

Total Jobs in Mining, Mining Related, and Non-Mining, Washakie County, WY



Mining, Including Oil & Gas

Washakie County, WY

Mining Employment Trends

What do we measure on this page?

This page describes long-term trends in mining employment as a percent of all jobs and compares mining to non-mining employment over time for the region.⁴

Data on this page were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.³

Why is it important?

When the mining industry is a significant driver of the economy, other sectors of the economy, total employment, and total personal income could follow trends in the mining industry. It is important to know whether this is the case because if employment in other sectors fluctuates with the mining industry, then mining-related management actions and policies may have far-reaching impacts. If, on the other hand, jobs in the rest of the economy are growing independently of trends in the mining industry, then management actions and policies that potentially affect the mining industry may have impacts that are limited to that industry.⁵

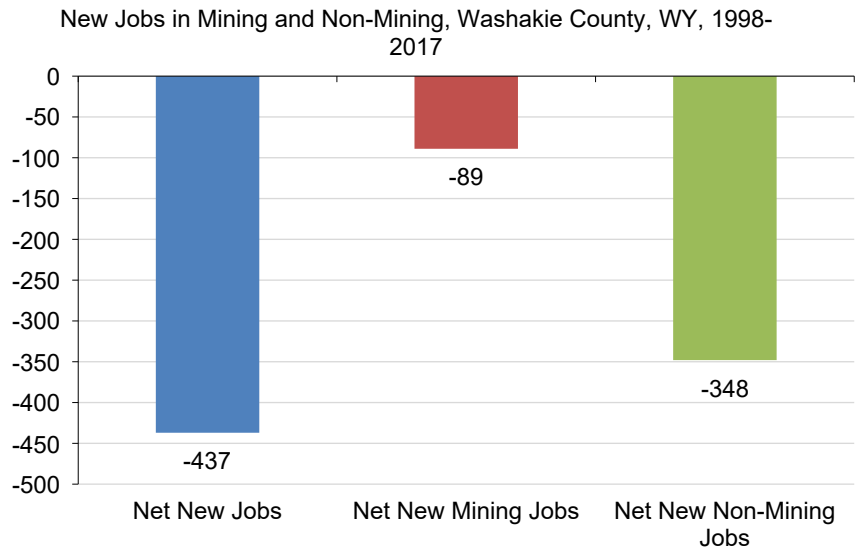
Mining, Including Oil & Gas

Washakie County, WY

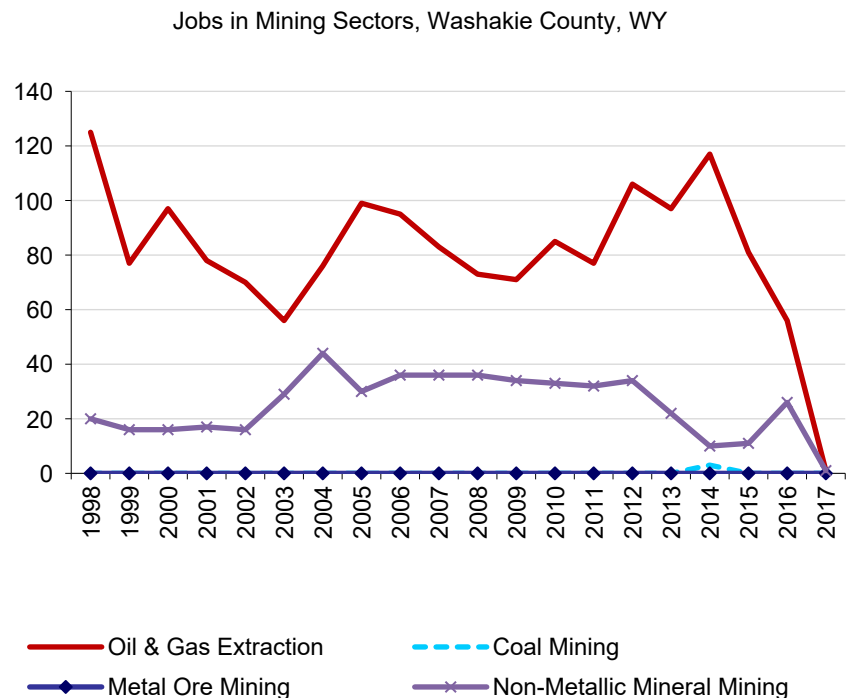
Mining Employment Trends (cont.)

- From 1998 to 2017, mining employment shrank by 89 jobs.

- From 1998 to 2017, non-mining employment shrank by 348 jobs.



- From 1998 to 2017, oil & gas extraction shrank from 125 to 1 jobs, a 99% decrease.
- From 1998 to 2017, coal mining shrank from 0 to 0 jobs, a more than 0% decrease.
- From 1998 to 2017, metal ore mining shrank from 0 to 0 jobs, a more than 0% decrease.
- From 1998 to 2017, non-metallic mineral mining shrank from 20 to 1 jobs, a 95% decrease.



Mining, Including Oil & Gas

Washakie County, WY

Mining Employment Trends (cont.)

What do we measure on this page?

This page describes the change in mining jobs compared to the change in non-mining jobs and compares how employment in various mining sectors has changed over time.⁶

The bottom chart on this page starts in 1998 because that is the year the U.S. Census Bureau (and County Business Patterns) shifted to using the new North American Industrial Classification System (NAICS).

Data on this page were obtained from County Business Patterns. Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.³

Why is it important?

Some geographies are more dependent on mining-related employment than others.⁵ Particularly for mining-dependent communities, activities and policies that impact the mining industry may have far-reaching impacts.

To understand the importance of mining in the local economy, it is useful to grasp the source of new jobs and the relative contribution of the mining industry to net new jobs. Components of the mining industry may create or lose jobs at a different rate.

Locations with economies that focus on resource extraction, particularly on fossil fuel development, can be subject to boom-and-bust cycles as well as other economic challenges such as slower long-term economic growth.^{7, 8} These difficulties are sometimes called the "resource curse" in reference to the apparent paradox that areas rich in natural resources often underperform economically.^{9, 10} Due to the economic volatility common among mining sectors, mining-dependent communities can benefit from planning for economic transitions.¹¹

Mining, Including Oil & Gas

Washakie County, WY

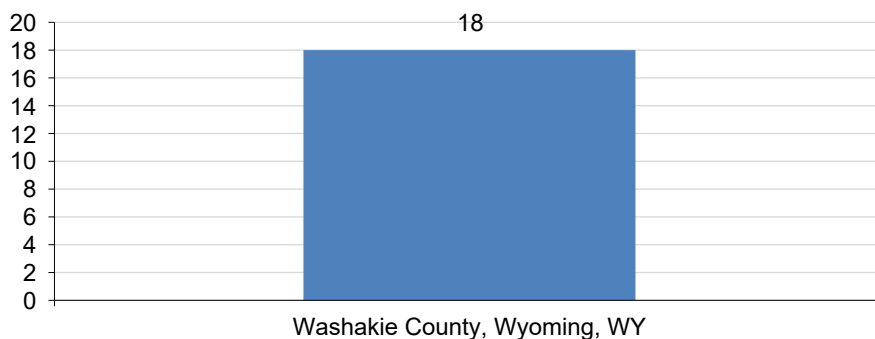
Self-Employment

	Washakie County, Wyoming, WY	United States
Total Proprietors, 2017	707	25,701,671
Mining	18	88,882
Oil & Gas Extraction	15	63,196
Mining (Except Oil & Gas)	0	5,537
Support Activities for Mining	na	20,129
Non-Mining	689	25,612,789

Percent of Total, 2017

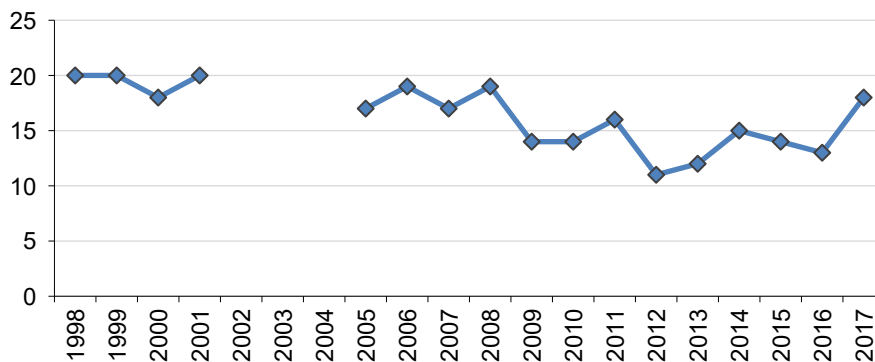
Mining	2.5%	0.3%
Oil & Gas Extraction	2.1%	0.2%
Mining (Except Oil & Gas)	0.0%	0.0%
Support Activities for Mining	na	0.1%
Non-Mining	97.5%	99.7%

Mining Proprietors, Washakie County, WY, 2017



Mining Proprietors, Washakie County, WY

- From 1998 to 2017, mining proprietors in Washakie County, WY shrank from 20 to 18, a 10% decrease.



Mining, Including Oil & Gas

Washakie County, WY

Self-Employment

What do we measure on this page?

This page describes the number of nonemployer businesses (in most cases self-employed individuals) in mining by sector and geography. It offers data to supplement previous pages of this report that do not include the self-employed.

Nonemployer Business: A business with no paid employees, with annual business receipts of \$1,000 or more, and subject to federal income taxes. Nonemployer businesses can be individual proprietorships, partnerships, or corporations. Most nonemployers are self-employed individuals operating very small unincorporated businesses that may or may not be the owners' principal source of income.¹²

The U.S. Census Bureau's Nonemployer Statistics provide the only source of detailed and comprehensive data on the scope, nature, and activities of U.S. businesses with no paid employment and payroll.¹³ According to the Census Bureau: "Most nonemployers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner's principal source of income. These firms are excluded from most other business statistics."

The three mining sub-categories in the upper table *Proprietors in Mining* are 3-digit NAICS categories from Nonemployer Statistics.¹⁴ They are different than the four summary categories (from County Business Patterns) shown on previous pages.

Depending on the locations selected, some data may not be available due to disclosure restrictions.

Why is it important?

Significant portions of the mining industry—especially support activities such as excavation, trucking, and servicing—may be conducted by nonemployer businesses. These nonemployer businesses are not reported by County Business Patterns but are reported by Nonemployer Statistics. It is important to use these two data sources in tandem when evaluating the size and trends of mining employment.

Mining, Including Oil & Gas

Washakie County, WY

Wages and Employment

	Washakie County, Wyoming, WY	United States
All Sectors, 2018 (2019 \$s)	\$41,569	\$58,297
Private	\$40,989	\$58,228
Mining	\$70,343	\$106,134
Oil & Gas Extraction	na	\$173,171
Mining (Except Oil & Gas)	na	\$80,340
Support Activities for Mining	\$54,283	\$92,541
Non-Mining	\$40,559	\$57,967
Government	\$43,494	\$58,696

This table shows wage data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on previous pages of this report.

Percent of Total Employment, 2018

	Washakie County, Wyoming, WY	United States
Private	76.3%	85.2%
Mining	1.7%	0.5%
Oil & Gas Extraction	na	0.1%
Mining (Except Oil & Gas)	na	0.1%
Support Activities for Mining	0.8%	0.2%
Non-Mining	58.6%	84.8%
Government	23.6%	14.8%

This table uses employment data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on previous pages of this report.

Mining, Including Oil & Gas

Washakie County, WY

Wages and Employment

What do we measure on this page?

This page describes wages (in real terms) from employment in the mining industry, including sub-sectors, compared to wages from employment in all non-mining sectors combined.¹⁵ It also describes the percent of jobs in each category. These are shown together to illustrate the relative wage levels in mining, including sub-sectors, and how many people are employed in each sub-sector.

The primary purpose of this page is to compare the average annual wages between sectors, and to investigate the relative number of people employed in high- and low-wage sectors.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{16, 17, 18}

The three mining sub-sectors in the tables are 3-digit NAICS categories (from Quarterly Census of Employment and Wages)²² and are different than the four summary categories (from County Business Patterns) shown on the initial pages of this report.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses custom data aggregations calculated from various NAICS codes. Occasionally one or more data values underlying these aggregations are non-disclosed.

Why is it important?

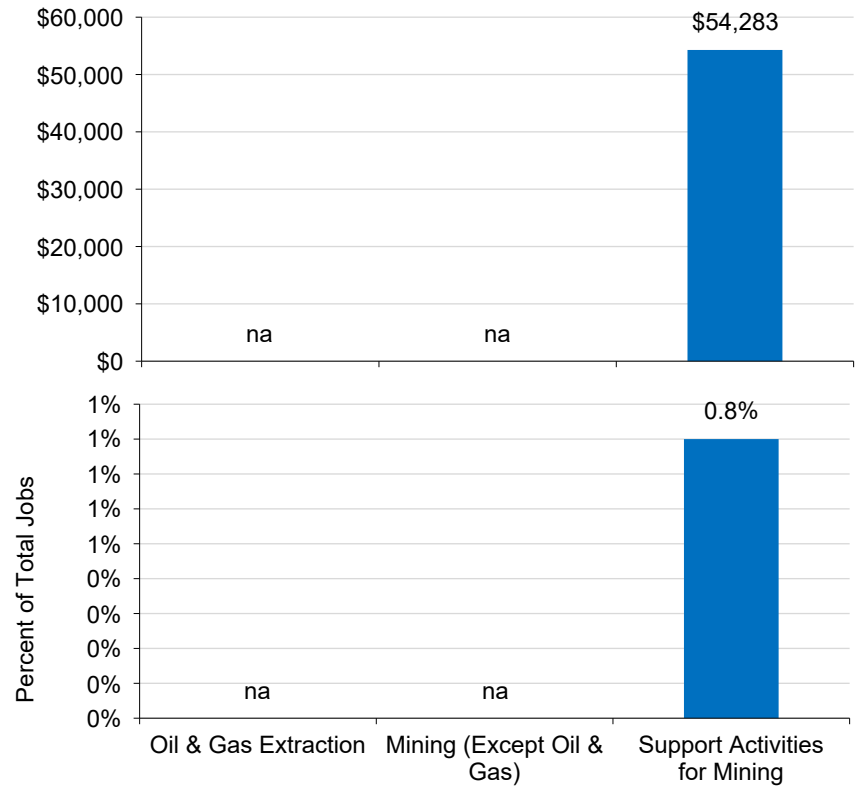
The mining industry has the potential to provide high-wage jobs, but this may differ by mining sub-sector and by geography. Important issues to consider are how mining industry wages compare to wages in other sectors, whether some components of the mining industry pay higher wages than others, and whether there are significant wage differences between locations.

Mining, Including Oil & Gas

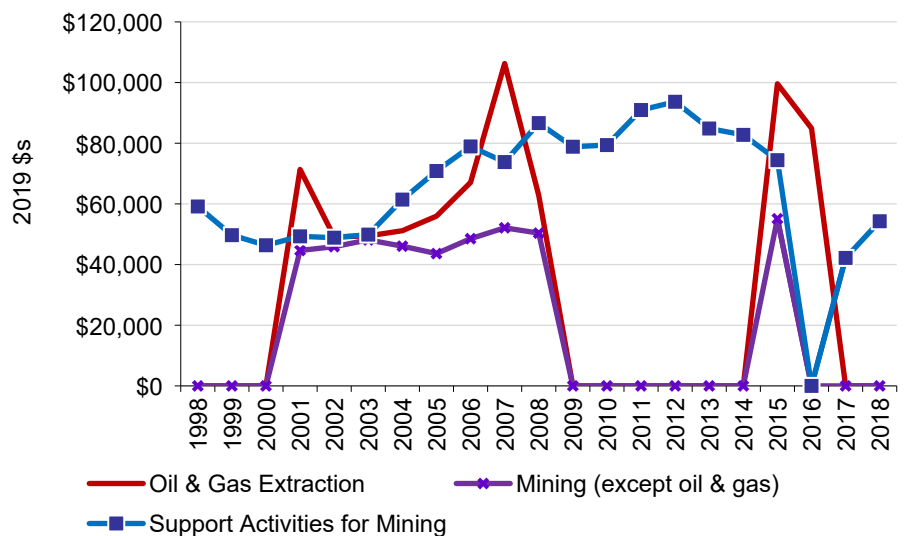
Washakie County, WY

Wages and Employment (cont.)

Avg. Annual Wages & Percent of Total Employment in Mining Sectors, Washakie County, WY, 2018



Avg. Annual Wages in Mining Sectors, Washakie County, WY



- From 1998 to 2018, average wages in support activities for mining shrank (in real terms) from \$59,148 to \$54,283 a 8.2% decrease.

Data Sources: U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Page 14

Mining, Including Oil & Gas

Washakie County, WY

Wages and Employment (cont.)

What do we measure on this page?

This page describes average wages (in real terms) and employment levels in different mining sectors. It also shows average wage trends (in real terms) for mining sectors.

The chart *Avg. Annual Wages and Percent of Total Employment in Mining Sectors* is useful for describing how many people are working in relatively high- and low-wage mining sectors. The chart *Avg. Annual Wages in Mining Sectors* is useful for comparing wage trends by mining sector.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.^{16, 17}

The three mining sub-sectors in the charts are 3-digit NAICS categories (from Quarterly Census of Employment and Wages) and are different than the three summary categories (from County Business Patterns) shown on the initial pages of this report.

The chart *Avg. Annual Wages in Mining Sectors* starts in 1998 to be consistent with the start date of figures on earlier pages of this report.

Depending on the locations selected, some data may not be available due to disclosure restrictions.¹⁹

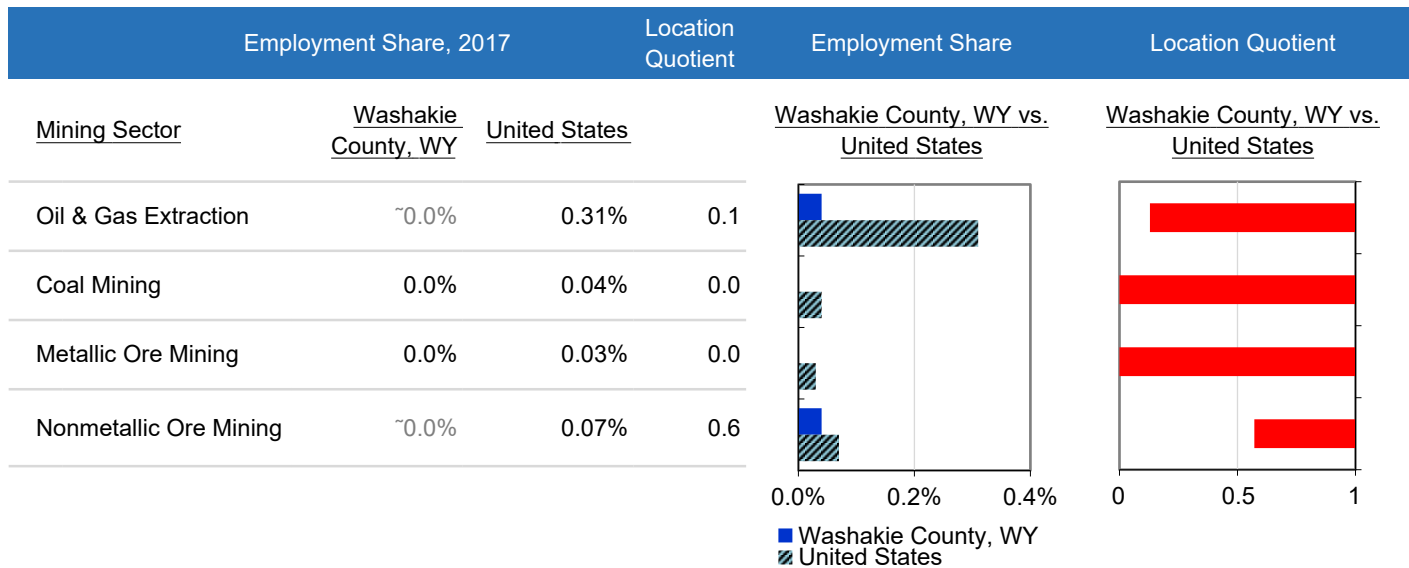
Why is it important?

While the mining industry has the potential to offer high wages, not all components of the mining industry pay the same wages or employ the same number of people. A significant increase in mining jobs that pay above the average for all industries will increase overall average earnings per job. On the other hand, a significant increase in mining jobs that pay below the average for all industries will decrease overall average earnings per job. A modest change in mining employment, especially when this industry is a small share of total employment, will not likely affect average earnings in a local area.

Mining, Including Oil & Gas

Washakie County, WY

Comparisons



- In 2017, nonmetallic ore mining had the highest location quotient score (0.6), and coal mining had the lowest (0).

Mining, Including Oil & Gas

Washakie County, WY

Comparisons

What do we measure on this page?

This page describes whether the region is specialized in mining-related employment. The chart illustrates the difference between the selected location(s) and the selected benchmark area.²⁰ (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Location Quotient²¹: A ratio that compares an industry's share of total employment in a region to the benchmark. More precisely, it is the percent of local employment in a sector divided by the percent employment in the same sector in the benchmark area. In other words, it is a ratio that measures specialization using the benchmark area for comparison. A location quotient of more than 1.0 means the local area is more specialized in that sector relative to the benchmark area. A location quotient of less than 1.0 means it is less specialized.²²

Another way to think about location quotients is as a measure of whether a place produces enough goods or services from an industry to satisfy local demand for those goods or services. Results above or below the 1.0 standard indicate the degree to which a place may import or export a good or service. Although there is no precise cutoff, location quotients above 2.0 indicate a strong industry concentration (and that an area is likely exporting goods or services) and those less than 0.5 indicate a weak industry concentration (and that an area is likely importing goods or services).

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.³

Why is it important?

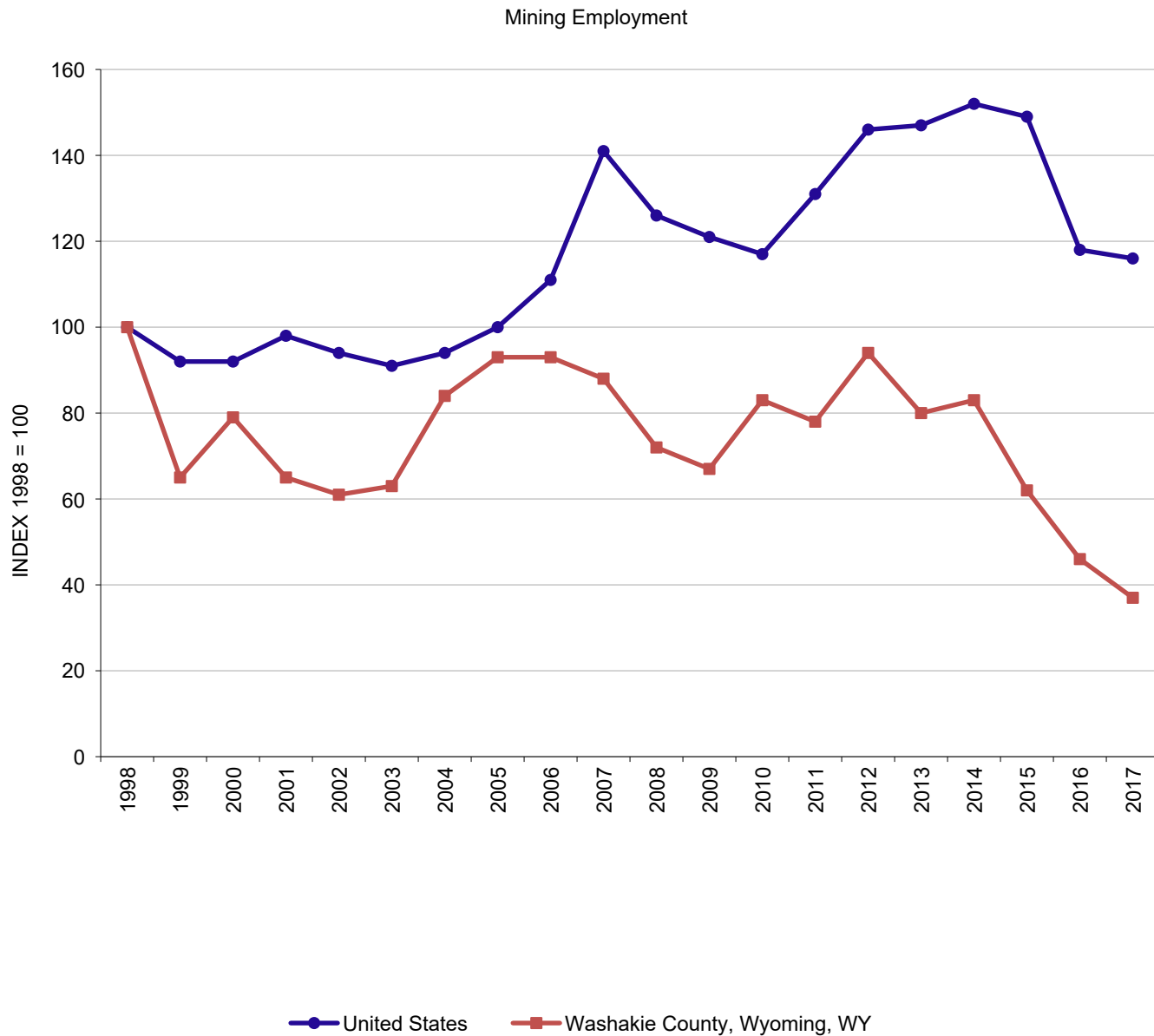
Locations with economies that focus on resource extraction, particularly on fossil fuel development, can be subject to boom-and-bust cycles as well as other economic challenges such as slower long-term economic growth.^{7, 8} These difficulties are sometimes called the "resource curse" in reference to the apparent paradox that areas rich in natural resources often underperform economically.^{9, 10}

A few caveats: (1) A large location quotient for a particular sector does not necessarily mean that sector is a significant contributor to the economy. (2) LQs greater than 1.0 only suggest potential export capacity when compared to the benchmark area and do not take into account local demand. Local demand may be greater than average, and therefore all goods and services may be consumed locally (i.e., not exported). (3) LQs can change from year to year. (4) LQs can vary when one uses income or wage data rather than employment.

Mining, Including Oil & Gas

Washakie County, WY

Comparisons Over Time



- From 1998 to 2017, Washakie County, WY had the fastest rate of change in mining employment, and Washakie County, WY had the slowest.

Mining, Including Oil & Gas

Washakie County, WY

Comparisons Over Time

What do we measure on this page?

This page describes the change in mining employment for all selected locations and the benchmark area.^{4, 20} The information is indexed (1998=100) so that data from locations with different sized economies can be compared. Indexing makes it easier to understand the relative rate of growth or decline of mining employment over time.

Index: Indexed numbers are compared with a base value. In the line chart, employment in 1998 is the base value and is set to 100. The employment values for subsequent years are expressed as 100 times the ratio to the base value. The indexing used in the line chart enables easier comparisons between locations over time. (If many locations are selected, it may be difficult to read the figure on this page.)

The chart begins in 1998 because that is the year the Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS).

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.³

Why is it important?

Not all locations have attracted or lost mining industries and employment at the same rate. An index makes it clear where the rate of mining growth or decline has been the fastest. Lines above 100 indicate positive absolute growth while those below 100 show absolute decline. The steeper the curve the faster the rate of change.

It may be helpful to look for large year-to-year rises or dips in lines on the chart to identify rapid employment changes. If the reasons behind these fluctuations are not evident, it may be helpful to talk with regional experts or locals to learn more about what caused abrupt changes.

Locations with economies that focus on resource extraction, particularly on fossil fuel development, can be subject to boom-and-bust cycles as well as other economic challenges such as slower long-term economic growth.^{5, 7} These difficulties are sometimes called the "resource curse" in reference to the apparent paradox that areas rich in natural resources often underperform economically.^{9, 10}

Mining, Including Oil & Gas

Washakie County, WY

Data Sources & Methods

This EPS Mining report uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **County Business Patterns**

Census Bureau, U.S. Department of Commerce

<https://www.census.gov/programs-surveys/cbp.html>

Contacts

<https://www.census.gov/about/contact-us.html>

- **Quarterly Census of Employment and Wages**

Bureau of Labor Statistics, U.S. Department of Labor

<https://www.bls.gov/cew>

Contacts

<https://www.bls.gov/bls/contact.htm>

- **Nonemployer Statistics**

- Bureau of the Census, U.S. Department of Commerce

<https://www.census.gov/econ/nonemployer/index.html>

Contacts

<https://www.bls.gov/bls/contact.htm>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated with tildes (~) in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Mining, Including Oil & Gas

Washakie County, WY

Endnotes

- 1 - For an online listing of all NAICS codes, see <https://www.naics.com/search/>. For additional online manuals and definitions of industry codes, see <https://www.bls.gov/bls/naics.htm> and <https://www.census.gov/eos/www/naics/>.

- 2 - Details on mining industry codes and definitions (NAICS codes in parentheses):

Oil and Gas Extraction:

Oil and Gas Extraction (2111)

Support Activities: Drilling Oil and Gas Wells (213111; includes directional drilling, redrilling, spudding, tailing, water intake wells), and Support for Oil and Gas Operations (213112; includes exploration, chemical treatment, cleaning, pumping, swabbing, surveying)

Coal Mining:

Coal Mining (2121)

Support Activities for Coal Mining (213113; includes drilling, blasting, shaft sinking, tunneling, exploration)

Metals Mining:

Metal Ore Mining (2122; includes gold, silver, zinc and others)

Support Activities for Metal Mining (213114; includes blasting services, exploration, tunneling, pumping)

Nonmetallic Minerals Mining:

Nonmetallic Minerals and Quarrying (2123; includes stone, volcanic rock, granite, cement, gravel and others)

Support Activities for Nonmetallic Minerals and Quarrying (213115; includes blasting services, test drilling, mine shaft development).

Mining Related:

Pipeline Transportation (486; Industries in the Pipeline Transportation subsector use transmission pipelines to transport products, such as crude oil, natural gas, refined petroleum products, and slurry)

Oil and Gas Pipeline and Related Structures Construction (237120)

- 3 - Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.
- 4 - For detailed information on oil, gas, and coal, see the U.S. Energy Information Administration at <https://www.eia.gov/>. The Bureau of Labor Statistics provides an overview of the mining industry at <https://www.bls.gov/iag/tgs/iag21.htm>.
- 5 - Headwaters Economics has completed a number of studies on fossil fuel development and its impact on the U.S. West: <https://headwaterseconomics.org/topic/energy/>.
- 6 - The Bureau of Labor Statistics provides an overview of the mining industry at <https://www.bls.gov/iag/tgs/iag21.htm>.

Mining, Including Oil & Gas

Washakie County, WY

Endnotes (cont.)

- 7 - For a review of literature on economic diversity, see Sterling A. 1998. On the Economics and Analysis of Diversity. Electronic Working Papers Series, Paper No. 28. Brighton, UK: University of Sussex <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.144.8865&rep=rep1&type=pdf>; and Malizia EE and Shanzai K. 2006. The Influence of Economic Diversity on Unemployment and Stability. Journal of Regional Science 33(2):221-235.
- 8 - Headwaters Economics has completed a number of studies on fossil fuel development and its impact on the U.S. West: <https://headwaterseconomics.org/topic/energy/>. Headwaters Economics' report "Fossil Fuel Extraction as a County Economic Development Strategy: Are Energy Focusing Counties Benefiting?" looks specifically at the economic performance of energy focused economies in the U.S. West. See <https://headwaterseconomics.org/energy/oil-gas/fossil-fuel-extraction/>.
- 9 - Humphreys M, JD Sachs, and JE Stiglitz, eds. Escaping the Resource Curse. 2007. New York: Columbia University Press.
- 10 - Haggerty J, PH Gude, M Delorey, and R Rasker. 2014. Long-term effects of income specialization in oil and gas extraction: The U.S. West, 1980-2011. Energy Economics 45: 186-195.
- 11 - Haggerty J, MN Haggerty, K Roemer, and J Rose. 2018. Planning for the local impacts of coal facility closure: Emerging strategies in the U.S. West. Resource Policy 57: 69-80.
- 12 - Nonemployer definitions can be found at <https://www.census.gov/epcd/nonemployer/view/define.html>.
- 13 - Nonemployer Statistics data can be found at <https://www.census.gov/programs-surveys/nonemployer-statistics.html>.
- 14 - Mining is the sum of the following NAICS codes shown on this page: Oil and Gas Extraction (211), Mining [except Oil and Gas] (212), and Support Activities for Mining (213).
- 15 - The EPS Socioeconomic Measures report provides more information on wages in non-mining industries: <https://headwaterseconomics.org/eps>.
- 16 - For an overview of how the Bureau of Labor Statistics treats pay and benefits, see <https://www.bls.gov/bls/blswage.htm>.
- 17 - For an overview of how the Bureau of Labor Statistics treats employment, see <https://www.bls.gov/bls/employment.htm>.
- 18 - Employment and wage estimates are also available from the Bureau of Labor Statistics for more than 800 occupations. Looking at timber by occupation rather than by sector or industry is helpful because wages can vary dramatically across occupations. For more information, see <https://www.bls.gov/oes/>.

Mining, Including Oil & Gas

Washakie County, WY

Endnotes (cont.)

- 19 - If there are significant undisclosed data on this page, other sources for timber wage data include: The Bureau of Labor Statistics' Quarterly Census of Employment and Wages, which has data for industries at the state level (<https://www.bls.gov/cew/>); the Bureau of Labor Statistics' Occupational Outlook Handbook, which has detailed industry earnings and wages data at the national level (<https://www.bls.gov/ooh/>); and the County Business Patterns database, which reports industry-level employment and payroll and can be used to estimate earnings (<https://www.census.gov/programs-surveys/cbp.html>).
- 20 - The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).
- 21 - $LQ = (e_i/e)$ divided by (E_i/E)
Where: e_i = Local employment in industry i ; e = Total local employment; E_i = U.S. employment in industry i ; E = Total U.S. employment.
- 22 - A succinct definition of a location quotient is offered by Indiana Business Research Center at IU's Kelley School of Business. See <http://www.incontext.indiana.edu/2006/march/1.asp>.



A Profile of Government Employment

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

July 1, 2020

Government Employment

Washakie County, WY

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Government Employment

Washakie County, WY

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Government Employment

Washakie County, WY

Government Employment Sectors

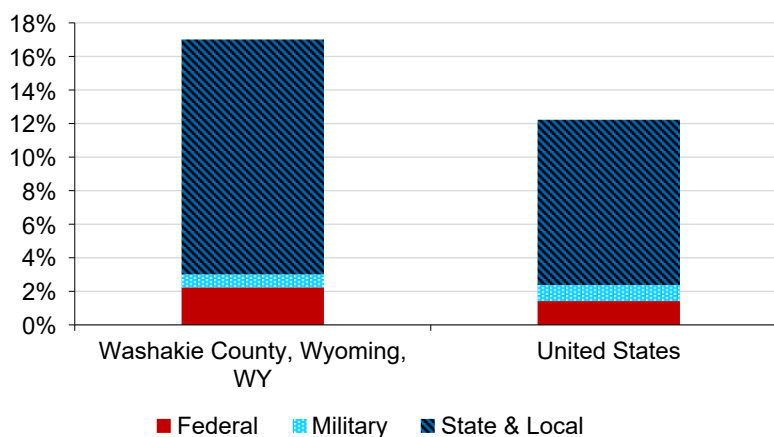
	Washakie County, Wyoming, WY	United States
Total Employment, 2018	5,320	200,746,000
Government	905	24,543,000
Federal	119	2,849,000
Military	41	1,922,000
State & Local	745	19,772,000
Private Sector	4,415	176,203,000

Percent of Total, 2018

Government	17.0%	12.2%
Federal	2.2%	1.4%
Military	0.8%	1.0%
State & Local	14.0%	9.8%
Private Sector	83.0%	87.8%

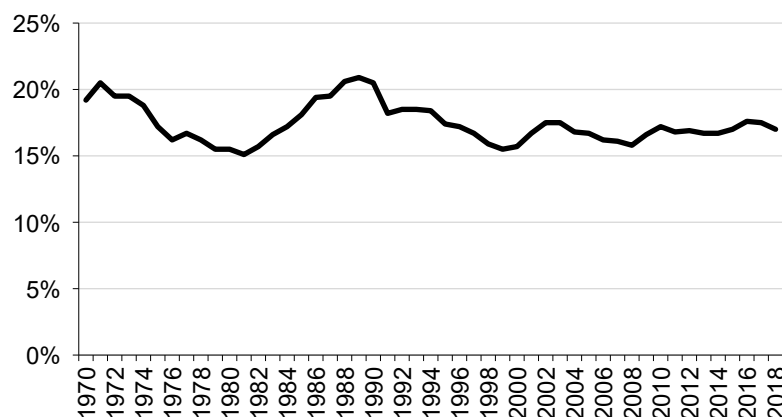
- In 2018, Washakie County, Wyoming, WY had the largest percent of total jobs in government (17%), and United States had the smallest (12.2%).
- In 2018, state & local government was the largest government sector in the Washakie County, WY (14% of total jobs), and military was the smallest (0.8% of total jobs).

Percent of Total Jobs in Government, 2018



- In 1970, government jobs represented 19.2 percent of total employment. By 2018, government jobs had decreased to 17 percent of total employment.

Percent of Total Jobs in Government, Washakie County, WY



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Data and Graphics | Page 4

Government Employment

Washakie County, WY

Government Employment Sectors

What do we measure on this page?

This page describes the number and percent of government jobs by type (federal, military, and state and local) relative to all jobs in the rest of the economy. It also shows aggregate government employment trends.

Classification of tribal governments: In 2001, the Bureau of Economic Analysis (and the Bureau of Labor Statistics) started counting tribal employees as part of local government. Previously, they were included in the relevant private industries. For example, employees of casinos owned by tribes were counted in the North American Industry Classification System subsector "Amusement, Gambling and Recreation Industries" before 2001, but are now shown as part of local government employment.¹ Because of this shift in classification, it is possible for there to be a jump in the level of local government employment from 2000 to 2001. This is most likely in areas with a significant tribal presence.²

Why is it important?

Government employment is an important component of the economy in some locations. This can be especially true in rural locations. Often government jobs also pay relatively higher average wages.

Changes in government employment tend to track population trends. As additional services are demanded by a growing population, local government often accounts for the majority of job growth in the government sector.

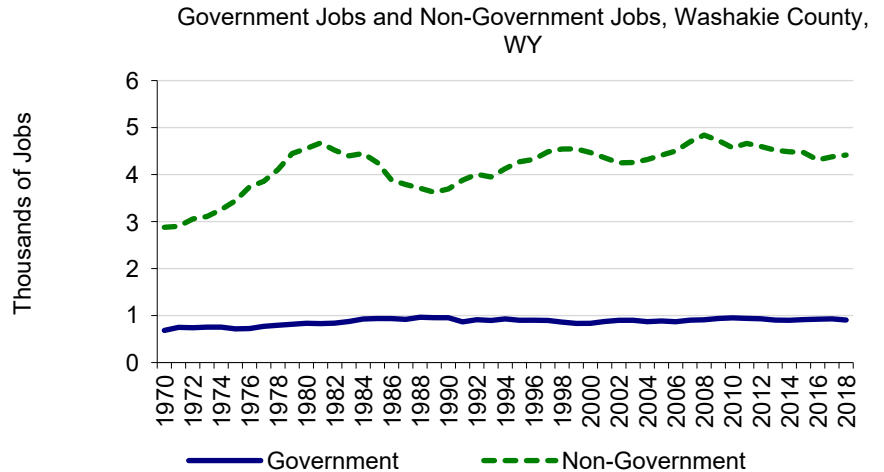
An increase in federal employment may be associated with a specific federal installation such as a military base or research facility. The 2001 reclassification of tribal government and enterprises from the private sector to state and local government may also be responsible for an increase in state and local government employment in some locations.

Government Employment

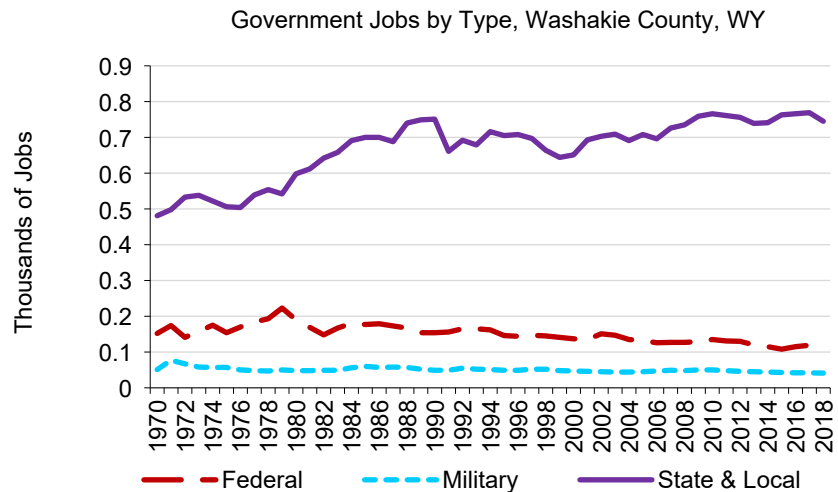
Washakie County, WY

Government Employment Trends

- From 1970 to 2018, government employment grew from 684 to 905 jobs, an increase of 32 percent.
- From 1970 to 2018, non-government employment grew from 2,878 to 4,415 jobs, an increase of 53 percent.



- From 1970 to 2018, state and local employment grew from 481 to 745 jobs, an increase of 55 percent.
- From 1970 to 2018, military employment shrank from 51 to 41 jobs, a decrease of 20 percent.
- From 1970 to 2018, federal civilian employment shrank from 152 to 119 jobs, a decrease of 22 percent.



- From 1970 to 2018, government employment per 1000 people grew from 91 to 115 jobs, an increase of 26 percent.



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Data and Graphics | Page 6

Government Employment

Washakie County, WY

Government Employment Trends

What do we measure on this page?

This page describes trends in government employment by number and type, and on a per capita basis.

Classification of tribal governments: In 2001, the Bureau of Economic Analysis (and the Bureau of Labor Statistics) started counting tribal employees as part of local government. Previously, they were included in the relevant private industries. For example, employees of casinos owned by tribes were counted in the North American Industry Classification System subsector "Amusement, Gambling and Recreation Industries" before 2001, but are now shown as part of local government employment.¹ Because of this shift in classification, it is possible for there to be a jump in the level of local government employment from 2000 to 2001. This is most likely in areas with a significant tribal presence.²

Why is it important?

Government employment is an important component of the economy in some locations. This can be especially true in rural locations. Often government jobs also pay relatively higher average wages.

Changes in government employment tend to track population trends. As additional services are demanded by a growing population, local government often accounts for the majority of job growth in the government sector.

The bottom chart (*Government Jobs per 1000 People*) shows government employment on a per capita basis. An upward-sloped line indicates that government employment is growing faster than population change, while a downward-sloped line indicates that government employment is declining faster than population change.

An increase in federal employment may be associated with a specific federal installation such as a military base or research facility. The 2001 reclassification of tribal government and enterprises from the private sector to state and local government may also be responsible for an increase in state and local government employment in some locations.

Government Employment

Washakie County, WY

Government Earnings by Type

	Washakie County, Wyoming, WY	United States
Labor Earnings (\$1000), 2018*	\$254,320	\$12,735,846,874
Government	\$60,614	\$2,020,438,865
Federal	\$12,533	\$354,170,346
Military	\$1,388	\$140,549,153
State & Local	\$46,694	\$1,525,719,366
Private Sector, 2018*	\$193,706	\$10,715,408,008

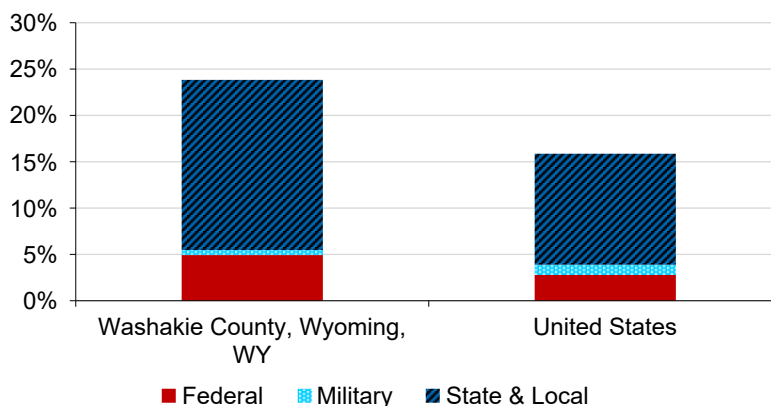
Percent of Total, 2018

Government	23.8%	15.9%
Federal	4.9%	2.8%
Military	0.5%	1.1%
State & Local	18.4%	12.0%
Private Sector	76.2%	84.1%

*Thousands of 2019 \$s

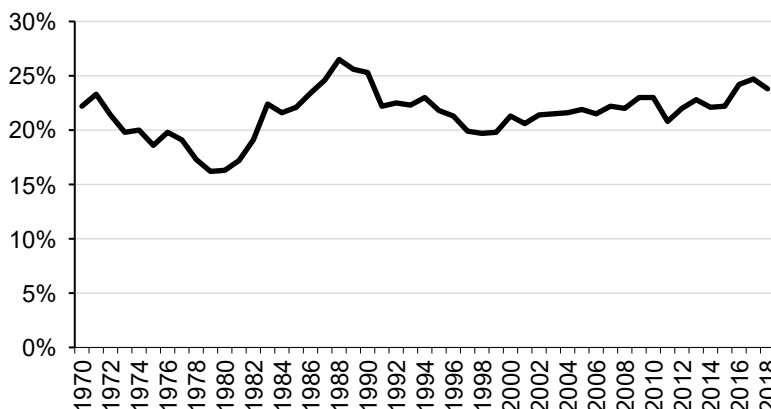
- In 2018, Washakie County, Wyoming, WY had the largest percent of labor earnings from government employment (23.8%), and United States had the smallest (15.9%).
- In 2018, state & local government was the largest source of government related personal income in the Washakie County, WY (18.4%), and military was the smallest (0.5%).

Percent of Total Labor Earnings from Government Jobs, 2018



- In 1970, government personal income represented 22 percent of labor earnings. By 2018, government personal income had increased to 24 percent of labor earnings.

Percent of Total Labor Earnings from Government Jobs, Washakie County, WY



Data Sources: U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

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Data and Graphics | Page 8

Government Employment

Washakie County, WY

Government Earnings by Type

What do we measure on this page?

This page describes labor earnings from government employment by type (federal, military, and state and local) compared to the rest of the economy. It also shows aggregate government earnings trends.

Unlike industry-specific EPS reports that primarily provide information on employment by industry, this report also provides information on personal income earned by people working in the government sector. This is possible because (unlike industry income data that is often not disclosed to avoid revealing proprietary information³) government income data is universally available from the Bureau of Economic Analysis.

Why is it important?

Government employment can be a major source of labor earnings, particularly in rural areas and locations where significant government facilities (such as military bases, prisons, research facilities, and federal land management agencies) are located. Government jobs often pay high wages and offer good benefits. State and local government is typically the largest part of government employment.⁴

Government jobs and the income they provide can be uncertain as seen in the military base closures in some communities. On the other hand, new government employment associated with increased recreation or new facilities can be a boon to local economies. Despite changes in the makeup of federal government jobs, they provide wages and benefits that can serve as a buffer against the impacts of national recessions.⁵

Government Employment

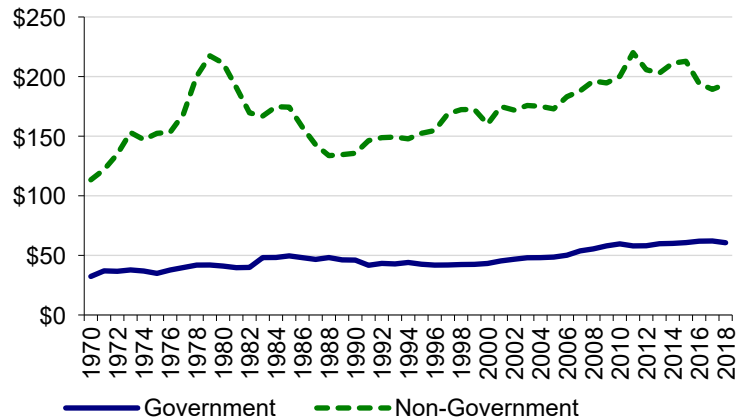
Washakie County, WY

Government Earnings Trends

- From 1970 to 2018, government labor earnings grew from \$32.33 million to \$60.61 million, an increase of 87 percent.
- From 1970 to 2018, non-government labor earnings grew from \$113.38 million to \$193.71 million, an increase of 71 percent.

Millions of 2019 \$s

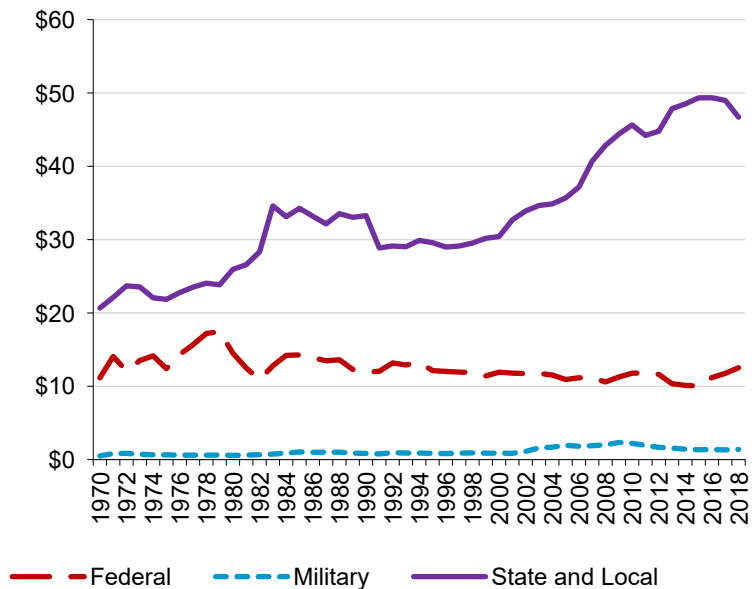
Government and Non-Government Earnings, Washakie County, WY



- From 1970 to 2018, state and local government labor earnings grew from \$20.67 million to \$46.69 million, an increase of 126 percent.
- From 1970 to 2018, military labor earnings grew from \$0.51 million to \$1.39 million, an increase of 174 percent.
- From 1970 to 2018, federal civilian government labor earnings grew from \$11.16 million to \$12.53 million, an increase of 12 percent.

Millions of 2019 \$s

Government Earnings by Type, Washakie County, WY



Government Employment

Washakie County, WY

Government Earnings Trends

What do we measure on this page?

This page describes trends in labor earnings from government employment compared to labor earnings from non-government employment. It also shows trends in labor earnings from government employment by type (federal, military, and state and local).

Why is it important?

Government employment can be a major source of earnings, particularly in rural areas and locations where significant government facilities (such as military bases, prisons, or research facilities) are located. Government jobs often pay high wages and offer good benefits. State and local government is typically the largest part of government employment.⁴

Understanding the change in government labor earnings over time and the components of government labor earnings offers insight into the role of government as an economic sector. Labor earnings from government employment may be relatively stable, or they may be growing or declining in absolute or relative terms. Trends in federal, military, and state and local government employment and labor earnings are often different from one another.

Government Employment

Washakie County, WY

Wages and Employment

Wages, 2018	Washakie County, Wyoming, WY	United States
Total Private & Public (2019 \$s)	\$41,569	\$58,297
Government	\$43,494	\$58,696
Federal Government	\$72,619	\$85,163
State Government	\$51,397	\$61,844
Local Government	\$35,466	\$52,442
Total Private	\$40,989	\$58,228
Non-Services	\$51,021	\$66,999
Natural Resources and Mining	\$47,453	\$60,702
Ag., Forestry, Fishing, Hunting	\$35,324	\$36,487
Mining	\$70,343	\$106,134
Construction	\$46,181	\$63,856
Manufacturing (Incl. Forest Prod.)	\$54,729	\$69,759
Services	\$36,664	\$56,366
Trade, Transportation, Utilities	\$42,460	\$48,464
Information	\$41,291	\$115,829
Financial Activities	\$52,109	\$97,282
Professional and Business	\$43,831	\$76,522
Education and Health	\$40,080	\$51,352
Leisure and Hospitality	\$13,800	\$24,520
Other Services	\$21,400	\$39,157
Unclassified	\$0	\$58,257

Percent of Employment, 2018	Washakie County, Wyoming, WY	United States
Government	23.6%	14.8%
Federal Government	3.2%	1.9%
State Government	4.4%	3.2%
Local Government	16.0%	9.7%
Total Private	76.3%	85.2%
Non-Services	23.0%	14.9%
Natural Resources and Mining	4.9%	1.3%
Ag., Forestry, Fishing, Hunting	3.2%	0.9%
Mining	1.7%	0.5%
Construction	5.9%	4.9%
Manufacturing (Incl. Forest Prod.)	12.1%	8.7%
Services	53.3%	70.3%
Trade, Transportation, Utilities	17.1%	18.8%
Information	2.2%	1.9%
Financial Activities	4.1%	5.6%
Professional and Business	3.6%	14.3%
Education and Health	14.6%	15.5%
Leisure and Hospitality	9.0%	11.1%
Other Services	2.8%	3.1%
Unclassified	0.0%	0.1%

Data Sources: U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Page 12

Government Employment

Washakie County, WY

Wages and Employment

What do we measure on this page?

This page describes wages (in real terms) from types of government employment compared to wages from non-government employment. It also describes the employment share in each category.

The tables on this page and charts in the following section of this report display average annual wages and employment share side by side to show which industries pay the highest salaries, and the relative significance of each employment category.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.

In addition, the Bureau of Labor Statistics categorizes types of government differently than the Bureau of Economic Analysis used elsewhere in this report. The Bureau of Labor Statistics breaks out government jobs and wages as federal, state, and local. The Bureau of Economic Analysis breaks out government jobs and personal income as federal, military, and state and local.

Depending on the location(s) selected, some data may not be available due to disclosure restrictions. Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Occasionally, one or more data values underlying the data aggregations shown on this page are non-disclosed. When this occurs, the values are indicated with tildes (~).

Why is it important?

Government employment can be an important economic sector and generally pays relatively high wages, especially in rural areas. However, there are often disparities between wages at different levels of government (federal, state, and local) and between locations. The tables on this page show wages and employment levels at different levels of government and for the private sectors for comparison.

Government Employment

Washakie County, WY

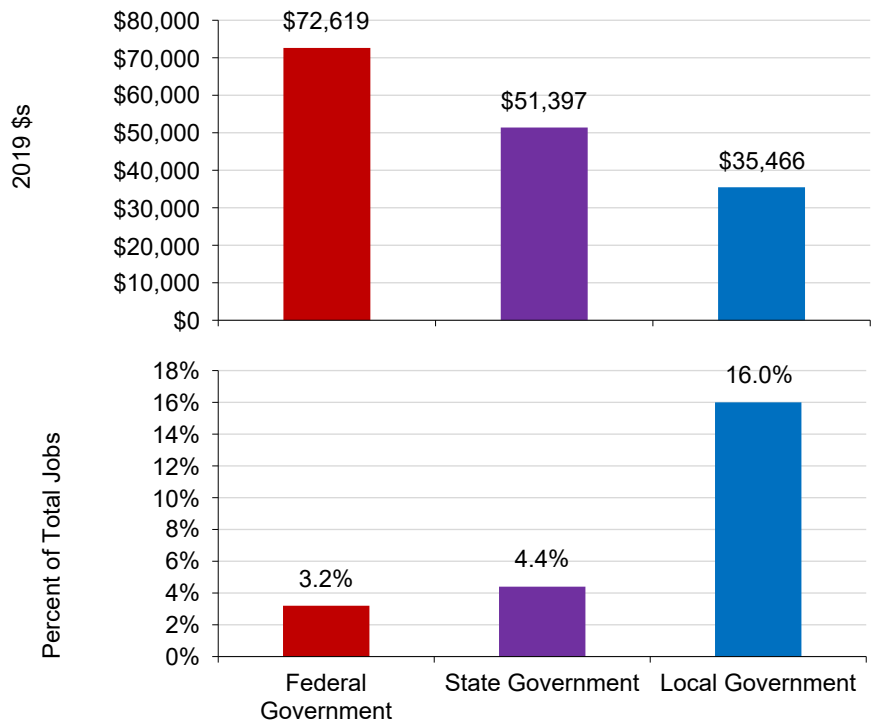
Federal, State, and Local Comparisons

- In 2018, federal government paid the highest wages of the government sectors (\$72,619) followed by state government (\$51,397) and local government (\$35,466).

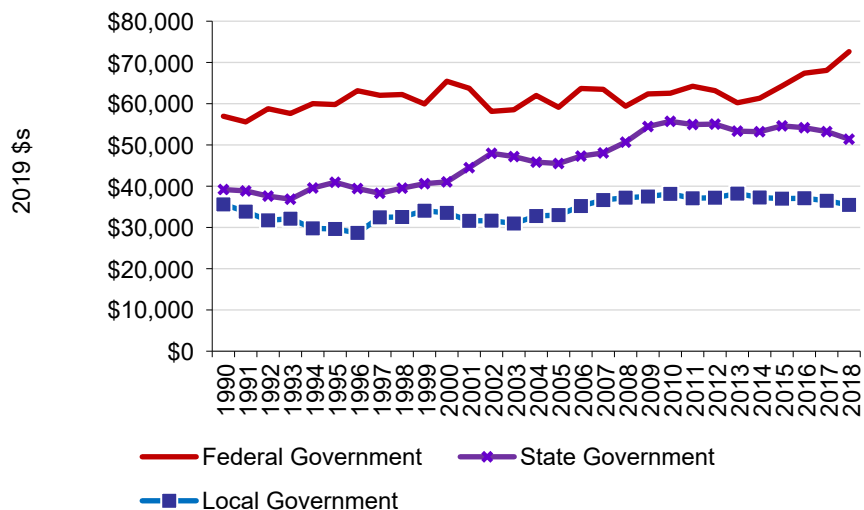
- In 2018, local government employed the most people of the government sectors (16% of total jobs), followed by state government (4.4% of total jobs), and federal government (3.2% of total jobs).

- From 1990 to 2018, federal government average annual wages grew from \$56,962 to \$72,619, increase of 28 percent.
- From 1990 to 2018, state government average annual wages grew from \$39,191 to \$51,397, increase of 31 percent.
- From 1990 to 2018, local government average annual wages shrank from \$35,588 to \$35,466, decrease of percent.

Avg. Annual Wages & Percent of Total Employment in Government by Type, Washakie County, WY, 2018



Avg. Annual Wages in Government, Washakie County, WY



Data Sources: U.S. Department of Labor. 2019. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

Find more reports like this at headwaterseconomics.org/eps

Data and Graphics | Page 14

Government Employment

Washakie County, WY

Federal, State, and Local Comparisons

What do we measure on this page?

This page describes average wages (in real terms) per employee by federal, state, and local governments, and the share of total employment by these three levels of government. The line graph shows how government wages adjusted for inflation have changed over time.

The wage and employment data on this page are from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.

In addition, the Bureau of Labor Statistics categorizes types of government differently than the Bureau of Economic Analysis used elsewhere in this report. The Bureau of Labor Statistics breaks out government jobs and wages as federal, state, and local. The Bureau of Economic Analysis breaks out government jobs and personal income as federal, military, and state and local.

Bureau of Labor Statistics data begin in 1990. Data shown earlier in this report from the Bureau of Economic Analysis are available continuously from 1970. Depending on the locations selected, some data may not be available due to disclosure restrictions.

Why is it important?

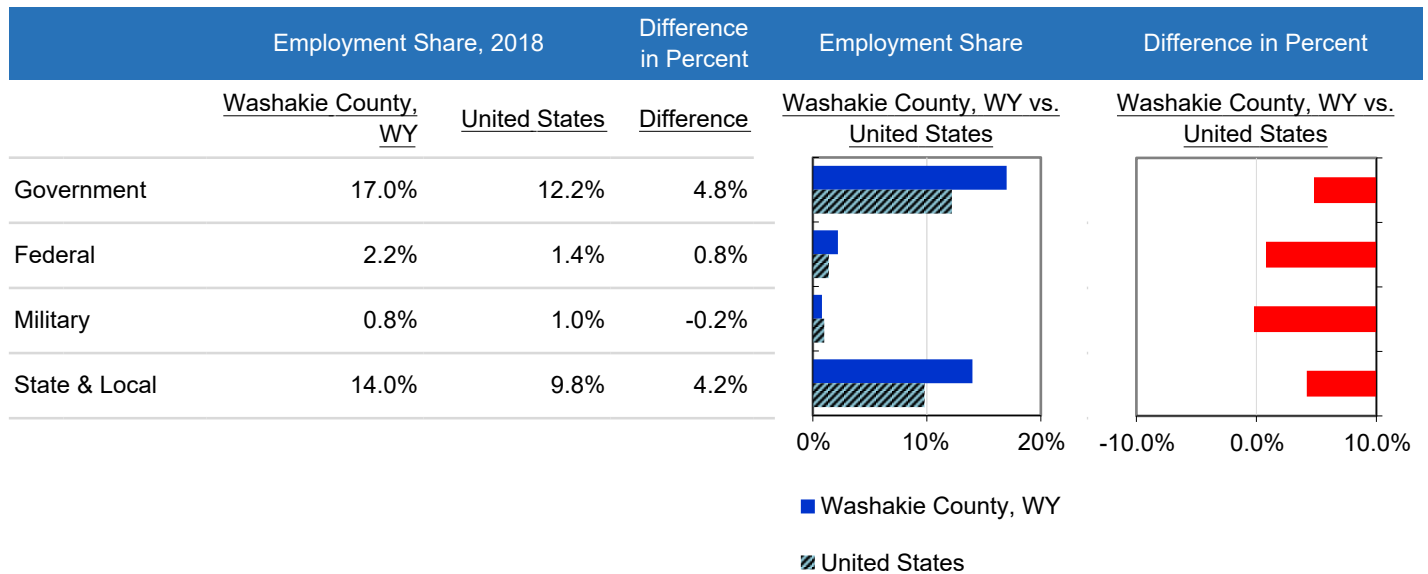
Comparing wages and jobs side by side shows which government sectors pay the highest salaries on average, and the relative significance of each category.

Government employment can be an important economic sector and generally pays relatively high wages, especially in rural areas. However, there are often disparities between wages at different levels of government (federal, state, and local) and between locations.

Government Employment

Washakie County, WY

Comparisons



- In 2018, federal government employment as a percent of total employment was 0.8 percent larger in the Washakie County, WY than in the U.S.
- In 2018, military employment as a percent of total employment was -0.2 percent smaller in the Washakie County, WY than in the U.S.
- In 2018, state and local government employment as a percent of total employment was 4.2 percent larger in the Washakie County, WY than in the U.S.

Government Employment

Washakie County, WY

Comparisons

What do we measure on this page?

This page describes the difference in government employment between the selected region and the benchmark⁶ area by comparing government jobs as a share of total employment. (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Why is it important?

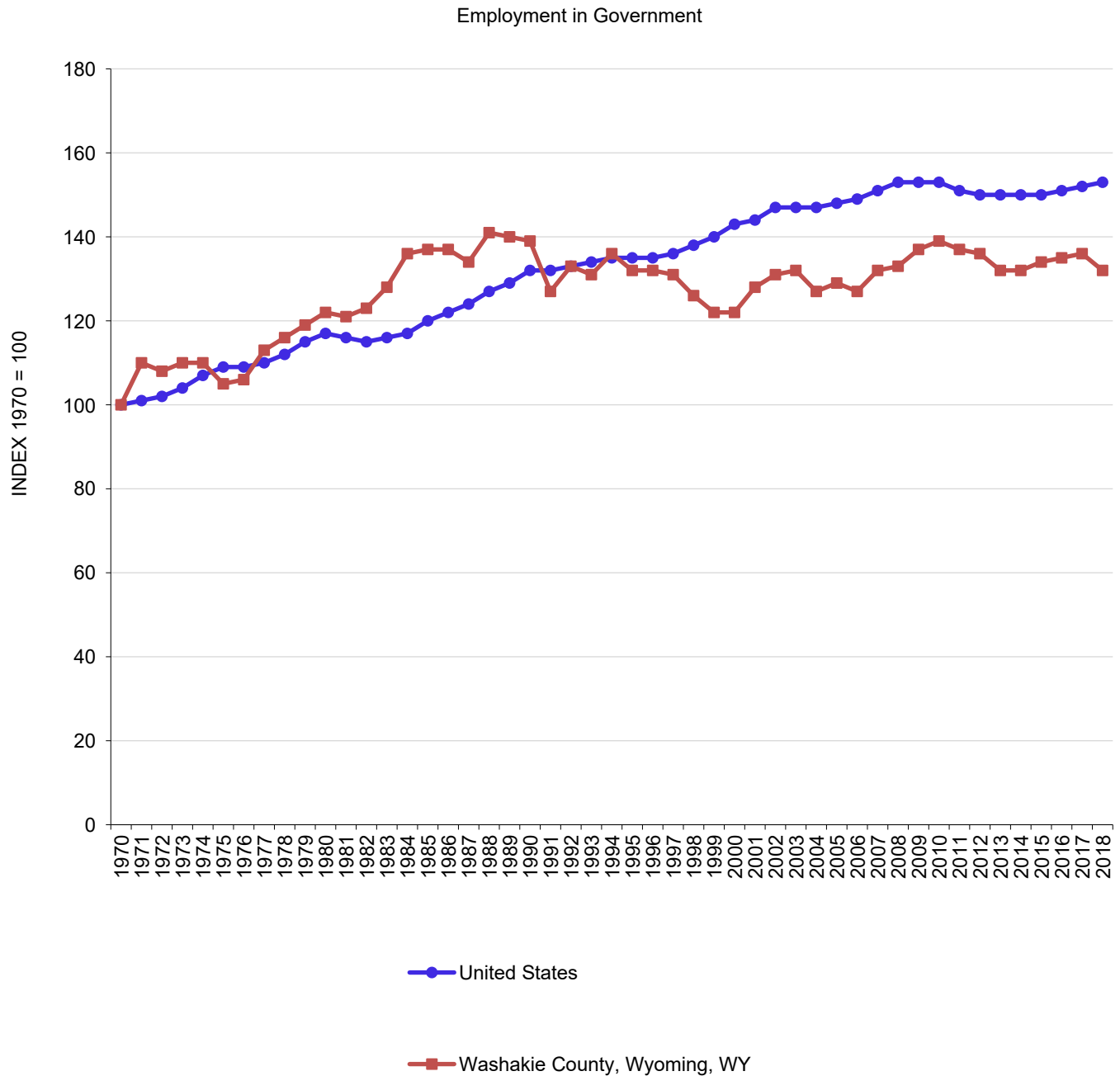
Government can be a major employer, particularly in rural areas and where significant government facilities such as Forest Service and Bureau of Land Management offices, military bases, prisons, and research facilities are located. Government jobs often pay high wages and offer good benefits. State and local government is typically the largest part of government employment.⁴

Government jobs can also be important when they bring money into the area from outside. For example, Forest Service and Bureau of Land Management offices, as well as federally funded research institutions and military bases, can bring significant dollars into the local economy by employing local people at relatively high wages.

Government Employment

Washakie County, WY

Comparisons Over Time



- From 1998 to 2018, Washakie County, WY had the fastest rate of change in government employment, and Washakie County, WY had the slowest.

Government Employment

Washakie County, WY

Comparisons Over Time

What do we measure on this page?

This page compares the change in government employment for the selected location(s) and the selected benchmark area. The information is indexed (1970=100) so that different-sized economies can be compared and to illustrate the relative rate of growth or decline of government employment over time.

Index: Indexed numbers are compared with a base value. In the line chart, employment in 1970 is the base value and is set to 100. The employment values for subsequent years are expressed as 100 times the ratio to the base value. (If many locations are selected, it may be difficult to read the figure on this page.)

Why is it important?

Not all locations have attracted or lost government employment at the same rate. An indexed chart makes it clear where the rate of government-related growth or decline has been the fastest. Lines above 100 indicate absolute growth while those below 100 show absolute decline. The steeper the curve, the faster the rate of change.

This line chart can also be used to examine differences of year-to-year fluctuations of growth or decline between selected locations.

Government Employment

Washakie County, WY

Data Sources & Methods

This EPS Government Employment report uses statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **Regional Economic Information System**
Bureau of Economic Analysis, U.S. Department of Commerce
<https://www.bea.gov/regional/>
- **Quarterly Census of Employment and Wages**
Bureau of Labor Statistics, U.S. Department of Labor
<https://www.bls.gov/cew>

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Government Employment

Washakie County, WY

Endnotes

- 1 - For more information on how the Bureau of Economic Analysis classifies tribal government, see <https://www.bea.gov/help/faq/104>.
- 2 - To see whether a selected location has a reservation or significant tribal population, create EPS Land Use and Demographics reports at <https://headwaterseconomics.org/eps>.
- 3 - Industry-specific EPS reports use County Business Patterns data because there are fewer disclosure problems.
- 4 - The U.S. Census of Governments provides detailed survey data on local government employment and payroll. Data specific to local government are available at <https://www.census.gov/govs/>.
- 5 - Gude PH, R Rasker, KL Jones, JH Haggerty, and MC Greenwood. 2012. The Recession and the New Economy of the West: The Familiar Boom and Bust Cycle? Growth and Change 43(3): 419-441. https://headwaterseconomics.org/wp-content/uploads/Western_Counties_Recession_Paper.pdf and <https://headwaterseconomics.org/economic-development/trends-performance/western-counties-recession/>.
- 6 - The use of the term “benchmark” in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).

A Profile of Federal Land Payments

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

U.S.

Produced by
Economic Profile System

EPS

July 1, 2020

About the Economic Profile System (EPS)

EPS is a free, easy-to-use software application that produces detailed socioeconomic reports of counties, states, and regions, including custom aggregations.

EPS uses published statistics from federal data sources, including Bureau of Economic Analysis and Bureau of the Census, U.S. Department of Commerce; and Bureau of Labor Statistics, U.S. Department of Labor.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See headwaterseconomics.org/EPS for more information about the other tools and capabilities of EPS.

For technical questions, contact Patty Gude at eps@headwaterseconomics.org, or 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions in the West.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of the Interior, administers 249.8 million acres of America's public lands, located primarily in 12 Western States. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to achieve quality land management under the "sustainable multiple-use management concept" to meet the diverse needs of people while protecting the resource. Significant intellectual, conceptual, and content contributions were provided by the following individuals: Dr. Pat Reed, Dr. Jessica Montag, Doug Smith, M.S., Fred Clark, M.S., Dr. Susan A. Winter, and Dr. Ashley Goldhor-Wilcock.

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Note to Users:

This is one of fourteen reports that can be created and downloaded from EPS Web. You may want to run another EPS report for either a different geography or topic. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. Throughout the reports, references to online resources are indicated in parentheses. These resources are provided as hyperlinks on each report's final page. The EPS reports are downloadable as Excel, PDF, and Word documents. For further information and to download reports, go to:

headwaterseconomics.org/eps

What are federal land payments?

This page describes all federal land payments distributed to state and local governments by the geography of origin.

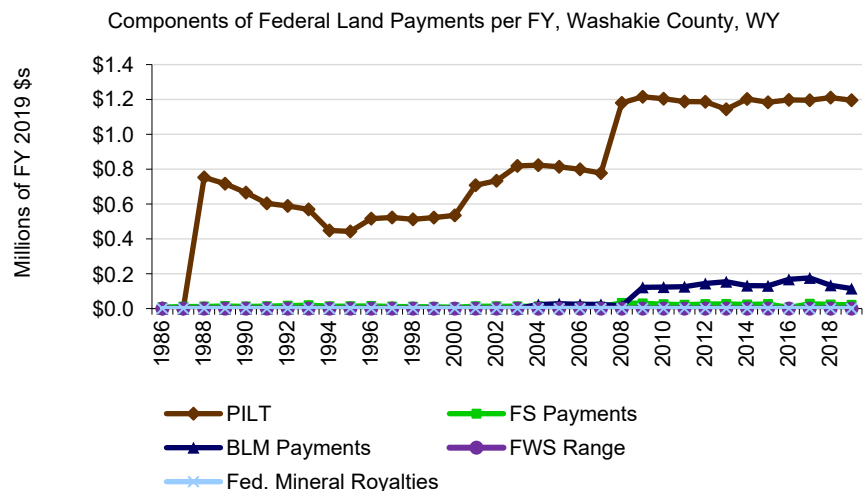
Components of Federal Land Payments to State and Local Governments by Geography of Origin, FY 2019 (FY 2019 \$s)

	Washakie County, Wyoming, WY	United States
Total Federal Land Payments	1,332,183	3,335,621,039
PILT	1,195,552	514,642,856
Forest Service Payments	21,795	244,461,717
BLM Payments	114,836	119,527,080
USFWS Refuge Payments	0	20,235,867
Federal Mineral Royalties	0	2,436,753,520

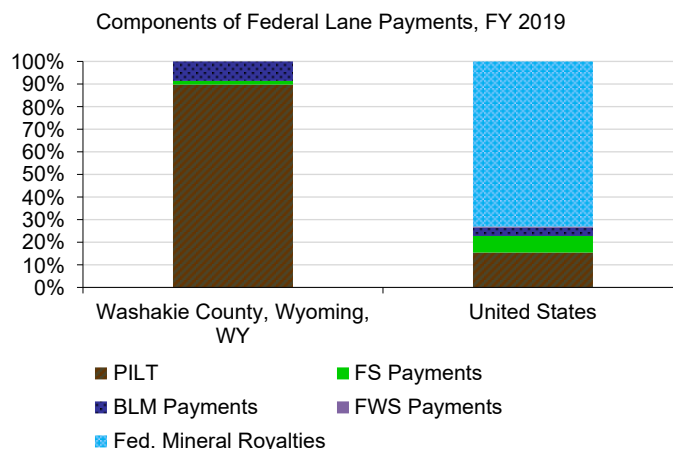
Percent of Total

PILT	89.7%	15.4%
Forest Service Payments	1.6%	7.3%
BLM Payments	8.6%	3.6%
USFWS Refuge Payments	0.0%	0.6%
Federal Mineral Royalties	0.0%	73.1%

- From FY 1986 to FY 2019, Forest Service revenue sharing payments grew from \$8,698 to \$21,795, an increase of 151 percent.
- From FY 1986 to FY 2019, BLM revenue sharing payments grew from \$0 to \$114,836.



- In FY 2019, PILT made up the largest percent of federal land payments in Washakie County, WY (89.7%), and USFWS Refuge Payments made up the smallest (0%).



Data Sources: U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), , Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, , Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, , Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, , Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, , Washington, D.C.

What are federal land payments?

What do we measure on this page?

This page describes all federal land payments distributed to state and local governments by the geography of origin.

Federal land payments: These are federal payments that compensate state and local governments for non-taxable federal lands within their borders. Payments are funded by federal appropriations (e.g., PILT) and from receipts received by federal agencies from activities on federal public lands (e.g., timber, grazing, and minerals).

Payments in Lieu of Taxes (PILT): These payments compensate county governments for non-taxable federal lands within their borders. PILT is based on a maximum per-acre payment reduced by the sum of all revenue sharing payments and subject to a population cap.

Forest Service Revenue Sharing: These are payments based on USFS receipts and must be used for county roads and local schools. Payments include the 25% Fund, Secure Rural Schools & Community Self-Determination Act, and Bankhead-Jones Forest Grasslands.

BLM Revenue Sharing: The BLM shares a portion of receipts generated on public lands with state and local governments, including grazing fees through the Taylor Grazing Act and timber receipts generated on Oregon and California (O & C) grant lands.

USFWS Refuge: These payments share a portion of receipts from National Wildlife Refuges and other areas managed by the USFWS directly with the counties in which they are located.

Federal Mineral Royalties: These payments are distributed to state governments by the U.S. Office of Natural Resources Revenue. States may share, at their discretion, a portion of revenues with the local governments where royalties were generated.

Federal Fiscal Year: FY refers to the federal fiscal year that begins on October 1 and ends September 30.

Why is it important?

State and local government cannot tax federally owned lands the way they would if the land were privately owned. A number of federal programs exist to compensate county governments for the presence of federal lands. These programs can represent a significant portion of local government revenue in rural counties with large federal land holdings.

Before 1976, all federal payments were linked directly to receipts generated on public lands. Congress funded PILT with appropriations beginning in 1977 in recognition of the volatility and inadequacy of federal revenue sharing programs. PILT was intended to stabilize and increase federal land payments to county governments. More recently, the Secure Rural Schools and Community Self-Determination Act of 2000 (SRS) decoupled USFS payments from commercial receipts. SRS received broad support because it addressed several major concerns around receipt-based programs--volatility, the payment level, and the incentives provided to counties by linking federal land payments directly to extractive uses of public lands.

PILT and SRS each received a significant increase in federal appropriations in FY 2008 through the Emergency Economic Stabilization Act of 2008. Despite the increased appropriations, SRS is authorized only through FY 2011, PILT only through FY 2012, and federal budget concerns are creating uncertainty for the future of both.

Methods

Data Limitations: Local government distributions of federal land payments may be underreported due to data limitations from USFWS, ONRR, and some states that make discretionary distributions of mineral royalties and some BLM payments.

Significance of Data Limitations: USFWS data limitations are relatively insignificant at the federal level (data gaps on local distributions of USFWS Refuge revenue sharing is less than one percent of total federal land payments in FFY 2009) but may be important to specific local governments with significant USFWS acreage. Federal mineral royalties represent a more significant omission in states that share a portion of royalties with local governments. Federal mineral royalties made up 68% of federal land payments in the U.S. in FFY 2008.

Additional Resources

An Inquiry into Selected Aspects of Revenue Sharing on Federal Lands. 2002. A report to The Forest County Payments Committee, Washington, D.C. by Research Unit 4802 - Economic Aspects of Forest Management on Public Lands, Rocky Mountain Research Station, USDA Forest Service, Missoula, MT.

Gorte, Ross W., M. Lynne Corn, and Carol Hardy Vincent. 1999. Federal Land Management Agencies' Permanently Appropriated Accounts. Congressional Research Service Report RL30335.

Trends in federal land payments are closely tied to commodity extraction on public lands. For more on the economic importance (in terms of jobs and income) of these activities, see the EPS-HDT Socioeconomic Measures report and other industry specific reports at headwaterseconomics.org/eps (1).

For data on federal land ownership, see the EPS-HDT Land Use report at headwaterseconomics.org/eps (1).

Data Sources

U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, Washington, D.C.; Additional sources and methods available at www.headwaterseconomics.org/eps-hdt

How are federal land payments distributed to state and local governments?

This page describes how federal land payments are distributed to state and local governments by geography of origin.

Distribution of Federal Land Payments to State and Local Governments by Geography of Origin, FY 2019 (FY 2019 \$s)

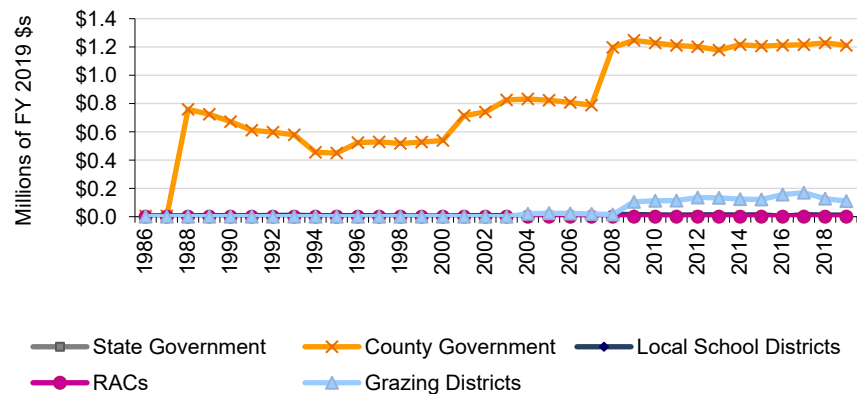
	Washakie County, Wyoming, WY	United States
Total Federal Land Payments	1,332,183	3,335,621,039
State Government	0	2,425,143,696
County Government	1,210,950	781,888,049
Local School Districts	10,898	91,564,791
RACs	0	25,615,606
Grazing Districts	110,336	11,408,898

Percent of Total

State Government	0.0%	72.7%
County Government	90.9%	23.4%
Local School Districts	0.8%	2.7%
RACs	0.0%	0.8%
Grazing Districts	8.3%	0.3%

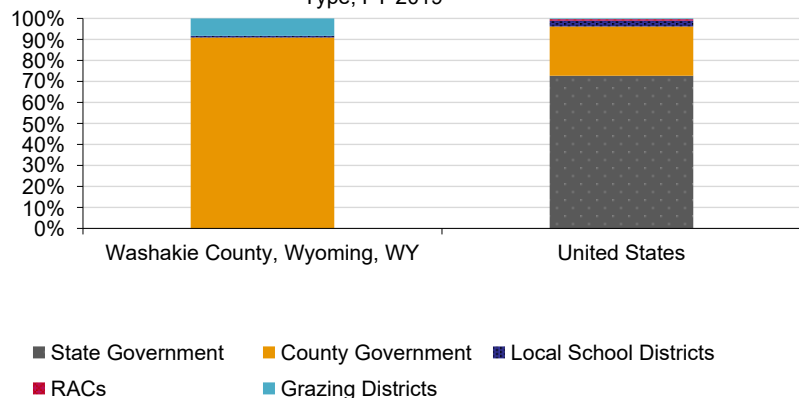
Distribution of Federal Land Payments to State and Local Governments per FY, Washakie County, WY

- From FY 1986 to FY 2019, the amount county governments received in federal land payments grew from \$4,349 to \$1,210,950, an increase of 27744 percent.



Distribution of Federal Land Payments to State and Local Governments by Type, FY 2019

- In FY 2019, County Government made up the largest percent of federal land payments in Washakie County, WY (90.9%), and State Government made up the smallest (0%).



Data Sources: U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), , Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, , Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, , Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, , Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, , Washington, D.C.

Study Guide and Supplemental Information

How are federal land payments distributed to state and local governments?

What do we measure on this page?

This page describes how federal land payments are distributed to state and local governments by geography of origin.

Why is it important?

A variety of state and local governments receive federal land payments, and the way these payments are distributed explains who benefits. For example, PILT is directed to county government only, while USFS payments are shared between county government and schools. If USFS payments decline, the PILT formula ensures that county government payments will increase, but school districts will not share in the increased PILT payments. While PILT and SRS have decoupled local government payments from commercial activities on public lands, all the federal land payments delivered to state government (mineral royalties, BLM revenue sharing payments) are still linked directly to how public lands are managed. This means state legislators and governors have a different set of expectations and incentives to lobby for particular outcomes on public lands than do county commissioners or school officials.

Methods

State Government Distributions: Consist of: (1) federal mineral royalties and (2) portions BLM revenue sharing. States make subsequent distributions to local government according to state and federal statute (see note about data limitations).

County Government Distributions: Consist of: (1) PILT; (2) portions of Forest Service payments including Secure Rural Schools and Community Self-Determination Act (SRS) Title I and Title III, 25% Fund, and Forest Grasslands ; (4) BLM Bankhead-Jones; (4) USFWS Refuge revenue sharing; and (5) discretionary state government distributions of federal mineral royalties where these data are available.

Local School District Distributions: Consist of portions of SRS Title I, 25% Fund, and Forest Grasslands.

Resource Advisory Council (RAC) Distributions: Consist of SRS Title II. These funds are retained by the Federal Treasury to be used on public land projects on the national forest or BLM land where the payment originated. Resource Advisory Committee (RAC) provides advice and recommendations to the Forest Service on the development and implementation of special projects on federal lands as authorized under the Secure Rural Schools Act and Community Self-Determination Act, Public Law 110-343. Each RAC consists of 15 people representing varied interests and areas of expertise, who work collaboratively to improve working relationships among community members and national forest personnel.

Grazing District Distributions: Consist of BLM Taylor Grazing Act payments.

Data Limitations: Local government distributions of federal land payments may be underreported due to data limitations from USFWS, ONRR, and from states (some states make discretionary distributions of mineral royalties and some BLM payments, and these data may not be available).

Additional Resources

An Inquiry into Selected Aspects of Revenue Sharing on Federal Lands. 2002. A report to The Forest County Payments Committee, Washington, D.C. by Research Unit 4802 - Economic Aspects of Forest Management on Public Lands, Rocky Mountain Research Station, USDA Forest Service, Missoula, MT.

Gorte, Ross W., M. Lynne Corn, and Carol Hardy Vincent. 1999. Federal Land Management Agencies' Permanently Appropriated Accounts. Congressional Research Service Report RL30335.

Trends in federal land payments are closely tied to commodity extraction on public lands. For more on the economic importance (in terms of jobs and income) of these activities, see the EPS Socioeconomic Measures report and other industry specific reports at headwaterseconomics.org/eps (1).

Data Sources

U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), , Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, , Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, , Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, , Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, , Washington, D.C.; Additional sources and methods available at www.headwaterseconomics.org/eps-hdt

How are federal land payments distributed to county governments allocated to unrestricted and restricted uses?

This page describes the amount of money distributed to county governments (federal land payments distributed to the state, school districts, grazing districts, and RACs are excluded) based on the permitted uses of federal land payments.

Allocation of Federal Land Payments to County Government by Permitted Use, FY 2019 (FY 2019 \$s)

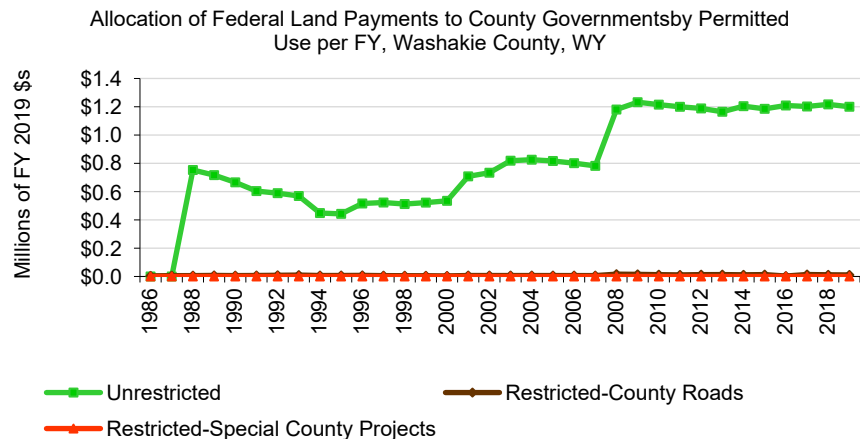
	Washakie County, Wyoming, WY	United States
Total Federal Land Payments	1,210,950	781,888,049
Unrestricted	1,200,052	656,460,051
Restricted-County Roads	10,898	113,183,686
Restricted-Special County Projects	0	12,244,312

Percent of Total

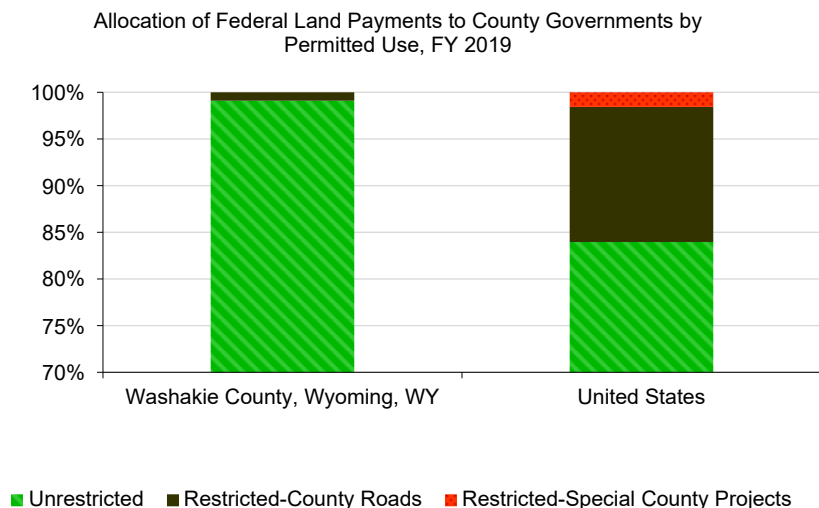
Unrestricted	99.1%	84.0%
Restricted-County Roads	0.9%	14.5%
Restricted-Special County Projects	0.0%	1.6%

- From 1986 to 2019, unrestricted federal land payments grew from \$0 to \$1,200,052.

- From FY 1986 to FY 2019, federal land payments restricted to county roads grew from \$4,349 to \$10,898, an increase of 151 percent.



- In FY 2019, unrestricted federal land payments were the largest type of payment to the county government in Washakie County, WY (99.1%), and restricted-special county projects were the smallest (0%).



Data Sources: U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, Washington, D.C.

How are federal land payments distributed to county governments allocated to unrestricted and restricted uses?

What do we measure on this page?

This page describes the amount of money distributed to county governments (federal land payments distributed to the state, school districts, grazing districts, and RACs are excluded) based on the permitted uses of federal land payments.

Why is it important?

County governments can incur a number of costs associated with activities that take place on federal public lands within their boundaries. For example, counties must maintain county roads used by logging trucks and recreational traffic traveling to and from federal lands, and they must pay for law enforcement and emergency services associated with public lands. Several federal land payment programs, particularly those from the Forest Service, are specifically targeted to help pay for these costs.

Methods

Unrestricted: Consist of (1) PILT, (2) U.S. Fish and Wildlife Service Refuge Revenue Sharing, and (3) any distributions of federal mineral royalties from the state government.

Restricted--County Roads: Consist of (1) Secure Rural Schools and Community Self-Determination Act (SRS) Title I, (2) Forest Service 25% Fund, (3) Forest Service Owl payments (between 1993 and 2000 only), and (4) Forest Grasslands. Federal law mandates payments be used for county roads and public schools. Each state determines how to split funds between the two services.

Restricted--Special County Projects: Consist of (1) SRS Title III funds that are distributed to county government for use on specific projects, such as Firewise Communities projects, reimbursement for emergency services provided on federal land, and developing community wildfire protection plans.

Data Limitations: Local government distributions of federal land payments may be underreported due to data limitations from USFWS, ONRR, and from states (some states make discretionary distributions of mineral royalties and some BLM payments, and these data may not be available).

Additional Resources

An Inquiry into Selected Aspects of Revenue Sharing on Federal Lands. 2002. A report to The Forest County Payments Committee, Washington, D.C. by Research Unit 4802 - Economic Aspects of Forest Management on Public Lands, Rocky Mountain Research Station, USDA Forest Service, Missoula, MT.

Gorte, Ross W. 2008. The Secure Rural Schools and Community Self-Determination Act of 2000: Forest Service Payments to Counties. Congressional Research Service Report RL33822.

Data Sources

U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), , Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, , Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, , Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, , Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, , Washington, D.C.; Additional sources and methods available at www.headwaterseconomics.org/eps-hdt

How important are federal land payments to state and local governments?

This page describes federal land payments as a proportion of total county and state government general revenue.

Federal Land Payments as a Share of Total General Government Revenue, Thousands of FY 2017 (FY 2019 \$s)

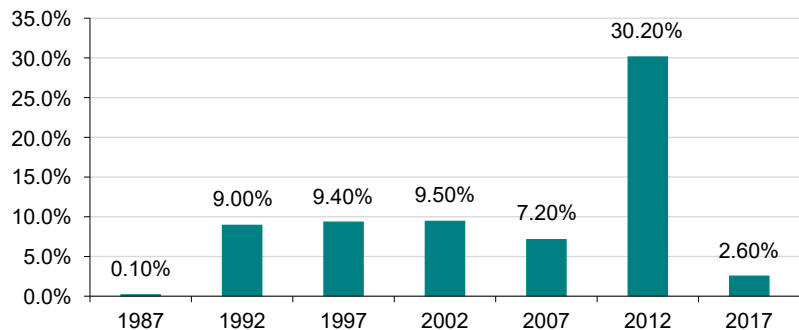
	Washakie County, Wyoming, WY	United States
Total General Revenue	52,638	0
Taxes	10,174	0
Intergovernmental Revenue	36,631	0
Total Charges	4,399	0
All Other (Miscellaneous)	1,433	0
Federal Land Payments (FY 2016)	1,371	2,099,044

Percent of Total

Taxes	19.3%	na
Intergovernmental Revenue	69.6%	na
Total Charges	8.4%	na
All Other (Miscellaneous)	2.7%	na
Federal Land Payments (FY 2016)	2.6%	na

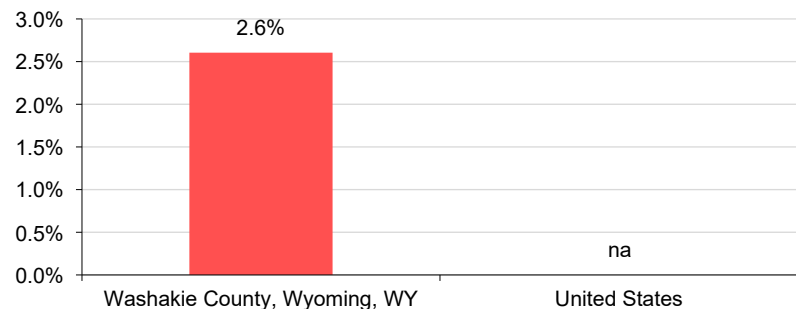
Federal Land Payments per FY, Percent of Total General Government Revenue, Washakie County, WY

- From FY 1987 to FY 2017, federal land payments grew from 0.1 to 2.6 percent of total general government revenue, an increase of 2500 percent.



Federal Land Payments, Percent of Total General Government Revenue, FY 2017

- In FY 2017, federal land payments as a percent of total general government revenue in Washakie County, WY was 2.6%.



Data Sources: U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), , Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, , Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, , Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, , Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, , Washington, D.C.

Study Guide and Supplemental Information

How important are federal land payments to state and local governments?

What do we measure on this page?

This page describes federal land payments as a proportion of total county and state government general revenue.

Reporting Period: Total general revenue data are from the U.S. Census of Governments, which is conducted every five years. To correct for the different reporting periods, federal land payments allocated in any given year are compared to total government revenue received in the following year (see Methods section below). Congressional funding for federal land payments has varied from year to year, resulting in volatility in the share of revenue from these payments.

Taxes: All taxes collected by state and local governments, including property, sales, and income tax.

Intergovernmental Revenue: Payments, grants, and distributions from other governments, including federal education, health care, and transportation assistance to state governments, and state assistance to local governments.

Total Charges: Charges imposed for providing current services, including social services, library, and clerk and recorder charges.

All Other (Miscellaneous): All other general government revenue from their own sources.

Why is it important?

County payments are an important component of local government fiscal health for a handful of rural counties with a large share of land in federal ownership. For counties with fewer public lands and larger economies, federal land payments are a small piece of a much broader revenue stream. Counties most dependent on federal land payments are affected most by changes in distribution and funding levels. For these counties, volatility and uncertainty makes budgeting and planning difficult.

Methods

Reporting Period: The Census of Government FY covers the period July 1 to June 30 for most states and counties and does not match the federal FY beginning October 1 and ending September 31. Federal land payments reported for the current FY are often distributed to counties during the following FY. For example, Forest Service payments authorized and appropriated for FY 2017 are delivered to counties in January of 2018, during the Census of Government FY 2018. To correct for the different reporting periods, federal land payments allocated in any given year are compared to local government revenue received in the following year.

Federal Land Payments Data Limitations: Local government distributions of federal land payments may be underreported due to data limitations from USFWS, ONRR, and from states (some states make discretionary distributions of mineral royalties and some BLM payments, and these data may not be available).

Census of Governments Data Limitations: (1) county financial statistics may not match local government financial reports for three main reasons: (a) The Census of Government defines the general county government as the aggregation of the parent (county) government and all agencies, institutions, and authorities connected to it (including government and quasi-governmental entities). This may differ from the way local governments define themselves for budgeting purposes; (b) different reporting periods between the Census of Governments fiscal year and the reporting period used by local governments (for example, some counties use a calendar year for reporting purposes); and (c) survey methods introduce error; (2) the last published edition of the Census of Governments was FY 2007, before the recent increase in payments from SRS and PILT; and (3) federal land payments data limitations may under-represent the importance of federal land payments relative to other sources of county revenue.

Additional Resources

U.S. Census Bureau State and Local Government Finance statistics can be downloaded at: census.gov/govs/estimate/ (2).

For a detailed description of Census of Governments survey methods, survey year (fiscal year), and definitions, see: 2006 Government Finance and Employment Classification Manual at census.gov/govs/ (3).

Schuster, Ervin G. and Krista M. Gebert. 2001. Property Tax Equivalency on Federal Resource Management Lands. *Journal of Forestry*. May 2001 pp 30-35.

Ingles, Brett. 2004. Changing the Funding Structure: An Analysis of the Secure Rural School and Community Self-Determination Act of 2000 on National Forest Lands. Environmental Science and Public Policy Research Institute, Boise State University.

Data Sources

U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), , Washington, D.C.; U.S. Department of Agriculture. 2020. Forest Service, , Washington, D.C.; U.S. Department of Interior. 2018. Bureau of Land Management, , Washington, D.C.; U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, , Washington, D.C.; U.S. Department of Interior. 2020. Office of Natural Resources Revenue, , Washington, D.C.; Additional sources and methods available at www.headwaterseconomics.org/eps-hdt

What are Payments in Lieu of Taxes (PILT)?

This page describes Payments in Lieu of Taxes (PILT).

PILT Eligible Acres by Agency, FY 2019

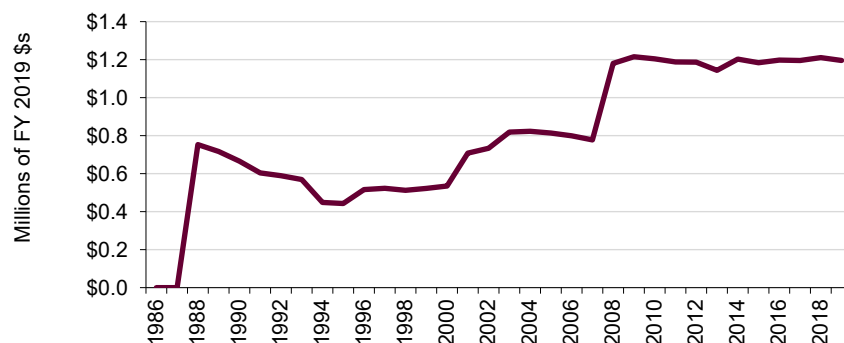
	Washakie County, Wyoming, WY	United States
Total Eligible Acres	959,404	606,606,516
BLM	922,258	241,379,728
Forest Service	36,063	190,604,263
Bureau of Reclamation	1,083	3,934,317
National Park Service	0	77,035,624
Military	0	327,144
Army Corps of Engineers	0	8,065,957
U.S. Fish and Wildlife Service	0	85,235,987
Other Eligible Acres	0	23,496
PILT Payment (FY 2019 \$s)	1,195,552	514,642,856
Avg. Per-Acre Payment (FY 2019 \$s)	1.25	0.85

Percent of Total

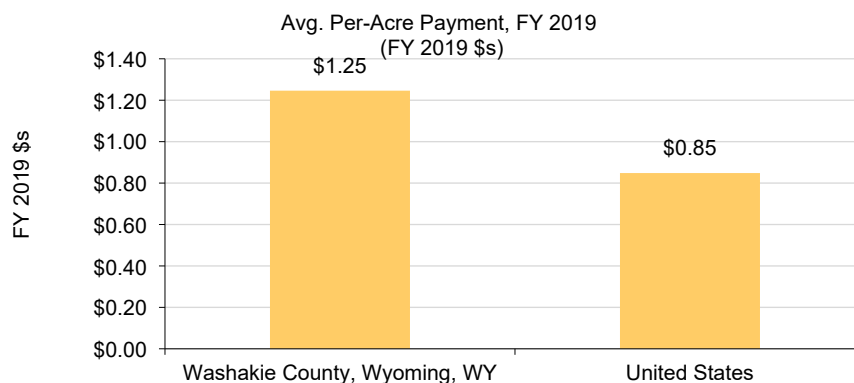
BLM	96.1%	39.8%
Forest Service	3.8%	31.4%
Bureau of Reclamation	0.1%	0.6%
National Park Service	0.0%	12.7%
Military	0.0%	0.1%
Army Corps of Engineers	0.0%	1.3%
U.S. Fish and Wildlife Service	0.0%	14.1%
Other Eligible Acres	0.0%	0.0%

Payments in Lieu of Taxes (PILT) per FY, Washakie County, WY

- From FY 1986 to FY 2019, PILT payments grew from \$0 to \$1,195,552.



- In FY 2019, Washakie County, Wyoming, WY had the highest average per-acre PILT payment (\$1.25), and United States had the lowest (\$0.85).



Study Guide and Supplemental Information

What are Payments in Lieu of Taxes (PILT)?

What do we measure on this page?

This page describes Payments in Lieu of Taxes (PILT).

Congress authorized PILT in 1976 in recognition of the volatility and inadequacy of federal revenue sharing payment programs to compensate counties for non-taxable federal lands within their borders (Public Law 94-565). PILT increases and stabilizes county government revenue sharing payments by paying counties based on a per-acre average "base payment" that is reduced by the amount of revenue sharing payments and is subject to a population cap.

A low average per-acre PILT payment may indicate significant revenue sharing payments from the previous year or that the county's population is below the population cap that limits the base per acre payment.

PILT is permanently authorized, but congress must appropriate funding on an annual basis. PILT was typically not fully funded until FY 2008 when counties received a guarantee of five years at full payment amounts (FY 2008 to FY 2012 payments).

Why is it important?

As county payments became more important to local government after WWII (largely due to high timber extraction levels to fuel the post-war housing and economic growth), volatility became an issue. PILT increased and stabilized payments by funding counties from congressional appropriations rather than directly from commodity receipts. PILT payments are also important because they are not restricted to particular local government services, but can be used at the discretion of county commissioners to fund any local government needs.

Additional Resources

The U.S. Department of the Interior maintains an online searchable database of PILT payments and eligible PILT acres by county and state total. Data are available back to FY 1999 at: doi.gov/nbc/index.cfm (4).

Schuster, Ervin G. 1995. PILT - Its Purpose and Performance. *Journal of Forestry*. 93(8):31-35.

Corn, M. Lynne. 2008. PILT (Payments in Lieu of Taxes): Somewhat Simplified. Congressional Research Service Report RL31392.

Data Sources

U.S. Department of Interior. 2020. Payments in Lieu of Taxes (PILT), , Washington, D.C.

What is Forest Service Revenue Sharing?

This page describes Forest Service revenue sharing programs, including the Secure Rural Schools and Community Self-Determination Act (SRS), 25% Fund, and Forest Grasslands.

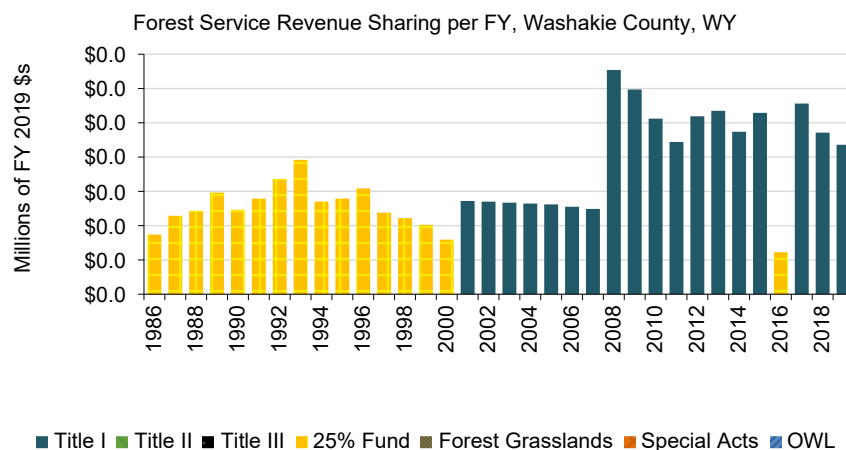
Forest Service Revenue Sharing Payments, FY 2019 (FY 2019 \$s)

	Washakie County, Wyoming, WY	United States
Forest Service Total	21,795	244,461,717
Secure Rural Schools Total	21,795	225,675,114
Title I	21,795	192,113,150
Title II	0	23,193,229
Title III	0	10,368,735
25% Fund	0	12,635,327
Forest Grasslands	0	0
Special Acts	0	6,151,276

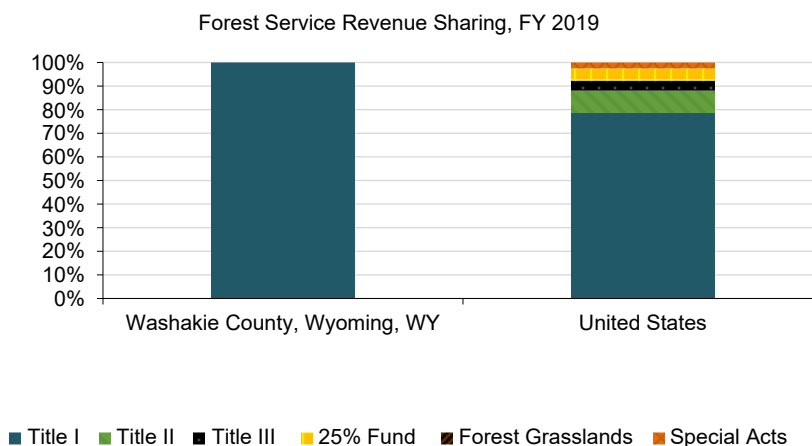
Percent of Total

Secure Rural Schools Total	100.0%	92.3%
Title I	100.0%	78.6%
Title II	0.0%	9.5%
Title III	0.0%	4.2%
25% Fund	0.0%	5.2%
Forest Grasslands	0.0%	0.0%
Special Acts	0.0%	2.5%

- From FY 1986 to FY 2019, Forest Service revenue sharing payments grew from \$8,698 to \$21,795, an increase of 151 percent.



- In FY 2019, Title I payments were the greatest portion of Forest Service revenue sharing in Washakie County, WY (100%), and Title II were the smallest (0%).



What is Forest Service Revenue Sharing?

What do we measure on this page?

This page describes Forest Service revenue sharing programs, including the Secure Rural Schools and Community Self-Determination Act (SRS), 25% Fund, and Forest Grasslands.

U.S. Forest Service 25 Percent Fund: The 25% Fund, established in 1908, shares revenue generated from the sale of commodities produced on public land with the county where the activities take place. Twenty-five percent of the value of public land receipts are distributed directly to counties and must be used to fund roads and schools. States determine how to allocate receipts between these two local services.

The Secure Rural Schools and Community Self-Determination Act of 2000 (SRS), or Public Law 106-393: SRS was enacted in FY 2001 to provide 5 years of transitional assistance to rural counties affected by the decline in revenue from timber harvests on federal lands. SRS was reauthorized for a single year in 2007, and again in 2008 for a period of four years. The SRS Act has three titles that allocate payments for specific purposes.

- Title I - these payments to counties make up 80 to 85 percent of the total SRS payments and must be dedicated to funding roads and schools. States determine the split between these two services, and some states let the counties decide.
- Title II - these funds are retained by the federal treasury to be used on special projects on federal land. Resource advisory committees (RACs) at the community level help make spending determinations and monitor project progress.
- Title III - these payments may be used to carry out activities under the Firewise Communities program, to reimburse the county for search and rescue and other emergency services, and to develop community wildfire protection plans.

What is the Relationship Between the 25% Fund and SRS? Counties elect to receive Secure Rural Schools Payments, or to continue with 25% Fund payments. Most counties have elected to receive Secure Rural Schools payments. Some counties, particularly in the East, continue to prefer 25% Fund payments to Secure Rural Schools.

Forest Grasslands: Forest Grasslands are lands acquired by the Forest Service through the Bankhead-Jones Farm Tenant Act of 1937 (P.L. 75-210). The Act authorized acquisition of damaged lands to rehabilitate and use them for various purposes. Receipts from activities on Forest Grasslands are shared directly with county governments.

Special Acts: These include Payments to Minnesota (Act of June 22, 1948, 16 U.S.C. 577g), payments associated with the Quinault Special Management Area in Washington (P.L. 100-638, 102 Stat. 3327), and receipts from the sale of quartz from the Ouachita National Forest in Arkansas (§423, Interior Appropriations Act for FY1989; P.L. 100-446, 102 Stat. 1774). Payments to Minnesota provides a special payment (75% of the appraised value) for lands in the Boundary Waters Canoe Area in St. Louis, Cook, and Lake counties. The Forest Service shares 45 percent of timber receipts from the Quinault Special Management Area with both the Quinault Indian Tribe and with the State of Washington. Congress directed the Forest Service to sell quartz from the Ouachita National Forest as common variety mineral materials (rather than being available under the 1872 General Mining Law), with 50 percent of the receipts to Arkansas counties with Ouachita National Forest lands for roads and schools.

Why is it important?

USFS revenue sharing is the largest source of federal land payments to counties on a national basis (federal mineral royalties are distributed to states). For some counties it provides a significant portion of total local government revenue. Payments became important after WWII when timber harvests on the National Forests increased sharply in response to post-war housing and economic growth.

As the timber economy shifted and ideas about public land management changed, harvests declined and county payments along with it. Congress addressed these changes by authorizing "owl" transition payments in the Pacific Northwest, and later extended the concept of transition payments nationally in 2000 with the SRS act. SRS changed USFS revenue sharing in three fundamental ways: SRS (1) decoupled county payments from National Forest receipts traditionally dominated by timber, (2) introduced new purposes of restoration and stewardship through Title II funds that pay for projects on public lands, and (3) addressed payment equity concerns by adjusting county and school payments based on economic need (the Title I formula is adjusted using each county's per capita personal income).

SRS transition payments are only authorized through FY 2011, at which point Congress must decide to extend and/or reform SRS, or allow it to expire. If SRS expires, counties will again receive payments from the 25% Fund, recoupling payments directly to commercial activities on public land.

Additional Resources

Secure Rural Schools and Community Self Determination Act payments available at: fs.usda.gov/pts/ (5).

Gorte, Ross W. 2008. The Secure Rural Schools and Community Self-Determination Act of 2000: Forest Service Payments to Counties. Congressional Research Service Report RL33822.

Data Sources

U.S. Department of Agriculture. 2020. Forest Service, , Washington, D.C.; Additional sources and methods available at www.headwaterseconomics.org/eps-hdt

What is BLM Revenue Sharing?

This page describes BLM payments to states and local governments. Payments are derived from a variety of revenue-generating activities on BLM land, including revenue from the sale of land and materials, grazing, and minerals leasing.

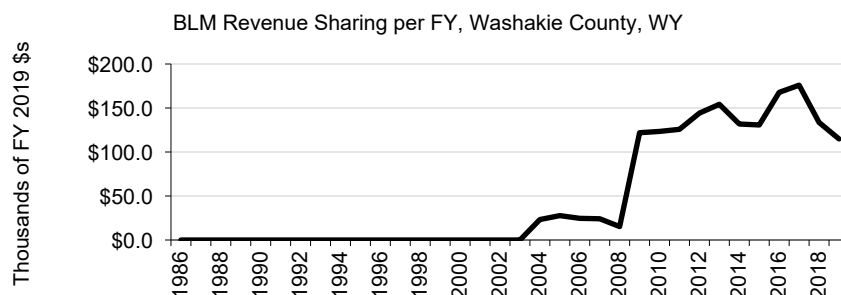
BLM Payments to States and Local Governments, FY 2019 (FY 2019 \$s)

	Washakie County, Wyoming, WY	United States
Total BLM Payments (\$)	114,836	119,527,080
Proceeds of Sales	735	841,038
Mineral Leasing Act	0	161,154
Taylor Grazing Act	110,336	11,408,898
State Payments	0	43,099,278
National Grasslands	0	353,738
Miscellaneous Receipts	3,765	14,131,824
O&C and CBWR land grants	0	49,531,151
Title I	0	24,355,073
Title II	0	2,422,377
Title III	0	1,875,577

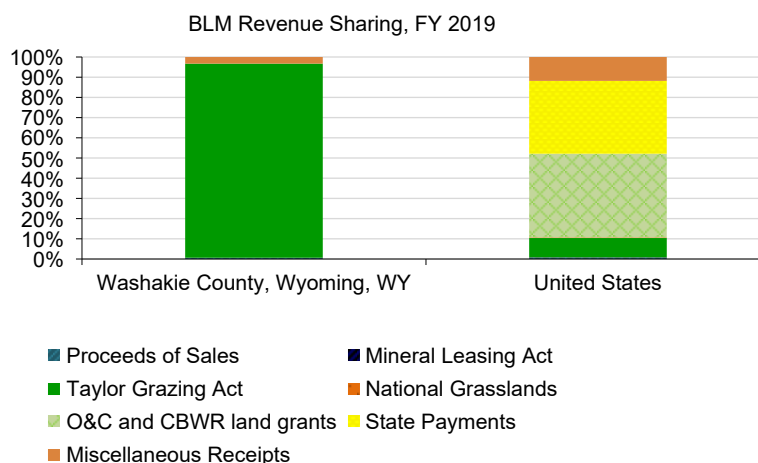
Percent of Total

Proceeds of Sales	0.6%	0.7%
Mineral Leasing Act	0.0%	0.1%
Taylor Grazing Act	96.1%	9.5%
State Payments	0.0%	36.1%
National Grasslands	0.0%	0.3%
Miscellaneous Receipts	3.3%	11.8%
O&C and CBWR land grants	0.0%	41.4%
Title I	0.0%	20.4%
Title II	0.0%	2.0%
Title III	0.0%	1.6%

- From FY 1986 to FY 2019, BLM revenue sharing payments grew from \$0 to \$114,836.



- In FY 2019, Taylor Grazing Act payments were the greatest portion of BLM revenue sharing in Washakie County, WY (96.1%), and Mineral Leasing Act payments were the smallest (0%).



Study Guide and Supplemental Information

What is BLM Revenue Sharing?

What do we measure on this page?

This page describes BLM payments to states and local governments. Payments are derived from a variety of revenue-generating activities on BLM land, including revenue from the sale of land and materials, grazing, and minerals leasing.

Proceeds of Sales: These include receipts from the sale of land and materials.

Mineral Leasing Act: These include Oil and Gas Right of Way lease revenue and the National Petroleum Reserve - Alaska Lands. These do not include royalties from mineral leasing on BLM lands, which are distributed by the Office of Natural Resources Revenue (ONRR). For ONRR payments see worksheet 10.

Taylor Grazing Act: The Taylor Grazing Act, June 28, 1934, established grazing allotments on public land and extended tenure to district grazers. In 1936 the Grazing Service (BLM) enacted fees to be shared with the county where allotments and leases are located. Funds are restricted to use for range improvements (e.g., predator control, noxious weed programs) in cooperation with BLM or livestock organizations.

- Section 3 of the Taylor Grazing Act concerns grazing permits issued on public lands within grazing districts established under the Act.
- Section 15 of the Taylor Grazing Act concerns issuing grazing leases on public lands outside the original grazing district established under the Act.

National Grasslands: Revenue derived from the management of National Grasslands under the Bankhead-Jones Farm Tenant Act (7 U.S.C. 1012), and Executive Order 10787, November 6, 1958.

Oregon and California Land Grants: These include (1) the Oregon and California (O&C) land grant payment and (2) Coos Bay Wagon Road (CBWR) payment administered by the Secure Rural Schools and Community Self-Determination Act. Amounts include Title I, Title II, and Title III payments (see the Forest Service revenue sharing section in this report for definitions and information on the Secure Rural Schools and Community Self-Determination Act).

Why is it important?

The BLM is the nation's largest land owner, and activities that take place on BLM lands can be extremely important to adjacent communities. Similarly, the non-taxable status of BLM lands is important to local government who must provide services to county residents, and provide public safety and law enforcement activities on BLM lands. BLM revenue sharing programs provide resources to local governments in lieu of property taxes (and these revenue sharing dollars are supplemented by PILT).

Methods

BLM data on this page are from BLM FRD 196 and FRD 198 reports. The FRD 196 reports receipts by county and state of origin while the FRD 198 reports actual distribution amounts to state and local governments. FRD 198 is not available for some years, so the FRD 196 report is used. To arrive at distribution amounts from receipts, the Legal Allocation of BLM Receipts (Table 3-31 of BLM Public Land Statistics) was used. Some error is likely. In addition, some data are obtained directly from states. Distribution statistics obtained from the state or local government are related to the previous FY's reported distributions (BLM distributions reported for federal FY 2008 are received and reported by state and local government in FY 2009.)

Additional Resources

BLM Public Land Statistics are available at the Annual Reports and Public Land Statistics website:
blm.gov/wo/st/en/res/Direct_Links_to_Publications/ann_rpt_and_pls.html (6).

Information about the Taylor Grazing Act is available at: blm.gov/wy/st/en/field_offices/Casper/range/taylor.1.html (7).

Data Sources

U.S. Department of Interior. 2018. Bureau of Land Management, , Washington, D.C.; Additional sources and methods available at www.headwaterseconomics.org/eps-hdt

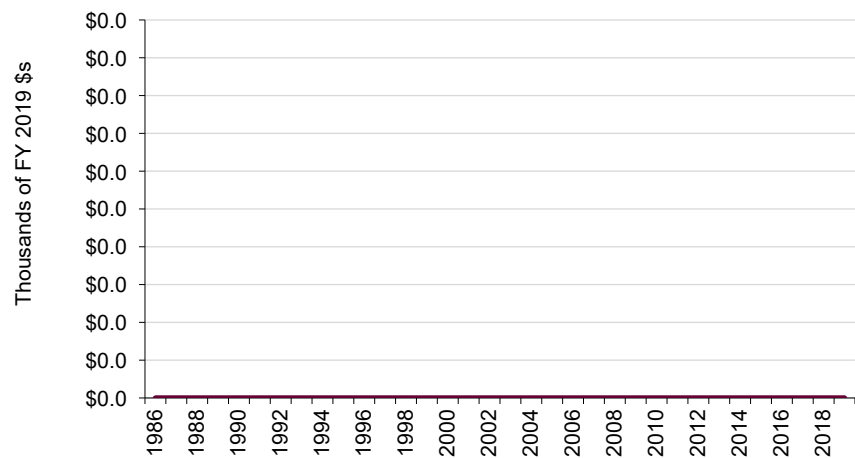
What is U.S. Fish and Wildlife Service Refuge Revenue Sharing?

This page describes U.S. Fish and Wildlife Service Refuge revenue sharing.

USFWS Refuge Revenue Sharing Payments, FY 2019 (FY 2019 \$s)

	Washakie County, Wyoming, WY	United States
USFWS Refuge Revenue Share	0	20,235,867

USFWS Refuge Revenue Sharing per FY, Washakie County, WY



What is U.S. Fish and Wildlife Service Refuge Revenue Sharing?

What do we measure on this page?

This page describes U.S. Fish and Wildlife Service Refuge revenue sharing.

Twenty-five percent of the net receipts collected from the sale of various products or privileges from Refuge lands, or three-quarters of one percent (0.75%) of the adjusted purchase price of Refuge land, whichever is greater, is shared with the counties in which the Refuge is located.

Why is it important?

National Wildlife Refuges and other lands administered by the U.S. Fish and Wildlife Service do not pay property taxes to local governments. The Refuge revenue sharing program is intended to compensate counties for non-taxable Refuge lands. As with other revenue sharing programs, these payments can be important if USFWS ownership is a large percentage of all land in the county, reducing the ability of the local government to raise sufficient tax revenue to provide basic services. In addition, linking payments to revenue derived from USFWS lands can create incentives for local government officials to lobby for particular uses of public land.

Methods

Data Limitations: The USFWS publishes a database of Refuge revenue sharing payments for FY 2006 and FY 2007 only, and does not make data available for other years for the nation. Data on Refuge revenue sharing may be obtained directly from the receiving county government. County governments may request county-specific Refuge revenue sharing payment data from U.S. Fish and Wildlife Services, Division of Financial Management, Denver Operations.

Significance of Data Limitations: Data limitations are relatively insignificant on the national scale (USFWS Refuge revenue sharing payments were about 4% of total federal land payments for the United States in FY 2007), however they may be significant for counties that have large areas managed by USFWS.

Additional Resources

A detailed description of USFWS Refuge revenue sharing payments is available on the U.S. Fish and Wildlife Service Realty website at: fws.gov/refuges/realty/rrs.html (8).

The Refuge Revenue Sharing Database is available at: fws.gov/refuges/realty/RRS/2007/RevenueSharing_Search_2007.cfm (9). The database currently only includes payments for FY 2006 and FY 2007. The agency does not provide data for the nation for additional years.

Data Sources

U.S. Department of Interior. 2020. U.S. Fish and Wildlife Service, , Washington, D.C.

What are Federal Mineral Royalties?

This page describes components of federal mineral royalty distributions to state and local governments.

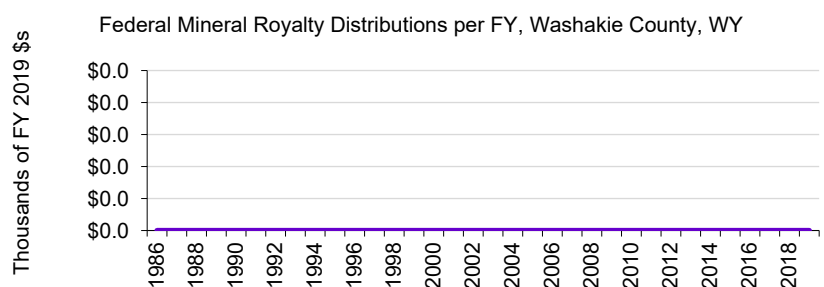
Federal Mineral Royalties by Source, FY 2019 (FY 2019 \$s)

	Washakie County, Wyoming, WY	United States
Total Federal Royalty	0	2,436,753,520
Royalties	0	1,573,162,306
Coal	0	227,081,448
Natural Gas	0	471,999,830
Gas Plant Products	0	0
Oil	0	926,752,349
Other	0	-52,671,321
Non-Royalty Revenue	0	636,930,915
Rents	0	0
Bonus	0	614,413,327
Other Revenues	0	22,517,588
Geothermal	0	11,721,302
GOMESA	0	214,938,996

Percent of Total

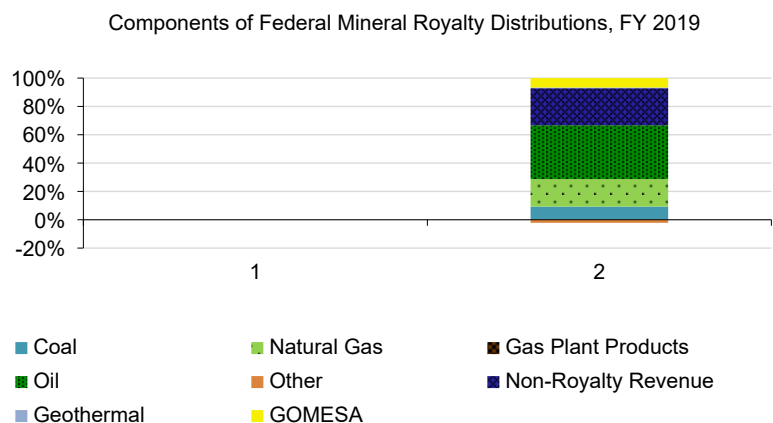
Royalties	na	64.6%
Coal	na	9.3%
Natural Gas	na	19.4%
Gas Plant Products	na	0.0%
Oil	na	38.0%
Other	na	-2.2%
Non-Royalty Revenue	na	26.1%
Rents	na	0.0%
Bonus	na	25.2%
Other Revenues	na	0.9%
Geothermal	na	0.5%
GOMESA	na	8.8%

This table shows federal royalties disbursed directly to state and local governments. States may share a portion of their royalties with counties. These state "pass through" disbursements are not reported here. See 'Additional Resources'.



- In FY 2019, oil royalties were the largest component of federal mineral royalties in United States (38%), and other were the smallest (-2.2%).

- In FY 2019, bonus were the largest component of federal mineral non-royalty revenue in United States (25.2%), and rents were the smallest (0%).



What are Federal Mineral Royalties?

What do we measure on this page?

This page describes the components of federal mineral royalty distributions to state and local governments across geographies, and trends for the region.

Royalties, rents, and bonus payments from mining activities on federal land are shared with the state of origin (49% of revenue is returned to states and 51% is retained by the federal government). In addition, revenue from geothermal production on federal lands and a share of royalties from offshore drilling the Gulf of Mexico (GOMESA) are shared directly with county governments. State and local governments determine how to spend their share of federal mineral royalties within broad federal guidelines (priority must be given to areas socially or economically impacted by mineral development for planning, construction/maintenance of public facilities, and provision of public services).

Royalties: Royalty payments represent a stated share or percentage of the value of the mineral produced. The royalty may be an established minimum, a step-scale, or a sliding-scale. A step-scale royalty rate increases by steps as the average production on the lease increases. A sliding-scale royalty rate is based on average production and applies to all production from the lease. A royalty is due when production begins.

Geothermal: Geothermal payments are distributed directly to counties where the activity takes place.

GOMESA: The Gulf of Mexico Energy Security Act of 2006 (GOMESA) makes distributions of offshore federal mineral royalties to coastal states and communities. The four states and their eligible political subdivisions receiving revenues from the GOMESA leases include Alabama, Louisiana, Mississippi, and Texas.

Rents: A rent schedule is established at the time a lease is issued. Rents are annual payments, normally a fixed dollar amount per acre, required to preserve the right to a lease.

Bonuses: Leases issued in areas known or believed to contain minerals are awarded through a competitive bidding process. Bonuses represent the cash amount successfully bid to win the rights to a lease.

Other Revenues: A disbursement that is not a royalty, rent, or bonus. Other revenue may include minimum royalties, settlement payments, gas storage fees, estimated payments, recoupments, and fees for sand and gravel used for beach restoration.

Why is it important?

Mineral royalties are the largest source of revenue derived from extractive activities on public lands. Mineral extraction can place significant demands on federal, state, and local infrastructure and services. Royalty revenue helps meet some of these demands. They are also designed to provide an ongoing public benefit from the depletion of non-renewable resources owned by the public.

Methods

Data Limitations: State governments that receive federal mineral royalty distributions often choose to pass through a share of federal distributions directly to the local government of origin (the location where the royalties were generated). For example, Montana distributes 25 percent of the state government's share of federal mineral royalties with the county of origin. Because information about royalties by county of origin and state government distributions to local governments are not published by ONRR, EPS users must contact each state directly for these data.

Headwaters Economics includes a list of state distribution policy, links to data, and contact information for Western U.S. States in the EPS Federal, State, and Local Government Financial Data Methods and Resources document. http://headwaterseconomics.org/wphw/wp-content/uploads/EPS_Federal_Land_Payments_Documentation_1-30-2011.pdf.

Additional Resources

Headwaters Economics provides a methods document specific to the EPS Federal Lands Payments report that includes a list of state distribution policy, links to data, and contact information for Western U.S. States in the EPS-HDT Federal, State, and Local Government Financial Data Methods and Resources document: headwaterseconomics.org/wphw/wp-content/uploads/EPS_Federal_Land_Payments_Documentation_1-30-2011.pdf (10).

For more definitions, see the Glossary of Mineral Terms, Office of Natural Resources Revenue available at: onrr.gov/Stats/pdfdocs/glossary.pdf (11).

Data Sources

U.S. Department of Interior. 2020. Office of Natural Resources Revenue, , Washington, D.C.

Data Sources

The EPS Federal Land Payments report uses published statistics from government sources that are available to the public and cover the entire country. All data used in EPS can be readily verified by going to the original source. The contact information for databases used in this profile is:

- **U.S. Census of Governments**
Census Bureau, U.S. Department of Commerce
www.census.gov/govs
Tel. 800-242-2184
- **U.S. Fish and Wildlife Service**
Realty Division, U.S. Department of Interior
www.fws.gov
Tel. 703-358-1713
- **U.S. Office of Natural Resources Revenue**
U.S. Department of Interior
www.onrr.gov
Tel. 303-231-3078
- **U.S. Bureau of Land Management**
U.S. Department of Interior
www.blm.gov
Tel. 202-208-3801
- **U.S. Forest Service**
U.S. Department of Agriculture
www.fs.fed.us
Tel. 800-832-1355

Methods

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers.

EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time.

EPS employs cross-sectional benchmarking, comparing smaller geographies such as counties to larger regions, states, and the nation, to give a sense of relative performance.

EPS allows users to aggregate data for multiple geographies, such as multi-county regions, to accommodate a flexible range of user-defined areas of interest and to allow for more sophisticated cross-sectional comparisons.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Links to Additional Resources

For more information about EPS see:

headwaterseconomics.org/EPS

Web pages listed under Additional Resources include:

Throughout this report, references to on-line resources are indicated with italicized numbers in parentheses. These resources are provided as hyperlinks here.

- 1 headwaterseconomics.org/eps
- 2 www.census.gov/govs/estimate/
- 3 www.census.gov/govs/
- 4 www.doi.gov/nbc/index.cfm
- 5 www.fs.usda.gov/pts/
- 6 www.blm.gov/wo/st/en/res/Direct_Links_to_Publications/ann_rpt_and_pls.html
- 7 www.blm.gov/wy/st/en/field_offices/Casper/range/taylor.1.html
- 8 www.fws.gov/refuges/realty/rrs.html
- 9 www.fws.gov/refuges/realty/RRS/2007/RevenueSharing_Search_2007.cfm
- 10 headwaterseconomics.org/wphw/wp-content/uploads/EPS_Federal_Land_Payments_Documentation_1-30-2011.pdf
- 11 www.onrr.gov/Stats/pdfdocs/glossary.pdf

A Profile of Development and the Wildland-Urban Interface (WUI)

Washakie County, WY

Selected Geographies:

Washakie County, Wyoming, WY

United States

Benchmark Geographies:

United States

Produced by
Economic Profile System

EPS

July 1, 2020

About the Economic Profile System (EPS)

EPS is a free, easy-to-use software application that produces detailed socioeconomic reports of counties, states, and regions, including custom aggregations.

EPS uses published statistics from federal data sources, including Bureau of Economic Analysis and Bureau of the Census, U.S. Department of Commerce; and Bureau of Labor Statistics, U.S. Department of Labor.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See headwaterseconomics.org/EPS for more information about the other tools and capabilities of EPS.

For technical questions, contact Patty Gude at eps@headwaterseconomics.org, or 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions in the West.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of the Interior, administers 249.8 million acres of America's public lands, located primarily in 12 Western States. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to achieve quality land management under the "sustainable multiple-use management concept" to meet the diverse needs of people while protecting the resource. Significant intellectual, conceptual, and content contributions were provided by the following individuals: Dr. Pat Reed, Dr. Jessica Montag, Doug Smith, M.S., Fred Clark, M.S., Dr. Susan A. Winter, and Dr. Ashley Goldhor-Wilcock.

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How many homes are in the WUI, and what proportion are permanently versus seasonally occupied?	6
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Note to Users:

This is one of fourteen reports that can be created and downloaded from EPS Web. You may want to run another EPS report for either a different geography or topic. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. Throughout the reports, references to online resources are indicated in parentheses. These resources are provided as hyperlinks on each report's final page. The EPS reports are downloadable as Excel, PDF, and Word documents. For further information and to download reports, go to:

headwaterseconomics.org/eps

How much of the WUI has been developed, and how much has not yet been developed?

This page evaluates the wildland-urban interface (WUI) for the eleven western continental states, showing both square miles and the proportion of the WUI that has been developed and how much remains to be developed.

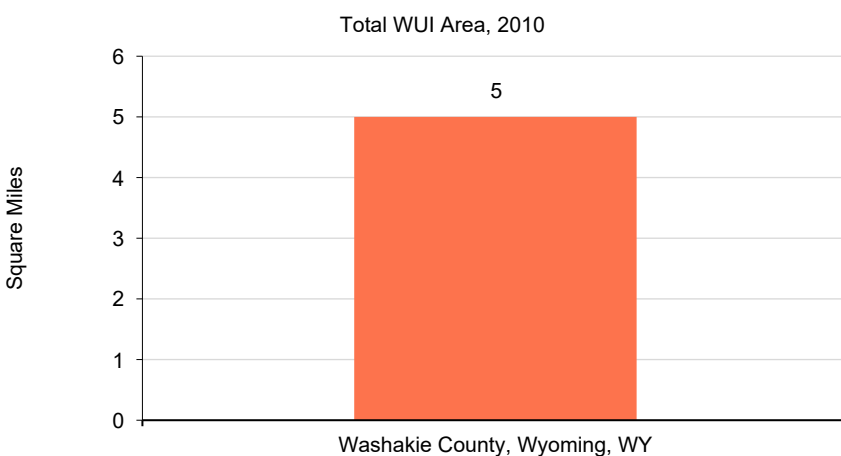
Wildland-Urban Interface (Square Miles), 2010

	Washakie County, Wyoming, WY	United States
Total WUI Area	5	23,596
WUI Area with Homes	na	3,837
WUI Area without Homes	5	19,759

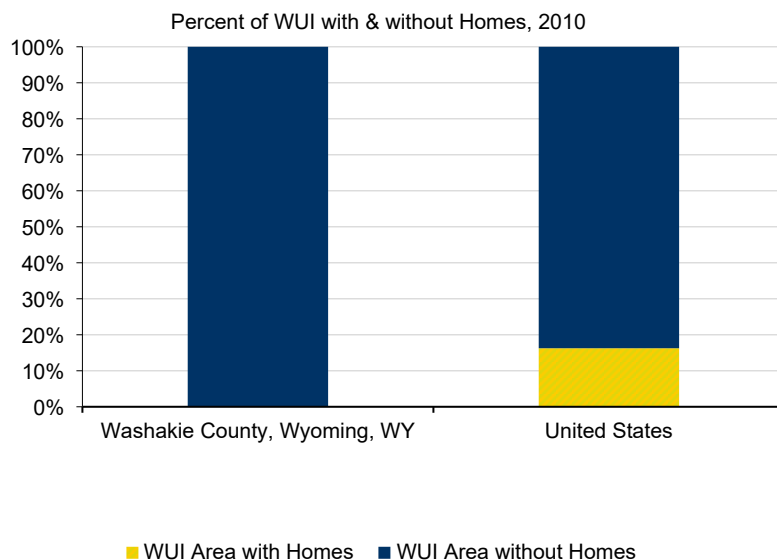
Percent of Total

WUI Area with Homes	na	16.3%
WUI Area without Homes	100.0%	83.7%

- In 2010, Washakie County, Wyoming, WY had the largest total WUI area (5 square miles), and Washakie County, Wyoming, WY had the smallest (County Region square miles).



- In 2010, United States had the largest percent of the WUI with homes (16.3%), and United States had the smallest (16.3%).



Study Guide and Supplemental Information

How much of the WUI has been developed, and how much has not yet been developed?

What do we measure on this page?

This page evaluates the wildland-urban interface (WUI) for the 11 western continental states, showing both square miles and the proportion of the WUI that has been developed and how much remains to be developed.

Wildland-Urban Interface (WUI): This report defines WUI as private forestlands that are within 500 meters of public forestlands. (See Methods section on final page for discussion of this threshold.) We focus on adjacency to public forests since roughly 70% of western forests are publicly-owned and since wildfire is a natural disturbance in these forests, creating a potential risk to adjacent private lands. In this report, the term "wildland-urban interface" (WUI) is sometimes used interchangeably with "fire-prone lands."

WUI Area with Homes: the square miles of private forest lands within 500 meters of public forestlands that are occupied by homes.

WUI Area without Homes: the square miles of private forest lands within 500 meters of public forestlands without homes. These lands have the potential to be developed.

Why is it important?

Wildfire directly impacts safety, private and public costs, and landscape health. Today, the rising expense of wildland firefighting that takes place both on public and private lands costs the federal government more than \$3 billion per year. A principal reason for the escalating cost of wildland firefighting is the growing number of homes built in the WUI. Many studies have delineated the rising costs of forest and other wildland fires, and all point to the expanding pattern of residential development adjacent to public lands as a significant contributing factor. The costs of fire suppression will continue to grow if residential development trends continue.

Fire plays an important part in most wildland ecosystems. However, many years of fire suppression, much of it undertaken to protect private property, has resulted in fuel buildup, which in turn increases the probability of a large, expensive fire. Warmer temperatures, less snowpack, and drier forests also result in longer and more intense fire seasons across the West. Other factors, such as bug infestations, can exacerbate fire intensities.

Data on this page can be used to quantify whether the selected geographies have significant acreage in the WUI, whether this acreage is currently developed. If there is extensive WUI acreage that is currently undeveloped, it is important to ask whether public land managers and local and state officials are planning for potential development in the WUI and its associated costs.

Methods

The information in this report is based on a study conducted by Headwaters Economics (see Data Sources and Additional Resources) on the 11 contiguous western states. The original study utilized data from the 2000 Census. The study has since been replicated using 2010 Census data. Additional, detailed descriptions of methods are found on the last page of this report. For references on defensible space, see Gude et al, (2008), Data Sources, page 199.

As defined in the National Fire Plan, the WUI includes areas "where structures and other human development meet or intermingle with undeveloped wildland." Other federal documents define the WUI as areas "where humans and their development meet or intermix with wildland fuel" or "the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuel." In general, the WUI is an area rich in natural amenities, where both population and new housing are on the rise.

Additional Resources

A number of alternative definitions exist for the WUI. For example, the University of Wisconsin's SILVIS lab's definition is not focused on public forests. For more information, see: silvis.forest.wisc.edu/library/WUIDefinitions2.asp (1).

For more discussion of fire policy in general, see: headwaterseconomics.org/wildfire.php (2). This page has a variety of useful links including studies on controlling wildfire costs, the cost of protecting residences from wildland fire, and development in the WUI.

For a White Paper on methods to control future fire suppression costs in the WUI, a literature review of recent reports, and public policy options, see: headwaterseconomics.org/wildfire/HeadwatersFireCosts.pdf (3).

The following report has a useful overview of costs, WUI, and related issues: U.S. Department of Agriculture, Office of Inspector General, Nov. 2006. Audit Report: Forest Service Large Fire Suppression Costs. Report No. 08601-44-SF.

Berry, Alison H., Geoffrey Donovan, and Hayley Hesseln. 2006. The Economic Effects of the Wildland-Urban Interface on Forest Service and BLM Prescribed Burning Costs in the Pacific Northwest. Western Journal of Applied Forestry, 21(2):72-78.

Healthy Forests Restoration Act of 2003, fs.fed.us/biology/wildecology/HFRA.pdf (4).

Data Sources

Gude, P.H., Rasker, R., and van den Noort, J. 2008. Potential for Future Development on Fire-Prone Lands. Journal of Forestry 106(4):198-205; U.S. Department of Commerce. 2011. TIGER/Line 2010 Census Blocks and 2010 Summary File 1, Washington, D.C.

How many homes are in the WUI, and what proportion are permanently versus seasonally occupied?

This page measures the total number of homes compared to the subset of homes in the WUI and how many of those homes are permanent or second homes.

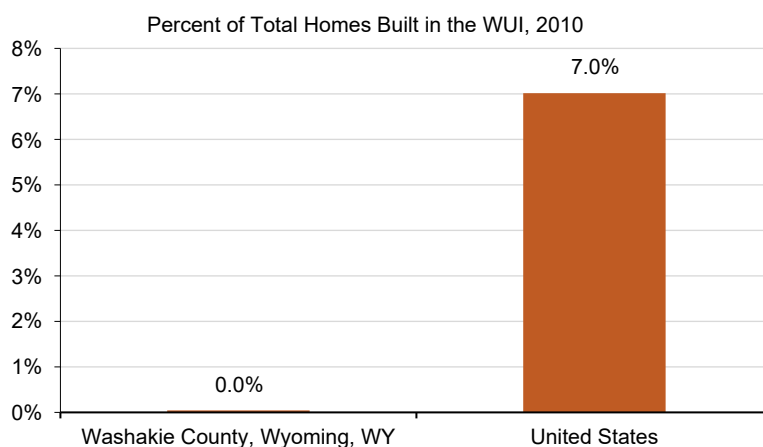
Total Homes and Wildland-Urban Interface Homes, 2010

	Washakie County, Wyoming, WY	United States
Total Number of Homes	3,833	27,766,144
WUI Homes	1	1,947,927
Second Homes in WUI	1	293,196

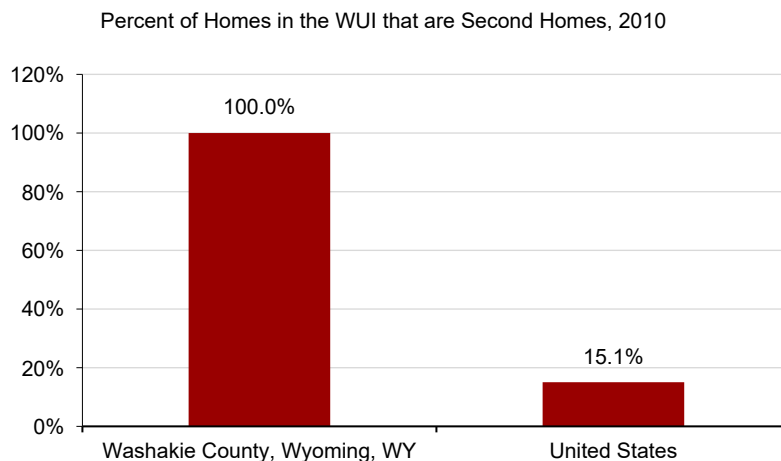
Percent of Total

WUI Homes as % of Total Homes	0.0%	7.0%
Second Homes as % of WUI Homes	100.0%	15.1%

- In 2010, United States had the largest percent of total homes (7%) built inside the WUI, and Washakie County, Wyoming, WY had the smallest (0%).



- In 2010, Washakie County, Wyoming, WY has the largest share of second homes in the WUI (100%), and United States has the smallest (15.1%).



Study Guide and Supplemental Information

How many homes are in the WUI, and what proportion are permanently versus seasonally occupied?

What do we measure on this page?

This page measures the total number of homes compared to the subset of homes in the WUI and how many of those homes are permanent or second homes.

Second Homes: These are residences used only in certain seasons, for weekends, or other occasional uses throughout the year.

Why is it important?

This page focuses on housing that borders federally managed public forestlands in the West. Roughly 70 percent of western forests are publicly owned. Because wildfire is a natural disturbance in many of these forests, this creates a potential risk to adjacent private lands.

Homes built near forested public lands are much more likely to be second homes compared to homes built on other private western lands. One in five homes near public forests in the West is a second home, compared to one in twenty-five homes on other western private lands. Understanding how many of the homes are second homes is important because it puts the cost and danger of protecting homes into a context: are lives being risked, and billions of dollars being spent, to protect people's vacation homes?

Across the West, only 14 percent of private land adjacent to forests has homes on it. But this relatively small percentage is tremendously expensive. When combining local, state, and federal efforts, the cost to protect homes from forest fires exceeds \$1 billion per year. If 50 percent of the forested private lands were developed, firefighting costs could exceed \$4 billion.

Methods

The data were calculated using Geographic Information System (GIS) tools. A buffer of 500 meters surrounding forested public lands, including federal, state, and locally managed forests, was mapped, and residential areas that fell within this buffer were identified. The Protected Areas Database was used to map public lands in California, Colorado, Idaho, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming, and state data sources were used to map public land boundaries in Montana and Arizona.

To identify where housing has occurred adjacent to forested wildlands in the West, maps of housing density were created at the scale of 2010 Census blocks. The threshold of 40-acre lot sizes was used to identify residential development because at this home density, areas are generally considered to be more populated than working agricultural lands, although some high-value agricultural operations, including orchards, can be profitable at this lot size.

Detailed descriptions of methods are provided on the last page of this report and in the references cited under Additional resources.

Additional Resources

For an overview and statistical analysis of WUI development for the eleven western states and their counties, see: headwaterseconomics.org/wildfire (2).

For a peer-reviewed journal article, see: Gude, P.H., R. Rasker, J. van den Noort. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4): 198-205. Available at headwaterseconomics.org/wildfire/PGude_2008_Forestry.pdf (5).

For a discussion of improving firefighter and homeowner safety, see: Cohen, J.D. 2000. Preventing Disaster: Home Ignitability in the Wildland-Urban Interface. *J. Forestry*. 98(3):15-21.

Butler, B.W., and J.D. Cohen. 1998. Firefighter Safety Zones: A Theoretical Model Based on Radiative Heating. *Int. J. Wildland Fire*. 8(2):73-77.

Nowicki, B. 2002. The Community Protection Zone: Defending Houses and Communities from the Threat of Forest Fire. Available at: biologicaldiversity.org/swcbd/programs/fire/wui1.pdf (6).

Data Sources

Gude, P.H., Rasker, R., and van den Noort, J. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4):198-205; U.S. Department of Commerce. 2011. TIGER/Line 2010 Census Blocks and 2010 Summary File 1, Washington, D.C.

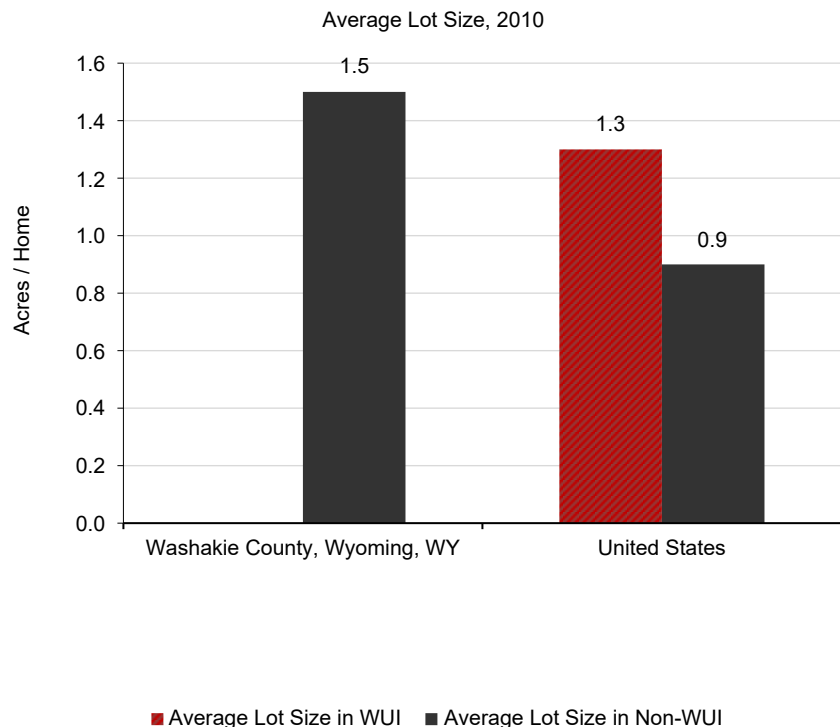
How much land is used inside and outside of the WUI?

This page provides both the total number of residences (homes) as well as the subsets of homes in and outside the WUI. It also shows the average lot size (in acres) of homes within the WUI compared to homes outside of the WUI.

Average Lot Sizes (Acres/Home), 2010

	Washakie County, Wyoming, WY	United States
Average Lot Size	1.5	0.9
Total Number of Homes	3,833	27,766,144
Total Residential Acres	5,609	24,584,252
Average Lot Size in WUI	na	1.3
WUI Homes	1	1,947,927
WUI Residential Acres	na	2,455,779
Average Lot Size in Non-WUI	1.5	0.9
Non-WUI Homes	3,832	25,818,217
Non-WUI Residential Acres	5,609	22,128,473

- In 2010, the largest difference in lot sizes in and outside the WUI occurred in United States. In the WUI, the average lot size was 1.3 acres and outside the WUI the average lot size was 0.9 acres.



Study Guide and Supplemental Information

How much land is used inside and outside of the WUI?

What do we measure on this page?

This page provides both the total number of residences (homes) as well as the subsets of homes in and outside the WUI. It also shows the average lot size (in acres) of homes within the WUI compared to homes outside of the WUI.

Why is it important?

Residential lots built in the WUI are much more likely to take up more space than homes built in the non-WUI. This is an important characteristic of the WUI because low-density housing is more costly to protect. In other words, what matters when calculating the costs of protecting homes from wildfires is not just the number of homes, but the per acre use of land per home.

Residential lots near wildlands also take up more than twice the space of homes built in other places. On average across the West, housing near forested land covers 2.3 acres per residence compared to 1.1 acres per residence on other western private lands. This is important because sprawled housing costs more to protect from wildfire.

On behalf of the Montana State Legislature, Headwaters Economics conducted a more detailed analysis of the costs of protecting homes from wildfire in the state of Montana. Headwaters Economics analyzed daily fire suppression costs across 30 large fires that burned in Montana during 2006 and 2007, extracting the portion of total fire suppression costs directly associated with housing. The study discovered that in Montana firefighting costs are highly correlated with the number of homes threatened by a fire.

More importantly, the pattern of development is a significant factor, with dispersed development (i.e. larger lot sizes) contributing more to the cost of fighting fires. For example, one dense subdivision is less costly to protect than the same number of homes spread across a large area of land. This discrepancy in cost between dense vs. sprawled development is important since, in the western U.S., residential lots in the WUI usually take up more space than homes built in other places. Headwaters Economics is replicating the study for California and New Mexico.

Methods

The data were calculated using Geographic Information System (GIS) tools. A buffer of 500 meters surrounding forested public lands, including federal, state, and locally managed forests, was mapped, and residential areas that fell within this buffer were identified. The Protected Areas Database was used to map public lands in California, Colorado, Idaho, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming, and state data sources were used to map public land boundaries in Montana and Arizona.

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Detailed descriptions of methods are provided on the last page of this report, and in the references cited under Additional Resources.

Additional Resources

Headwaters Economics. August 2008. Montana Wildfire Cost Study, available at: headwaterseconomics.org/wildfire/HeadwatersEconomics_FireCostStudy_TechnicalReport.pdf (7).

For a peer reviewed report, see: Gude, P.H., R. Rasker, J. van den Noort. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4): 198-205. Available at: headwaterseconomics.org/wildfire/PGude_2008_Forestry.pdf (5).

Two National Academy of Public Administration reports that may be helpful are:

Wildland Fire Costs: Enhancing Hazard Mitigation Capacity. January 2004. See: napawash.org/Pubs/WildfireJan04.htm (8).

Wildfire Suppression: Strategies for Containing Costs. September 2002. See: napawash.org/Pubs/Wildfire9_30_02.pdf (9).

Data Sources

Gude, P.H., Rasker, R., and van den Noort, J. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4):198-205; U.S. Department of Commerce. 2011. TIGER/Line 2010 Census Blocks and 2010 Summary File 1, Washington, D.C.

What is the wildfire risk to development?

This page measures the risk of wildfire for lands already developed in the WUI and the potential risk of wildfire should homes be build on undeveloped land in the WUI. The geographies are ordered within the eleven western states in both absolute and percentile rankings.

West-Wide and State-Wide County Rankings, 2010

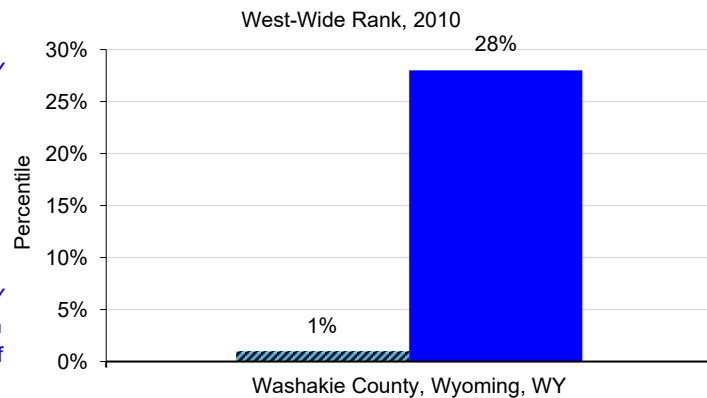
	Washakie County, Wyoming, WY	United States
West-Wide Rank by Existing Risk	408 of 414	na
West-Wide Rank by Potential Risk	297 of 414	na
State-Wide Rank by Existing Risk	17 of 23	na
State-Wide Rank by Potential Risk	17 of 23	na

Percentile

West-Wide Rank by Existing Risk	1%	na
West-Wide Rank by Potential Risk	28%	na
State-Wide Rank by Existing Risk	26%	na
State-Wide Rank by Potential Risk	26%	na

- In 2010, Washakie County, Wyoming, WY was in the 1 percentile in the West when ranked by existing risk (the amount of forested land where homes have already been built next to public lands).

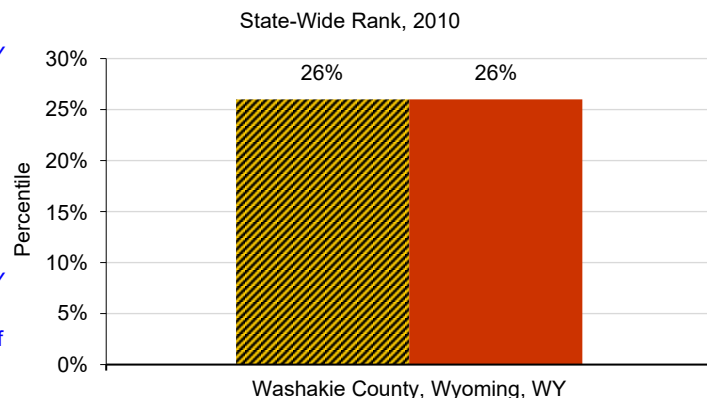
- In 2010, Washakie County, Wyoming, WY was in the 28 percentile in the West when ranked by future potential risk (the area of undeveloped, forested private land bordering fire-prone public lands).



■ West-Wide Rank by Existing Risk ■ West-Wide Rank by Potential Risk

- In 2010, Washakie County, Wyoming, WY was in the 26 percentile in the state when ranked by existing risk (the amount of forested land where homes have already been built next to public lands).

- In 2010, Washakie County, Wyoming, WY was in the 26 percentile in the state when ranked by future potential risk (the area of undeveloped, forested private land bordering fire-prone public lands).



■ State-Wide Rank by Existing Risk ■ State-Wide Rank by Potential Risk

Data Sources: Gude, P.H., Rasker, R., and van den Noort, J. 2008. Potential for Future Development on Fire-Prone Lands. Journal of Forestry 106(4):198-205; U.S. Department of Commerce. 2011. TIGER/Line 2010 Census Blocks and 2010 Summary File 1, Washington, D.C.

Study Guide and Supplemental Information

What is the wildfire risk to development?

What do we measure on this page?

This page measures the risk of wildfire for lands already developed in the WUI and the potential risk of wildfire should homes be built on undeveloped land in the WUI. The geographies are ordered within the eleven western states in both absolute and percentile rankings.

Existing Risk: Counties are ranked by the number of acres of forested land where homes have already been built next to public lands. For example, the west-wide rank may show that a county ranks 1st among the 413 western counties. This would indicate that the county has the highest "existing risk" (i.e., the 100th percentile). The state-wide rank for another county may show that it ranks 45th among the 50 counties within its state. This would indicate that the county has a low "potential risk" (i.e., the 10th percentile) relative to other counties in the same state.

Potential Risk: Counties are ranked by the number of acres of undeveloped, forested private land bordering fire-prone public lands.

Why is it important?

Defending homes from the risk of wildland fire is a major cost for public land agencies. The National Academy of Public Administration estimates that in the United States 2.2 million homes are expected to exist in the WUI by the year 2030 -- a 40 percent increase over 2001 levels.

While home construction is not the only contributor to the rising cost of fighting fires, it is an important factor and one that is expected to rise with continued development, particularly in the absence of well thought-out land use planning. A warming climate will exacerbate the costs even further.

Data on this page raise important questions about whether the selected geographies have significant acreage in the WUI that is not yet developed, and whether public land managers and local and state officials are planning for this potential development and its associated costs and risks.

Methods

See the last page of this report as well the article by Gude et al. (2008) cited in the data sources for definitions and methods.

Additional Resources

For a study of how an increase in temperatures could impact fire suppression costs, see: Gude, P.H., J.A. Cookson, M.C. Greenwood, M. Haggerty. 2009. Homes in Wildfire-Prone Areas: An Empirical Analysis of Wildfire Suppression Costs and Climate Change. In preparation for submission to journal. Available at headwaterseconomics.org/wildfire/Gude_Manuscript_4-24-09_Color.pdf ⁽¹⁰⁾.

Schoennagel T., C.R. Nelson, D.M. Theobald, G.C. Carnwald, and T.B. Chapman. 2009. Implementation of National Fire Plan Treatments Near the Wildland-Urban Interface in the Western United States. *Proceedings of the National Academy of Sciences*. 106 (23): 10706-10711. This article can be found at: pnas.org/content/early/2009/06/05/0900991106.abstract ⁽¹¹⁾.

Menakis, J.P., J. Cohen, and L. Bradshaw. 2003. Mapping wildland fire risk to flammable structures for the conterminous United States. Pages 41-49 in K.E.M. Galeey, R.C. Klinger, and N.G. Sugihara (eds.).

Theobald, T.D. and W.H. Romme. 2007. Expansion of the U.S. Wildland-Urban Interface. *Landscape and Urban Planning*. 83: 340-354.

Data Sources

Gude, P.H., Rasker, R., and van den Noort, J. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4):198-205; U.S. Department of Commerce. 2011. TIGER/Line 2010 Census Blocks and 2010 Summary File 1, Washington, D.C.

Data Sources

The EPS-HDT Development and the Wildland-Urban Interface (WUI) report uses a set of specific West-wide data sources to quantify measures of fire risk related to residential development. In an effort to report more accurate statistics for land ownership, a compilation of state level data was used. All of the spatial data in this report were the result of calculations made in Geographic Information Systems (GIS). The contact information for these databases is:

- **Protected Areas Database 1.3 2012**
US Geological Survey, Gap Analysis Program (GAP)
<http://gapanalysis.usgs.gov/padus/>
- **MODIS Land Cover Type 2006**
National Aeronautics and Space Administration
<http://modis-land.gsfc.nasa.gov/landcover.htm>
- **2010 Decennial Census**
Census Bureau, U.S. Department of Commerce
<http://www.census.gov>
Tel 303-969-7750

Methods

In this report, we focus on housing that borders federal public forestlands in the West. Roughly 70 percent of western forests are publicly owned. Since wildfire is a natural disturbance in many of these forests, this creates a potential risk to adjacent private lands. Fire risk is extremely difficult to quantify. Since most western forests burn at some point and residential areas are rarely abandoned, for the purpose of this report, all forested public lands were considered susceptible to wildfire.

A buffer of 500 meters surrounding forested public lands, including federal, state, and locally managed forests, was mapped, and residential areas that fell within this buffer were identified. The forested public lands were identified based on the following classes from satellite classified land cover maps: evergreen needleleaf forest, evergreen broadleaf forest, deciduous needleleaf forest, deciduous broadleaf forest, mixed forests, closed shrublands. Although open shrublands and grasslands are also prone to wildfire, defending homes in these habitats tends to be less dangerous and less expensive. Since guidelines for the amount of defensible space necessary to protect homes range from 40 to 500 meters, the threshold of 500 meters was used to identify where residential development occurs adjacent to fire-prone public lands. This is a conservative estimate of the WUI and the associated risk of fire, since it is unknown how many home owners within this zone have followed defensible space guidelines.

In order to identify where housing has occurred adjacent to forested wildlands in the West, maps of housing density were created at the scale of 2000 Census blocks. Forested areas where residential development (census blocks with mean lot sizes less than 40 acre) occurred within 500 meters (0.31 miles) of public lands were identified. The threshold of 40 acre lot sizes was used to identify residential development because at this home density, areas are generally considered to be more populated than working agricultural lands. The mean lot size per Census block was calculated by dividing the number of housing units by the area of private land (public lands and any water bodies were excluded).

For each western state and for the West as a whole, the area of forested wildland interface containing homes, i.e., the WUI, was compared to the area of undeveloped forested wildland interface. Per state, the number of homes in the wildland interface was calculated, as well as the percent of these homes that are second homes. The number of second homes within the WUI was calculated by adding the number of "seasonally occupied" homes, as specified in by the Census SF1 H005005 field, to the number of "other vacant" homes, as specified in the Census SF1 H005007 field. These counts do not include homes that are vacant because they are for rent or sale.

Two measures were used to identify counties with high existing and high potential risk of wildland fire to homes. Existing risk was measured in terms of the total area of WUI per county, and potential risk was represented by the area of undeveloped forested wildland interface, where home construction could occur in the future.

For additional information about methods used to generate metrics in this report, see: Gude, P.H., Rasker, R., and van den Noort, J. 2008. Potential for Future Development on Fire-Prone Lands. *Journal of Forestry* 106(4):198-205.

Links to Additional Resources

For more information about EPS see:

headwaterseconomics.org/EPS

Web pages listed under Additional Resources include:

Throughout this report, references to on-line resources are indicated with italicized numbers in parentheses. These resources are provided as hyperlinks here.

- 1 www.silvis.forest.wisc.edu/library/WUIDefinitions2.asp
- 2 headwaterseconomics.org/wildfire.php
- 3 headwaterseconomics.org/wildfire/HeadwatersFireCosts.pdf
- 4 www.fs.fed.us/biology/wildecology/HFRA.pdf
- 5 headwaterseconomics.org/wildfire/PGude_2008_Forestry.pdf
- 6 www.biologicaldiversity.org/swcbd/programs/fire/wui1.pdf
- 7 headwaterseconomics.org/wildfire/HeadwatersEconomics_FireCostStudy_TechnicalReport.pdf
- 8 www.napawash.org/Pubs/WildfireJan04.htm
- 9 www.napawash.org/Pubs/Wildfire9_30_02.pdf
- 10 headwaterseconomics.org/wildfire/Gude_Manuscript_4-24-09_Color.pdf
- 11 www.pnas.org/content/early/2009/06/05/0900991106.abstract

A Washakie County Profile: Socioeconomics



Washakie County Board of County Commissioners

Terry Wolf, Chair

Aaron Anderson

Fred Frandson

The goal of this document is to provide an accurate picture of Washakie County's socioeconomic attributes. Accomplishing this requires verifiable and universally accepted substantive data that is objectively incorporated into a narrative format.

Those requirements provide the foundation for this document. The resulting document not only serves the county as it moves forward with its own educational and planning efforts, but also serves to inform state and federal educational and planning efforts as well.

*This socioeconomic profile of Washakie County is made possible
with the collaborative support of:*



INTRODUCTION

In a rapidly changing world, timely and accurate information is essential to good decision making. Local officials, state government, federal agencies, and the general public need information on the structure and trends within a region's economy in order to more effectively conduct and participate in public policy decision making processes. Information describing regional economic conditions can aid in the public policy decision making process by providing a perspective on economic structure and changes over time. In addition, the identification of long-term trends can help residents, local official, state government, and federal agencies plan for the future. This report has been developed to provide baseline information on the structure and trends of the Washakie County economy.

Four types of information are discussed in this report, including: 1) Demographics, 2) Land Characteristics, 3) County Government Finances, and 4) Natural Resource Based Industry Profiles. The Demographic section provides information on the characteristics of the residents of county. The Land Characteristic section provides a perspective on the physical setting of the county. The County Government Finances section considers county government's ability to meet the needs of residents in terms of public services and public infrastructure. The Industry profile section discusses the economic importance of natural resource based industries in the county.

Each type of information is discussed separately in the report. To put Washakie County's information in perspective, the county data is compared to corresponding data for Wyoming and the United States. A variety of data sources were used to development this socio-economic profile including the Wyoming Department of Administration & Information – Economic Analysis Division's Wyoming County Profiles. The most current data available from these data sources was used in the report. All time series data involving dollars were adjusted for inflation to 2009 dollars since these deflators are latest that are currently available. This report is part of an ongoing cooperative effort between the University of Wyoming, the Wyoming County Commissioners Association, and the Wyoming Department of Administration and Information to develop a socio-economic database for Wyoming Counties.

In addition to the information discussed above, the report also includes a section on the Washakie County Business-Cycle Index. This index was developed by Jim Robinson at the Wyoming Department of Administration & Information's Economic Analysis Division. Since there are lags in the release of many of the numbers in this report, the most current data may be one to two years old. However, the County Business-Cycle Index is based on more current data and so provides an updated look at the County's economy. Also the index has the advantage of summarizing a number of indicators in a single number that describes the overall condition of the county's economy. The Washakie County Business-Cycle Index is similar to other indices that the Economic Analysis Division publishes for the State, Casper, and Cheyenne.

COUNTY SUMMARY

Demographics

Overall Washakie County experienced essentially no population growth between 2000 and 2015, increasing by 76 residents from 8,252 residents in 2000 to 8,328 in 2015 (+1 percent). The county's population growth rate was significantly less than either the Wyoming growth rate (19 percent) or the U.S. growth rate (13 percent) between 2000 and 2015. During the time period, the county's population fluctuated decreasing by 3 percent to 7,979 residents between 2000 and 2006; then increasing by 7 percent to 8,545 residents between 2006 and 2010; and then decreasing by 2 percent to 8,328 residents between 2010 and 2015.

Population increases can occur in one of two ways: 1) Natural Increase (more births than deaths) or 2) Net In-Migration (more people moving in than moving out). Between 2000 and 2015 Washakie County experienced a slight increase in population due to Natural Increase but suffered a slight loss in population due to negative In-Migration. The net effect of these two influences was about a one percent increase in county population from 2000 to 2015 (2.9 percent - 2.0 percent). While Wyoming and the U.S. experienced relatively comparable rates of population growth from Natural Increase (10 percent and 8 percent, respectively, the county only experienced a 3 percent growth rate from Natural Increase. This was probably due to the older age of the county's population which will be discussed later in the report. While Wyoming and the U.S. also experienced substantial population growth rates from Net In-Migration (9 percent and 6 percent, respectively), the county experienced more people moving out than moving in. This was probably due to limited employment growth in the county which will also be discussed later in the report.

People move to an area for a variety of reasons ranging from economic to aesthetic. Data from the Wyoming Housing Database Partnership for 2000 through 2016 indicates that the most frequent reason given by new residents to Washakie County for moving to Wyoming were job related factors (45 percent). Job related factors included Job Transfers, New Jobs, Better Employment Opportunities, and Starting or Expanding a Business. The second most frequent reason was that friends or relatives already resided in the area (22 percent). Less than six percent of new residents surveyed indicated that a better quality of life was the primary reason for moving to the county with 27 percent indicating some other reason.

In 2015 the largest age groups for Washakie County were adults 45 to 64 years old (27 percent) and adults 25 to 44 years old (22 percent). Combined, these two age groups represented nearly one-half of the total county population. The next largest age group was adults 65 years of age and older (20 percent), followed by youth 5 to 17 (18 percent), young adults 18 to 24 (7 percent) and lastly youth under 5 (5 percent). The population distribution for the county was mostly under represented at the lower end of the age spectrum relative to Wyoming and the U.S. Compared to Wyoming and the U.S., the county had a higher proportion of its overall population in the younger age group of 5 to 17, but a lower proportion in the under 5 age category. The county also had a lower proportion of its overall population in the adults 18 to 24 and 25 to 44 age groups. On the older end of the age spectrum, the county had a higher proportion of its overall population in the older age groups of 45 to 65 and 65 and

over, especially the 65 and over age categories. The median age for the county in 2015 (42.7 years) was 16 percent older than the median age for Wyoming (36.9 years) and 13 percent older than the median age for the U.S. (37.8 years). Overall, the county was tied for 7th among Wyoming Counties in terms of oldest median age. Due to the relatively high proportion of the county's residents in the 45 to 64 age group and the 65 and over age group, the county's population is likely to continue to age over time.

White is the predominate category of race in Washakie County, accounting for 95 percent of the total population. The percentage of the population that is White in the county is 2 percent higher than the percentage for Wyoming (93 percent) and 16 percent higher than the percentage for the U.S. (78 percent). The other five races identified by the federal government account for the remaining 5 percent with Two or More Races being the most common (1.9 percent), followed by Native American (1.7 percent), Black (0.7 percent), Asian (0.7 percent), and Pacific Islanders (0.1 percent). The proportion of the county's population that was Black (0.7 percent versus 1.4 percent and 13.0 percent), Asian (0.7 percent versus 1.0 percent and 4.9 percent), Pacific Islander (0.1 percent versus 0.1 percent and 0.2 percent), or Two or More Races (1.9 percent versus 2.1 percent and 2.3 percent) was less than either Wyoming or the U.S. The proportion of the county's population that was Native American was less than Wyoming but higher than the U.S. (1.7 percent versus 2.7 percent versus 1.2 percent).

The federal government defines the term "Hispanic" as an ethnicity rather than a specific race. Thus Hispanics can be individuals of any race that self-identify themselves as "Hispanic" or "Latino" based on heritage, nationality group, lineage, or country of birth of the person or person's parents or ancestors before their arrival in the United States. In Washakie County, as shown in Figure 6, the percentage of the population classifying themselves as Hispanic (14 percent) was 44 percent higher than the percentage for Wyoming (10 percent) and 19 percent lower than the percentage for Wyoming (18 percent).

Per capita income can serve as a general indicator of the economic well-being of a county's population. In 2000, per capita income in Washakie County was \$31,614 in 2009 dollars. The per capita income for the county in 2000 was 11 percent below Wyoming's per capita income (\$35,373) and 15 percent below the U.S. per capita income (\$37,371). From 2000 to 2015, after adjusting for inflation, per capita income for the county increased by 25 percent to \$39,511. Despite this increase, in 2015 the county's per capita income was still 22 percent lower than Wyoming's (\$50,984) and 10 percent lower than the U.S. (\$43,739).

There are three sources of per capita income: 1) net labor earnings including wages, salaries, and proprietor (self-employed) income, 2) government transfer payments such as Social Security, Medicare, Medicaid, and various income assistance program payments, and 3) investment income representing property income in the form of dividends, interest, and rents. The majority of the growth in the county's per capita income between 2000 and 2014 was the result of growth of net labor earnings (69 percent) with 30 percent coming from increased transfer payments and less than 1 percent coming from increased investment income. Transfer payments were the fastest growing individual source of per capita income between 2000 and 2015 increasing by 48 percent, while labor earnings increased by 32 percent and investment income increased by less than 1 percent. In 2000, net labor earnings

represented 55 percent of total per capita income, with investment income representing 29 percent, and transfer payments representing 16 percent. In 2015 net labor income represented 58 percent of total per capita income, investment income represented 24 percent, and transfer payments represented 18 percent.

In 2015 per capita income for Washakie County was \$43,461 in 2015 dollars. This level of income was 22 percent below per capita income for Wyoming and 10 percent below per capita income for the U.S. Among the three regions, the county had the lowest per capita labor earnings (\$25,107) which was 23 percent below per capita labor earnings for Wyoming (\$32,578) and 18 percent below per capita labor earnings for the U.S. (\$30,729). In 2015, the county had per capita transfer payments of \$8,051 which was 14 percent higher than per capita transfer payments for Wyoming (\$7,061), and only 3 percent lower than per capita transfer payments for the U.S. (\$8,334). The county's per capita investment income (\$10,303) was 37 percent below per capita investment income for Wyoming (\$16,442), but 14 percent higher than per capita investment income for the U.S. (\$9,049). The relatively lesser importance of labor earnings and the relatively greater importance of transfer payments and investment income for the county may be a reflection of the older age of the county's population.

The county's 2015 unemployment rate (4.0 percent) was lower than Wyoming's unemployment rate (4.2 percent) and lower than the U.S. unemployment rate (5.3 percent). While total per capita income for the county was 22 percent below the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2015 was only 10 percent below the state average. This difference suggests that, on average, county residents were economically somewhat worse-off than the rest of the state in 2015. Similarly, the percent of the county's population that was below the poverty level (11.2 percent) was higher than the Wyoming's rate (10.6 percent) but lower than the U.S. rate (13.5 percent).

Overall, the educational attainment of Washakie County's population in terms of a high school degree or higher (87 percent) was lower than Wyoming's (92 percent) and the same as the U.S. (87 percent). The county's population was somewhat less educated in terms of college bachelors or advanced degrees than Wyoming (21 percent vs. 26 percent) and the U.S. (21 percent vs. 30 percent). The percentage of the county population without a high school degree (13 percent) was higher than Wyoming's (8 percent) and the same as the U.S. (13 percent). The percentage of the county's population with a high school degree (29 percent) was the similar to Wyoming's (29 percent) and the U.S. (28 percent). The percentage of the county's population with some college (28 percent) or an associate degree (9 percent) was similar to both Wyoming (27 percent and 10 percent) and the U.S. (21 percent and 8 percent). The percentage of the county's population with either a bachelors (15 percent) or graduate/professional degree (6 percent) was below Wyoming's (17 percent and 9 percent) and the U.S. (18 percent and 11 percent).

Overall, Washakie County experienced limited employment growth between 2000 and 2015. Total employment in the county increased by 2 percent from 2000 through 2015 growing from 5,291 jobs in 2000 to 5,416 jobs in 2015. During this time period Wyoming employment increased by 25 percent and

the U.S. employment increased by 15 percent. County employment did increase (+9 percent) between 2000 and 2008 with employment peaking at 5,768 jobs in 2008. Employment in all three regions was negatively affected by 2008-2009 recession. However, unlike the Wyoming or the U.S., the county's employment has not recovered since the recession decreasing by 6 percent to 5,416 jobs in 2015. Between 2001 and 2008, the sectors with the largest growth in employment were Construction (+148 jobs), Health Care & Social Assistance (+105 jobs), and Mining (+98 jobs). Federal employment statistics include the Oil and Gas sector as a part of Mining. Between 2008 and 2015, the sectors with the largest decline in employment were Construction (-134 jobs), Finance & Insurance (-84 jobs), and Health Care and Social Assistance (-77 jobs).

From 2000 to 2015, employment in Washakie County increased by only 2 percent. This increase was only 9 percent of the employment increase for Wyoming (25 percent) and only 16 percent of the employment increase for the U.S. (15 percent) during the same time period. About two-thirds of the growth in employment in the county between 2000 and 2014 was in wage and salary jobs with one-third coming from growth in self-employment jobs. At the state level, wage and salary jobs represented 61 percent of the employment growth with 39 percent coming from growth in self-employment jobs. This ratio of growth in employment from wage and salary jobs to growth in self-employment jobs is similar to that for the county. However, at the national level, the ratio was 40 percent from wage and salary jobs to 60 percent from self-employment jobs. This difference reflects the lack of growth in wage and salary jobs in the U.S. economy between 2000 and 2015.

Local Government, which includes all employment associated with county government, towns and city government in the county, and the county's public school districts, was the largest source of employment in Washakie County representing 11 percent of total county employment. Following Local Government was Health Care & Social Assistance (10%). Other major sources of employment were Manufacturing (9 percent), Retail Trade (8 percent), and Construction (7 percent). Combined these five sectors represent nearly one-half of the employment in the county.

The location quotients (LQ) were used to identify Defining Industries in the county. A location quotient is the ratio of an industry's share of total employment in the region relative to the industry's share of total employment at the national level. A large location quotient is an indication of specialization within the county's economy. Defining Industries are important because they play a significant role in a region's growth over time. The Federal Reserve Bank of Kansas City considers Defining Industries as those with a locational quotient of at least 1.25 that account for at least 0.2 percent of total employment in the region. On this basis Washakie County has seven Defining Industries including: Mining (5.25), Agriculture (4.05), Forestry, Fishing, and Ag Support (2.79), Utilities (2.45), Local Government (1.46), Construction (1.40), and Federal-Civilian (1.35). These seven sectors are relatively more important in the county's economy than they are at the national level.

Employment in Washakie County increased by 3 percent from 2001 through 2015. The largest increases in employment came from Real Estate, Rental & Leasing (+80 jobs), Local Government (+74 jobs), Wholesale Trade (+72 jobs) and Mining (+50 jobs). On the other hand, the two sectors with the largest

loss in employment between 2001 and 2015 were Manufacturing (-75 jobs) and Retail Trade (-50 jobs). In terms of individual sectors the fastest growing sectors were Wholesale Trade (+93 percent), Educational Services (+59 percent), and Real Estate, Rentals, & Leasing (+44 percent).

In addition to the number of jobs, the labor earnings associated with those jobs is an important consideration. Overall average earnings per job are a general measure of the economic well-being of the local workforce. In general, the Washakie County economy has had difficulty generating relatively high paying jobs. In 2000, the average earnings per job for the county were \$31,564, in 2009 dollars, which was 14 percent below the Wyoming average earnings per job (\$36,862) and 35 percent below the U.S. average earnings per job (\$48,821). From 2000 through 2015, after adjusting for inflation, county average earnings per job increased by 31 percent to \$41,275. Despite this increase, 2015 county average earnings per job were still 16 percent below the Wyoming average earnings per job (\$48,978) and 22 percent below the U.S. average earnings per job (\$52,936). While county average earnings per job were 16 percent below the state average in 2015, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2015 was only 10 percent below the state average. This difference suggests that, on average, the county's workforce was economically somewhat worse-off than the rest of the state in 2015.

Average earnings per job (AEPJ), which includes employer paid benefits, varies substantially by sector. In 2015 AEPJ in Washakie County ranged from over \$111,000 for the Utility sector to less than \$8,400 for the Arts, Entertainment, & Recreation sector. After Utilities, the next highest AEPJ was in the Transportation & Warehouse sector (\$90,069), Federal-Civilian (\$86,463), State Government (\$76,933), Mining (\$71,124) and Manufacturing (\$65,685). Of the 23 sectors in the county's economy 7 had AEPJ greater than the Wyoming average (\$53,875) and 6 had AEPJ greater than the U.S. average (\$58,875). The 7 sectors with AEPJ greater than the Wyoming average represented only one-third of the total employment in the county and the 6 sectors with AEPJ greater than the U.S. average represent only 23 percent of the total employment in the county. The AEPJ for the Agricultural sector was relatively low due to the large number of small, part-time producers in the county.

The combination of the number of jobs and the average earnings per job determines the relative importance of individual sectors in terms of total labor earnings in the Washakie County economy. Labor earnings are important because they represent the major source of personal income for county residents. Overall county employment generated \$245.9 million in labor earnings in 2015. Local Government, due to its relatively large number of employees and above average earnings per job was the largest source of labor earnings for the county (13 percent). Following Local Government was Manufacturing (12 percent), Health Care & Social Assistance (10 percent), Construction (9 percent), Transportation & Warehousing (8 percent), Mining (6 percent). Combined these six sectors represented 60 percent of total county labor earnings.

Land Characteristics

Washakie County contains 1.4 million acres of land. The Federal government is the largest category of landownership in the county accounting for 67 percent of this land area (959,424 acres). Of this total, the Forest Service manages 4 percent of the total Federal land in the county, with the BLM managing 96 percent. State land represents 7 percent of the county's land area (103,680 acres). Most of the state land in the county is state trust land, with 448 acres managed by the Wyoming Game & Fish Department. Local government owns 0.2 percent of the county's land area (2,368 acres). Private land represents only 25 percent of the surface area in the county (365,376 acres). Information from the Wyoming Department of Revenue on acres taxed as agricultural land indicates that 96 percent of the private land in the county is in agricultural use (351,906 acres). Of this total 87 percent is classified as range land (305,176 acres), less than one percent is classified as dry cropland (2,931 acres), and 12 percent is classified as irrigated crop land (43,799 acres).

Federal lands are managed for different purposes under differing statutory authority. Three categories of possible designation: 1) Protected, 2) Restricted., and 3) General Use. Protected areas include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Water Fowl Protection Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS). Restricted areas include Wilderness Study Areas (NPS, FWS, FS, BLM) and Inventoried Roadless Areas (FS). General Use areas include Public Domain Lands (BLM) and National Forests and Grasslands (FS). This data was obtained from the Economic Profile System – Human Dimension Toolkit (NPS = National Park Service, FWS = Fish and Wildlife, FS = Forest Service, and BLM = Bureau of Land Management).

In Washakie County, Economic Profile System data indicates that no federal lands are designated as protected. Meanwhile, 7 percent of federal lands are designated as restricted and 93 percent are designated for general use. In comparison, 21 percent of total federal lands in Wyoming are classified as protected, 13 percent are classified as restricted and 66 percent are classified as general use.

County Government Finances

Wyoming Department of Audit information indicates that the total revenue for Washakie County Government was \$8.1 million in FY2016. Of this total, the largest source was State Aid which included the county's share of the 4 percent sales and use tax revenue (46 percent). Following State Aid was Taxes which included property taxes and any optional sales tax revenue (30 percent) and Direct Federal Aid, including PILT payments (15 percent). Combined these three sources represented 91 percent of the total county government revenue in FY2016. Other sources of county government revenue included Other Local Government Revenue (4 percent), Charges for Services (3 percent), and Miscellaneous

Revenue (3 percent). Combined these revenue sources represented 9 percent of the total county government revenue in FY2016.

Compared to all counties in Wyoming, the county had a higher proportion of revenue from State Aid (46 percent vs. 24 percent). The county's proportion of revenue from Taxes was substantially lower relative to all counties in the state (30 percent vs. 52 percent) and the proportion from Direct Federal Aid was higher relative to all counties in the state (15 percent vs. 6 percent). Other sources of revenue were lower compared to all other counties in the state in terms of Other Local Government (3.7 percent vs. 4.5 percent), Charges for Services (2.7 percent vs. 6.7 percent), and Miscellaneous Revenue (2.7 percent vs. 6.6 percent). Overall, the county's per capita revenue (\$972) was 30 percent below the average for all counties in Wyoming (\$1,384).

The total assessed valuation for Washakie County in 2016 was \$130.6 million. Thirty-eight percent of the total valuation was from Residential Property. Following Residential Property was Minerals Production (22 percent), Commercial Property (11 percent), Industrial Property (10 percent), Agricultural Property (9 percent), and Utilities (8 percent).

Compared to Wyoming, the county had a higher proportion of assessed valuation from Residential Property (38 percent vs. 24 percent). The county's proportion of assessed valuation from Mineral Production was about one-half that for Wyoming's (22 percent vs. 50 percent), the assessed valuation from Commercial Property was higher than Wyoming's (11 percent vs. 7 percent), the assessed valuation from Industrial Property was the same as Wyoming's (10 percent vs. 10 percent), the assessed valuation from Agricultural Land was higher than Wyoming's (9 percent vs. 2 percent) and the assessed valuation from Utilities was higher than Wyoming's (8 percent vs. 7 percent). In terms of Mineral Production, crude oil represented 79 percent of total county mineral assessed valuation, natural gas represented 10 percent of total county mineral assessed valuation, bentonite represented 10 percent, and sand and gravel represented less than 1 percent of total county mineral assessed valuation.

In FY2016 Washakie County's sales and use tax generated \$6.7 million in tax revenue. Of this total, 55 percent (\$3.7 million) was retained by state government and 45 percent (\$3.0 million) was returned to local governments in the county. In FY2016 county government's share of the returned sales and use tax revenue was approximately \$1.0 million (35 percent) with the remaining \$2.0 million (65 percent) going to municipal governments in the county. Thirty-five percent of the county's total sales and use tax revenue came from Retail Trade. Following Retail Trade was Public Administration (15 percent), Wholesale Trade (10 percent), Leisure & Hospitality (8 percent), Utilities (8 percent), and Other Services (5 percent). Combined these six sectors contributed 82 percent of the county's total sales and use tax revenue. Public Administration represents sales and use tax revenue on motor vehicle purchases which are collected at the time of registration in Wyoming. Manufacturing, Information, Financial Activities and Others combined contribute 18 percent of total county sales and use tax revenue.

Compared to total sales and use tax revenue for Wyoming, the county had a similar proportion of sales and use tax revenue from Retail Trade (35 percent vs. 32 percent). The county's proportion of sales and

use tax revenue from Public Administration was higher than Wyoming's (15 percent vs. 10 percent), from Wholesale Trade was higher than Wyoming's (10 percent vs. 8 percent), from Leisure & Hospitality was lower than Wyoming's (8 percent vs. 12 percent), from Utilities was higher than Wyoming's (8 percent vs. 6 percent) and from Other Services was higher than Wyoming's (5 percent vs. 4 percent). The county's proportion of sales and use tax revenue from Mining was substantially lower than Wyoming's (3 percent vs. 13 percent). Per capita sales and use tax revenues for the county (\$799) were about one-half of per capita sales and use tax revenues for Wyoming (\$1,474).

The Economic Profile System-Human Dimensions Toolkit indicates that federal land payments to local governments in Washakie County totaled \$1.2 million in FY2015. The largest source of federal land payments to the county was Payment in Lieu of Taxes (PILT) representing 8 percent of the total amount (\$1.1 million). PILT payments are intended to compensate county governments for non-taxable federal lands within their borders. It is based on a maximum per-acre payment reduced by other federal revenue sharing payments and subject to a per capita population cap. The second largest source of federal payments to the county was BLM Payments representing 10 percent of the total amount (\$121,719). BLM payments represent revenue sharing funds including grazing fees through the Taylor Grazing Act. The third source of federal payments to the county was Forest Service payments representing 2 percent of the total amount (\$24,626). Forest Service payments can include 25 Percent Revenue Sharing funds, Secure Rural School & Community Self Determination Act funds, and Bankhead-Jones Forest Grasslands funds. Of the \$1.2 million in Federal land payments to the county in FY2015, 90 percent went to county government (\$1.1 million), 9 percent went to grazing districts (\$65,291), with 1 percent (\$12,313) going to local school districts. In FY2015 Federal Land Payments to the county represented \$1.30 per acre of Federal land.

The total cost of maintaining county government for Washakie County in FY2016 was \$5.0 million. This represents a per capita cost of \$598.76 which was 50 percent below the average for all counties in Wyoming (\$1,183.03). The largest cost categories were County Sheriff (20 percent), Jail (11 percent), Courthouse (11 percent), and Road and Bridge (8 percent). These four categories represent 50 percent of the total cost of maintain county government for Washakie County.

Natural Resource-Based Industry Profiles

In 2015, the Mining sector in Washakie County produced 693,316 barrels of crude oil and 1.6 million mcf of natural gas, 132,298 tons of bentonite, and 308,245 tons of sand and gravel. The mining industry in the county, including the associated industrial property, had an assessed valuation of \$31.1 million dollars in 2016 (2016 assessed valuation for mineral production is based on 2015 production). This valuation represented 24 percent of the total assessed valuation for the county. Based on the county mill levy, the mineral industry generated \$2.2 million in property tax revenue in 2016. Of this total, 70 percent went to K-12 schools (\$1.5 million), 17 percent went to county government (\$373,827), and 13 percent went to county special districts (\$292,132). Special districts in the county included: Cemetery, Solid Waste Disposal, and Conservation. In 2015 the mining industry in the county supported 225 jobs with labor earnings of \$16.0 million. This represented 4 percent of total employment and 6 percent of

total labor earnings in the county. The percent of total employment in mining for the county was 5 times the national percentage (0.8 percent) indicating that Mining was an area of specialization within the county's economy. The average earnings per job for mining in the county were \$71,124 which was 1.6 times the county average (\$45,402). The mining industry ranked 10th out of 23 sectors in the county's economy in terms of total employment and 6th out of 23 sectors in terms of total labor earnings.

In 2012 there were 209 agricultural operations in Washakie County. These operations managed 341,347 acres in the county. Included in this acreage is 96 percent of the private land in the county. Of the total land in agriculture, 85 percent is classified as grazing land, 12 percent as cropland, 2 percent as woodlands, and 1 percent as farmsteads and buildings. The average size of an agricultural operation in the county was 1,633 acres. The total cattle and sheep inventory in the county was 47,939 head including 25,238 head of cattle and calves and 22,701 head of sheep and lambs. In 2014, the county ranked 19th out of 23 counties in Wyoming in terms of cattle and calves inventory and 7th out of 23 counties in terms of sheep and lambs inventory. It also ranked 3rd in barley production, 3rd in sugar beet production, 14th in alfalfa hay production, and 17th in other hay production. In terms of investment by agricultural operators, the estimated total market value of lands, buildings, and equipment for agriculture in the county was \$339.1 million. This total included \$303.1 million in land and buildings and \$36.0 million for equipment and machinery. The average investment per agricultural operation was \$1.6 million. In 2012 agricultural operations in the county paid \$860,000 in property taxes.

The gross revenue for the agricultural industry in the county in 2015 was \$46.3 million. Of this total 41 percent was from cash receipts for livestock, 46 percent was from cash receipts for crops, 6 percent was from miscellaneous sources, and 7 percent was from government payments. Total employment for agriculture in 2015 was 305 jobs with labor earnings of \$5.5 million. This represented 6 percent of the total jobs in the county and 2 percent of the labor earnings. The percent of total employment in agriculture for the county was 4 times the national percentage (1.4 percent) indicating that agriculture was an area of specialization within the county's economy. The average earnings per job for agriculture in the county were \$18,059 which was 40 percent of the county average (\$45,402). Average earnings per job in agriculture tend to be lower because most employment is self-employment and includes a large number of small part-time and lifestyle operations that generate limited labor earnings. Bureau of Labor Statistics (BLS) data, which is based on employment covered by unemployment insurance, may be a better indicator of average earnings per job for commercial agricultural employment in the county. For 2015, BLS data indicates that the average earnings per job for agricultural employment in the County were \$35,029. The agriculture industry ranked 7th out of 23 sectors in the county's economy in terms of total employment and 15th out of 23 sectors in terms of total labor earnings.

In addition to jobs and income, agriculture also provides important natural resource amenities such as open space. Open space offers landscapes, lifestyles, and wildlife habitat that can have value to both residents and visitors. Open space is particularly important because it determines the character of the landscapes surrounding a community. Out of economic necessity, most agricultural operations in the county cover large areas of land; as a result, agriculture can contribute substantially to maintaining open spaces on private lands in a region. As noted above, 96 percent of the private land in county is in

agricultural use. Due to the natural resource amenities associated with agricultural land there is public support for the retention of lands in agriculture. For example, a recent survey sponsored by the Wyoming Stock Growers Association, the Wyoming Stock Growers Land Trust, the Nature Conservancy, and the University of Wyoming found that nearly 80 percent of Wyoming residents felt that they personally benefit from the presence of farms and ranches in Wyoming. In addition, 76 percent of respondents were concerned with the loss of family farms and ranches in the State. Other issues of serious concerns to respondents included the availability of water for farming and ranching (71 percent), and natural areas and ranchland being split up by new development (66 percent).

Dean Runyan Associates estimates that visitors spent \$23.2 million while in Washakie County in 2015. In terms of accommodations, 47 percent of this spending was by visitors staying in campgrounds, 29 percent by visitors staying in hotels/motels, 13 percent was by visitors staying in private homes, 2 percent was by visitors staying in vacation homes, and 9 percent was by visitors not staying overnight. In terms of purchases, 25 percent was spent on local transportation & gas, 21 percent was spent on food services, 16 percent was spent on accommodations, 15 percent was spent on arts, entertainment, & recreation, 13 percent was spent on retail sales, 9 percent was spent at food stores, and 1 percent was spent for air transportation.

Dean Runyan estimated that the travel industry generated 300 direct jobs in the county in 2015. This represents 5 percent of total employment in the county. Nearly 57 percent of these jobs were in the accommodations and food service sector, 30 percent were in the arts/entertainment/recreation sector, and 13 percent were in the retail trade sector. The labor earnings associated with this employment was estimated to be \$6.7 million. This represents 3 percent of the total labor earnings for the county. Average earnings per job for the travel industry in the county for 2015 were \$22,333. Average earnings per job for the travel industry were 49 percent the county average (\$45,402).

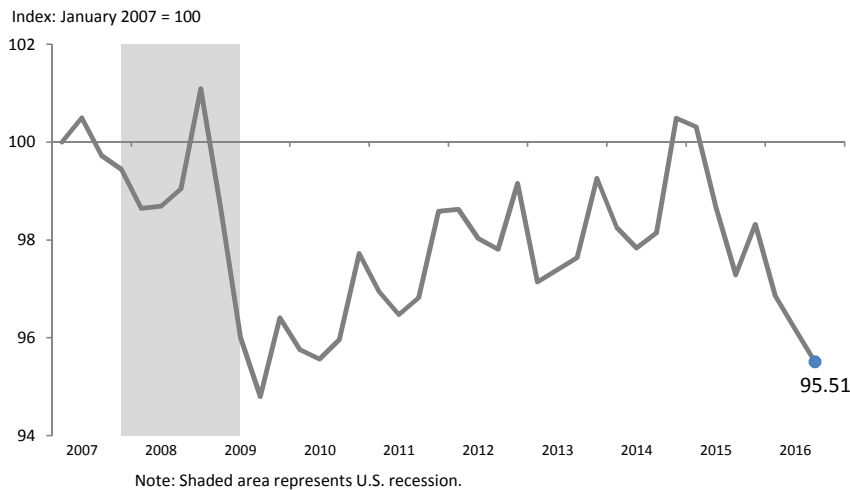
The tax revenue associated with the county's travel industry is estimated to be \$900,000 with \$200,000 (22 percent) going to local government and \$700,000 (78 percent) going to state government.

Washakie County Economic Indicators

WYOGOV

ECONOMIC ANALYSIS DIVISION • JANUARY 2017

► Chart 1: Washakie County Business-Cycle Index as of Q3-2016

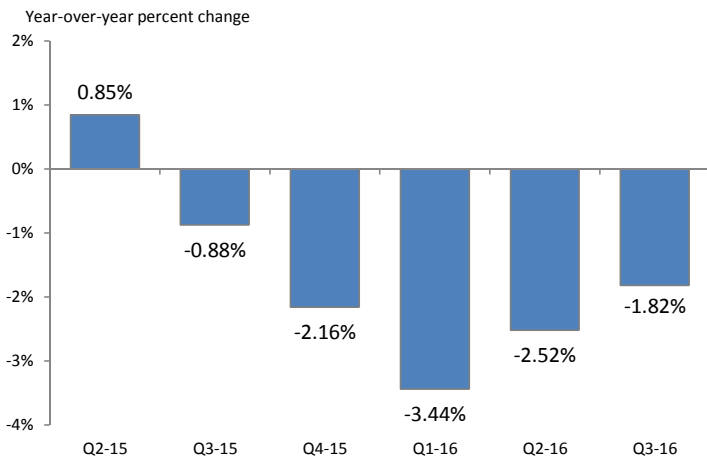


► SUMMARY: The Washakie County Business-Cycle Index (WashBCI) registered an index value of 95.51 in the 3rd quarter of 2016 (see Chart 1), a slight decrease compared to the 2nd quarter 2016 value of 96.18 and a larger decline by comparison to the 3rd quarter 2015 value of 97.28.

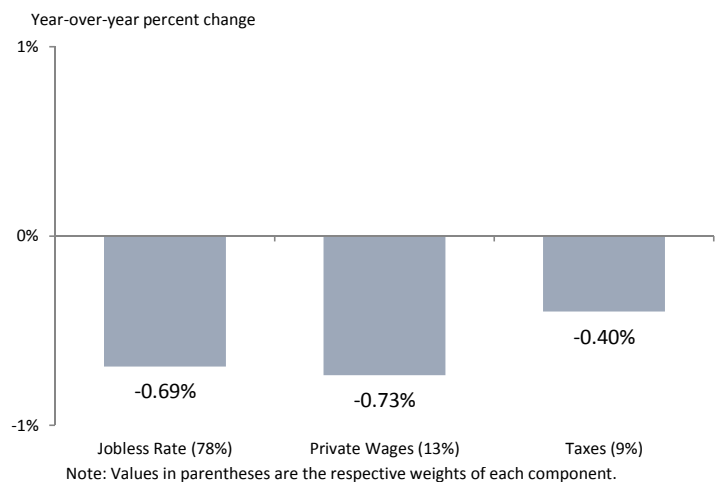
As displayed in Chart 2, the Q2-15 through Q3-16 period indicated that the WashBCI had gradually worsened quarter by quarter through Q1-16. Since then the index had been steadily improving with Q3-16 of 2016 falling by just 1.82 percent.

As Chart 3 demonstrates, all three components of the WashBCI were negative in Q3-16. Both the unemployment rate and the private wages components played significant roles in the decline. The remaining component, the collection of the 4 percent sales and use tax attributed to taxable sales in Washakie County, also contributed to the decline in the WashBCI.

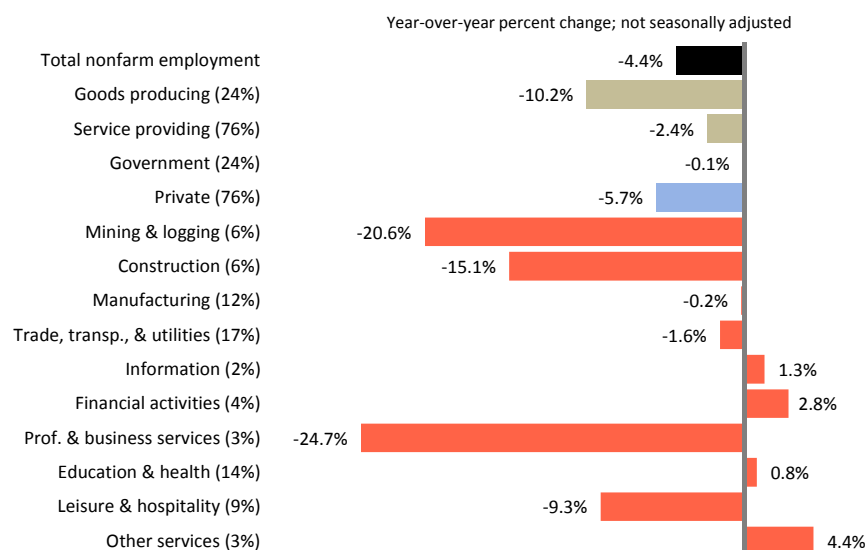
► Chart 2: Change in Business-Cycle Index — Last 6 Quarters



► Chart 3: Component Changes in the Index — Q3-2016



► Chart 4: September 2016 QCEW Employment Growth



Note: Values in parentheses represent share of total employment.

► The total number of nonfarm payroll jobs in Washakie County declined at a 4.4 percent pace in September in a year ago comparison as seen in Chart 4. The September job count was 3,732, lower than the September 2015 level by 172 jobs.

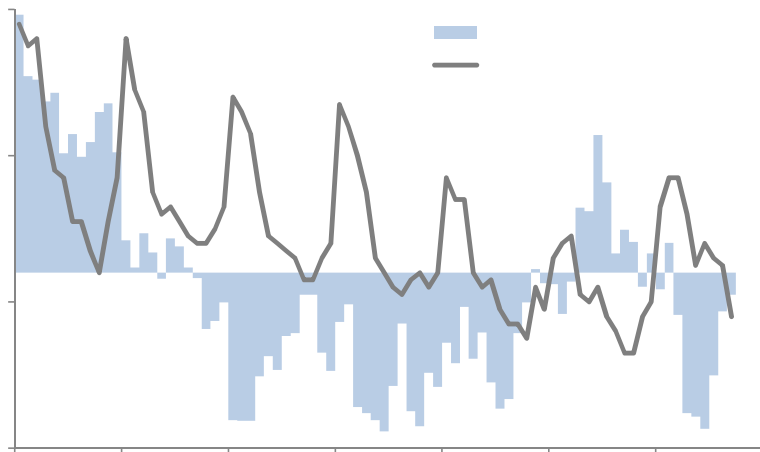
The other services sector added the most jobs (+5) in September followed closely by financial activities and education & health, each adding 4 jobs. Mining incurred the largest decline (-58 jobs) followed closely by construction (-43 jobs).

► NOTE: The Washakie County Business-Cycle Index unites three county-level indicators to sum up current economic conditions in a single number. The indicators consist of (1) **Washakie County's monthly unemployment rate**, (2) **private sector wages**, estimated by multiplying the total number of private sector workers in Washakie County each month by the average weekly wage, and (3) **monthly sales and use tax collections which reflect taxable sales in Washakie County**. All data are seasonally adjusted; all dollar amounts are inflation adjusted; and all monthly data are converted to a quarterly basis.

SOURCES: **Business-cycle index:** Economic Analysis Division; **employment data:** U.S. Bureau of Labor Statistics; **sales and use taxes:** WY Dept. of Revenue.



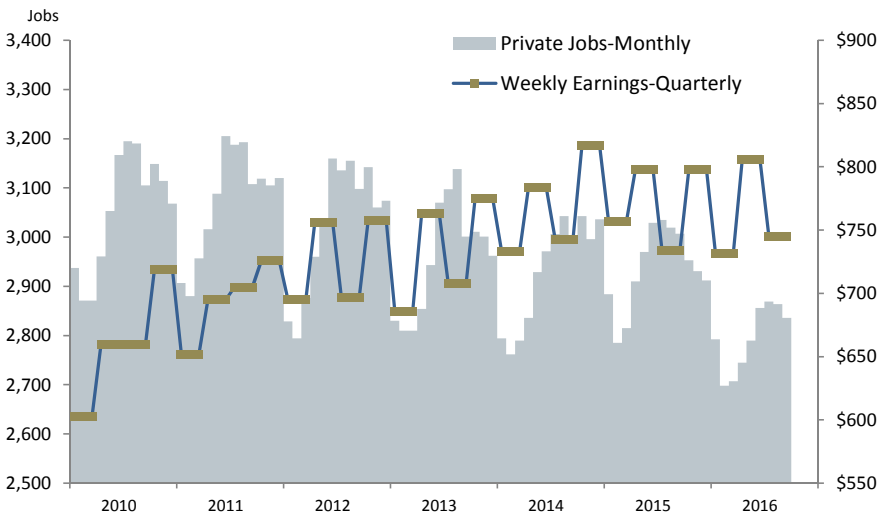
► Chart 5: Washakie County Labor Force as of September 2016



► The unemployment rate (not seasonally adjusted) for Washakie County improved to 3.8% in September 2016 compared to the August 2016 rate of 4.5% but was still higher than the September 2015 rate of 3.3% (see Chart 5). The period from January through September 2016 saw the unemployment rate increase each month in a year-over-year comparison with April recording the largest increase in rates of 1.1.

► Labor force consists of those individuals who meet the Bureau of Labor Statistics classifications as employed or unemployed. With the exception of February, Washakie's labor force had shrunk in each of the first nine months of 2016 in a year-ago comparison. The greatest decline was reported in June with 178 people leaving the labor pool; labor force losses have lessened since with only a 25 person reduction in September.

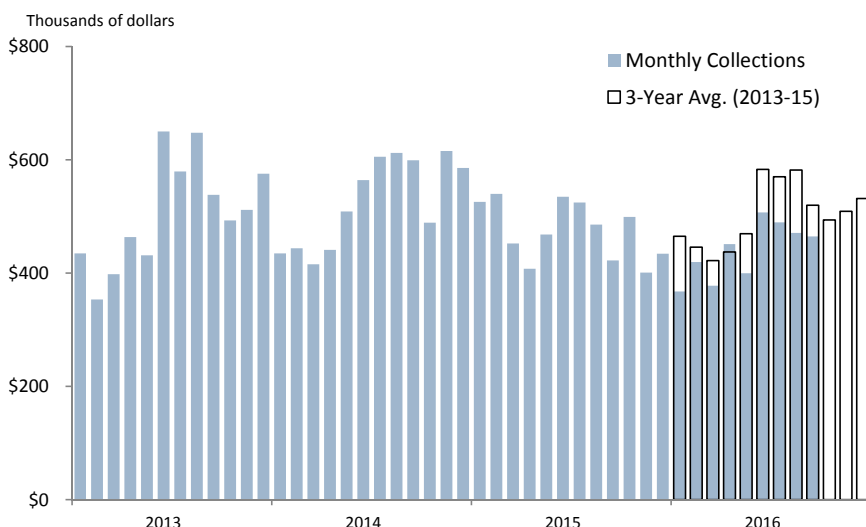
► Chart 6: Washakie County QCEW Labor Market



► Jobs associated with Washakie County's private sector decreased in September by 28 compared to August (see Chart 6). The September 2016 private job count was 2,836, lower than the September 2015 level by 171 jobs.

► Washakie's weekly earnings fell in Q3-16 to \$745 compared to the Q2-16 value of \$806 but was higher than the level attained in Q3-15 of \$734. For the period Q1-15 through Q4-15, weekly earnings had averaged \$772; in 2016, earnings were running just below that pace after 3 quarters, reaching \$761 per week on average.

► Chart 7: Washakie County 4% Sales and Use Tax Collections



► Washakie County's collection of the 4 percent sales and use tax fell slightly to \$464.9 thousand in September of 2016 (these are actually October 2016 collections that mostly represent sales that took place in September), compared to August (see Chart 7) but were \$42.4 thousand higher when compared to September of a year ago. After nine months into calendar year 2016, cumulative collections were lagging the 3-year average over the same number of months by \$546.2 thousand or 12.2 percent.

► NOTE: The data used in the construction of charts 5, 6, and 7 are not seasonally adjusted and the dollar amounts are not inflation adjusted. Charts 5, 6, and 7 also use monthly data except where noted.

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Washakie Business-Cycle Index Values			
			YOY
Year	Quarter	Index	Change
2007	Q1	100.00	
2007	Q2	100.50	
2007	Q3	99.72	
2007	Q4	99.44	
2008	Q1	98.65	-1.35%
2008	Q2	98.69	-1.80%
2008	Q3	99.04	-0.68%
2008	Q4	101.09	1.66%
2009	Q1	98.66	0.01%
2009	Q2	96.01	-2.72%
2009	Q3	94.80	-4.28%
2009	Q4	96.41	-4.63%
2010	Q1	95.76	-2.94%
2010	Q2	95.56	-0.46%
2010	Q3	95.96	1.22%
2010	Q4	97.73	1.37%
2011	Q1	96.95	1.24%
2011	Q2	96.48	0.96%
2011	Q3	96.82	0.90%
2011	Q4	98.58	0.88%
2012	Q1	98.62	1.73%
2012	Q2	98.03	1.61%
2012	Q3	97.81	1.02%
2012	Q4	99.15	0.58%
2013	Q1	97.14	-1.50%
2013	Q2	97.39	-0.65%
2013	Q3	97.64	-0.17%
2013	Q4	99.26	0.10%
2014	Q1	98.25	1.14%
2014	Q2	97.84	0.46%
2014	Q3	98.14	0.52%
2014	Q4	100.49	1.24%
2015	Q1	100.31	2.10%
2015	Q2	98.66	0.85%
2015	Q3	97.28	-0.88%
2015	Q4	98.32	-2.16%
2016	Q1	96.86	-3.44%
2016	Q2	96.18	-2.52%
2016	Q3	95.51	-1.82%
2016	Q4		
2017	Q1		
2017	Q2		
2017	Q3		
2017	Q4		
2018	Q1		
2018	Q2		
2018	Q3		
2018	Q4		

Washakie County Business-Cycle Index Addendum

The Washakie County Business-Cycle Index (WashBCI) is a coincident economic indicator and is designed to provide a current assessment of the county's economy. There are three main components of the WashBCI. Two of these components, unemployment rate and private sector weekly wages, are included to capture labor market activity for the county. The third component, sales and use tax collections, gauges economic activity related to taxable sales in the county.

Unemployment Rate: The first component of the WashBCI is the unemployment rate. This statistic measures the percentage of people in Washakie County who want to work but don't have jobs. This statistic is available monthly from the U.S. Bureau of Labor Statistics (BLS) and is not seasonally adjusted. The monthly data are aggregated into quarters and then seasonally adjusted. One final adjustment that is unique to this component is that the employment rate statistic (1.00 or 100% minus the unemployment rate) is then determined. It is this statistic rather than the unemployment rate that is used because an increase in the employment rate, similar to increases in private wages, and sales and use tax collections, is considered to be a positive impact on the economy. It is included as a component because it provides an assessment of Washakie County's labor market.

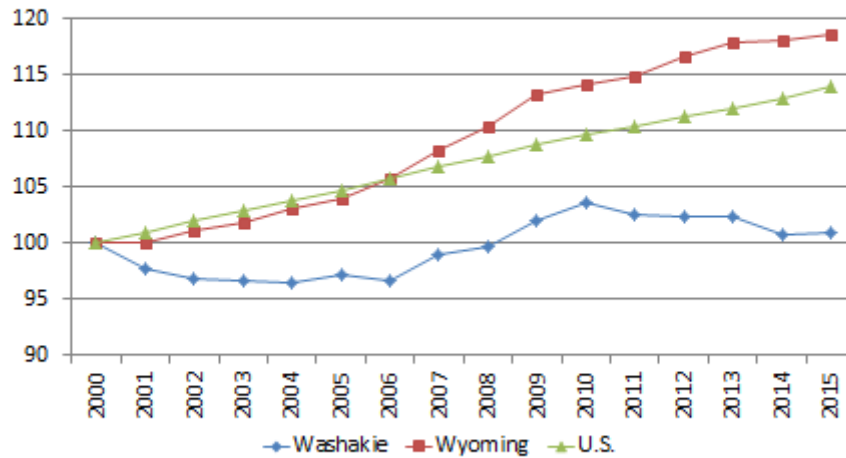
Private Sector Weekly Wages: The second component of the WashBCI is total private sector weekly wages. This component is estimated by multiplying the number of private sector jobs in the county by the average weekly wage to achieve a dollar value of private sector jobs in Washakie County. Private sector jobs are available monthly from the BLS (not seasonally adjusted). The average weekly wage is available on a quarterly basis and also from the BLS (not seasonally adjusted). The jobs data are aggregated into quarters and then seasonally adjusted. The average weekly wage data are converted to constant dollars using the Consumer Price Index – All Urban Consumers database and then seasonally adjusted. This indicator is included because it is another measure of the Washakie County's labor market health.

Sales and Use Taxes: The third component of the WashBCI is Washakie County's sales and use tax collections associated with the state's 4 percent tax rate. Because sales and use tax collections received by the county for a given month represent transactions that took place 4 to 6 weeks prior, the data is lagged one month for use in the WashBCI model. This statistic is available monthly from the State of Wyoming's Department of Revenue (not seasonally adjusted). All sales and use tax dollar amounts have been converted to constant dollars using the Consumer Price Index – All Urban Consumers database, then the monthly data are aggregated into quarters, and finally the data are seasonally adjusted. This indicator is included because it represents taxable sales activity in Washakie County.

Methodology: After the data for each component have been adjusted as noted above, each series is then standardized starting in the first quarter of 2007 resulting in a value of 100.00 for each component and the WashBCI in that quarter. As the components change from quarter to quarter, so does the value of the WashBCI. Quarterly index values for each of the components not including the unemployment rate are then smoothed using a weighted moving average. The unemployment rate is excluded from this treatment because the data are relatively stable to begin with. Next, the standard deviation of each component's quarterly standardized values is determined followed by the calculation of the inverse of each component's standard deviation. Finally, the individual inverse standard deviations are standardized resulting in weights that sum to 1.00. The rationale for this weighting approach is the same used by the U.S. Conference Board implying that those components that are more stable over time will generate a smaller standard deviation but a larger inverse standard deviation, and thus, a larger weight. A substantial shift in a traditionally stable data series would provide a more compelling signal of economic change than a large shift in a series that commonly has large shifts.

DEMOGRAPHICS

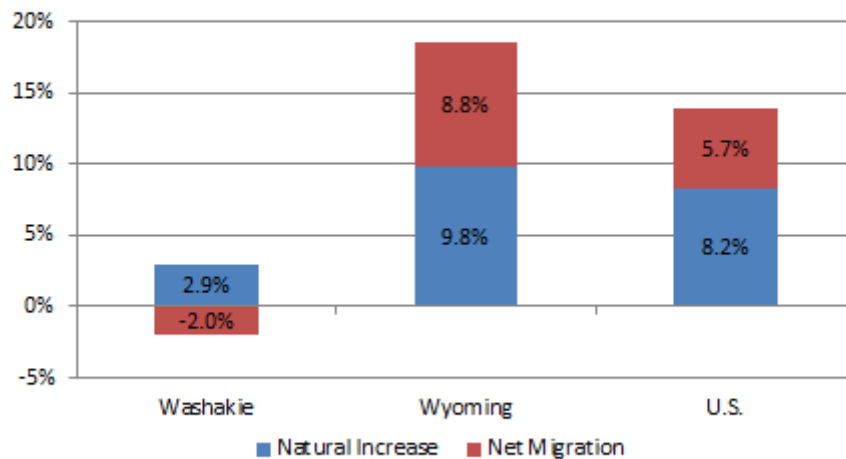
Figure 1.
Population Growth Index: 2000-2015



Overall Washakie County experienced essentially no population growth between 2000 and 2015, increasing by 76 residents from 8,252 residents in 2000 to 8,328 in 2015 (+1 percent). The county's population growth rate was significantly less than either the Wyoming growth rate (19 percent) or the U.S. growth rate (13 percent) between 2000 and 2015 (Figure 1). During the time period, the county's population fluctuated decreasing by 3 percent to 7,979 residents between 2000 and 2006; then increasing by 7 percent to 8,545 residents between 2006 and 2010; and then decreasing by 2 percent to 8,328 residents between 2010 and 2015.

Data Sources: Wyoming Department of Administration and Information. 2016. Economic Analysis Division, Table 1. Intercensal Estimates of the Resident Population for Counties of Wyoming: April 1, 2000 to July 1, 2010 and Table 1. Annual Estimates of the Resident Population for Counties of Wyoming: April 1, 2010 to July 1, 2015.

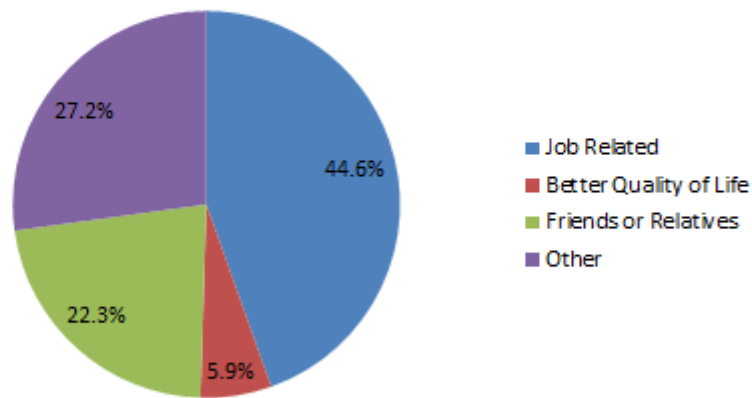
Figure 2.
Comparison of Source of Population Change: 2000-2015



Population increases can occur in one of two ways: 1) Natural Increase (more births than deaths) or 2) Net In-Migration (more people moving in than moving out). Between 2000 and 2015 Washakie County experienced a slight increase in population due to Natural Increase but suffered a slight loss in population due to negative In-Migration (Figure 2). The net effect of these two influences was about a one percent increase in county population from 2000 to 2015 (2.9 percent - 2.0 percent). While Wyoming and the U.S. experienced relatively comparable rates of population growth from Natural Increase (10 percent and 8 percent, respectively, the county only experienced a 3 percent growth rate from Natural Increase. This was probably due to the older age of the county's population which will be discussed later in the report. While Wyoming and the U.S. also experienced substantial population growth rates from Net In-Migration (9 percent and 6 percent, respectively), the county experienced more people moving out than moving in. This was probably due to limited employment growth in the county which will also be discussed later in the report.

Data Source: Wyoming Department of Administration and Information. 2016. Economic Analysis Division, Annual Births, Deaths, and Net Migration by County of Residence: 1971-2015.

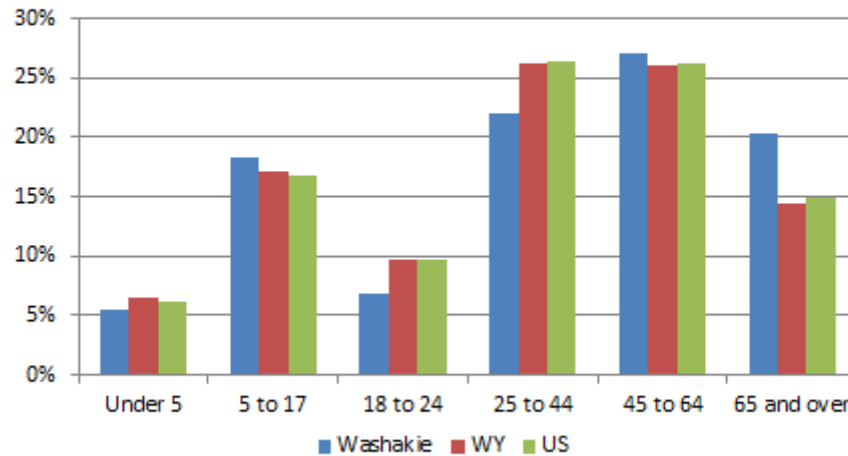
Figure 3.
Primary Reason for Moving to Washakie County: 2000-2016



People move to an area for a variety of reasons ranging from economic to aesthetic. Data from the Wyoming Housing Database Partnership for 2000 through 2016 (Figure 3) indicates that the most frequent reason given by new residents to Washakie County for moving to Wyoming were job related factors (45 percent). Job related factors included Job Transfers, New Jobs, Better Employment Opportunities, and Starting or Expanding a Business. The second most frequent reason was that friends or relatives already resided in the area (22 percent). Less than six percent of new residents surveyed indicated that a better quality of life was the primary reason for moving to the county with 27 percent indicating some other reason. This data is from the Housing Needs Assessment Survey conducted by the Wyoming Housing Database Partnership in cooperation with the Wyoming Department of Transportation. The survey results are based on a random sample of new residents who were exchanging their previous state's driver's licenses for a Wyoming drivers licenses.

Data Source: Wyoming Community Development Authority. 2016. Wyoming Housing Database Partnership, Wyoming Profile of Demographics, Economics, and Housing; Volume II: Technical Appendix, Semiannual Report, Appendix G: Housing Needs Assessment Survey Data, 2000-2016.

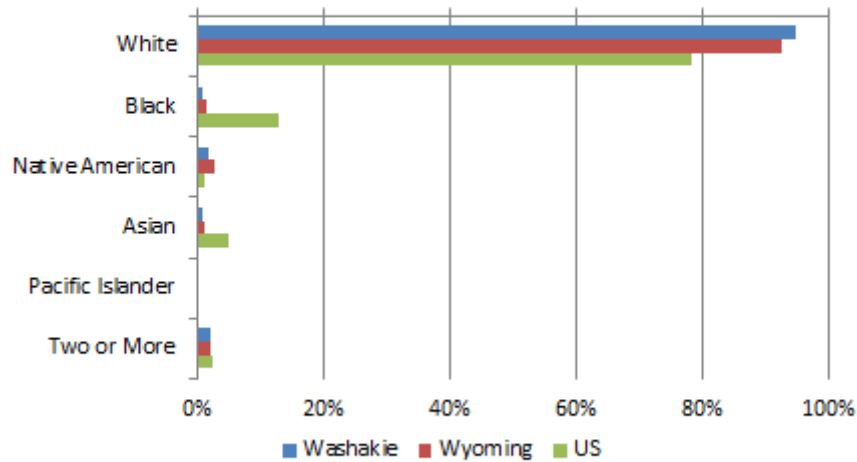
Figure 4.
Comparison of Population Age Distribution: 2015



In 2015 the largest age groups for Washakie County were adults 45 to 64 years old (27 percent) and adults 25 to 44 years old (22 percent). Combined, these two age groups represented nearly one-half of the total county population (Figure 4). The next largest age group was adults 65 years of age and older (20 percent), followed by youth 5 to 17 (18 percent), young adults 18 to 24 (7 percent) and lastly youth under 5 (5 percent). The population distribution for the county was mostly under represented at the lower end of the age spectrum relative to Wyoming and the U.S. Compared to Wyoming and the U.S., the county had a higher proportion of its overall population in the younger age group of 5 to 17, but a lower proportion in the under 5 age category. The county also had a lower proportion of its overall population in the adults 18 to 24 and 25 to 44 age groups. On the older end of the age spectrum, the county had a higher proportion of its overall population in the older age groups of 45 to 65 and 65 and over, especially the 65 and over age categories. The median age for the county in 2015 (42.7 years) was 16 percent older than the median age for Wyoming (36.9 years) and 13 percent older than the median age for the U.S. (37.8 years). Overall, the county was tied for 7th among Wyoming Counties in terms of oldest median age. Due to the relatively high proportion of the county's residents in the 45 to 64 age group and the 65 and over age group, the county's population is likely to continue to age over time.

Data Source: Wyoming Department of Administration and Information. 2016. Economic Analysis Division, Annual Estimation of the Resident Population for Selected Age Groups by Sex for Wyoming: April 1, 2010 to July 1, 2015.

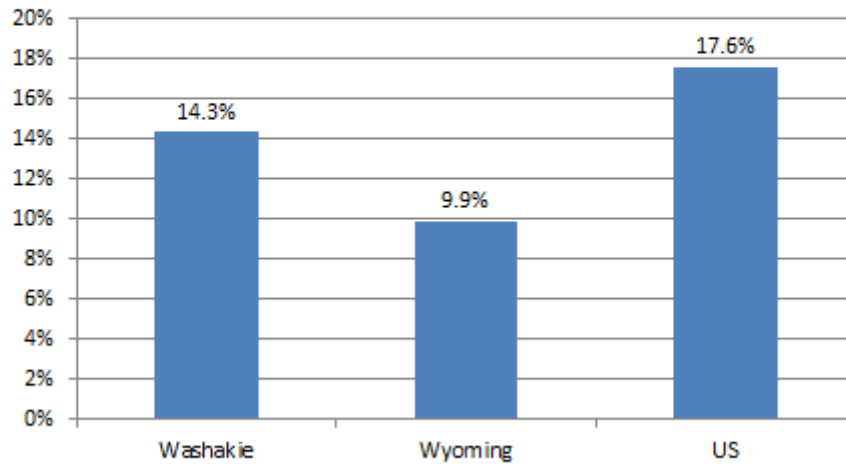
Figure 5.
Comparison of Population by Race: 2015



White is the predominate category of race in Washakie County, accounting for 95 percent of the total population (Figure 5). The percentage of the population that is White in the county is 2 percent higher than the percentage for Wyoming (93 percent) and 16 percent higher than the percentage for the U.S. (78 percent) The other five races identified by the federal government account for the remaining 5 percent with Two or More Races being the most common (1.9 percent), followed by Native American (1.7 percent), Black (0.7 percent), Asian (0.7 percent), and Pacific Islanders (0.1 percent). The proportion of the county's population that was Black (0.7 percent versus 1.4 percent and 13.0 percent), Asian (0.7 percent versus 1.0 percent and 4.9 percent), Pacific Islander (0.1 percent versus 0.1 percent and 0.2 percent), or Two or More Races (1.9 percent versus 2.1 percent and 2.3 percent) was less than either Wyoming or the U.S. The proportion of the county's population that was Native American was less than Wyoming but higher than the U.S. (1.7 percent versus 2.7 percent versus 1.2 percent).

Data Source: Wyoming Department of Administration and Information. 2016. Economic Analysis Division, Table 6. Annual Estimate of the Resident Population by Race for the United States, Wyoming, and Counties: July 1, 2016.

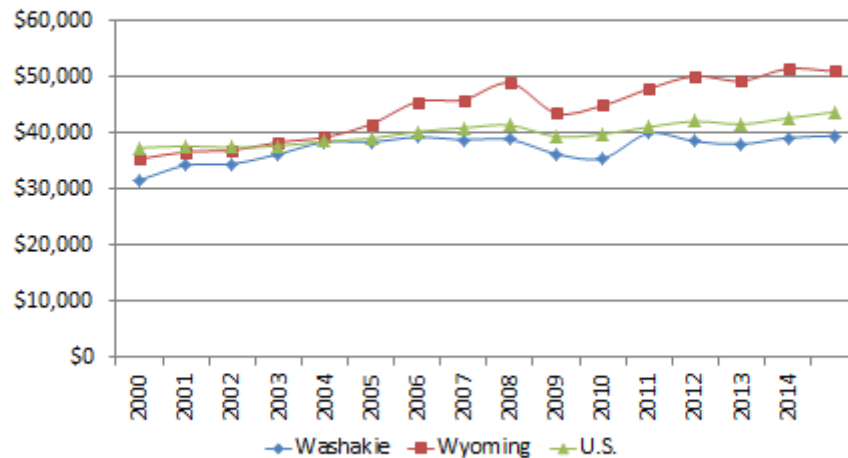
Figure 6.
Comparison Percent of Population Hispanic: 2015



The federal government defines the term “Hispanic” as an ethnicity rather than a specific race. Thus Hispanics can be individuals of any race that self-identify themselves as “Hispanic” or “Latino” based on heritage, nationality group, lineage, or country of birth of the person or person’s parents or ancestors before their arrival in the United States. In Washakie County, as shown in Figure 6, the percentage of the population classifying themselves as Hispanic (14 percent) was 44 percent higher than the percentage for Wyoming (10 percent) and 19 percent lower than the percentage for Wyoming (18 percent).

Data Source: Wyoming Department of Administration and Information. 2016. Economic Analysis Division, Table 6. Annual Estimates of the Resident Population by Race and Hispanic Origin for the United States, Wyoming, and Counties: July 1, 2015.

Figure 7.
Per Capita Income: 2000-2015
(Adjusted for Inflation)

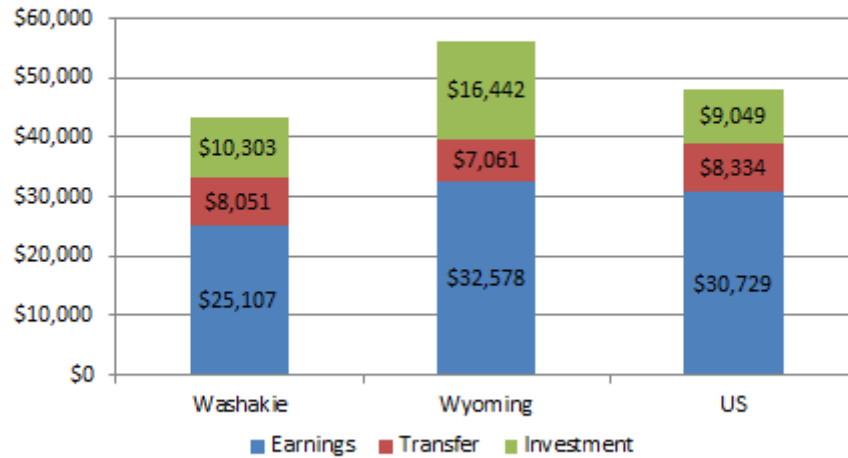


Per capita income can serve as a general indicator of the economic well-being of a county's population. In 2000, per capita income in Washakie County was \$31,614 in 2009 dollars (Figure 7). The per capita income for the county in 2000 was 11 percent below Wyoming's per capita income (\$35,373) and 15 percent below the U.S. per capita income (\$37,371). From 2000 to 2015, after adjusting for inflation, per capita income for the county increased by 25 percent to \$39,511. Despite this increase, in 2015 the county's per capita income was still 22 percent lower than Wyoming's (\$50,984) and 10 percent lower than the U.S. (\$43,739).

There are three sources of per capita income: 1) net labor earnings including wages, salaries, and proprietor (self-employed) income, 2) government transfer payments such as Social Security, Medicare, Medicaid, and various income assistance program payments, and 3) investment income representing property income in the form of dividends, interest, and rents. The majority of the growth in the county's per capita income between 2000 and 2014 was the result of growth of net labor earnings (69 percent) with 30 percent coming from increased transfer payments and less than 1 percent coming from increased investment income. Transfer payments were the fastest growing individual source of per capita income between 2000 and 2015 increasing by 48 percent, while labor earnings increased by 32 percent and investment income increased by less than 1 percent. In 2000, net labor earnings represented 55 percent of total per capita income, with investment income representing 29 percent, and transfer payments representing 16 percent. In 2015 net labor income represented 58 percent of total per capita income, investment income represented 24 percent, and transfer payments represented 18 percent.

Data Source: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

Figure 8.
Comparison of Per Capita Income by Source 2015

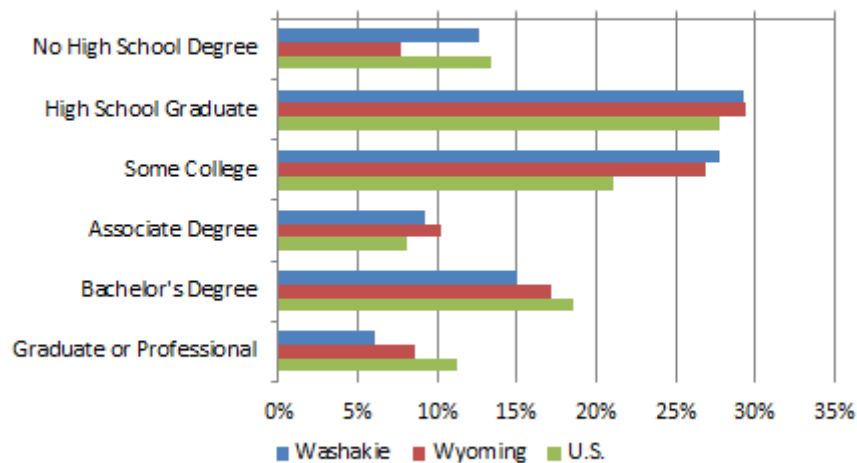


In 2015 per capita income for Washakie County was \$43,461 in 2015 dollars (Figure 8). This level of income was 22 percent below per capita income for Wyoming and 10 percent below per capita income for the U.S. Among the three regions, the county had the lowest per capita labor earnings (\$25,107) which was 23 percent below per capita labor earnings for Wyoming (\$32,578) and 18 percent below per capita labor earnings for the U.S. (\$30,729). In 2015, the county had per capita transfer payments of \$8,051 which was 14 percent higher than per capita transfer payments for Wyoming (\$7,061), and only 3 percent lower than per capita transfer payments for the U.S. (\$8,334). The county's per capita investment income (\$10,303) was 37 percent below per capita investment income for Wyoming (\$16,442), but 14 percent higher than per capita investment income for the U.S. (\$9,049). The relatively lesser importance of labor earnings and the relatively greater importance of transfer payments and investment income for the county may be a reflection of the older age of the county's population.

The county's 2015 unemployment rate (4.0 percent) was lower than Wyoming's unemployment rate (4.2 percent) and lower than the U.S. unemployment rate (5.3 percent). While total per capita income for the county was 22 percent below the state average, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2015 was only 10 percent below the state average. This difference suggests that, on average, county residents were economically somewhat worse-off than the rest of the state in 2015. Similarly, the percent of the county's population that was below the poverty level (11.2 percent) was higher than the Wyoming's rate (10.6 percent) but lower than the U.S. rate (13.5 percent).

Data Source: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

Figure 9.
Level of Educational Attainment, 2011-2015
(Population 25 Years or Older)

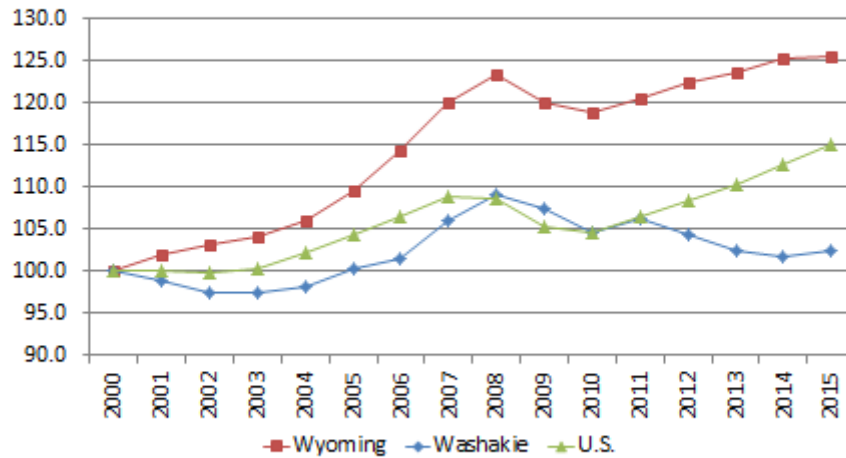


Overall, the educational attainment of Washakie County's population in terms of a high school degree or higher (87 percent) was lower than Wyoming's (92 percent) and the same as the U.S. (87 percent). The county's population was somewhat less educated in terms of college bachelors or advanced degrees than Wyoming (21 percent vs. 26 percent) and the U.S. (21 percent vs. 30 percent). The percentage of the county population without a high school degree (13 percent) was higher than Wyoming's (8 percent) and the same as the U.S. (13 percent). The percentage of the county's population with a high school degree (29 percent) was the similar to Wyoming's (29 percent) and the U.S. (28 percent). The percentage of the county's population with some college (28 percent) or an associate degree (9 percent) was similar to both Wyoming (27 percent and 10 percent) and the U.S. (21 percent and 8 percent). The percentage of the county's population with either a bachelors (15 percent) or graduate/professional degree (6 percent) was below Wyoming's (17 percent and 9 percent) and the U.S. (18 percent and 11 percent).

In terms of access to educational resources, the county has two public school districts with a total of 6 schools and a 2014 fall enrollment of 1,480. The graduation rate for the public school system was 85 percent compared to a state average of 79 percent. The public school system had 128 certified teachers, 27 certified staff, 18 administrators, and 124 classified staff. Total general fund expenditures for the county's public school system was \$24.6 million in 2014 with an operating cost of \$19,191 per average daily membership. This compares with an average operating cost of \$17,229 per average daily membership for the state. Northwest College whose main campus is in Powell has an off-campus center in Worland.

Data Source: Wyoming Department of Administration and Information. 2015. Economic Analysis Division, Wyoming County Profiles 2015.

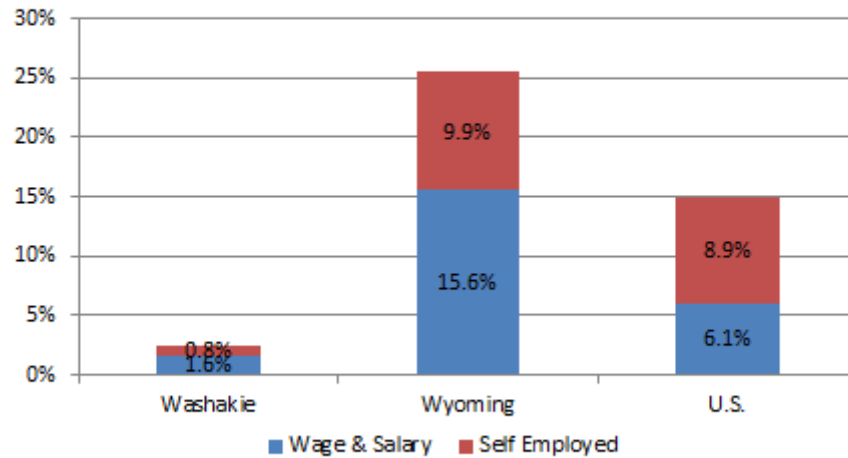
Figure 10.
Employment Growth Index: 2000-2015



Overall, Washakie County experienced limited employment growth between 2000 and 2015. Total employment in the county increased by 2 percent from 2000 through 2015 growing from 5,291 jobs in 2000 to 5,416 jobs in 2015 (Figure 10). During this time period Wyoming employment increased by 25 percent and the U.S. employment increased by 15 percent. County employment did increase (+9 percent) between 2000 and 2008 with employment peaking at 5,768 jobs in 2008. Employment in all three regions was negatively affected by 2008-2009 recession. However, unlike the Wyoming or the U.S., the county's employment has not recovered since the recession decreasing by 6 percent to 5,416 jobs in 2015. Between 2001 and 2008, the sectors with the largest growth in employment were Construction (+148 jobs), Health Care & Social Assistance (+105 jobs), and Mining (+98 jobs). Federal employment statistics include the Oil and Gas sector as a part of Mining. Between 2008 and 2015, the sectors with the largest decline in employment were Construction (-134 jobs), Finance & Insurance (-84 jobs), and Health Care and Social Assistance (-77 jobs).

Data Source: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

Figure 11.
Comparison of Employment Growth: 2000-2015



From 2000 to 2015, employment in Washakie County increased by only 2 percent (Figure 11). This increase was only 9 percent of the employment increase for Wyoming (25 percent) and only 16 percent of the employment increase for the U.S. (15 percent) during the same time period. About two-thirds of the growth in employment in the county between 2000 and 2014 was in wage and salary jobs with one-third coming from growth in self-employment jobs. At the state level, wage and salary jobs represented 61 percent of the employment growth with 39 percent coming from growth in self-employment jobs. This ratio of growth in employment from wage and salary jobs to growth in self-employment jobs is similar to that for the county. However, at the national level, the ratio was 40 percent from wage and salary jobs to 60 percent from self-employment jobs. This difference reflects the lack of growth in wage and salary jobs in the U.S. economy between 2000 and 2015.

Data Source: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

Figure 12.

Washakie County Employment by Sector: 2015

Sector	Jobs	Percent	LQ
Local Government	584	10.8%	1.46
Health Care & Social Assistance	542	10.0%	0.89
Manufacturing	464	8.6%	1.24
Retail Trade	450	8.3%	0.83
Construction	398	7.3%	1.40
Accommodations & Food Service	363	6.7%	0.91
Agriculture	305	5.6%	4.05
Other Services	293	5.4%	0.93
Real Estate, Rental, & Leasing	270	5.0%	1.09
Mining	225	4.2%	5.25
Transportation & Warehousing	218	4.0%	1.16
Professional Services	190	3.5%	0.50
State Government	179	3.3%	1.19
Wholesale Trade	150	2.8%	0.78
Finance & Insurance	145	2.7%	0.53
Management Services	109	2.0%	0.26
Federal - Civilian	108	2.0%	1.35
Information	91	1.7%	0.95
Arts, Entertainment, & Recreation	91	1.7%	0.75
Educational Services	81	1.5%	0.61
Forestry, Fishing, & Ag Support	77	1.4%	2.79
Military	43	0.8%	0.77
Utilities	41	0.8%	2.45
Total	5,416	100.0%	N.A.

Local Government, which includes all employment associated with county government, towns and city government in the county, and the county's public school districts, was the largest source of employment in Washakie County representing 11 percent of total county employment (Figure 12). Following Local Government was Health Care & Social Assistance (10%). Other major sources of employment were Manufacturing (9 percent), Retail Trade (8 percent), and Construction (7 percent). Combined these five sectors represent nearly one-half of the employment in the county.

The location quotients (LQ), in the fourth column of Figure 12, were used to identify Defining Industries in the county. A location quotient is the ratio of an industry's share of total employment in the region relative to the industry's share of total employment at the national level. A large location quotient is an indication of specialization within the county's economy. Defining Industries are important because they play a significant role in a region's growth over time. The Federal Reserve Bank of Kansas City considers Defining Industries as those with a locational quotient of at least 1.25 that account for at least 0.2 percent of total employment in the region. On this basis Washakie County has seven Defining Industries

including: Mining (5.25), Agriculture (4.05), Forestry, Fishing, and Ag Support (2.79), Utilities (2.45), Local Government (1.46), Construction (1.40), and Federal-Civilian (1.35). These seven sectors are relatively more important in the county's economy than they are at the national level.

Data Source: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

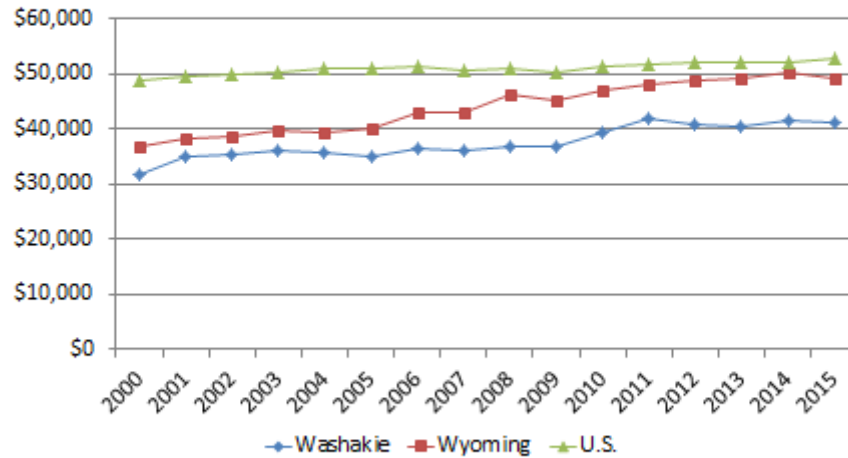
Figure 13.**Change in Washakie County Employment by Sector: 2001-2015**

Sector	2001	2015	Change 2001-2015	Percent of Change	Percent Change
Real Estate, Rental, & Leasing	190	270	80	43.7%	42.1%
Local Government	510	584	74	40.4%	14.5%
Wholesale Trade	78	150	72	39.6%	93.3%
Mining	175	225	50	27.3%	28.6%
Transportation & Warehousing	181	218	37	20.2%	20.4%
Accommodations & Food Service	327	363	36	19.7%	11.0%
Educational Services	51	81	30	16.5%	59.2%
Health Care & Social Assistance	514	542	28	15.2%	5.4%
Arts, Entertainment, & Recreation	69	91	22	12.0%	31.9%
Agriculture	287	305	18	9.8%	6.3%
Construction	384	398	14	7.7%	3.6%
Professional Services	184	190	6	3.3%	3.3%
Forestry, Fishing, & Ag Support	76	77	1	0.3%	0.7%
Military	46	43	-3	-1.6%	-6.5%
Information	95	91	-4	-2.2%	-4.2%
State Government	184	179	-5	-2.7%	-2.7%
Federal - Civilian	134	108	-26	-14.2%	-19.4%
Management Services	136	109	-27	-14.9%	-20.1%
Utilities	69	41	-28	-15.2%	-40.4%
Other Services	321	293	-28	-15.3%	-8.7%
Finance & Insurance	184	145	-39	-21.3%	-21.2%
Retail Trade	500	450	-50	-27.3%	-10.0%
Manufacturing	539	464	-75	-41.0%	-13.9%
Total	5,233	5,416	183	100.0%	3.5%

Employment in Washakie County increased by 3 percent from 2001 through 2015 (Figure 13). The largest increases in employment came from Real Estate, Rental & Leasing (+80 jobs), Local Government (+74 jobs), Wholesale Trade (+72 jobs) and Mining (+50 jobs). On the other hand, the two sectors with the largest loss in employment between 2001 and 2015 were Manufacturing (-75 jobs) and Retail Trade (-50 jobs). In terms of individual sectors the fastest growing sectors were Wholesale Trade (+93 percent), Educational Services (+59 percent), and Real Estate, Rentals, & Leasing (+44 percent).

Data Source: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25.

Figure 14.
Comparison of Average Earnings Per Job: 2000-2015
(Adjusted for Inflation)



In addition to the number of jobs, the labor earnings associated with those jobs is an important consideration. Overall average earnings per job are a general measure of the economic well-being of the local workforce. Figure 14 illustrates the continuing difficulty that the Washakie County economy has had with generating relatively high paying jobs. In 2000, the average earnings per job for the county were \$31,564, in 2009 dollars, which was 14 percent below the Wyoming average earnings per job (\$36,862) and 35 percent below the U.S. average earnings per job (\$48,821). From 2000 through 2015, after adjusting for inflation, county average earnings per job increased by 31 percent to \$41,275. Despite this increase, 2015 county average earnings per job were still 16 percent below the Wyoming average earnings per job (\$48,978) and 22 percent below the U.S. average earnings per job (\$52,936). While county average earnings per job were 16 percent below the state average in 2015, the Wyoming Economic Analysis Division estimates that the county's cost-of-living for the second quarter of 2015 was only 10 percent below the state average. This difference suggests that, on average, the county's workforce was economically somewhat worse-off than the rest of the state in 2015.

Data Source: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA30.

Figure 15.**Average Earnings Per Job for Washakie County: 2015**

Sector	Jobs	Earnings (\$1,000)	AEPJ
Utilities	41	\$4,554	\$111,073
Transportation & Warehousing	218	\$19,635	\$90,069
Federal - Civilian	108	\$9,338	\$86,463
State Government	179	\$13,771	\$76,933
Mining	225	\$16,003	\$71,124
Manufacturing	464	\$30,478	\$65,685
Local Government	584	\$32,914	\$56,360
Construction	398	\$21,256	\$53,407
Professional Services	190	\$9,322	\$49,063
Health Care & Social Assistance	542	\$25,914	\$47,857
Information	91	\$4,235	\$46,538
Wholesale Trade	150	\$6,460	\$43,067
Finance & Insurance	145	\$5,223	\$36,021
Management Services	109	\$3,526	\$32,448
Retail Trade	450	\$13,766	\$30,591
Military	43	\$1,241	\$28,860
Other Services	293	\$7,111	\$24,270
Real Estate, Rental, & Leasing	270	\$5,679	\$21,033
Forestry, Fishing, & Ag Support	77	\$1,564	\$20,436
Educational Services	81	\$1,589	\$19,546
Agriculture	305	\$5,508	\$18,059
Accommodations & Food Service	363	\$6,048	\$16,661
Arts, Entertainment, & Recreation	91	\$759	\$8,341
Total	5,416	\$245,895	\$45,402

Average earnings per job (AEPJ), which includes employer paid benefits, varies substantially by sector. In 2015 AEPJ in Washakie County ranged from over \$111,000 for the Utility sector to less than \$8,400 for the Arts, Entertainment, & Recreation sector (Figure 15). After Utilities, the next highest AEPJ was in the Transportation & Warehouse sector (\$90,069), Federal-Civilian (\$86,463), State Government (\$76,933), Mining (\$71,124) and Manufacturing (\$65,685). Of the 23 sectors in the county's economy 7 had AEPJ greater than the Wyoming average (\$53,875) and 6 had AEPJ greater than the U.S. average (\$58,875). The 7 sectors with AEPJ greater than the Wyoming average represented only one-third of the total employment in the county and the 6 sectors with AEPJ greater than the U.S. average represent only 23 percent of the total employment in the county. The AEPJ for the Agricultural sector was relatively low due to the large number of small, part-time producers in the county.

Data Sources: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Tables CA25 & CA5.

Figure 16.**Total Labor Earnings for Washakie County: 2015**

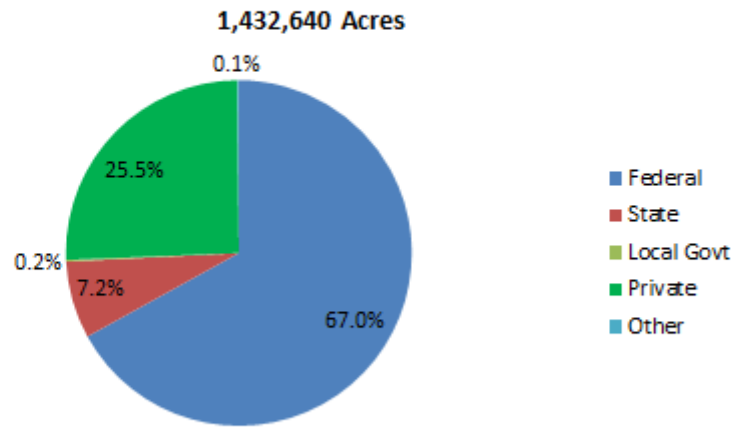
Sector	Jobs	AEPJ	Earnings (\$1,000)	Percent
Local Government	584	\$56,360	\$32,914	13.4%
Manufacturing	464	\$65,685	\$30,478	12.4%
Health Care & Social Assistance	542	\$47,857	\$25,914	10.5%
Construction	398	\$53,407	\$21,256	8.6%
Transportation & Warehousing	218	\$90,069	\$19,635	8.0%
Mining	225	\$71,124	\$16,003	6.5%
State Government	179	\$76,933	\$13,771	5.6%
Retail Trade	450	\$30,591	\$13,766	5.6%
Federal - Civilian	108	\$86,463	\$9,338	3.8%
Professional Services	190	\$49,063	\$9,322	3.8%
Other Services	293	\$24,270	\$7,111	2.9%
Wholesale Trade	150	\$43,067	\$6,460	2.6%
Accommodations & Food Service	363	\$16,661	\$6,048	2.5%
Real Estate, Rental, & Leasing	270	\$21,033	\$5,679	2.3%
Agriculture	305	\$18,059	\$5,508	2.2%
Finance & Insurance	145	\$36,021	\$5,223	2.1%
Utilities	41	\$111,073	\$4,554	1.9%
Information	91	\$46,538	\$4,235	1.7%
Management Services	109	\$32,448	\$3,526	1.4%
Educational Services	81	\$19,546	\$1,589	0.6%
Forestry, Fishing, & Ag Support	77	\$20,436	\$1,564	0.6%
Military	43	\$28,860	\$1,241	0.5%
Arts, Entertainment, & Recreation	91	\$8,341	\$759	0.3%
Total	5,416	\$45,402	\$245,895	100.0%

The combination of the number of jobs and the average earnings per job determines the relative importance of individual sectors in terms of total labor earnings in the Washakie County economy (Figure 16). Labor earnings are important because they represent the major source of personal income for county residents. Overall county employment generated \$245.9 million in labor earnings in 2015. Local Government, due to its relatively large number of employees and above average earnings per job was the largest source of labor earnings for the county (13 percent). Following Local Government was Manufacturing (12 percent), Health Care & Social Assistance (10 percent), Construction (9 percent), Transportation & Warehousing (8 percent), Mining (6 percent). Combined these six sectors represented 60 percent of total county labor earnings.

Data Sources: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Tables CA25 & CA5.

LAND CHARACTERISTICS

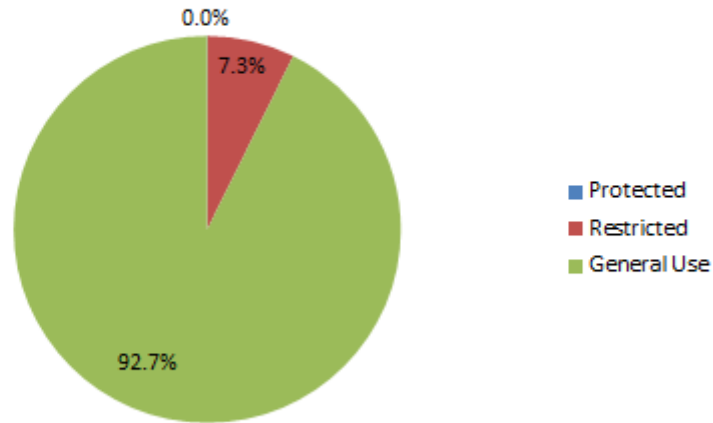
Figure 17.
Land Ownership in Washakie County: 2012



Washakie County contains 1.4 million acres of land (Figure 17). The Federal government is the largest category of landownership in the county accounting for 67 percent of this land area (959,424 acres). Of this total, the Forest Service manages 4 percent of the total Federal land in the county, with the BLM managing 96 percent. State land represents 7 percent of the county's land area (103,680 acres). Most of the state land in the county is state trust land, with 448 acres managed by the Wyoming Game & Fish Department. Local government owns 0.2 percent of the county's land area (2,368 acres). Private land represents only 25 percent of the surface area in the county (365,376 acres). Information from the Wyoming Department of Revenue on acres taxed as agricultural land indicates that 96 percent of the private land in the county is in agricultural use (351,906 acres). Of this total 87 percent is classified as range land (305,176 acres), less than one percent is classified as dry cropland (2,931 acres), and 12 percent is classified as irrigated crop land (43,799 acres).

Data Source: Wyoming Department of Administration and Information. 2015. Wyoming and County Profiles 2015.

Figure 18.
Management Designation of Federal Lands in Washakie County



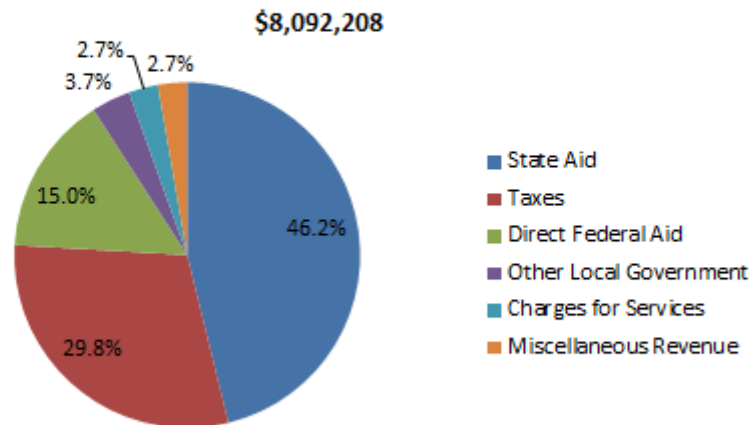
Federal lands are managed for different purposes under differing statutory authority. Three categories of designation are presented in Figure 18: 1) Protected, 2) Restricted., and 3) General Use. Protected areas include National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Water Fowl Protection Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS). Restricted areas include Wilderness Study Areas (NPS, FWS, FS, BLM) and Inventoried Roadless Areas (FS). General Use areas include Public Domain Lands (BLM) and National Forests and Grasslands (FS). This data was obtained from the Economic Profile System – Human Dimension Toolkit (NPS = National Park Service, FWS = Fish and Wildlife, FS = Forest Service, and BLM = Bureau of Land Management).

In Washakie County, Economic Profile System data indicates that no federal lands are designated as protected. Meanwhile, 7 percent of federal lands are designated as restricted and 93 percent are designated for general use. In comparison, 21 percent of total federal lands in Wyoming are classified as protected, 13 percent are classified as restricted and 66 percent are classified as general use.

Data Source: Headwaters Economics. 2016. Economic Profile System-Human Dimension Toolkit, A Profile of Land Use (page 3).

County Government Finances

Figure 19.
Washakie County Government Revenue: FY2016

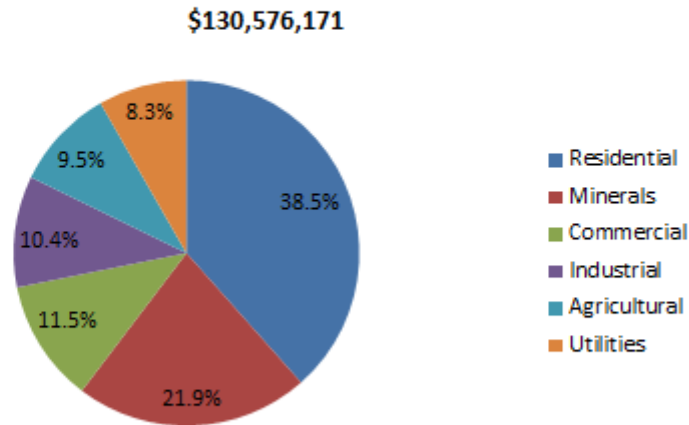


Wyoming Department of Audit information indicates that the total revenue for Washakie County Government was \$8.1 million in FY2016 (Figure 19). Of this total, the largest source was State Aid which included the county's share of the 4 percent sales and use tax revenue (46 percent). Following State Aid was Taxes which included property taxes and any optional sales tax revenue (30 percent) and Direct Federal Aid, including PILT payments (15 percent). Combined these three sources represented 91 percent of the total county government revenue in FY2016. Other sources of county government revenue included Other Local Government Revenue (4 percent), Charges for Services (3 percent), and Miscellaneous Revenue (3 percent). Combined these revenue sources represented 9 percent of the total county government revenue in FY2016.

Compared to all counties in Wyoming, the county had a higher proportion of revenue from State Aid (46 percent vs. 24 percent). The county's proportion of revenue from Taxes was substantially lower relative to all counties in the state (30 percent vs. 52 percent) and the proportion from Direct Federal Aid was higher relative to all counties in the state (15 percent vs. 6 percent). Other sources of revenue were lower compared to all other counties in the state in terms of Other Local Government (3.7 percent vs. 4.5 percent), Charges for Services (2.7 percent vs. 6.7 percent), and Miscellaneous Revenue (2.7 percent vs. 6.6 percent). Overall, the county's per capita revenue (\$972) was 30 percent below the average for all counties in Wyoming (\$1,384).

Data Source: Wyoming Department of Audit. 2016. Cost of Maintaining County Government in Wyoming: For Fiscal Year July 1, 2015-June 30, 2016: As prepared from Reports submitted to the Department of Audit Public Funds.

Figure 20.
Washakie County Assessed Valuation: 2016

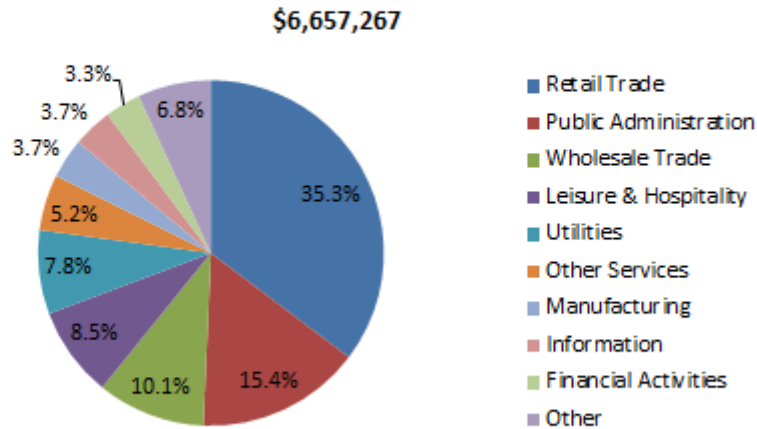


The total assessed valuation for Washakie County in 2016 was \$130.6 million (Figure 20). Thirty-eight percent of the total valuation was from Residential Property. Following Residential Property was Minerals Production (22 percent), Commercial Property (11 percent), Industrial Property (10 percent), Agricultural Property (9 percent), and Utilities (8 percent).

Compared to Wyoming, the county had a higher proportion of assessed valuation from Residential Property (38 percent vs. 24 percent). The county's proportion of assessed valuation from Mineral Production was about one-half that for Wyoming's (22 percent vs. 50 percent), the assessed valuation from Commercial Property was higher than Wyoming's (11 percent vs. 7 percent), the assessed valuation from Industrial Property was the same as Wyoming's (10 percent vs. 10 percent), the assessed valuation from Agricultural Land was higher than Wyoming's (9 percent vs. 2 percent) and the assessed valuation from Utilities was higher than Wyoming's (8 percent vs. 7 percent). In terms of Mineral Production, crude oil represented 79 percent of total county mineral assessed valuation, natural gas represented 10 percent of total county mineral assessed valuation, bentonite represented 10 percent, and sand and gravel represented less than 1 percent of total county mineral assessed valuation.

Data Sources: Wyoming Department of Revenue. 2016. 2016 Annual Report.

Figure 21.
Washakie County Sales & Use Tax Revenue: FY2016

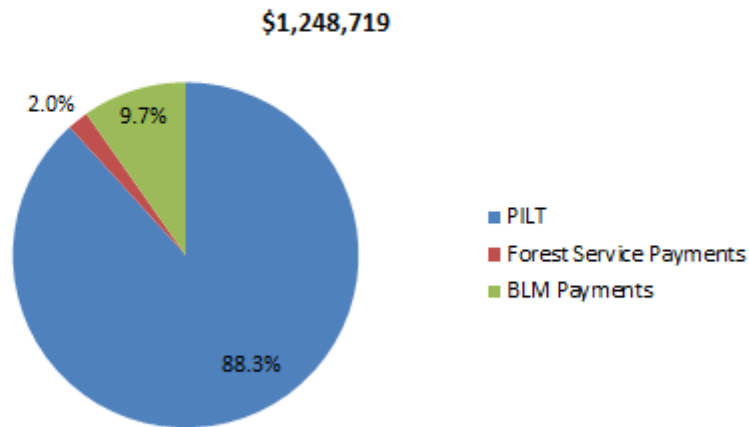


In FY2016 Washakie County's sales and use tax generated \$6.7 million in tax revenue (Figure 21). Of this total, 55 percent (\$3.7 million) was retained by state government and 45 percent (\$3.0 million) was returned to local governments in the county. In FY2016 county government's share of the returned sales and use tax revenue was approximately \$1.0 million (35 percent) with the remaining \$2.0 million (65 percent) going to municipal governments in the county. Thirty-five percent of the county's total sales and use tax revenue came from Retail Trade. Following Retail Trade was Public Administration (15 percent), Wholesale Trade (10 percent), Leisure & Hospitality (8 percent), Utilities (8 percent), and Other Services (5 percent). Combined these six sectors contributed 82 percent of the county's total sales and use tax revenue. Public Administration represents sales and use tax revenue on motor vehicle purchases which are collected at the time of registration in Wyoming. Manufacturing, Information, Financial Activities and Others combined contribute 18 percent of total county sales and use tax revenue.

Compared to total sales and use tax revenue for Wyoming, the county had a similar proportion of sales and use tax revenue from Retail Trade (35 percent vs. 32 percent). The county's proportion of sales and use tax revenue from Public Administration was higher than Wyoming's (15 percent vs. 10 percent), from Wholesale Trade was higher than Wyoming's (10 percent vs. 8 percent), from Leisure & Hospitality was lower than Wyoming's (8 percent vs. 12 percent), from Utilities was higher than Wyoming's (8 percent vs. 6 percent) and from Other Services was higher than Wyoming's (5 percent vs. 4 percent). The county's proportion of sales and use tax revenue from Mining was substantially lower than Wyoming's (3 percent vs. 13 percent). Per capita sales and use tax revenues for the county (\$799) were about one-half of per capital sales and use tax revenues for Wyoming (\$1,474).

Data Sources: Wyoming Department of Administration and Information, Economic Analysis Division. 2016. Wyoming Sales, Use, and Lodging Tax Revenue Report, 41st Edition.

Figure 22.
Washakie County Federal Land Payment: FY2015



The Economic Profile System-Human Dimensions Toolkit indicates that federal land payments to local governments in Washakie County totaled \$1.2 million in FY2015 (Figure 22). The largest source of federal land payments to the county was Payment in Lieu of Taxes (PILT) representing 88 percent of the total amount (\$1.1 million). PILT payments are intended to compensate county governments for non-taxable federal lands within their borders. It is based on a maximum per-acre payment reduced by other federal revenue sharing payments and subject to a per capita population cap. The second largest source of federal payments to the county was BLM Payments representing 10 percent of the total amount (\$121,719). BLM payments represent revenue sharing funds including grazing fees through the Taylor Grazing Act. The third source of federal payments to the county was Forest Service payments representing 2 percent of the total amount (\$24,626). Forest Service payments can include 25 Percent Revenue Sharing funds, Secure Rural School & Community Self Determination Act funds, and Bankhead-Jones Forest Grasslands funds. Of the \$1.2 million in Federal land payments to the county in FY2015, 90 percent went to county government (\$1.1 million), 9 percent went to grazing districts (\$65,291), with 1 percent (\$12,313) going to local school districts. In FY2015 Federal Land Payments to the county represented \$1.30 per acre of Federal land.

Data Source: Headwaters Economics. 2016. Economic Profile System-Human Dimension Toolkit, A Profile of Federal Land Payments (page 1).

Figure 23.

Washakie County Government Costs, FY2016

Costs	Amount	Percent	Per Capita
County Sheriff	\$976,489	19.6%	\$117.25
Jail	\$574,718	11.5%	\$69.01
Courthouse	\$542,883	10.9%	\$65.19
Road and Bridge	\$410,398	8.2%	\$49.28
County Administration	\$322,489	6.5%	\$38.72
Library	\$267,650	5.4%	\$32.14
Health (Not Hospital)	\$240,575	4.8%	\$28.89
Capital	\$194,657	3.9%	\$23.37
County Assessor	\$184,043	3.7%	\$22.10
County Clerk	\$182,044	3.7%	\$21.86
County Attorney	\$157,723	3.2%	\$18.94
Distict Court	\$156,964	3.1%	\$18.85
Finacial Administration	\$127,235	2.6%	\$15.28
County Treasurer	\$126,405	2.5%	\$15.18
Fair	\$101,210	2.0%	\$12.15
Agricultural Department	\$96,760	1.9%	\$11.62
Civil Defense/Emergency	\$86,714	1.7%	\$10.41
County Commissioners	\$72,993	1.5%	\$8.76
County Planner	\$69,071	1.4%	\$8.29
County Coroner	\$47,785	1.0%	\$5.74
Social Services	\$38,000	0.8%	\$4.56
Elections	\$9,700	0.2%	\$1.16
Total	\$4,986,506	100.0%	\$598.76

The total cost of maintaining county government for Washakie County in FY2016 was \$5.0 million (Figure 23). This represents a per capita cost of \$598.76 which was 50 percent below the average for all counties in Wyoming (\$1,183.03). The largest cost categories were County Sheriff (20 percent), Jail (11 percent), Courthouse (11 percent), and Road and Bridge (8 percent). These four categories represent 50 percent of the total cost of maintain county government for Washakie County.

Data Source: Wyoming Department of Audit. 2016. Cost of Maintaining County Government in Wyoming: For Fiscal Year July 1, 2015-June 30, 2016, As prepared from Reports submitted to the Department of Audit Public Funds

NATURAL RESOURCE BASED INDUSTRY PROFILES

Figure 24.
Washakie County Mining Industry

	Amount
<u>Mineral Production (2015)</u>	
Crude Oil (Barrels)	693,316
Natural Gas (MCF)	1,596,991
Bentonite (Tons)	132,298
Sand & Gravel (Tons)	308,245
<u>Tax Revenue (2016 from 2015 Production)</u>	
Assessed Valuation	\$31,152,288
Property Tax Revenue	\$2,188,243
<u>Employment (2015)</u>	
Full & Part-time Jobs	225
Labor Earnings	\$16,003,000
Average Earnings Per Job	\$71,124

In 2015, the Mining sector in Washakie County produced 693,316 barrels of crude oil and 1.6 million mcf of natural gas, 132,298 tons of bentonite, and 308,245 tons of sand and gravel (Figure 24). The mining industry in the county, including the associated industrial property, had an assessed valuation of \$31.1 million dollars in 2016 (2016 assessed valuation for mineral production is based on 2015 production). This valuation represented 24 percent of the total assessed valuation for the county. Based on the county mill levy, the mineral industry generated \$2.2 million in property tax revenue in 2016. Of this total, 70 percent went to K-12 schools (\$1.5 million), 17 percent went to county government (\$373,827), and 13 percent went to county special districts (\$292,132). Special districts in the county included: Cemetery, Solid Waste Disposal, and Conservation. In 2015 the mining industry in the county supported 225 jobs with labor earnings of \$16.0 million. This represented 4 percent of total employment and 6 percent of total labor earnings in the county. The percent of total employment in mining for the county was 5 times the national percentage (0.8 percent) indicating that Mining was an area of specialization within the county's economy. The average earnings per job for mining in the county were \$71,124 which was 1.6 times the county average (\$45,402). The mining industry ranked 10th out of 23 sectors in the county's economy in terms of total employment and 6th out of 23 sectors in terms of total labor earnings.

Data Sources: Wyoming Oil and Gas Conservation Commission. 2016. OnLine Stats Book, 2015 County Report. Wyoming Department of Revenue. 2016. 2016 Annual Report, State Assessed Valuation: Production Year 2015. U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Table CA25 & CA5.

Figure 25.
Washakie County Agricultural Industry

	Amount
<u>Assets (2012)</u>	
Total Land in Agriculture (Acres)	341,347
Cattle Inventory (Head)	25,238
Sheep Inventory (Head)	22,701
Investment – Land, Buildings, Equipment	\$339,141,000
Property Taxes Paid	\$860,000
<u>Gross Revenue (2015)</u>	\$46,265,000
<u>Employment (2015)</u>	
Jobs	305
Labor Earnings	\$5,508,000
Average Earnings Per Job	\$18,059

In 2012 there were 209 agricultural operations in Washakie County. These operations managed 341,347 acres in the county (Figure 25). Included in this acreage is 96 percent of the private land in the county. Of the total land in agriculture, 85 percent is classified as grazing land, 12 percent as cropland, 2 percent as woodlands, and 1 percent as farmsteads and buildings. The average size of an agricultural operation in the county was 1,633 acres. The total cattle and sheep inventory in the county was 47,939 head including 25,238 head of cattle and calves and 22,701 head of sheep and lambs. In 2014, the county ranked 19th out of 23 counties in Wyoming in terms of cattle and calves inventory and 7th out of 23 counties in terms of sheep and lambs inventory. It also ranked 3rd in barley production, 3rd in sugar beet production, 14th in alfalfa hay production, and 17th in other hay production. In terms of investment by agricultural operators, the estimated total market value of lands, buildings, and equipment for agriculture in the county was \$339.1 million. This total included \$303.1 million in land and buildings and \$36.0 million for equipment and machinery. The average investment per agricultural operation was \$1.6 million. In 2012 agricultural operations in the county paid \$860,000 in property taxes.

The gross revenue for the agricultural industry in the county in 2015 was \$46.3 million. Of this total 41 percent was from cash receipts for livestock, 46 percent was from cash receipts for crops, 6 percent was from miscellaneous sources, and 7 percent was from government payments. Total employment for agriculture in 2015 was 305 jobs with labor earnings of \$5.5 million. This represented 6 percent of the total jobs in the county and 2 percent of the labor earnings. The percent of total employment in agriculture for the county was 4 times the national percentage (1.4 percent) indicating that agriculture was an area of specialization within the county's economy. The average earnings per job for agriculture in the county were \$18,059 which was 40 percent of the county average (\$45,402). Average earnings per job in agriculture tend to be lower because most employment is self-employment and includes a large number of small part-time and lifestyle operations that generate limited labor earnings. Bureau of

Labor Statistics (BLS) data, which is based on employment covered by unemployment insurance, may be a better indicator of average earnings per job for commercial agricultural employment in the county. For 2015, BLS data indicates that the average earnings per job for agricultural employment in the County were \$35,029. The agriculture industry ranked 7th out of 23 sectors in the county's economy in terms of total employment and 15th out of 23 sectors in terms of total labor earnings.

In addition to jobs and income, agriculture also provides important natural resource amenities such as open space. Open space offers landscapes, lifestyles, and wildlife habitat that can have value to both residents and visitors. Open space is particularly important because it determines the character of the landscapes surrounding a community. Out of economic necessity, most agricultural operations in the county cover large areas of land; as a result, agriculture can contribute substantially to maintaining open spaces on private lands in a region. As noted above, 96 percent of the private land in county is in agricultural use. Due to the natural resource amenities associated with agricultural land there is public support for the retention of lands in agriculture. For example, a recent survey sponsored by the Wyoming Stock Growers Association, the Wyoming Stock Growers Land Trust, the Nature Conservancy, and the University of Wyoming found that nearly 80 percent of Wyoming residents felt that they personally benefit from the presence of farms and ranches in Wyoming. In addition, 76 percent of respondents were concerned with the loss of family farms and ranches in the State. Other issues of serious concerns to respondents included the availability of water for farming and ranching (71 percent), and natural areas and ranchland being split up by new development (66 percent).

Data Sources: USDA. 2015. National Agricultural Statistics Service, 2012 Census of Agriculture: Wyoming State and County Data, Volume 1, Geographic Series Part 50, AC-12-A-50, Table 1. County Summary Highlights: 2012 and Table 8. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2012 and 2007. U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Local Area Personal Income & Employment, Tables CA45, CA25, & CA5. Freedman, K.S. and N.M. Koranta. 2014. Public Opinion on Natural Resource Conservation in Wyoming: Wyoming Open Space Initiative, Ruckelshaus Institute, A Division of the Haub School of Environment and Natural Resources, UW Extension B-1258, October 2014.

Figure 26.
Washakie County Travel Industry, 2015

	Amount
Visitor Spending	\$23.2 Million
Employment	300 Jobs
Labor Income	\$6.7 Million
Average Earnings Per Job	\$22,333
Local Tax Revenue	\$0.2 million

Dean Runyan Associates estimates that visitors spent \$23.2 million while in Washakie County in 2015 (Figure 26). In terms of accommodations, 47 percent of this spending was by visitors staying in campgrounds, 29 percent by visitors staying in hotels/motels, 13 percent was by visitors staying in private homes, 2 percent was by visitors staying in vacation homes, and 9 percent was by visitors not staying overnight. In terms of purchases, 25 percent was spent on local transportation & gas, 21 percent was spent on food services, 16 percent was spent on accommodations, 15 percent was spent on arts, entertainment, & recreation, 13 percent was spent on retail sales, 9 percent was spent at food stores, and 1 percent was spent for air transportation.

Dean Runyan estimated that the travel industry generated 300 direct jobs in the county in 2015. This represents 5 percent of total employment in the county. Nearly 57 percent of these jobs were in the accommodations and food service sector, 30 percent were in the arts/entertainment/recreation sector, and 13 percent were in the retail trade sector. The labor earnings associated with this employment was estimated to be \$6.7 million. This represents 3 percent of the total labor earnings for the county. Average earnings per job for the travel industry in the county for 2015 were \$22,333. Average earnings per job for the travel industry were 49 percent the county average (\$45,402).

The tax revenue associated with the county's travel industry is estimated to be \$900,000 with \$200,000 (22 percent) going to local government and \$700,000 (78 percent) going to state government.

Data Source: Dean Runyan Associates. 2016. Wyoming Travel Impacts: 2000-2015, Prepared for Wyoming Office of Tourism, Cheyenne, Wyoming.

TABLES

Table 1. Population 2000-2015					
Year	Washakie	Wyoming	U.S.		
2000	8,252	494,300	282,162,411		
2001	8,068	494,657	284,968,955		
2002	7,988	500,017	287,625,193		
2003	7,976	503,453	290,107,933		
2004	7,960	509,106	292,805,298		
2005	8,022	514,157	295,516,599		
2006	7,979	522,667	298,379,912		
2007	8,169	534,876	301,231,207		
2008	8,229	546,043	304,093,966		
2009	8,423	559,851	306,771,529		
2010	8,545	564,513	309,348,193		
2011	8,469	567,725	311,663,358		
2012	8,443	576,765	313,998,379		
2013	8,443	582,684	316,204,908		
2014	8,316	583,642	318,563,456		
2015	8,328	586,107	321,418,820		
Change	76	91,807	39,256,409		
Percent	0.9%	18.6%	13.9%		
Source	Washakie	Wyoming	U.S.		
Natural Increase	242	48,508	23,201,405		
Net Migration	-166	43,299	16,055,004		
Total Change	76	91,807	39,256,409		
Source: WY Department of A&I - Economic Analysis Division					
Table 2. Primary Reason for Moving to Washakie County, 2000-2016					
Reason	Number	Percent			
Job Related	390	44.6%			
Better Quality of	52	5.9%			
Friends or Relativ	196	22.3%			
Other	238	27.2%			
Total	876	100.0%			
Source: Wyoming Community Development Authority					

Table 3. Age of Population, 2015						
				Washakie	Wyoming	U.S.
Age	Washakie	Wyoming	U.S.	Percent	Percent	Percent
Under 5	457	38,395	19,907,281	5.5%	6.6%	6.2%
5 to 17	1,519	100,500	53,737,830	18.2%	17.1%	16.7%
18 to 24	575	56,514	31,219,892	6.9%	9.6%	9.7%
25 to 44	1,836	153,641	84,726,985	22.0%	26.2%	26.4%
45 to 64	2,248	152,358	84,065,980	27.0%	26.0%	26.2%
65 and over	1,693	84,699	47,760,852	20.3%	14.5%	14.9%
Total	8,328	586,107	321,418,820	100.0%	100.0%	100.0%
Median Age	42.7	36.9	37.8			
Source: WY Department of A&I - Economic Analysis Division						
Table 4. Race and Ethnicity of Population 2015						
				Washakie	Wyoming	U.S.
Race	Washakie	Wyoming	U.S.	Percent	Percent	Percent
White	7,890	543,292	251,868,011	94.7%	92.7%	78.4%
Black	61	8,286	41,902,829	0.7%	1.4%	13.0%
Native America	144	15,757	3,893,004	1.7%	2.7%	1.2%
Asian	60	6,072	15,781,779	0.7%	1.0%	4.9%
Pacific Islander	11	676	702,317	0.1%	0.1%	0.2%
Two or More	162	12,024	7,270,880	1.9%	2.1%	2.3%
Total	8,328	586,107	321,418,820	100.0%	100.0%	100.0%
				Washakie	Wyoming	U.S.
Ethnicity	Washakie	Wyoming	U.S.	Percent	Percent	Percent
Hispanic	1,194	58,207	56,592,793	14.3%	9.9%	17.6%
Non-Hispanic	7,134	527,900	264,826,027	85.7%	90.1%	82.4%
Total	8,328	586,107	321,418,820	100.0%	100.0%	100.0%
Source: WY Department of A&I - Economic Analysis Division						

Table 5. Per Capita Income 2015						
				Washakie	Wyoming	U.S.
Type	Washakie	Wyoming	U.S.	Percent	Percent	Percent
Net Earnings	\$25,107	\$32,578	\$30,729	57.8%	58.1%	63.9%
Transfer Payments	\$8,051	\$7,061	\$8,334	18.5%	12.6%	17.3%
Investment	\$10,303	\$16,442	\$9,049	23.7%	29.3%	18.8%
Total	\$43,461	\$56,081	\$48,112	100.0%	100.0%	100.0%
	Deflated	Deflated	Deflated	Deflated	Deflated	Deflated
	Washakie	Washakie	Washakie	Washakie	Wyoming	U.S.
Year	Earnings	Transfer	Investment	Total	Total	Total
2000	\$17,334	\$4,945	\$9,336	\$31,614	\$35,373	\$37,371
2001	\$19,754	\$5,250	\$9,226	\$34,230	\$36,632	\$37,658
2002	\$19,817	\$5,432	\$9,258	\$34,507	\$36,943	\$37,412
2003	\$20,354	\$5,990	\$9,908	\$36,252	\$38,351	\$37,692
2004	\$20,070	\$6,028	\$12,292	\$38,390	\$39,244	\$38,505
2005	\$19,746	\$6,006	\$12,643	\$38,395	\$41,562	\$39,031
2006	\$20,566	\$6,174	\$12,522	\$39,262	\$45,571	\$40,230
2007	\$20,488	\$6,314	\$12,011	\$38,813	\$45,942	\$40,910
2008	\$21,511	\$6,780	\$10,534	\$38,826	\$48,910	\$41,394
2009	\$20,772	\$7,069	\$8,427	\$36,268	\$43,549	\$39,376
2010	\$21,392	\$7,136	\$6,954	\$35,482	\$44,901	\$39,791
2011	\$24,000	\$6,974	\$8,970	\$39,944	\$47,892	\$41,092
2012	\$22,705	\$6,920	\$8,868	\$38,493	\$50,125	\$42,073
2013	\$22,116	\$6,922	\$8,995	\$38,034	\$49,271	\$41,587
2014	\$22,800	\$7,100	\$9,248	\$39,148	\$51,461	\$42,649
2015	\$22,825	\$7,319	\$9,367	\$39,511	\$50,984	\$43,739
Change	\$5,491	\$2,375	\$30	\$7,896	\$15,611	\$6,368
Percent of Total	69.5%	30.1%	0.4%	100.0%	N.A.	N.A.
Percent Change	31.7%	48.0%	0.3%	25.0%	44.1%	17.0%
Source: Bureau of Economic Analysis						

Table 6. Educational Attainment Level (Population 25 years and over), 2011-2015						
				Washakie	Wyoming	U.S.
Degree	Washakie	Wyoming	U.S.	Percent	Percent	Percent
No High School Degree	732	29,566	28,229,094	12.6%	7.7%	13.3%
High School Graduate	1,704	112,872	58,722,528	29.3%	29.4%	27.8%
Some College	1,612	103,479	44,529,161	27.7%	26.9%	21.1%
Associate Degree	539	39,555	17,029,467	9.3%	10.3%	8.1%
Bachelor's Degree	873	65,787	39,166,047	15.0%	17.1%	18.5%
Graduate or Professional	356	33,013	23,786,225	6.1%	8.6%	11.2%
Total Population 25 Yrs or Older	5,816	384,272	211,462,522	100.0%	100.0%	100.0%
High School Degree or Higher	5,084	354,706	183,233,428	87.4%	92.3%	86.7%
Bachelor's Degree or Higher	1,229	98,800	62,952,272	21.1%	25.7%	29.8%
Source: WY Department of A&I - Economic Analysis Division						
Table 7. Employment, 2000-2015						
	Washakie	Washakie	Washakie	Wyoming	U.S.	
Year	W&S Jobs	SE Jobs	Total	Total	Total	
2000	3,946	1,345	5,291	324,018	165,370,800	
2001	3,997	1,236	5,233	330,154	165,519,200	
2002	3,952	1,199	5,151	334,232	165,159,100	
2003	3,983	1,178	5,161	337,010	166,026,500	
2004	4,009	1,189	5,198	343,853	169,036,700	
2005	4,105	1,204	5,309	354,786	172,557,400	
2006	4,137	1,238	5,375	370,803	176,123,600	
2007	4,269	1,337	5,606	389,074	179,885,700	
2008	4,391	1,377	5,768	399,728	179,639,900	
2009	4,259	1,429	5,688	388,641	174,233,700	
2010	4,208	1,325	5,533	385,217	173,034,700	
2011	4,240	1,376	5,616	390,568	176,278,700	
2012	4,187	1,336	5,523	396,774	179,081,700	
2013	4,066	1,360	5,426	400,424	182,408,100	
2014	4,033	1,351	5,384	406,028	186,168,100	
2015	4,030	1,386	5,416	406,576	190,195,400	
Percent Change 2000-2015	2.1%	3.0%	2.4%	25.5%	15.0%	
Source: Bureau of Economic Analysis						

Table 8. Washakie County Employment by Sector, 2015			
Sector	Jobs	Percent	LQ
Local Government	584	10.8%	1.46
Health Care & Social Assistance	542	10.0%	0.89
Manufacturing	464	8.6%	1.24
Retail Trade	450	8.3%	0.83
Construction	398	7.3%	1.40
Accommodations & Food Service	363	6.7%	0.91
Agriculture	305	5.6%	4.05
Other Services	293	5.4%	0.93
Real Estate, Rental, & Leasing	270	5.0%	1.09
Mining	225	4.2%	5.25
Transportation & Warehousing	218	4.0%	1.16
Professional Services	190	3.5%	0.50
State Government	179	3.3%	1.19
Wholesale Trade	150	2.8%	0.78
Finance & Insurance	145	2.7%	0.53
Management Services	109	2.0%	0.26
Federal - Civilian	108	2.0%	1.35
Information	91	1.7%	0.95
Arts, Entertainment, & Recreation	91	1.7%	0.75
Educational Services	81	1.5%	0.61
Forestry, Fishing, & Ag Support	77	1.4%	2.79
Military	43	0.8%	0.77
Utilities	41	0.8%	2.45
Total	5,416	100.0%	N.A.
Source: Bureau of Economic Analysis			

Table 9. Change in Washakie County Employment by Sector 2001-2015					
			Change	Percent of	Percent
Sector	2001	2015	2001-2015	Change	Change
Real Estate, Rental, & Leasing	190	270	80	43.7%	42.1%
Local Government	510	584	74	40.4%	14.5%
Wholesale Trade	78	150	72	39.6%	93.3%
Mining	175	225	50	27.3%	28.6%
Transportation & Warehousing	181	218	37	20.2%	20.4%
Accommodations & Food Service	327	363	36	19.7%	11.0%
Educational Services	51	81	30	16.5%	59.2%
Health Care & Social Assistance	514	542	28	15.2%	5.4%
Arts, Entertainment, & Recreation	69	91	22	12.0%	31.9%
Agriculture	287	305	18	9.8%	6.3%
Construction	384	398	14	7.7%	3.6%
Professional Services	184	190	6	3.3%	3.3%
Forestry, Fishing, & Ag Support	76	77	1	0.3%	0.7%
Military	46	43	-3	-1.6%	-6.5%
Information	95	91	-4	-2.2%	-4.2%
State Government	184	179	-5	-2.7%	-2.7%
Federal - Civilian	134	108	-26	-14.2%	-19.4%
Management Services	136	109	-27	-14.9%	-20.1%
Utilities	69	41	-28	-15.2%	-40.4%
Other Services	321	293	-28	-15.3%	-8.7%
Finance & Insurance	184	145	-39	-21.3%	-21.2%
Retail Trade	500	450	-50	-27.3%	-10.0%
Manufacturing	539	464	-75	-41.0%	-13.9%
Total	5,233	5,416	183	100.0%	3.5%
Source: Bureau of Economic Analysis					

Table 10. Average Earnings Per Job, 2000-2015			
	Deflated	Deflated	Deflated
Year	Washakie	Wyoming	U.S.
2000	\$31,564	\$36,862	\$48,821
2001	\$34,887	\$38,189	\$49,618
2002	\$35,251	\$38,761	\$49,904
2003	\$36,194	\$39,639	\$50,395
2004	\$35,672	\$39,392	\$51,086
2005	\$34,847	\$39,997	\$50,786
2006	\$36,269	\$42,786	\$51,158
2007	\$35,873	\$43,041	\$50,670
2008	\$36,820	\$46,293	\$51,011
2009	\$36,789	\$45,203	\$50,184
2010	\$39,219	\$47,005	\$51,247
2011	\$41,999	\$48,173	\$51,568
2012	\$40,634	\$48,667	\$52,225
2013	\$40,459	\$48,963	\$51,902
2014	\$41,465	\$50,166	\$52,233
2015	\$41,275	\$48,978	\$52,936
Percent Change	30.8%	32.9%	8.4%
Source: Bureau of Economic Analysis			

Table 10a. Average Earnings Per Job by Sector for Washakie County, 2015

Sector	Jobs	Earnings	
		(\$1,000)	AEPJ
Utilities	41	\$4,554	\$111,073
Transportation & Warehousing	218	\$19,635	\$90,069
Federal - Civilian	108	\$9,338	\$86,463
State Government	179	\$13,771	\$76,933
Mining	225	\$16,003	\$71,124
Manufacturing	464	\$30,478	\$65,685
Local Government	584	\$32,914	\$56,360
Construction	398	\$21,256	\$53,407
Professional Services	190	\$9,322	\$49,063
Health Care & Social Assistance	542	\$25,914	\$47,857
Information	91	\$4,235	\$46,538
Wholesale Trade	150	\$6,460	\$43,067
Finance & Insurance	145	\$5,223	\$36,021
Management Services	109	\$3,526	\$32,448
Retail Trade	450	\$13,766	\$30,591
Military	43	\$1,241	\$28,860
Other Services	293	\$7,111	\$24,270
Real Estate, Rental, & Leasing	270	\$5,679	\$21,033
Forestry, Fishing, & Ag Support	77	\$1,564	\$20,436
Educational Services	81	\$1,589	\$19,546
Agriculture	305	\$5,508	\$18,059
Accommodations & Food Service	363	\$6,048	\$16,661
Arts, Entertainment, & Recreation	91	\$759	\$8,341
Total	5,416	\$245,895	\$45,402
Source: Bureau of Economic Analysis			

Table 11. Total Labor Earning for Washakie County, 2015				
			Earnings	
Sector	Jobs	AEPJ	(\$1,000)	Percent
Local Government	584	\$56,360	\$32,914	13.4%
Manufacturing	464	\$65,685	\$30,478	12.4%
Health Care & Social Assistance	542	\$47,857	\$25,914	10.5%
Construction	398	\$53,407	\$21,256	8.6%
Transportation & Warehousing	218	\$90,069	\$19,635	8.0%
Mining	225	\$71,124	\$16,003	6.5%
State Government	179	\$76,933	\$13,771	5.6%
Retail Trade	450	\$30,591	\$13,766	5.6%
Federal - Civilian	108	\$86,463	\$9,338	3.8%
Professional Services	190	\$49,063	\$9,322	3.8%
Other Services	293	\$24,270	\$7,111	2.9%
Wholesale Trade	150	\$43,067	\$6,460	2.6%
Accommodations & Food Service	363	\$16,661	\$6,048	2.5%
Real Estate, Rental, & Leasing	270	\$21,033	\$5,679	2.3%
Agriculture	305	\$18,059	\$5,508	2.2%
Finance & Insurance	145	\$36,021	\$5,223	2.1%
Utilities	41	\$111,073	\$4,554	1.9%
Information	91	\$46,538	\$4,235	1.7%
Management Services	109	\$32,448	\$3,526	1.4%
Educational Services	81	\$19,546	\$1,589	0.6%
Forestry, Fishing, & Ag Support	77	\$20,436	\$1,564	0.6%
Military	43	\$28,860	\$1,241	0.5%
Arts, Entertainment, & Recreation	91	\$8,341	\$759	0.3%
Total	5,416	\$45,402	\$245,895	100.0%
Source: Bureau of Economic Analysis				

Table 12. Land Ownership in Washakie County					
Owner	Acres	Percent of Total	Percent of Type		
National Park Service	0	0.0%	0.0%		
Forest Service	36,096	2.5%	3.8%		
BLM	922,240	64.4%	96.1%		
Bureau of Reclamation	1,088	0.1%	0.1%		
Total Federal	959,424	67.0%	100.0%		
State Trust Lands	103,232	7.2%	99.6%		
Recreation Commission	0	0.0%	0.0%		
Fish & Game	448	0.0%	0.4%		
Total State	103,680	7.2%	100.0%		
County	N.A.	N.A.	N.A.		
Cities	N.A.	N.A.	N.A.		
School Dist. & Colleges	N.A.	N.A.	N.A.		
Total Local Government	2,368	0.2%	100.0%		
Total Private	365,376	25.5%	100.0%		
Other	1,792	0.1%	100.0%		
Total Land Area	1,432,640	100.0%			
Source: Wyoming County Profiles 2015					
Table 13. Acres of Taxable Agricultural Land in Washakie County					
Classification	Acres	Percent			
Irrigate Land	43,799	12.4%			
Dry Farm Land	2,931	0.8%			
Range Lands	305,176	86.7%			
Total Land	351,906	100.0%			
Source: Wyoming Department of Revenue 2012 Annual Report					
Table 14. Management Designations of Federal Land in Washakie County					
Type	Acres	Percent			
Protected	264	0.0%			
Restricted	69,666	7.3%			
General Use	884,007	92.7%			
Total Federal	953,937	100.0%			
Source: Economic Profile System - Human Dimensions Toolkit					

Table 15. Washakie County Government Revenue, FY2016

Source	Washakie	Percent
State Aid	\$3,735,396	46.2%
Taxes	\$2,408,242	29.8%
Direct Federal Aid	\$1,211,052	15.0%
Other Local Government	\$295,446	3.7%
Charges for Services	\$221,493	2.7%
Miscellaneous Revenue	\$220,579	2.7%
Total	\$8,092,208	100.0%
Source: Wyoming Department of Audit		

Table 16. Washakie County Assessed Valuation, 2016

Property Type	Amount	Percent
Residential Property	\$50,235,236	38.5%
Minerals	\$28,540,935	21.9%
Commercial Property	\$14,983,167	11.5%
Industrial Property	\$13,614,375	10.4%
Agricultural Lands	\$12,392,191	9.5%
Utilities	\$10,810,267	8.3%
Total Valuation	\$130,576,171	100.0%
Crude Oil	\$22,645,563	79.3%
Natural Gas	\$2,948,560	10.3%
Coal	\$0	0.0%
Bentonite	\$2,775,619	9.7%
Sand & Gravel	\$171,193	0.6%
Total Minerals	\$28,540,935	100.0%
Source: Wyoming Department of Revenue		

Table 17. Washakie County Sales & Use Tax Revenue, FY2016				
Industries	Sales Tax	Use Tax	Sales & Use	Percent
Retail Trade	\$2,282,979	\$66,724	\$2,349,703	35.3%
Public Administration	\$580,205	\$445,414	\$1,025,619	15.4%
Wholesale Trade	\$628,210	\$44,634	\$672,844	10.1%
Leisure & Hospitality	\$561,627	\$3,639	\$565,266	8.5%
Utilities	\$516,585	\$4,754	\$521,339	7.8%
Other Services	\$344,797	\$3,783	\$348,580	5.2%
Manufacturing	\$188,747	\$60,316	\$249,063	3.7%
Information	\$228,149	\$18,286	\$246,435	3.7%
Financial Activities	\$199,726	\$22,984	\$222,710	3.3%
Mining	\$161,803	\$21,152	\$182,955	2.7%
Construction	\$69,401	\$93,586	\$162,987	2.4%
Pro & Business Services	\$87,932	\$2,201	\$90,133	1.4%
Transport & Warehouse	\$1,866	\$9,127	\$10,993	0.2%
Agr & Other	\$6,225	\$0	\$6,225	0.1%
Education & Health	\$2,074	\$341	\$2,415	0.0%
Total	\$5,860,326	\$796,941	\$6,657,267	100.0%
Source: Wyoming Economic Analysis Division				
Table 18. Washakie County Federal Land Payment, FY2015				
Source	Amount	Percent		
PILT	\$1,102,130	319.6%		
Forest Service Payments	\$24,626	7.1%		
BLM Payments	\$121,719	35.3%		
Total	\$1,248,475	362.1%		
Distributions	Amount	Percent		
County Government	\$1,122,876	54140.6%		
Local School Districts	\$12,313	593.7%		
Grazing Districts	\$113,286	5462.2%		
Resource Advisory Councils	\$0	0.0%		
Total	\$1,248,475	60196.5%		
Source: Economic Profile System - Human Dimension Toolkit				

Table 19. Washakie County Government Costs, FY2016

County Costs	Amount	Percent	Per Capita
County Sheriff	\$976,489	19.6%	\$117.25
Jail	\$574,718	11.5%	\$69.01
Courthouse	\$542,883	10.9%	\$65.19
Road and Bridge	\$410,398	8.2%	\$49.28
County Administration	\$322,489	6.5%	\$38.72
Library	\$267,650	5.4%	\$32.14
Health (Not Hospital)	\$240,575	4.8%	\$28.89
Capital	\$194,657	3.9%	\$23.37
County Assessor	\$184,043	3.7%	\$22.10
County Clerk	\$182,044	3.7%	\$21.86
County Attorney	\$157,723	3.2%	\$18.94
Distict Court	\$156,964	3.1%	\$18.85
Finacial Administration	\$127,235	2.6%	\$15.28
County Treasurer	\$126,405	2.5%	\$15.18
Fair	\$101,210	2.0%	\$12.15
Agricultural Department	\$96,760	1.9%	\$11.62
Civil Defense/Emergency	\$86,714	1.7%	\$10.41
County Commissioners	\$72,993	1.5%	\$8.76
County Planner	\$69,071	1.4%	\$8.29
County Coroner	\$47,785	1.0%	\$5.74
Social Services	\$38,000	0.8%	\$4.56
Elections	\$9,700	0.2%	\$1.16
Total	\$4,986,506	100.0%	\$598.76
Source: Wyoming Department of Audit			

Table 20. Washakie County Mining Industry						
Mineral Production 2015						
Type	Production					
Bentonite (Tons)	132,298					
Oil (Barrels)	693,316					
Gas (MCF)	1,596,991					
Sand & Gravel (Tons)	308,245					
Source: Wyoming Oil & Gas Conservation Commission & State Inspector of Mines of Wyoming						
Tax Revenue 2016 (2015 Production)						
			County	K-12	Special	Total
	Assessed		Revenue	Revenue	Districts	Revenue
Mineral	Valuation	Percent	(12.0 Mills)	(48.9 Mills)	(9.38 Mills)	(70.2 Mills)
Crude Oil	\$22,645,563	72.7%	\$271,747	\$1,106,595	\$212,360	\$1,590,702
Natural Gas	\$2,948,560	9.5%	\$35,383	\$144,084	\$27,650	\$207,117
Bentonite	\$2,775,619	8.9%	\$33,307	\$135,633	\$26,028	\$194,969
Sand & Gravel	\$171,193	0.5%	\$2,054	\$8,365	\$1,605	\$12,025
Oil & Gas Extraction	\$2,611,353	8.4%	\$31,336	\$127,606	\$24,488	\$183,430
Total Minerals	\$31,152,288	100.0%	\$373,827	\$1,522,284	\$292,132	\$2,188,243
Percent			17.1%	69.6%	13.4%	100.0%
Source: Wyoming Department of Revenue						
Employment 2015						
			Percent			
	Mining	Total	Mining			
Jobs	225	5,416	4.2%			
Labor Income	\$16,003,000	\$245,894,640	6.5%			
Average Earnings/Job	\$71,124	\$45,402	156.7%			
Source: Bureau of Economic Analysis						

Table 21. Washakie County Agricultural Industry, 2012

<u>Physical Characteristics</u>			
			Number
Land Use	Acres	Percent	of Farms
Total Cropland	39,942	11.7%	
Total Woodland	5,602	1.6%	
Grazing Land	291,022	85.3%	
Farmstead	4,781	1.4%	
Total Land	341,347	100.0%	209
	Cattle &	Sheep &	Total
	Calves	Lambs	Head
Inventory	25,238	22,701	47,939
	Land &	Machinery &	Combined
	Buildings	Equipment	Investment
Market Value	\$303,107,000	\$36,034,000	\$339,141,000
Average Per Farm	\$1,450,273	\$172,411	\$1,622,684
Source: 2012 Census of Agriculture			
<u>Gross Revenue 2015</u>			
Type	Amount	Percent	
Cash Receipts - Livestock	\$19,208,000	41.5%	
Cash Receipts - Crops	\$21,079,000	45.6%	
Government Payments	\$3,389,000	7.3%	
Miscellaneous Income	\$2,589,000	5.6%	
Total Gross Revenue	\$46,265,000	100.0%	
Source: Bureau of Economic Analysis			
<u>Employment 2014</u>			
	Agriculture	County Total	Percent
			Agriculture
Jobs	305	5,416	5.6%
Labor Income	\$5,508,000	\$245,894,640	2.2%
Average Earnings/Job	\$18,059	\$45,402	39.8%
Source: Bureau of Economic Analysis			

