

To: Cline, Sarah[sarah_cline@ios.doi.gov]
Cc: Stern, Adam[adam_stern@ios.doi.gov]; Christian Crowley[christian_crowley@ios.doi.gov]; Ann Miller[ann_miller@ios.doi.gov]
From: Simon, Benjamin
Sent: 2017-05-19T08:50:15-04:00
Importance: Normal
Subject: Re: Telework today
Received: 2017-05-19T08:50:15-04:00
[monuments demographic socio econ summay by county.xlsx](#)
[Bears Ears san juan county.xlsx](#)

Hi Sarah,

No worries. Nothing else really from the call, except that that it probably would be good to look at what Josh and Julie sent, especially for grazing. We can probably use some of it.

Randy's group also met yesterday (none of us went b/c of the staff meeting), and the one thing he passed along is that we may have more time to complete Grand Staircase. Not clear how much more time, but it could along the lines of all of the others...roughly the end of July. But my suggestion is that we try and put something together sooner, in case they change their minds.

I pulled the county-level socio-econ data for most (but not all) of the monuments down from the Headwaters site...in the attached spreadsheet. Kane and Garfield counties are the two for Grand Staircase. Also saved on google drive in the PPA folder. My thought was that we probably should present some of this data, in a standard way, for all of the monuments. If others have thoughts about this lets discuss.

Ben

On Fri, May 19, 2017 at 8:27 AM, Cline, Sarah <sarah_cline@ios.doi.gov> wrote:

Hi Ben,

I would like to telework today. Was there any information from the call with BLM yesterday that I need to add to the Grand Staircase document?

Thanks,
Sarah

--

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U.S. Department of the Interior
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Washington DC
202 208 4916
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A Summary Profile

County Region

Selected Geographies:

Yavapai County, AZ; Montezuma County, CO; San Luis Obispo County, CA; Kern County, CA; Jackson County, OR; Blaine County, ID; Butte County, ID; Minidoka County, ID; Power County, ID; Fresno County, CA; Tulare County, CA; Mohave County, AZ; Washington County, UT; Benton County, WA; Franklin County, WA; Grant County, WA; Pima County, AZ; Cowlitz County, WA; Lewis County, WA; Skamania County, WA; Deschutes County, OR; Riverside County, CA; Maricopa County, AZ; Pinal County, AZ; Blaine County, MT; Fergus County, MT; Phillips County, MT; Coconino County, AZ; Kane County, UT; Garfield County, UT

Benchmark Geographies:

U.S.

Produced by
Economic Profile System
EPS
December 13, 2020

About EPS

About the Economic Profile System (EPS)

EPS is a free way to access a new type of data that provides detailed economic reports of counties, states, and regions. Including custom maps, reports.

EPS uses public data statistics from federal data sources, including Bureau of Economic Analysis and Bureau of Economic Analysis, 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 headwaters.economica.org/eps for more information about EPS for local and regional use of EPS.

For technical questions, contact Policy Guide at eps@headwaters.economica.org or 408.566.7465.

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Headwaters Economic is an independent, nonprofit research group. Our mission is to improve community development and land management decisions. We want:

www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of the Interior, administers a 266 million acres of Alaska 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 present and future generations.

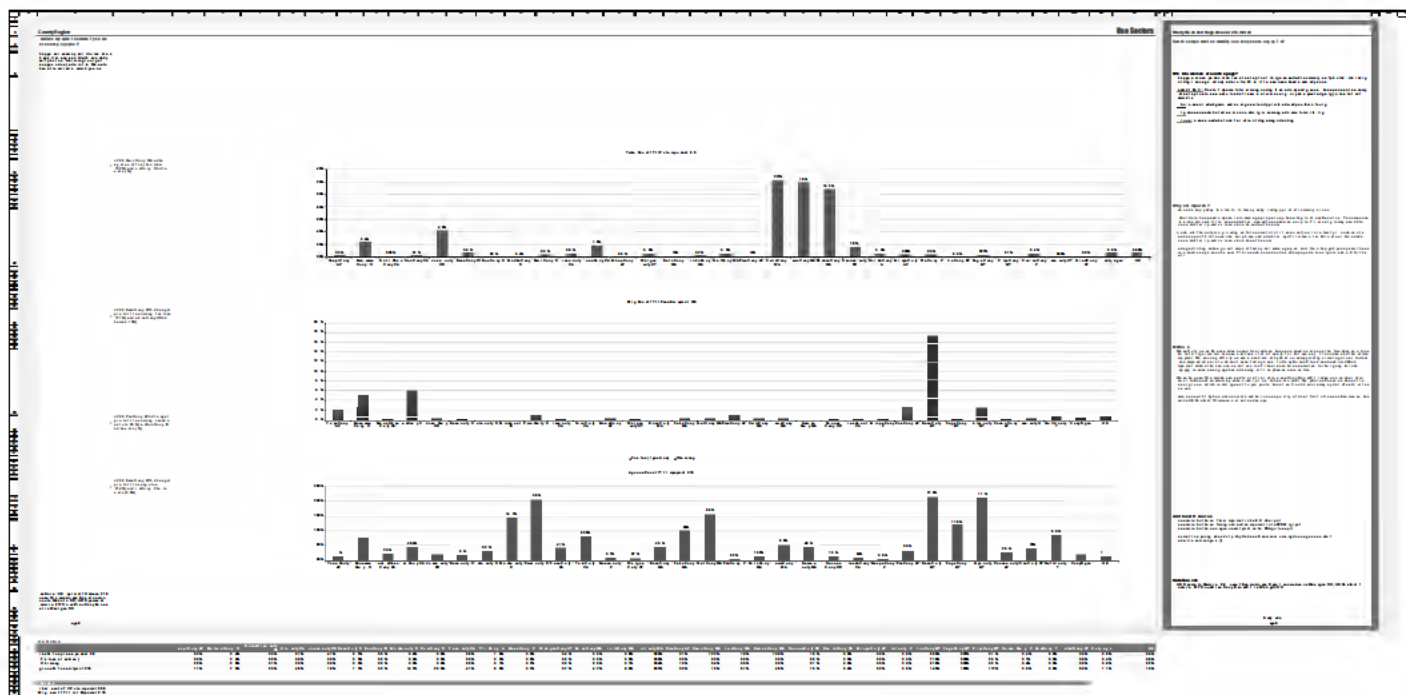
www.blm.gov

The Forest Service, an agency within the U.S. Department of Agriculture, administers national forests and preserves encompassing 150 million acres. The Forest Service mission is to sustainably land management under the "Sustainable Forest Management Concept" to meet the diverse needs of people who rely on the resources. Significant financial, technical, and cultural contributions were provided by the following individuals: Dr. Phil Davis, Dr. James H. Hocking, Douglas M. M.S., Fred Clark, M.S., Dr. Susan A. Miller, and Dr. Ashley G. Miller. (Hocking)

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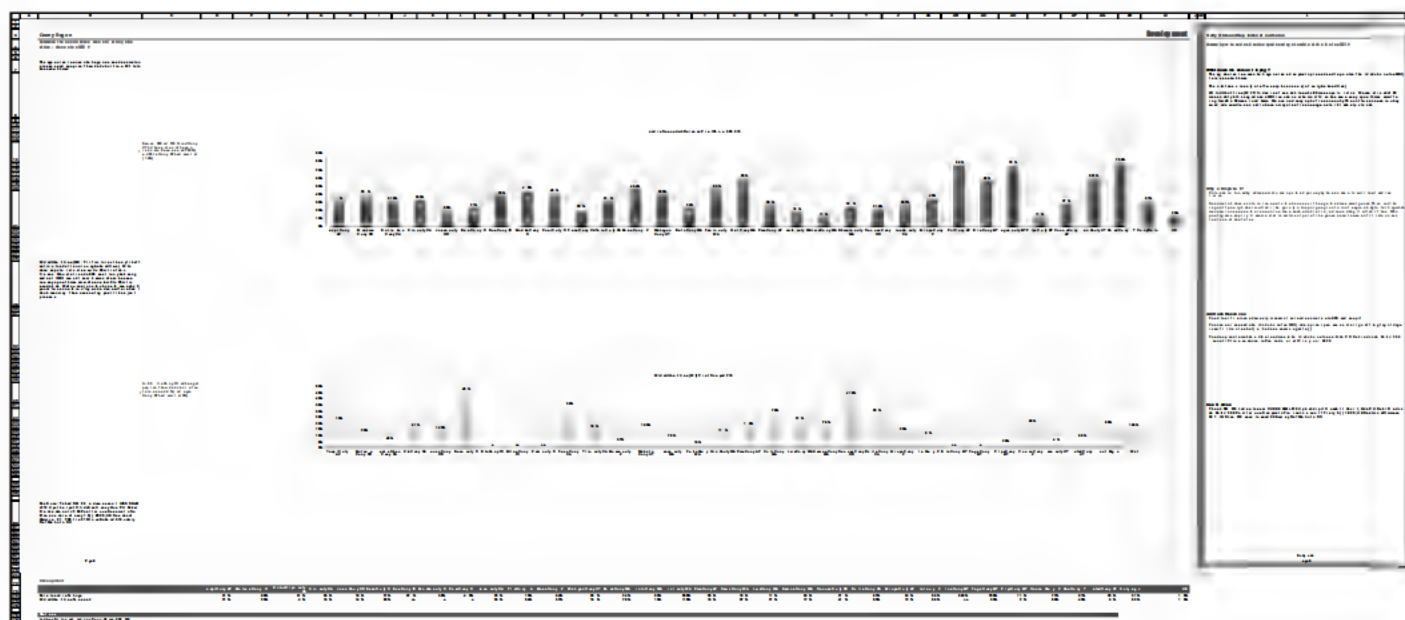
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1. Labor	Man	100	100	10000	
2. Material	kg	100	100	10000	
3. Transport	km	100	100	10000	
4. Fuel	lit	100	100	10000	
5. Maintenance	hr	100	100	10000	
6. Insurance	%	100	100	10000	
7. Profit	%	100	100	10000	
8. Tax	%	100	100	10000	
9. Other		100	100	10000	
10. Total		1000		100000	

Year	2013	2014	2015	2016	2017
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Expenses	100	100	100	100	100
Net Income	0	0	0	0	0



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Data Sources & Methods

Data Sources

The IFPE has come up with some guidelines as to what you can and cannot use in a presentation. It has published a list of items that are not allowed in a presentation. It is usually a list of things that are not allowed in a presentation. The most common items that are not allowed in a presentation are:

Continued from page 10

Courtesy: Bureau of the Census
 Bureau of Economic Analysis, Department of Commerce
 10 p. / source: various geological shipboard observations
 Tel: 301-763-2000

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The name of L. where R. is at an LSE. Chapter 6 result of L. has
<http://www.bu.edu/~lsc>
 Tel: 202-289-1400

¹ Regional Economic Information System
 Bureau of Economic Anal., U.S. Census

1. **Regional Water and a Sustainable Environment**
 Bureau of Economic Analysis, U.S. Department of Commerce
 14 p. Free your local regional data is free
 Tel: 202 458 9600

10. **Probeklausur Kassen für den 1.1.2013**
 1) **Die eingetragene Economy-Class-Airlines-Fluglinie**
 AG – **Spezialflüge** – in **Europa** (ausführlich)

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U.S. Department of Commerce

Published Ahead of Print: 11/11/2013

U.S. Geological Survey. Gap Analysis Program. <http://gapanalysis.usgs.gov/gapanalysis/>

Methods

EPB.com app review

EPF is designed to serve as long-term needs assessment in a range of environments and to meet new public-private sector, as well as non-profit, needs. It has been specifically designed for use and proven. This tool can also be used to assess the needs of a community or a region.

EPF today says the oil industry could see a sharp drop in the corporate tax if it successfully convinces the House to change the oil depletion allowance.

EFTEd users cannot be assigned the following options: such as creating a new ring view, the use and the creation of new a series of sub-topics, etc.

Definition: length of column A_j is n_j or l_j in A .

However, it also is the past years' increase in drug sales, which represent a new and different source of tax revenue for states. The U.S. Department of Commerce reports personal income taxes as a source of state tax revenue. A 1 percent rise in FPIE, one not reflected in real per capita and jobless rates, raises the Commerce's FPIE index. It is one source of tax revenue for the state, worth the tax.

Take 3 eggs and see how long:

Examine the value of λ in the following cases: (a) $\lambda = 0$, (b) $\lambda = 1$, (c) $\lambda = 2$, (d) $\lambda = 3$, (e) $\lambda = 4$, (f) $\lambda = 5$, (g) $\lambda = 6$, (h) $\lambda = 7$, (i) $\lambda = 8$, (j) $\lambda = 9$, (k) $\lambda = 10$, (l) $\lambda = 11$, (m) $\lambda = 12$, (n) $\lambda = 13$, (o) $\lambda = 14$, (p) $\lambda = 15$, (q) $\lambda = 16$, (r) $\lambda = 17$, (s) $\lambda = 18$, (t) $\lambda = 19$, (u) $\lambda = 20$, (v) $\lambda = 21$, (w) $\lambda = 22$, (x) $\lambda = 23$, (y) $\lambda = 24$, (z) $\lambda = 25$, (aa) $\lambda = 26$, (ab) $\lambda = 27$, (ac) $\lambda = 28$, (ad) $\lambda = 29$, (ae) $\lambda = 30$, (af) $\lambda = 31$, (ag) $\lambda = 32$, (ah) $\lambda = 33$, (ai) $\lambda = 34$, (aj) $\lambda = 35$, (ak) $\lambda = 36$, (al) $\lambda = 37$, (am) $\lambda = 38$, (an) $\lambda = 39$, (ao) $\lambda = 40$, (ap) $\lambda = 41$, (aq) $\lambda = 42$, (ar) $\lambda = 43$, (as) $\lambda = 44$, (at) $\lambda = 45$, (au) $\lambda = 46$, (av) $\lambda = 47$, (aw) $\lambda = 48$, (ax) $\lambda = 49$, (ay) $\lambda = 50$, (az) $\lambda = 51$, (ba) $\lambda = 52$, (bb) $\lambda = 53$, (bc) $\lambda = 54$, (bd) $\lambda = 55$, (be) $\lambda = 56$, (bf) $\lambda = 57$, (bg) $\lambda = 58$, (bh) $\lambda = 59$, (bi) $\lambda = 60$, (bj) $\lambda = 61$, (bk) $\lambda = 62$, (bl) $\lambda = 63$, (bm) $\lambda = 64$, (bn) $\lambda = 65$, (bo) $\lambda = 66$, (bp) $\lambda = 67$, (bq) $\lambda = 68$, (br) $\lambda = 69$, (bs) $\lambda = 70$, (bt) $\lambda = 71$, (bu) $\lambda = 72$, (bv) $\lambda = 73$, (bw) $\lambda = 74$, (bx) $\lambda = 75$, (by) $\lambda = 76$, (bz) $\lambda = 77$, (ca) $\lambda = 78$, (cb) $\lambda = 79$, (cc) $\lambda = 80$, (cd) $\lambda = 81$, (ce) $\lambda = 82$, (cf) $\lambda = 83$, (cg) $\lambda = 84$, (ch) $\lambda = 85$, (ci) $\lambda = 86$, (cj) $\lambda = 87$, (ck) $\lambda = 88$, (cl) $\lambda = 89$, (cm) $\lambda = 90$, (cn) $\lambda = 91$, (co) $\lambda = 92$, (cp) $\lambda = 93$, (cq) $\lambda 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276$, (jr) $\lambda = 277$, (js) $\lambda = 27$

Links to Additional Resources

For more information
about EPS visit:

landstewardship.org/EPS

With pages listed under
Additional Resources

include:

To expand the report, reference
the resources indicated
with linked numbers
parentheses. These resources are
provided as hyperlinks here

- | | |
|---|---|
| 1 | landstewardship.org/eps |
| 2 | westernregion.org/landstewardship |
| 3 | westernregion.org/landstewardship |
| 4 | westernregion.org/landstewardship |
| 5 | westernregion.org/landstewardship |
| 6 | westernregion.org/landstewardship |
| 7 | landstewardship.org/eps |

Data Alerts

Geography-Related Messages

(no messages)

Report-Related Messages

(no messages)

Alerts

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Heading 2	HE Blue	Report Related Messages
Body Text	Black	(no messages)

A Summary Profile

Selected Geographies:
San Juan County, UT

Benchmark Geographies:
U.S.

Produced by
Economic Profile System
EPS
October 4, 2018

About EPS

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.

About EPS

Summary

Trends

Prosperity

Economy

Use Sectors

Federal Land

Development

Data Sources & Methods

Links to Additional Resources

How are geographies similar or different?

How have population, employment, and personal income changed?

How do unemployment, earnings, and per capita income vary across geographies?

How do non-labor income and employment in services and government vary across geographies?

How does employment in commodity sectors vary across geographies?
How does employment in commodity sectors and in industries that include travel and tourism, vary across geographies?

What is the extent and type of federal land, and how significant are federal land payments?

How much private land has been developed, including in the wildland-urban interface (WUI)?

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Page	
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Table of Contents

Summary

How are geographies similar or different?

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Note to Users:

This is one of fourteen reports that can be created and downloaded from ERS web. You may want to run another ERS 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 headwaterseconomics.org/eps

Page Break

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

Table of Contents

San Juan County, UT

How are geographies similar or different?

This page describes similarities and differences in key summary statistics from other EPS HDT reports.

Summary

San Juan County, UT	
Population, 2015	15,772
Trends	
Population % change, 1970 2015	62.3%
Employment % change, 1970 2015	126.6%
Personal Income % change, 1970 2015	185.0%
Prosperity	
Unemployment rate, 2016	8.0%
Average earnings per job, 2015 (2016 \$s)	\$37,336
Per capita income, 2015 (2016 \$s)	\$23,703
Economy	
Non Labor % of total personal income, 2015	43.9%
Services % of total employment, 2015	47.7%
Government % of total employment, 2015	26.3%
Use Sectors[^]	
Timber % of total private employment, 2015	~0.3%
Mining % of total private employment, 2015	4.0%
Fossil fuels (oil, gas, & coal), 2015	~3.3%
Other mining, 2015	~2.4%
Agriculture % of total employment, 2015	11.0%
Travel & Tourism % of total private employment, 2015	~35.1%

Summary

San Juan County, UT	U.S.
15,772	321,418,820
62.3%	57.7%
126.6%	108.4%
185.0%	196.5%
8.0%	4.9%
\$37,336	\$58,985
\$23,703	\$48,737
43.9%	36.1%
47.7%	72.5%
26.3%	12.7%
~0.3%	0.7%
4.0%	0.6%
~3.3%	0.5%
~2.4%	0.3%
11.0%	1.4%
~35.1%	15.6%

Study Guide and Supplemental Information

How are geographies similar or different?

What do we measure on this page?

This page describes similarities and differences in key summary statistics from other EPS reports.

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

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

Economy: Refers to three significant areas of the economy: non labor income (e.g., government transfer payments, and investment and retirement income), and services and government employment.

Use Sectors: Refers to components of the economy (commodity sectors including timber, mining and agriculture, and industries that include travel and tourism) that have the potential for being associated with the use of public lands.

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

Development: Refers to the residential development of private lands, including the wildland urban interface. The wildland urban interface data are available and reported only for the 11 western public lands states (not including Alaska and Hawaii).

Why is it important?

Not all counties, regions, or states are the same. It is important to understand the differences and similarities between geographies because land management actions may affect areas differently, depending on demographics, the makeup of the economy, and land use characteristics.

This report allows the user to see a broad range of measures, compared across geographies, at a glance. Based on this reading, the user can refer to other EPS topic specific reports for more details. For example, if a county shows unusually high unemployment rates, you may want to run a county specific report (EPS Socioeconomic Measures) for that county. If another county shows a relatively high number of people employed in the timber industry, you may want to run the EPS Timber report for that county.

Another use of this report is to see whether the analysis area, if it consists of a group of counties, can be analyzed according to similarities. For example, the user may want to group together counties with a high proportion of government employment, and group other counties that have a significant amount of employment in mining.

Federal Land*

Federal Land % total land ownership	61.4%
Forest Service %	8.9%
BLM %	40.9%
Park Service %	11.6%
Military %	0.0%
Other %	0.0%
Federal land % Type A**	23.2%
Federal payments % of gov. revenue, FY2012	7.3%

Development

Residential land area % change, 2000 2010	73.1%
Wildland Urban Interface % developed, 2010	1.1%

^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).

~ 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. These values are shown in gray & preceded with tildes (~).

61.4%	28.2%
8.9%	8.4%
40.9%	10.6%
11.6%	3.4%
0.0%	1.0%
0.0%	4.9%
23.2%	41.8%
7.3%	

73.1%	12.3%
1.1%	16.3%

Methods

Data sources used in this report are described in subsequent pages. We report the most recent published data by source. The date of reported variables vary according to the data release schedule of each source.

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. These values are indicated with tildes (~).

Additional Resources

This report uses information that appears in the following EPS reports: Socioeconomic Measures, Demographics, Agriculture, Mining, Service Sectors, Industries that Include Travel and Tourism, Government Employment, Non Labor Income, Timber, Land Use, Amenities, Development and the Wildland Urban Interface, Federal Land Payments. Consult these reports directly for more details and links to additional information.

Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at headwaterseconomics.org/eps (1).

Data Sources

Various; see following pages for specifics.

Data Sources: Various; see following pages for specifics.

Page 1

	San Juan County, UT
Population, 2015	0
Trends	
Population % change, 1970 2015	0
Employment % change, 1970 2015	0
Personal Income % change, 1970 2015	0
Prosperity	
Unemployment rate, 2016	0
Average earnings per job, 2015 (2016 \$s)	0
Per capita income, 2015 (2016 \$s)	0
Economy	
Non Labor % of total personal income, 2015	0
Services % of total employment, 2015	
Government % of total employment, 2015	0
Use Sectors^	
Timber % of total private employment, 2015	1
Mining % of total private employment, 2015	0
Fossil fuels (oil, gas, & coal), 2015	2
Other mining, 2015	3
Agriculture % of total employment, 2015	0
Travel & Tourism % of total private employment, 2015	5



San Juan County, UT	U.S.
0	0
0	0
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3	0
0	0
5	0

Study Guide

Page 1



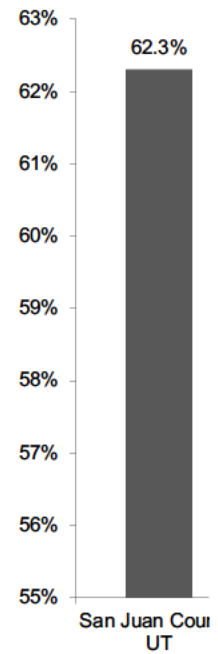
San Juan County, UT

How have population, employment, and personal income changed?

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

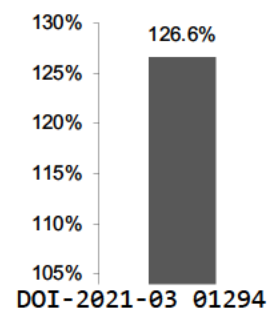
Population

Between 1970 and 2015, San Juan County, UT had the largest percent change in population (62.3%), and the U.S. had the smallest (57.7%).



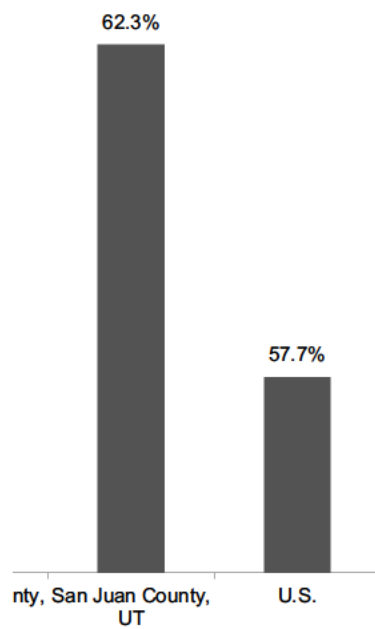
Employment

Between 1970 and 2015, San Juan County, UT had the largest percent change in employment (126.6%), and the U.S. had the smallest (108.4%).

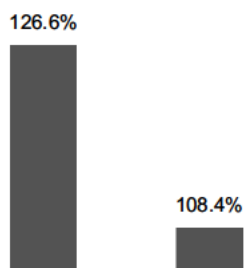


Trends

nt, Percent Change, 1970 2015



nt, Percent Change, 1970 2015



Study Guide and Supplemental Information

How have population, employment, and personal income changed?

What do we measure on this page?

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

Why is it important?

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

The information on this page helps to understand whether geographies are growing or declining at different rates, and makes it easy to see if there are 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 do further research on whether this because growth has been in low wage industries and occupations. Alternatively, if personal income is growing faster than employment, it may be because of growth in high wage industries and occupations and/or non labor income sources.

Methods

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.

Additional Resources

The EPS Demographics report provides additional information on population dynamics.

The EPS Socioeconomic Measures report provides additional information on employment and personal income.

For details on Bureau of Economic Analysis terms, see: bea.gov/regional/definitions (2) .

Data Sources

U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

Data	Bullet 1	Bullet 2	Bullet 3
Big Desc	San Juan County, UT	San Juan County, UT	U.S.
Big Value	62.3	126.6	196.5
Small Desc	U.S.	U.S.	San Juan County, UT
Small Value	57.7	108.4	185

100%
95%
San Juan Cour
UT

Personal Inco

Between 1970 and 2015, the U.S. had the largest percent change in personal income (196.5%), and San Juan County, UT had the smallest (185%).

198%
196%
194%
192%
190%
188%
186%
185.0%
184%
182%
180%
178%
San Juan Cour
UT

Data Sources: U.S. Department of Commerce.
2016. Bureau of Economic Analysis, Regional
Economic Accounts, Washington, D.C.

Page 2

Trends

	San Juan County, UT
Population % change, 1970 2015	62.3%
Employment % change, 1970 2015	126.6%
Personal Income % change, 1970 2015	185.0%

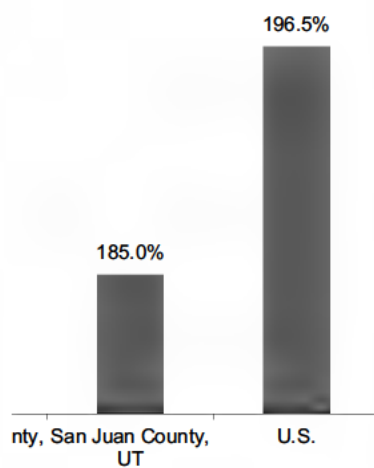
Chart Labels

Population, Percent Change, 1970 2015
Employment, Percent Change, 1970 2015
Personal Income, Percent Change, 1970 2015

nty, San Juan County,
UT


U.S.

ome, Percent Change, 1970 2015



San Juan County, UT	U.S.
62.3%	57.7%
126.6%	108.4%
185.0%	196.5%

Study Guide
Page 2

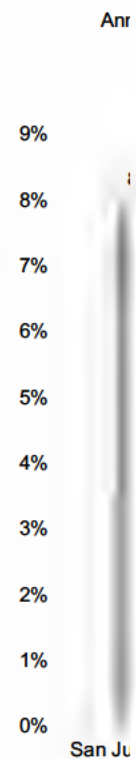


San Juan County, UT

How do unemployment, earnings, and per capita income vary across geographies?

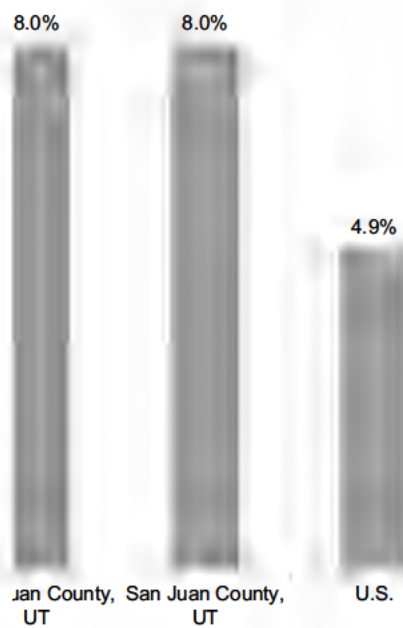
This page describes differences in three measures of individual prosperity (unemployment, average earnings per job, and per capita income).

- In 2016, San Juan County, UT had the
- highest unemployment rate (8%), and the U.S. had the lowest (4.9%).



Prosperity

Annual Unemployment Rate, 2016



Average Earnings per Job, 2015

Study Guide and Supplemental Information

How do unemployment, earnings, and per capita income vary across geographies?

What do we measure on this page?

This page describes differences in three measures of individual prosperity (unemployment, average earnings per job, and per capita income).

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

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?

All three statistics presented on this page are important indicators of economic well being. It's a good idea to use several indicators together when measuring economic health.

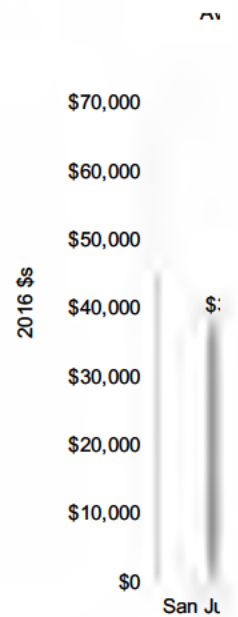
The annual unemployment rate is the number of people actively seeking but not finding work as a percent of the labor force. This figure can go up during national recessions and/or when more localized economies are affected by area downturns. There can be significant seasonal variations in unemployment, which can be viewed by looking at seasonally unadjusted unemployment rates.

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

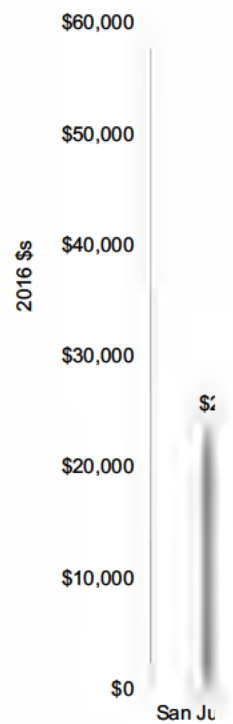
Per capita income is considered one of the most important measures of economic well being. However, it can be misleading. Per capita income is total personal income divided by population. Because total personal income includes non labor income sources (dividends, interest, rent, and transfer payments), it is possible for per capita income to be relatively high due to the presence of retirees and people with investment income. 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 when there are a disproportionate number of children and/or elderly people in the population.

Data	Bullet 1	Bullet 2	Bullet 3
Big Desc	San Juan County, UT	U.S.	U.S.
Big Value	8	\$58,985	\$48,737
Small Desc	U.S.	San Juan County, UT	San Juan County, UT
Small Value	4.9	\$37,336	\$23,703

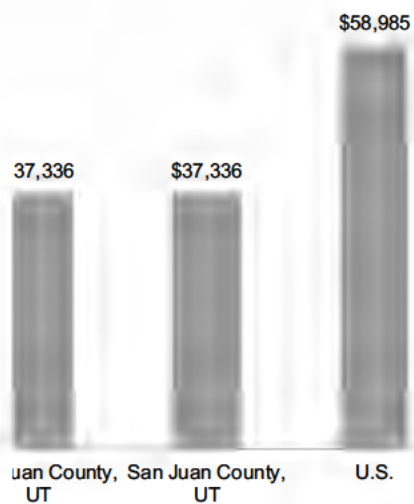
In 2015, the U.S. had the highest average earnings per job (\$58,985), and San Juan County, UT had the lowest (\$37,336).



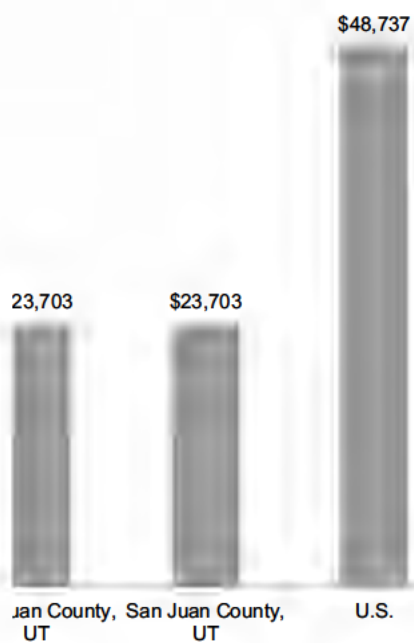
In 2015, the U.S. had the highest per capita income (\$48,737), and San Juan County, UT had the lowest (\$23,703).



Average Earnings per 100, 2015



Per Capita Income, 2015



Methods

For regions, which are aggregations of geographies, the following indicators were calculated as:

Unemployment Rate: The sum of total unemployment for all geographies, divided by the sum of the labor force for all geographies.

Average Earnings per Job: The sum of wage and salary disbursements plus other labor and proprietors' income for all geographies, divided by total full time and part time employment for all geographies.

Per Capita Income: The sum of total personal income for all geographies divided by the sum of total population for all geographies.

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.

Additional Resources

To see how these measures have changed over time, run the EPS Socioeconomic Measures report.

For more information on unemployment, see the Bureau of Labor Statistics resources on this topic, available at: bls.gov/cps/faq.htm#Ques3 (3).

To investigate the possible impact of non labor income sources on total personal income, run the EPS Non Labor report.

The Monthly Labor Review Online, published by the Bureau of Labor statistics, contains several issues related to explaining earnings and wages, by industry, sex, and education achievement. See: bls.gov/opub/mlr/indexe.htm#Earnings and wages (4).

For a glossary of terms used by the Bureau of Economic Analysis, see: <http://www.bea.gov/glossary/glossary.cfm> (5).

Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at headwaterseconomics.org/eps (1).

Data Sources

Data Sources: U.S. Department of Commerce.
2016. Bureau of Economic Analysis, Regional
Economic Accounts, Washington, D.C.; U.S.
Department of Labor. 2017. Bureau of Labor
Statistics, Local Area Unemployment
Statistics, Washington, D.C.

Page 3

Prosperity

San Juan County, UT

Unemployment rate, 2016	8.0%
Average earnings per job, 2015 (2016 \$s)	\$37,336
Per capita income, 2015 (2016 \$s)	\$23,703

Chart Labels

Annual Unemployment Rate, 2016
Average Earnings per Job, 2015
Per Capita Income, 2015
2016 \$s



San Juan County, UT	U.S.
8.0%	4.9%
\$37,336	\$58,985
\$23,703	\$48,737

U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Labor. 2017. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.

Study Guide

Page 3



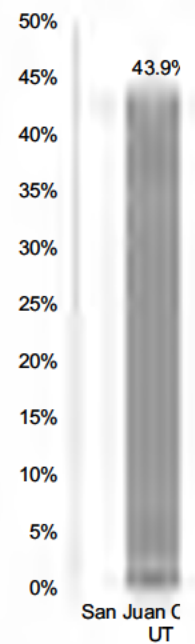
San Juan County, UT

How do non-labor income and employment in services and government vary across geographies?

This page describes differences in non labor income (e.g., government transfer payments, and investment and retirement income) and employment in services and government.

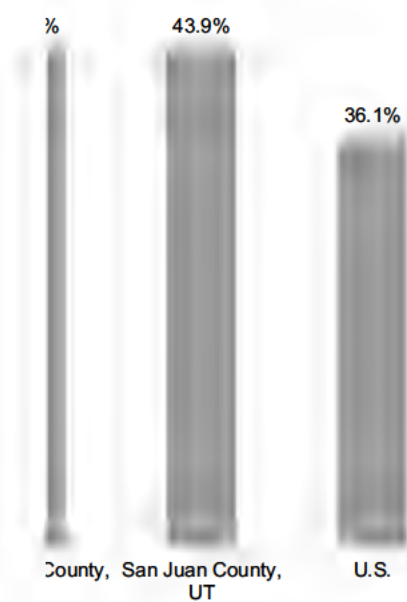
In 2015, San Juan County, UT had the largest percent of total personal income from non labor income sources (43.9%), and the U.S. had the smallest (36.1%).

Non Labor Income



Economy

Income, Percent of Total Personal Income,
2015



Study Guide and Supplemental Information

How do non-labor income and employment in services and government vary across geographies?

What do we measure on this page?

This page describes differences in non labor income (e.g., government transfer payments, and investment and retirement income) and employment in services and government.

Non Labor Income: Consists of dividends, interest and rent (money earned from investments), 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.

Services: Consists of employment in the following sectors: 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.

Government: Consists of all federal, state, and local government agencies and government enterprises.

Why is it important?

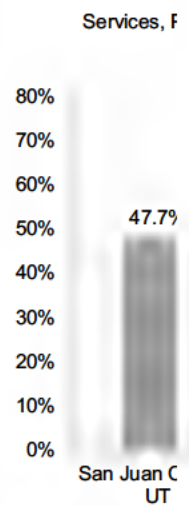
In many counties non labor income (e.g., retirement and investment income, government transfer payments) can be more than a third of all personal income. As the baby boomer generation retires, this source of income will continue to grow. A high dependence on non labor income can be an indication of an aging population and/or the attraction of people with investment income. Public lands activities may affect these constituents.

Nationally, services account for more than 99 percent of new jobs growth since 1990. If services are a large proportion of existing jobs, and also a large portion of new jobs, it may be worth looking into whether and how public lands relate to service industries. For example, public lands may play a role in creating a setting that attracts and retains service related businesses. Or it may be that the recreational and environmental amenities of public lands serve to attract "footloose" service occupations (i.e., people who can work anywhere). A shift towards a service based economy may be associated with a shift in values and expectations regarding how public lands should be managed and could place new demands on public land resources.

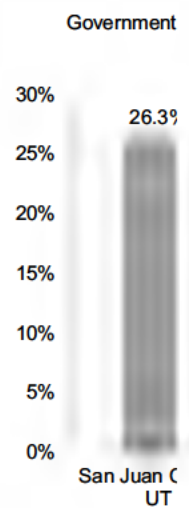
Government can be a major employer in some geographies, particularly in rural areas or where significant government facilities are located, such as Forest Service and Bureau of Land Management offices, military bases, prisons, or research facilities. Government jobs often pay high wages and offer good benefits. Federal employment related to public lands provide relatively stable and high wage jobs in many communities.

Data	Bullet 1	Bullet 2	Bullet 3
Big Desc	San Juan County, UT	U.S.	San Juan County, UT
Big Value	43.9	72.5	26.3
Small Desc	U.S.	San Juan County, UT	U.S.
Small Value	36.1	47.7	12.7

In 2015, the U.S. had the largest percent of total jobs in services (72.5%), and San Juan County, UT had the smallest (47.7%).

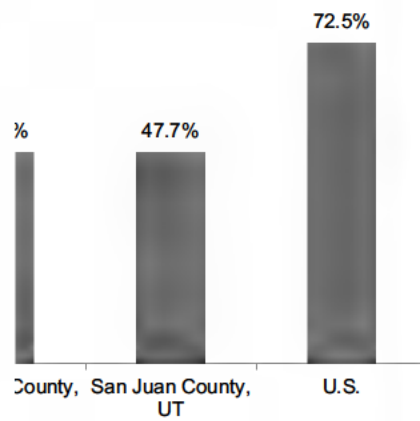


In 2015, San Juan County, UT had the largest percent of total jobs in government (26.3%), and the U.S. had the smallest (12.7%).

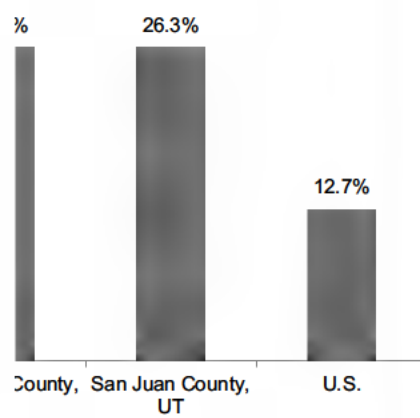


Data Sources: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

Percent of Total Employment, 2015



t, Percent of Total Employment, 2015



Methods

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.

Additional Resources

To learn more about the role of non labor income, see the EPS Non Labor report.

To learn more about the role of service industries, see the EPS Services report.

To learn more about the role of government employment, see the EPS Government report.

For a glossary of terms used by the Bureau of Economic Analysis, see: bea.gov/glossary/glossary.cfm (5) .

Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at headwaterseconomics.org/eps (1) .

Data Sources

U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

San Juan County, UT

Non Labor % of total personal income, 2015	43.9%
Services % of total employment, 2015	47.7%
Government % of total employment, 2015	26.3%

Chart Labels

Non Labor Income, Percent of Total Personal Income, 2015

Services, Percent of Total Employment, 2015

Government, Percent of Total Employment, 2015

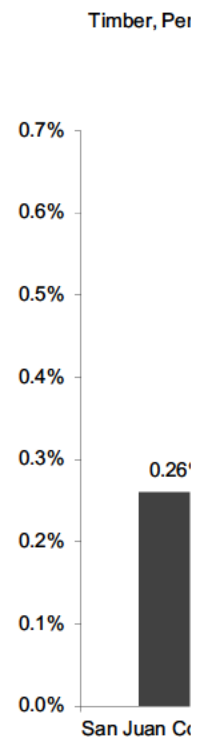
San Juan County, UT	U.S.
43.9%	36.1%
47.7%	72.5%
26.3%	12.7%

San Juan County, UT

How does employment in commodity sectors vary across geographies?

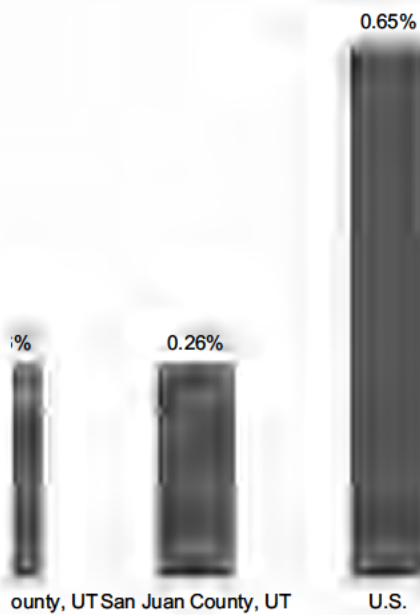
This page describes employment in industries that have the potential for being associated with the commodity use of public lands: timber, mining (including oil, natural gas, and coal), and agriculture. We refer to these sectors combined as "commodity sectors."

- In 2015, the U.S. had the largest percent of total jobs in timber (0.65%), and San Juan County, UT had the smallest (0.26%).



Use Sectors

Percent of Total Private Employment, 2015



Study Guide and Supplemental Information

How does employment in commodity sectors vary across geographies?

What do we measure on this page?

This page describes employment in industries that have the potential for being associated with the commodity use of public lands: timber, mining (including oil, natural gas, and coal), and agriculture. We refer to these sectors combined as "commodity sectors."

Commodity Sectors: Consists of employment in timber, mining (including oil, gas, and coal), and agriculture. These are sectors of the economy that have the potential to use federal public lands (for example, for timber harvesting, energy development, and grazing) for the extraction of commodities.

Timber: Jobs associated with growing and harvesting, sawmills and paper mills, and wood products manufacturing.

Mining: Jobs associated with oil and gas extraction, coal mining, metals mining, and nonmetallic minerals mining.

Agriculture: Jobs associated with all forms of agriculture, including farming and ranching.

Why is it important?

Public lands can play a key role in stimulating local employment by providing opportunities for commodity extraction.

Timber industries have played an important role in some geographies, particularly those with significant Forest Service lands. The information on this page helps to answer if this is the case and whether there are differences between geographies. Further investigation may be needed to understand whether proposed activities on public lands could affect this sector.

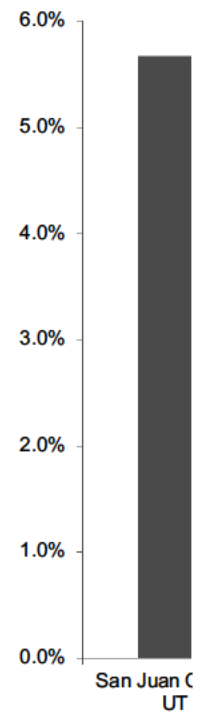
In some parts of the country mining, including fossil fuel development (oil, natural gas, and coal), is a significant employer. Information on this page helps explain if that is the case in the geographies selected, and whether they differ from one another. Additional research is needed to understand whether proposed activities on public lands affect this sector.

Farming and ranching can be a significant component of employment in some geographies. Information on this page helps to explain which areas are more and less dependent on this sector. Further research is needed to understand how proposed activities on public lands could affect this sector.

Data	Bullet 1	Bullet 2	Bullet 3	Bullet 4
Big Desc	U.S.	San Juan County, UT	San Juan County, UT	San Juan County, UT
Big Value	0.65	3.27	2.4	11.04
Small Desc	San Juan County, UT	U.S.	U.S.	U.S.
Small Value	0.26	0.5	0.29	1.39

Mining, Per

- In 2015, San Juan County, UT had the largest percent of total jobs in mining of fossil fuels (3.27%), and the U.S. had the smallest (0.5%).
-

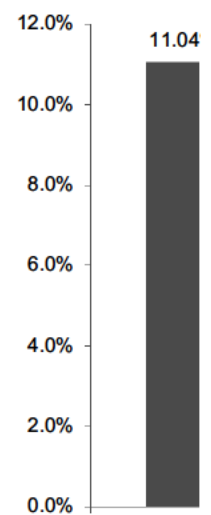


- In 2015, San Juan County, UT had the largest percent of total jobs in mining unrelated to fossil fuels (2.4%), and the U.S. had the smallest (0.29%).
-

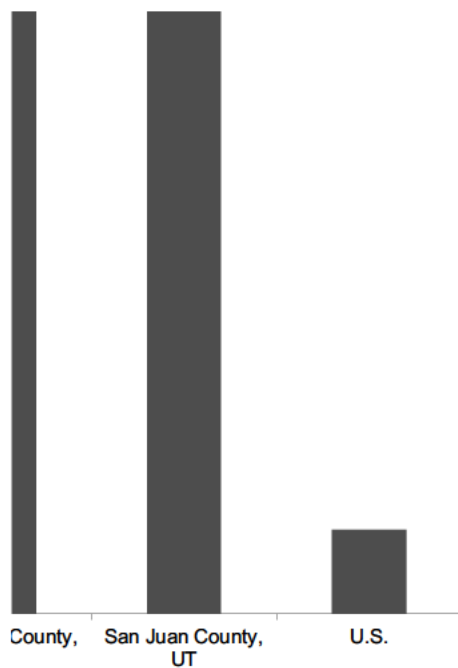
Fossil fu

Agricultur

- In 2015, San Juan County, UT had the largest percent of total jobs in agriculture (11.04%), and the U.S. had the smallest (1.39%).
-

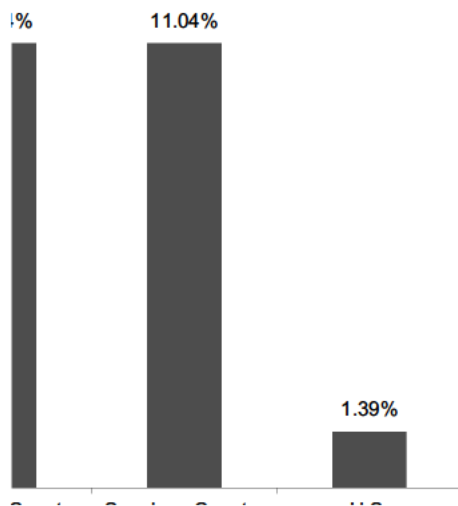


Percent of Total Private Employment, 2015



Fuels (oil, gas, & coal) ■ Other mining

Percent of Total Employment, 2015



Methods

We use County Business Patterns as a data source for timber and mining 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 County Business Patterns 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, 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 geographies, and showing the relationship between sectors over time.

We use the Bureau of Economic Analysis as a data source for agriculture because County Business Patterns data do not include agriculture. However, the Bureau of Economic Analysis data include proprietors, which are not included in County Business Patterns data. As a result, the data for agriculture, and timber and mining are not strictly comparable. The latest year for each data source may vary due to different data release schedules.

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.

Additional Resources

To learn more about the role of timber employment, run the EPS Timber report.
To learn more about the role of mining and oil and gas employment, run the EPS Mining report.
To learn more about the role of agricultural employment, run the EPS Agriculture report.

Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at headwaterseconomics.org/eps (1).

Data Sources: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Commerce. 2017. Census Bureau, County Business Patterns, Washington, D.C.

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Use Sectors

	San Juan County, UT
Timber % of total private employment, 2015	0.26%
Fossil fuels (oil, gas, & coal)	3.27%
Other mining	2.40%
Agriculture % of total employment, 2015	11.04%

Chart Labels

Timber, Percent of Total Private Employment, 2015
Mining, Percent of Total Private Employment, 2015
Agriculture, Percent of Total Employment, 2015

County, San Juan County, U.S.
UT



San Juan County, UT	U.S.
0.26%	0.65%
3.27%	0.50%
2.40%	0.29%
11.04%	1.39%

Data Sources

U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Commerce. 2017. Census Bureau, County Business Patterns, Washington, D.C.

Study Guide

Page 5

County Region

How does employment in commodity sectors and in industries that include travel and tourism, vary across geographies?

This page describes differences in employment for all commodity sectors combined across geographies. It also shows differences in employment for industries that have the potential of being associated with travel and tourism.

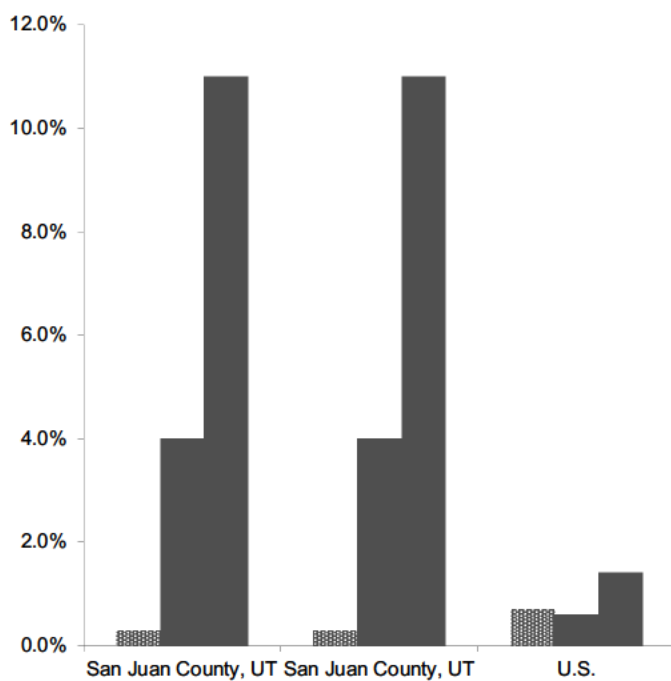
Commodity Sectors: Consist of employment in timber, mining (including oil, gas, and coal), and agriculture. These are sectors of the economy that have the potential to use federal public lands (for example, for timber harvesting, energy development, and grazing and recreation) for the extraction of commodities.

- San Juan County, UT had the largest percent of total jobs in commodity sectors (15.3%), and the U.S. had the smallest (2.7%).

- Agriculture was the largest component of commodity sector employment (11% of total jobs) in the San Juan County, UT, and timber was the smallest component (0.3% of total jobs).

Use Sectors

Commodity Sectors, Percent of Total Private Employment**



Study Guide and Supplemental Information

How does employment in commodity sectors and in industries that include travel and tourism, vary across geographies?

What do we measure on this page?

This page describes differences in employment for all commodity sectors combined across geographies. It also shows differences in employment for industries that have the potential of being associated with travel and tourism.

Commodity Sectors: Consists of employment in timber, mining (including oil, gas, and coal), and agriculture. These are sectors that have the potential to use federal public lands (e.g., for timber harvesting, energy development, grazing, and recreation) for the extraction of commodities.

Travel and Tourism: Consists of sectors that provide goods and services to visitors to the local economy, as well as to the local population. These industries are: retail trade; passenger transportation; arts, entertainment and recreation; and accommodation and 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 "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."

Why is it important?

Public lands can play a key role in stimulating local employment by providing opportunities for commodity extraction. Timber, mining, and agriculture are together referred to in this report as commodity sectors because they have the potential for using public lands for the extraction of commodities. For example, timber may be harvested from Forest Service lands, and oil and gas development and cattle grazing may occur on Bureau of Land Management lands. While it is not possible to measure the exact number of jobs that rely on the commodity use of public lands, it is important to understand the relative size of these sectors to put the economy related to commodity extraction in perspective. For example, a county with 90 percent of its employment in the commodity sectors has a higher chance of being impacted by decisions that permit (or restrict) timber, mining, and grazing activities on public lands than a county where only 10 percent of the workforce is in these sectors.

Public lands can also play an important role in stimulating local employment by providing opportunities for recreation. Communities adjacent to public lands can benefit economically from visitors who spend money in hotels, restaurants, ski resorts, gift shops, and elsewhere. While the information in this report is not an exact measure of the size of travel and tourism sectors, and it does not measure the type and amount of recreation on public lands, it can be used to understand whether travel and tourism related economic activity is present and if there are differences between geographies.

Data	Bullet 1	Bullet 2	Bullet 3	Bullet 4
Big Desc	San Juan County, UT	Agriculture 2015	San Juan County, UT	Accommodations & Food*
Big Value	15.3	11	35.1	28.9
Small Desc	U.S.	Timber 2015	U.S.	Passenger Transportation*
Small Value	2.7	0.3	15.5	0.1

** 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.

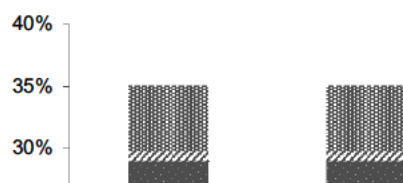
Travel and Tourism: Consists of sectors that provide goods and services to visitors to the local economy, as well as to the local population. These industries are: retail trade; passenger transportation; arts, entertainment and recreation; and accommodation and food services. It is not known, without additional research such as surveys, what exact proportion of the jobs in these sectors is attributable to expenditures by visitors, including business and pleasure travelers, versus by local residents. 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 2015, San Juan County, UT had the largest percent of total jobs in industries that

- include travel and tourism (35.1%), and the U.S. had the smallest (15.5%).

■ Timber 2015 ■ Mining 2015 ■ Agriculture 2015

Industries that include Travel & Tourism, Percent of Total Private Employment, 2015



Methods

We use County Business Patterns (CBP) as a data source for timber and mining. Compared to other sources, it 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. A 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 places, and showing relationships between sectors over time.

We use the Bureau of Economic Analysis (BEA) 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. As a result, the data for agriculture, and timber and mining are not strictly comparable. The latest year for each data source may vary due to different data release schedules.

There is no single industrial classification for travel and tourism under the North American Industrial Classification System (NAICS). However, there are sectors that, at least in part, provide goods and services to visitors to a local economy. These industries include: retail trade; passenger transportation; arts, entertainment and recreation; and accommodation and food services. To understand the absolute size of employment in travel and tourism would require detailed knowledge, obtained through surveys and other means, of the proportion of a sector's employment that is directly attributable to pleasure travelers.

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.

In 2015, accommodations & food* was the largest component of travel and tourism related employment (28.9% of total jobs) in

- San Juan County, UT, and passenger transportation* was the smallest (0.1% of total jobs).

* Charted values do not represent the entirety of these sectors, rather their components typically related to travel & tourism.

Data Sources: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Commerce. 2017. Census Bureau, County Business Patterns, Washington, D.C.

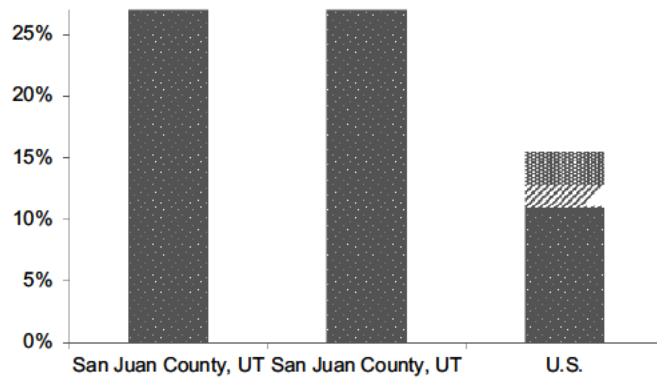
Page 6

Use Sectors

Timber 2015
Mining 2015
Agriculture 2015
Retail Trade*
Passenger Transportation*
Arts, Entertainment, & Recreation*
Accommodations & Food*
Total Tourism Related
Total Commodities

Chart Labels

Commodity Sectors, Percent of Total Private Employment**
Industries that include Travel & Tourism, Percent of Total Private Employment, 2015



■ Retail Trade*
 ■ Arts, Entertainment, & Recreation*
 ■ Passenger Transportation*
 ■ Accommodations & Food*

San Juan County, UT	San Juan County, UT	U.S.
0.3%	0.3%	0.7%
4.0%	4.0%	0.6%
11.0%	11.0%	1.4%
5.3%	5.3%	2.7%
0.1%	0.1%	0.4%
0.8%	0.8%	1.8%
28.9%	28.9%	10.6%
35.1%	35.1%	15.5%
15.3%	15.3%	2.7%

Additional Resources

To learn more about commodity sectors, see the EPS reports on timber, mining, and agriculture.

To learn more about the recreation related components of the economy and the methods used to estimate employment in this portion of the economy, see the EPS Travel and Tourism report.

Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at headwaterseconomics.org/eps (1) .

Data Sources

U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Commerce. 2017. Census Bureau, County Business Patterns, Washington, D.C.

County Region

What is the extent and type of federal land, and how significant are federal land payments?

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 ("Type A"), and the percent of county revenue from payments related to federal lands.

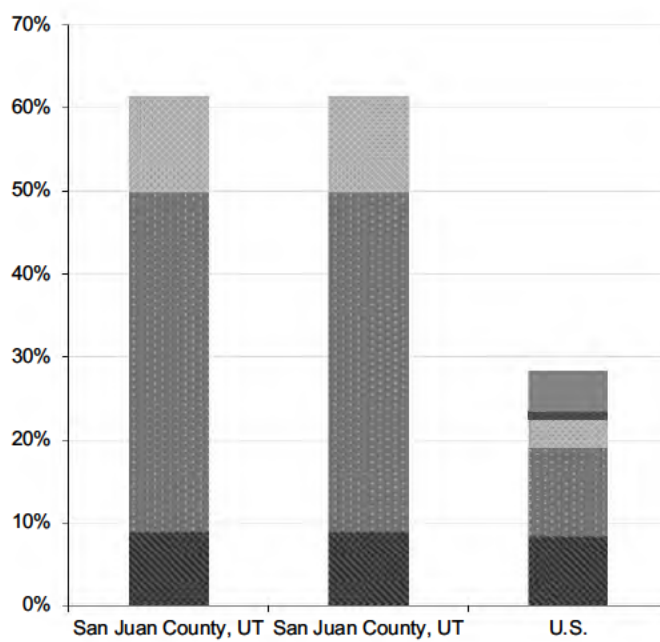
- San Juan County, UT had the largest percent of total land area in federal ownership (61.4%), and the U.S. had the smallest (28.2%).

- BLM lands were the largest component of federal land ownership (40.9%) in San Juan County, UT, and Military lands were the smallest (0%).

- Data source and year vary depending on the selected geography.

Federal Land

Federal Land, Percent of Total Land Area*



■ Forest Service ■ BLM ■ Park Service ■ Military ■ Other Federal

Study Guide and Supplemental Information

What is the extent and type of federal land, and how significant are 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 ("Type A"), and the percent of county revenue from payments related to federal lands.

Type A : Federal public lands that are managed primarily for natural, cultural, and recreational features. There can be exceptions (e.g., oil and gas development in a particular National Monument), but generally these lands are less likely to be used for commodity production than other federal land types. 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). These definitions of land classifications are not legal or agency approved and adopted classifications, and are only provided for comparative purposes.

NPS = National Park Service; FS = Forest Service; BLM = Bureau of Land Management; FWS = Fish and Wildlife Service.

Why is it important?

In some geographies, particularly in the West, more than half of the land base can be federal public lands. Understanding the makeup of the land base in an area is important because some actions on federal lands may affect the local economy, particularly if federal lands are a large portion of the land base.

Some federal public lands prohibit most forms of commercial use and development. These include National Parks, Wilderness, and National Monuments, for example. Since 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.

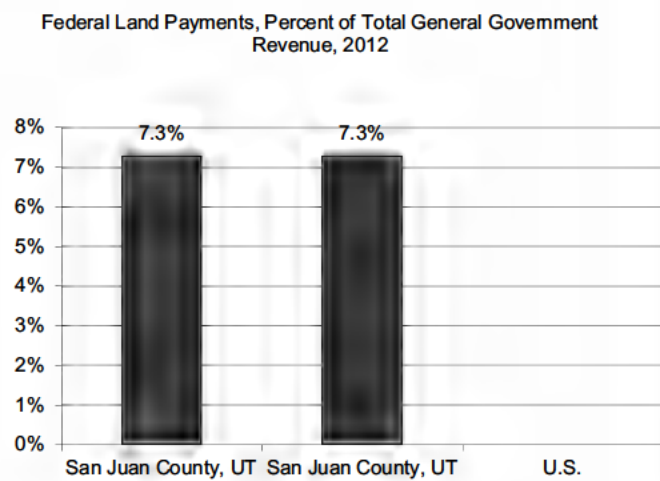
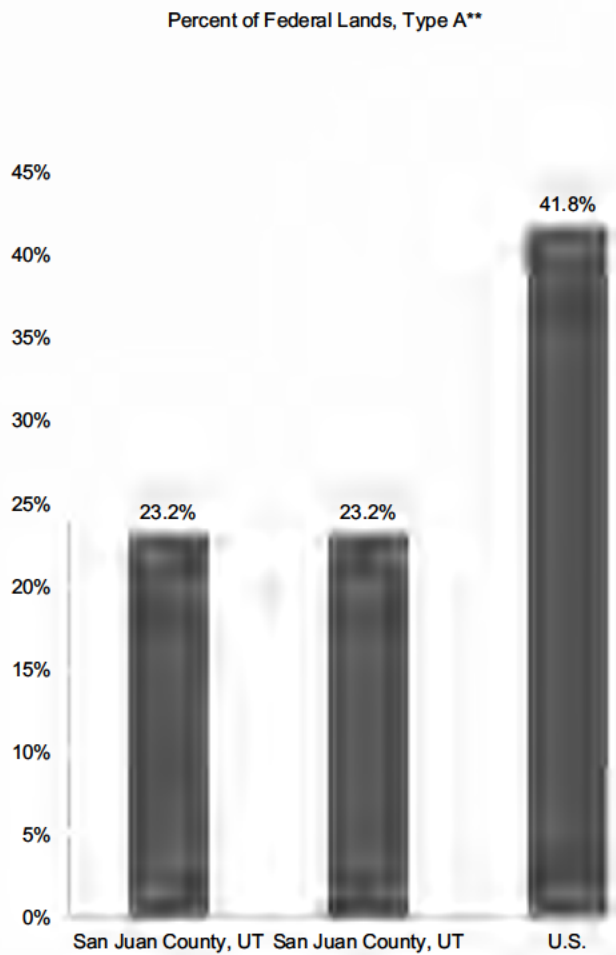
Geographies with federal public lands receive payments from the federal government related to these lands (e.g., Payments in Lieu of Taxes [PILT], the 25% Fund, Secure Rural Schools, and others). If these payments are a significant portion of the local county's budget, then activities on public lands may have the potential to affect the fiscal well being of a county. Depending on the type of payments a county receives, the fiscal health of the county may also be dependent on the level of appropriations from Congress.

Data	Bullet 1	Bullet 2	Bullet 3	Bullet 4
Big Desc	San Juan County, UT	BLM	U.S.	San Juan County, UT
Big Value	61.4	40.9	41.8	7.3
Small Desc	U.S.	Military	San Juan County, UT	San Juan County, UT
Small Value	28.2	0	23.2	7.3

The U.S. had the largest percent of federal lands in Type A (41.8%), and San Juan County, UT had the smallest (23.2%).

Type A federal lands are explained in the study guide. Data source and year vary depending on the selected geography.

In FY 2012, San Juan County, UT had the largest percent of total general government revenue from federal land payments (7.3%), and San Juan County, UT had the smallest (7.3%).



Additional Resources

To learn more about land ownership and development patterns, see the EPS Land Use report.

To learn more about the role of environmental amenities in economic development, see the EPS Amenities report.

To learn more about the importance of federal payments to counties, see the EPS Federal Land Payments report.

For examples of literature on the economic role of environmental amenities, see:

Booth, D.E. 1999. "Spatial Patterns in the Economic Development of the Mountain West." *Growth and Change* 30(3): 384 405.

Duffy Deno, K.T. 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., R. Southwick. 2003. "Environmental Protection, Population Change, and Economic Development in the Rural Western United States." *Population and Environment* 24(3): 255 272.

McGranahan, D.A. 1999. *Natural Amenities Drive Rural Population Change*. Economic Research Service, U.S. Department of Agriculture, Food and Rural Economics Division. Washington, D.C. [ers.usda.gov/publications/aer agricultural economic report/aer781.aspx](http://ers.usda.gov/publications/aer/agricultural%20economic%20report/aer781.aspx) (6) .

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., H.E. Johansen. 1991. "How Important is Wilderness? Results from a United States Survey." *Environmental Management* 15(2): 227 233.

Data Sources: NASA MODIS Land Cover Type Yearly L3 Global 1km MOD12Q1, 2006; U.S. Geological Survey, Gap Analysis Program. 2016. Protected Areas Database of the United States (PADUS) version 1.4; U.S. Department of Commerce. 2014. Census Bureau, Governments Division, Washington, D.C.

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Federal Land

Forest Service

BLM

Park Service

Military

Other Federal

Type A Percent of Federal Lands

Fed. Payments, % of Govt Revenue


Total Federal

Chart Labels


Federal Land, Percent of Total Land Area*

Percent of Federal Lands, Type A**

Federal Land Payments, Percent of Total General Government Revenue, 2012



San Juan County, UT	San Juan County, UT	U.S.
8.9%	8.9%	8.4%
40.9%	40.9%	10.6%
11.6%	11.6%	3.4%
0.0%	0.0%	1.0%
0.0%	0.0%	4.9%
23.2%	23.2%	41.8%
7.3%	7.3%	
61.4%	61.4%	28.2%



Data Sources

NASA MODIS Land Cover Type Yearly L3 Global 1km MOD12Q1, 2006; U.S. Geological Survey, Gap Analysis Program. 2016. Protected Areas Database of the United States (PADUS) version 1.4; U.S. Department of Commerce. 2014. Census Bureau, Governments Division, Washington, D.C.

Study Guide

Page 7



San Juan County, UT

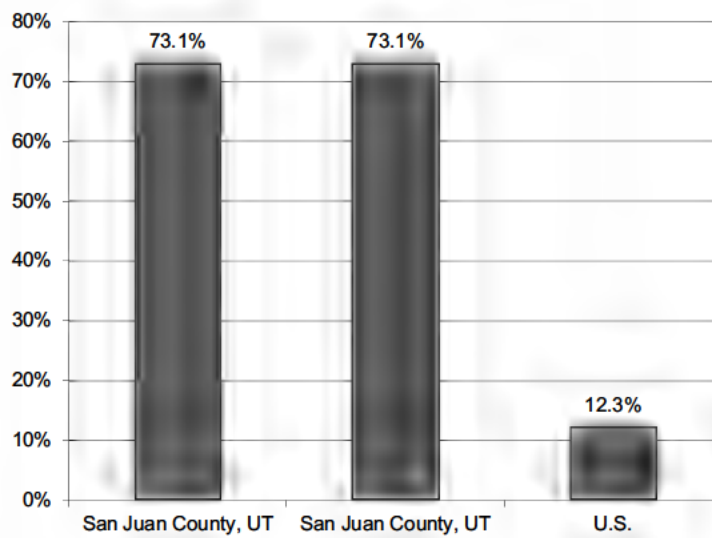
How much private land has been developed, including in the wildland-urban interface (WUI)?

This page describes differences in the change in residential development on private lands, and the proportion of the wildland urban interface (WUI) that is developed with homes.

- Between 2000 and 2010, San Juan County, UT had the largest percent
- change in residential land area developed (73.1%), and the U.S. had the smallest (12.3%).

Development

Land Area Developed with Residences, Percent Change, 2000
2010



Study Guide and Supplemental Information

How much private land has been developed, including in the wildland-urban interface (WUI)?

What do we measure on this page?

This page describes differences in the change in residential development on private lands, and the proportion of the wildland urban interface (WUI) that is developed with homes.

This information is available only for the 11 western public lands states (not including Alaska and Hawaii).

Wildland Urban Interface (WUI): Defined as private forestlands that are within 500 meters of public forestlands. We use the threshold of 500 meters to identify both existing and potential WUI since 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 since roughly 70 percent of western forests are publicly owned and since wildfire is a natural disturbance in many of these forests, creating a potential risk to adjacent private lands.

Why is it important?

Public lands are influenced by land management actions on private land, particularly by the development of lands within the wildland urban interface.

Development of homes adjacent to fire prone federal public lands poses several challenges to land management agencies. These include: the rising cost of protecting homes from wildland fire; the opportunity cost of spending a significant portion of the agency's budget on firefighting, which means fewer funds are available for restoration, recreation, research, and other activities; and increased danger to wildland firefighters. When protecting homes is a priority, this also means that it is sometimes not possible for the agencies to allow otherwise beneficial fires to burn, even those that could reduce fuel loads.



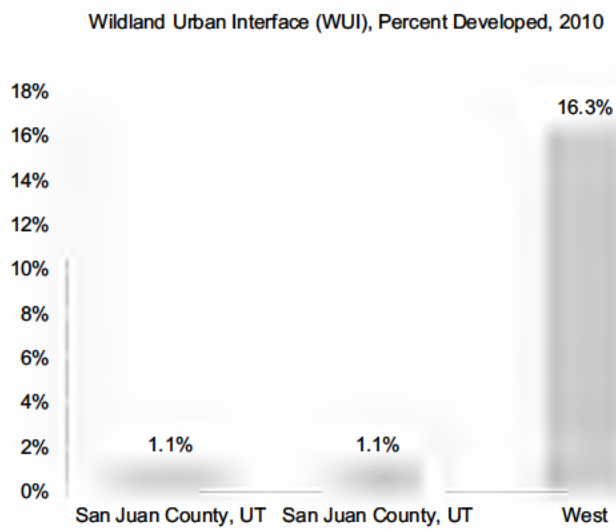
Data	Bullet 1	Bullet 2
Big Desc	San Juan County, UT	U.S.
Big Value	73.1	16.3
Small Desc	U.S.	San Juan County, UT
Small Value	12.3	1.1

Wildland Urban Interface (WUI): This information is available only for the 11 western public lands states (not including Alaska and Hawaii). WUI is defined as private forestlands that are within 500 meters of public forestlands. We use the threshold of 500 meters to identify both existing and potential WUI since 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 since roughly 70 percent of western forests are publicly owned and since wildfire is a natural disturbance in many of these forests, creating a potential risk to adjacent private lands.

In 2010, the west had the largest proportion of the wildland urban interface

- that is developed (16.3%), and San Juan County, UT had the smallest (1.1%).

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.



Additional Resources

For additional information on land ownership, management, cover, and development, see the EPS Land Use report.

For online resources related to the wildland urban interface (WUI) and a paper on proposed solutions to the rising cost of firefighting (including a review of literature on the subject), see: headwaterseconomics.org/wildfire (7) .

For a description of the methods used to define and measure the wildland urban interface, see: Gude, P., R. Rasker and van den Noort, J. 2008. "Potential for Future Development on Fire Prone Lands." *Journal of Forestry*. June: 198 205.

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.

Development

Residential land area % change
Wildland Urban Interface % developed

Chart Labels

Land Area Developed with Residences, Percent Change, 2000 2010
Wildland Urban Interface (WUI), Percent Developed, 2010



San Juan County, UT	San Juan County, UT	U.S.
73.1%	73.1%	12.3%
1.1%	1.1%	16.3%



Data Sources

The EPS Services 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:

-

-

The EPS HDT Summary report also Geographic Information Systems (GIS) derived data to show more accurate statistics for land ownership. The contact information of the GIS data sources follow:

-

Methods

Data Sources & Methods

County Business Patterns

Census Bureau, U.S. Department of Commerce

<http://www.census.gov/epcd/cbp/view/cbpview.html>

Tel. 301 763 2580

Local Area Unemployment Statistics

Bureau of Labor Statistics, U.S. Department of Labor

<http://www.bls.gov/lau>

Tel. 202 691 6392

• Regional Economic Information System

Bureau of Economic Analysis, U.S. Department of Commerce

<http://bea.gov/bea/regional/data.htm>

Tel. 202 606 9600

TIGER/Line County Boundaries 2012

Bureau of the Census, U.S. Department of Commerce

http://www.census.gov/geo/maps_data/data/tiger.html

• Protected Areas Database v 1.3 2012

U.S. Geological Survey, Gap Analysis Program

<http://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 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.

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 headwaterseconomics.org/eps.

**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 | <u>headwaterseconomics.org/eps</u> |
| 2 | <u>www.bea.gov/regional/definitions</u> |
| 3 | <u>www.bls.gov/cps/faq.htm#Ques3</u> |
| 4 | <u>www.bls.gov/opub/mlr/indexe.htm#Earnings and wages</u> |
| 5 | <u>www.bea.gov/glossary/glossary.cfm</u> |
| 6 | <u>www.ers.usda.gov/publications/aer agricultural economic
report/aer781.aspx</u> |
| 7 | <u>headwaterseconomics.org/wildfire</u> |

Links to Additional Resources

Data Alerts

Geography-Related Messages

(no messages)

Report-Related Messages

(no messages)

Alerts

Style Name		Contents
Heading 1	Black	Data Alerts
Heading 2	HE Blue	Geography Related Messages
Body Text	Black	(no messages)
		Empty Line
Heading 2	HE Blue	Report Related Messages
Body Text	Black	(no messages)