

# The Economic Value of Federal Public Lands

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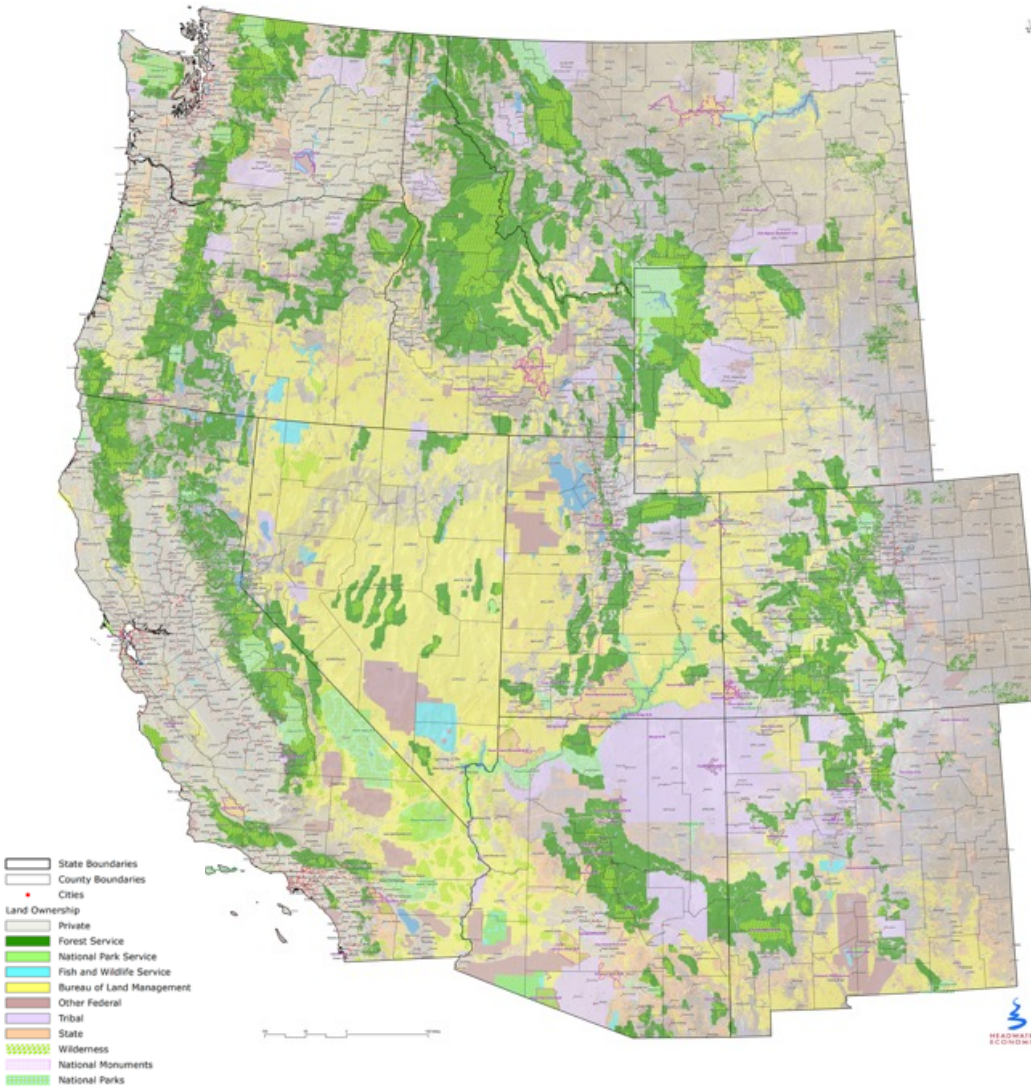


# Outline

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**Two types of public lands:**

**FEDERAL**

**48% of the West**

Managed for multiple uses & values

**STATE**

**6.4%**

Managed to turn a profit, mostly with commercial uses

# **Federal Lands Have Many Values**

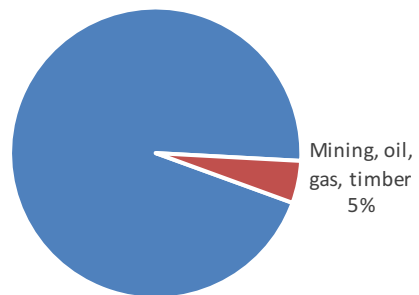




# Commodity Production



Personal Income from Employment in  
Resource Extraction, Non-Metro West, 2016



<https://headwaterseconomics.org>

We define non-metro as rural. Metro counties contain a core population of 50,000 or more people or are "outlying" counties and tied economically to the core areas by labor force commuting.  
Data from: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C. Table CA25N. Agriculture in 2016 represented 3% of total personal income in the non-metro, or rural West.

# Wildlife and Biodiversity

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<https://headwaterseconomics.org>

Photo: National Park Service <http://www.nps.gov/arch/photosmultimedia/index.htm>



# Scenery

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<https://headwaterseconomics.org>

Photo: National Park Service <http://www.nps.gov/arch/photosmultimedia/index.htm>

# Culture, Heritage

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# Engage Youth and Diversity

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<https://headwaterseconomics.org>

Photo used by permission: SHIFT <https://shiftjh.org/>

# Outdoor Recreation

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7.6 million jobs

2% of GDP

**In the West:**

1.9 million jobs

Federal lands recreation equals  
\$51 billion in visitor expenditures



143 million Americans participate

<https://headwaterseconomics.org>

Outdoor recreation figures from: <https://outdoorindustry.org/advocacy/>. Visitation to public lands from: <https://www.coloradocollege.edu/dotAsset/5e3d4978-4cb7-4784-bf36-b086cf332fc9.pdf>. Federal and expenditures from (page 22) of: <http://www.coloradotpa.org/wp-content/uploads/2017/02/USFS-Econ-Impacts-Rec.pdf>. GDP figure from: <https://www.bea.gov/outdoor-recreation/>.

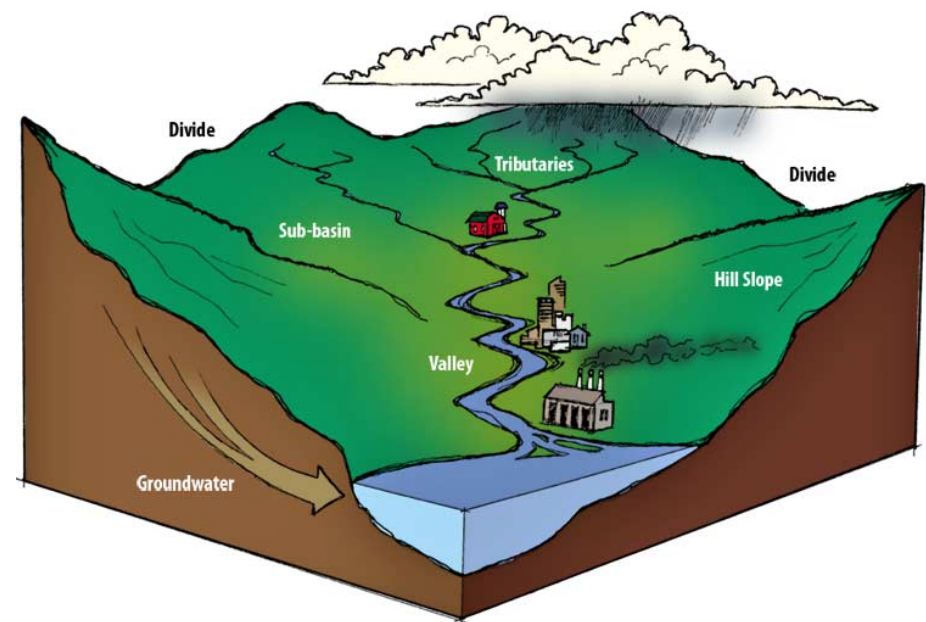


# Ecosystem Services

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Water purification,  
erosion & flood control,  
carbon storage, climate  
regulation, pollination,  
medicine, etc.

**National Forests  
provide 33% of our  
water in the West**



<https://headwaterseconomics.org>

National Forest figures from: <https://www.fs.fed.us/managing-land/national-forests-grasslands/water-facts>. West figures from: <https://www.treeseearch.fs.fed.us/pubs/45417>. Image from: [http://www.clipartpanda.com/clipart\\_images/watersheds-are-complex-22834047](http://www.clipartpanda.com/clipart_images/watersheds-are-complex-22834047). National Forests provide water for 66 million people in 3,400 communities worth \$7.2 billion annually

# Quality of Life

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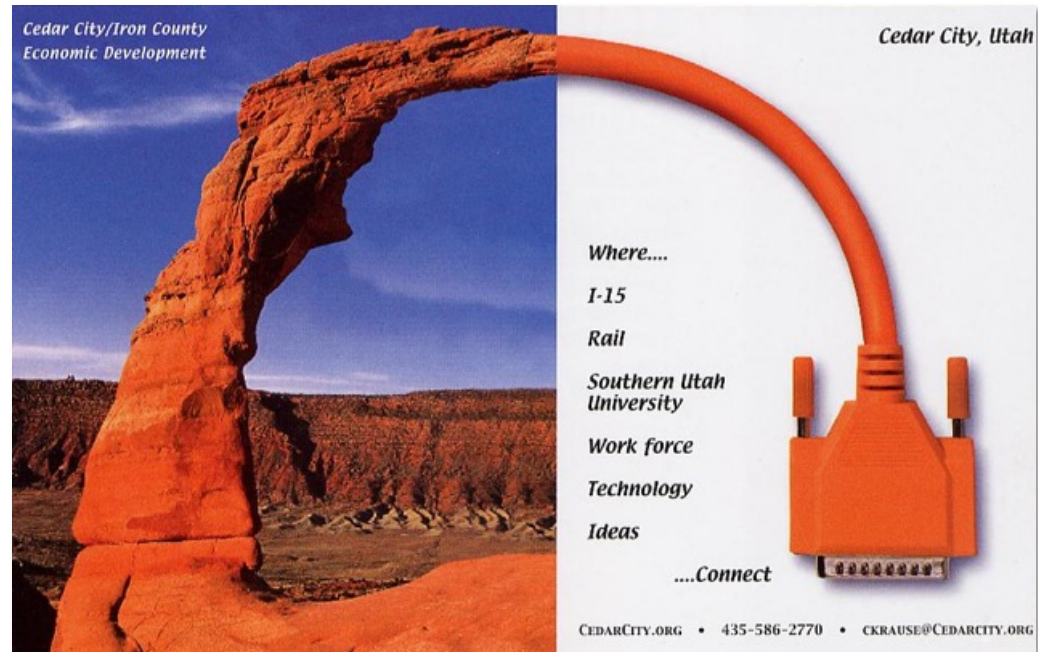
Public lands as a setting, making a community a pleasant place to live



# Business Recruitment

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The outdoors as  
a way to attract  
business



# Recruitment of Talent

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Bozeman, Montana in the 1990s

“Salt Lake City offers great outdoor recreation with 15 national parks and monuments, all within a one-day drive”

- Goldman Sachs’ online recruitment promotion for their SLC office.

# Recruitment of Talent

## Colorado Springs, Colorado



Colorado Springs Regional Economic Development Corporation

**Our version of rush hour doesn't include cars.**

LEARN MORE

Please take a moment to complete a 4-question anonymous relocation survey.



**5<sup>TH</sup>**  
**4<sup>TH</sup>**

**COLORADO RANKED 5TH BEST STATE FOR BUSINESS.**  
— 6-28-2011 | CNBC

**COLORADO SPRINGS RANKED 4TH BEST VALUE CITY IN THE NATION: LOW LIVING COSTS, STRONG ECONOMY AND GREAT AMENITIES.**  
— 7-28-2011 | Kiplinger's Personal Finance

Rush hour in the Springs doesn't always include slipping behind the wheel of a car. With 300 days of sunshine and over 500 miles of urban and easy-to-reach mountain trails, your morning commute can include an epic rush of adrenaline. You bomb a 30-degree technical through the pines. Clean the rest of the trail. Pull into the parking lot pumped with endorphins, and you suddenly see opportunities for your company more clearly — new markets, innovation and growth.

Relocate to Colorado Springs? Adrenaline.



Colorado Springs Regional Economic Development Corporation

**Brilliance can happen anywhere. It happens more often in the Springs.**

LEARN MORE

**5<sup>TH</sup>**  
**4<sup>TH</sup>**

**COLORADO RANKED 5TH BEST STATE FOR BUSINESS.**  
— 6-28-2011 | CNBC

**COLORADO SPRINGS RANKED 4TH BEST VALUE CITY IN THE NATION: LOW LIVING COSTS, STRONG ECONOMY AND GREAT AMENITIES.**  
— 7-28-2011 | Kiplinger's Personal Finance

You can't force entrepreneurial eureka moments — but you can increase their odds of happening by preparing your mind. Cram your cranium with your problems, challenges, ideas, and insights. Then relax under the clear blue sky of the Rocky Mountains, smell the scent of fresh pines, and let your mind work. Brilliance happens. Inspiration does strike. You grab the idea and run with it. Your company becomes more productive and profitable.

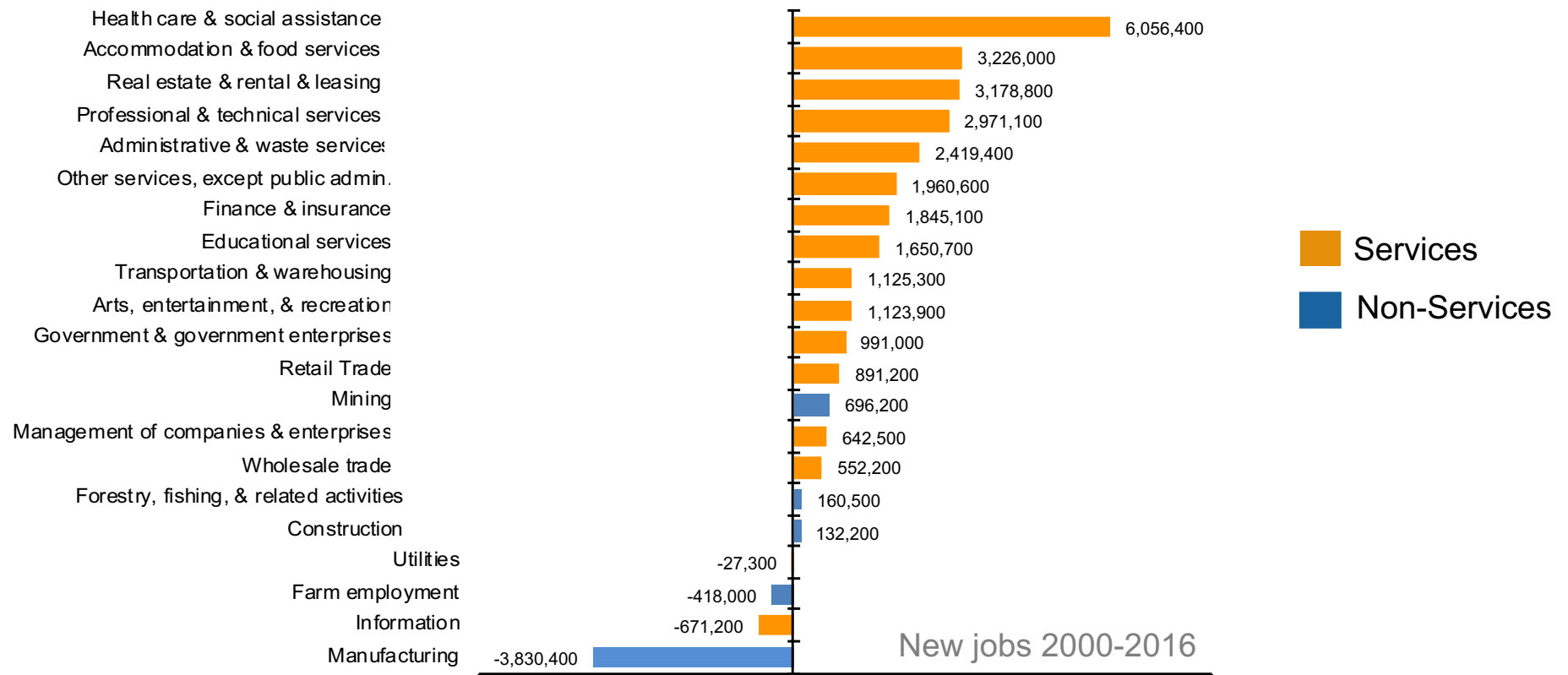
Relocate to Colorado Springs? Brilliant.



# Context: The U.S. Economy

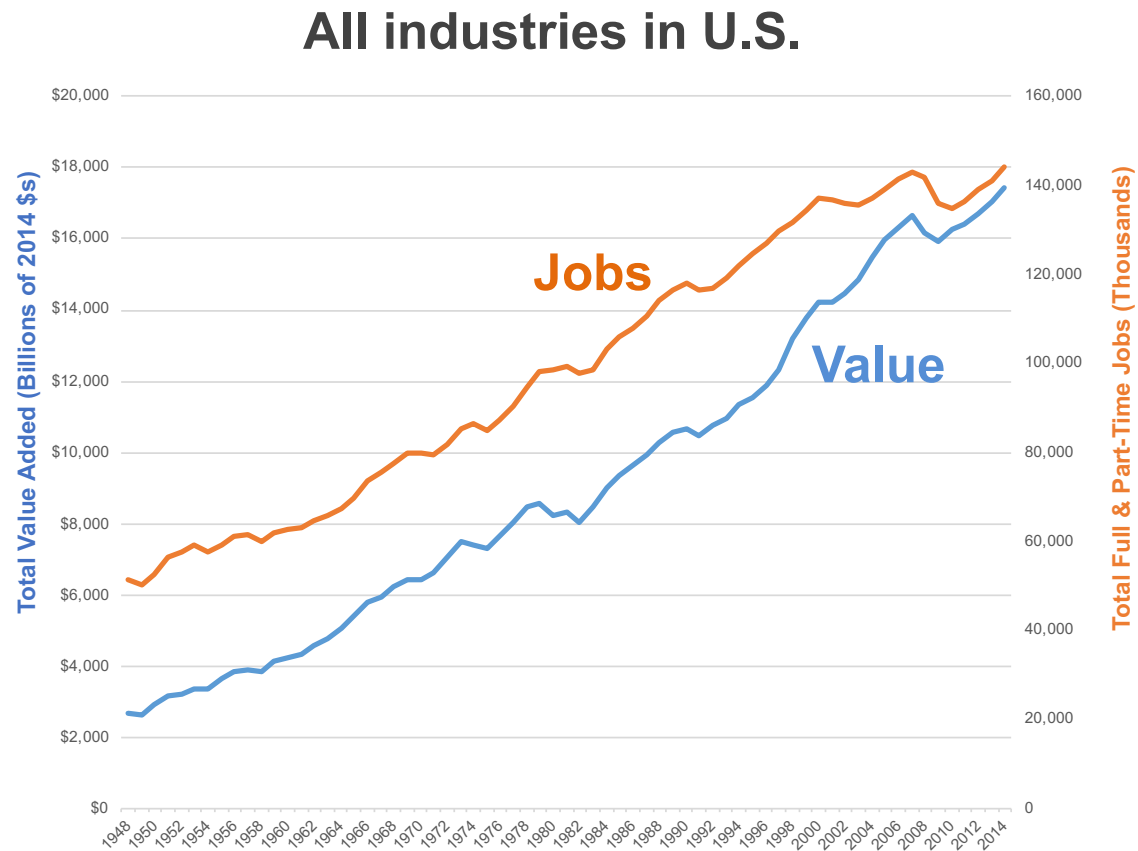


# 95% of New Jobs in U.S. in SERVICES



<https://headwaterseconomics.org>

# Jobs & Value of Production Track Closely

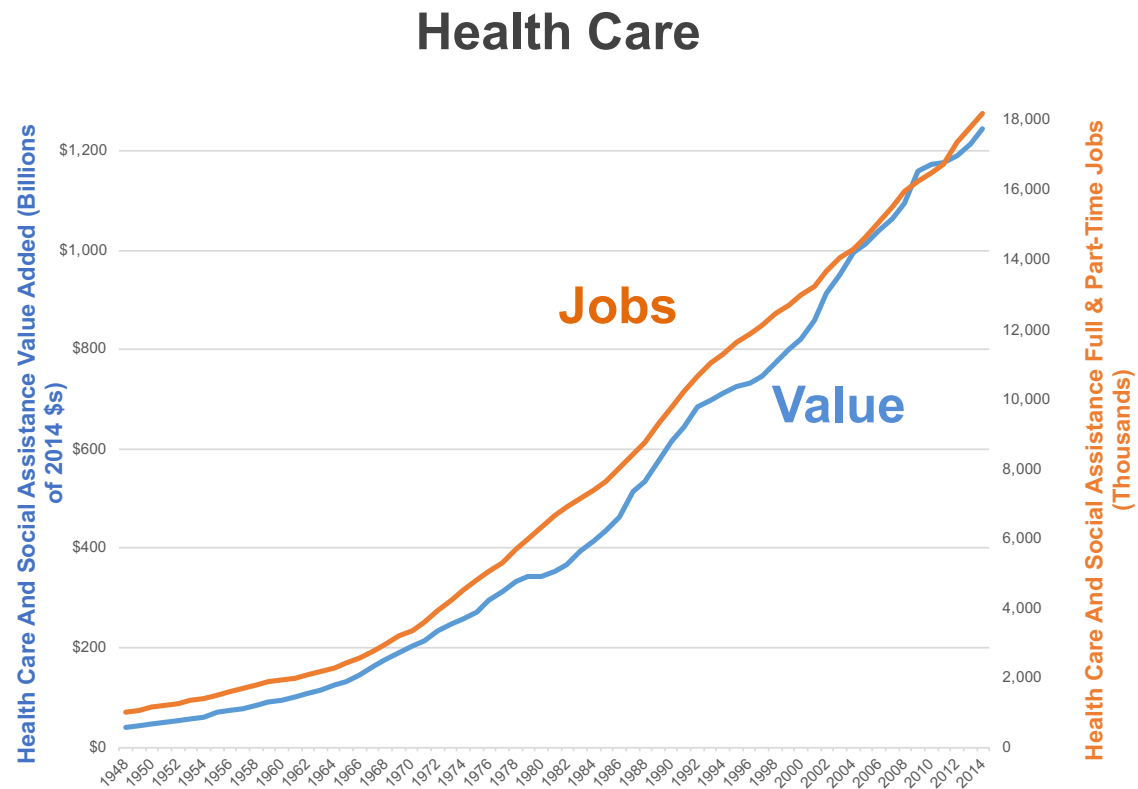


<https://headwaterseconomics.org>

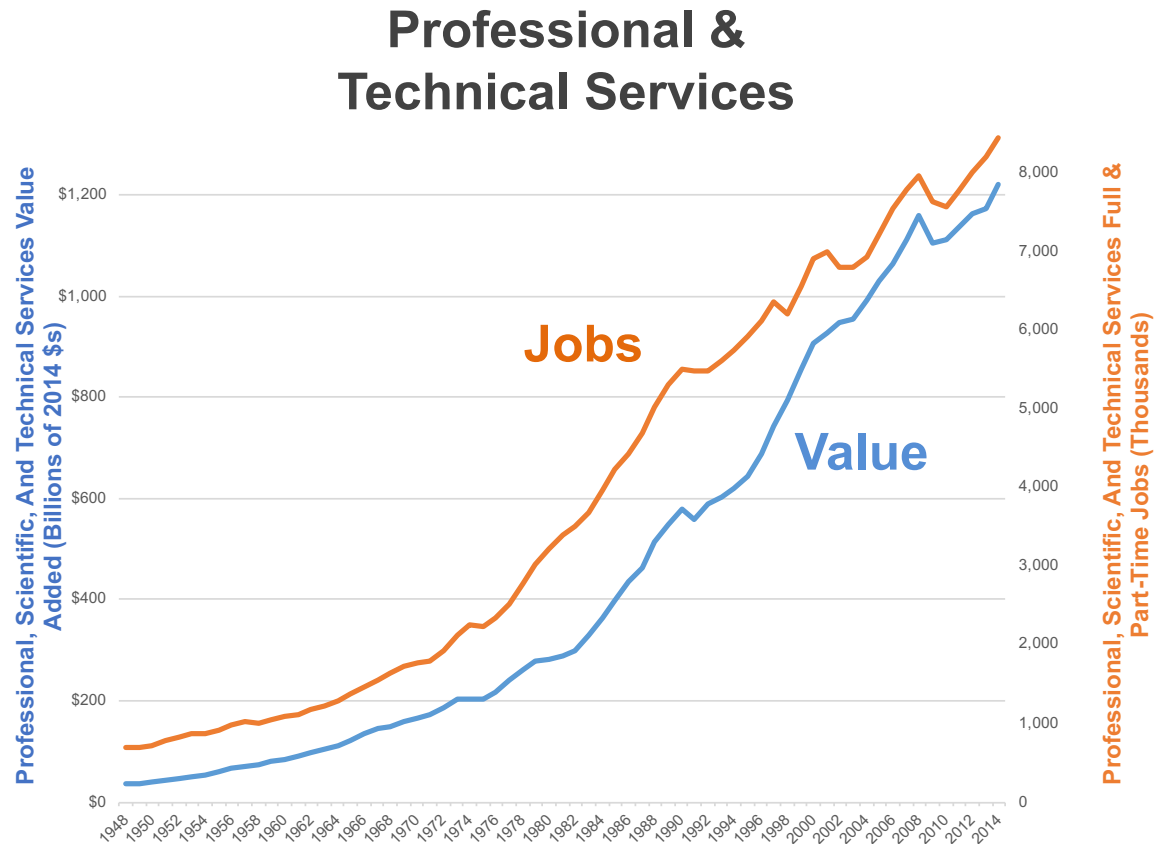
U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C. Table CA25N and Regional Economic Accounts <https://www.bea.gov/regional/downloadzip.cfm>.



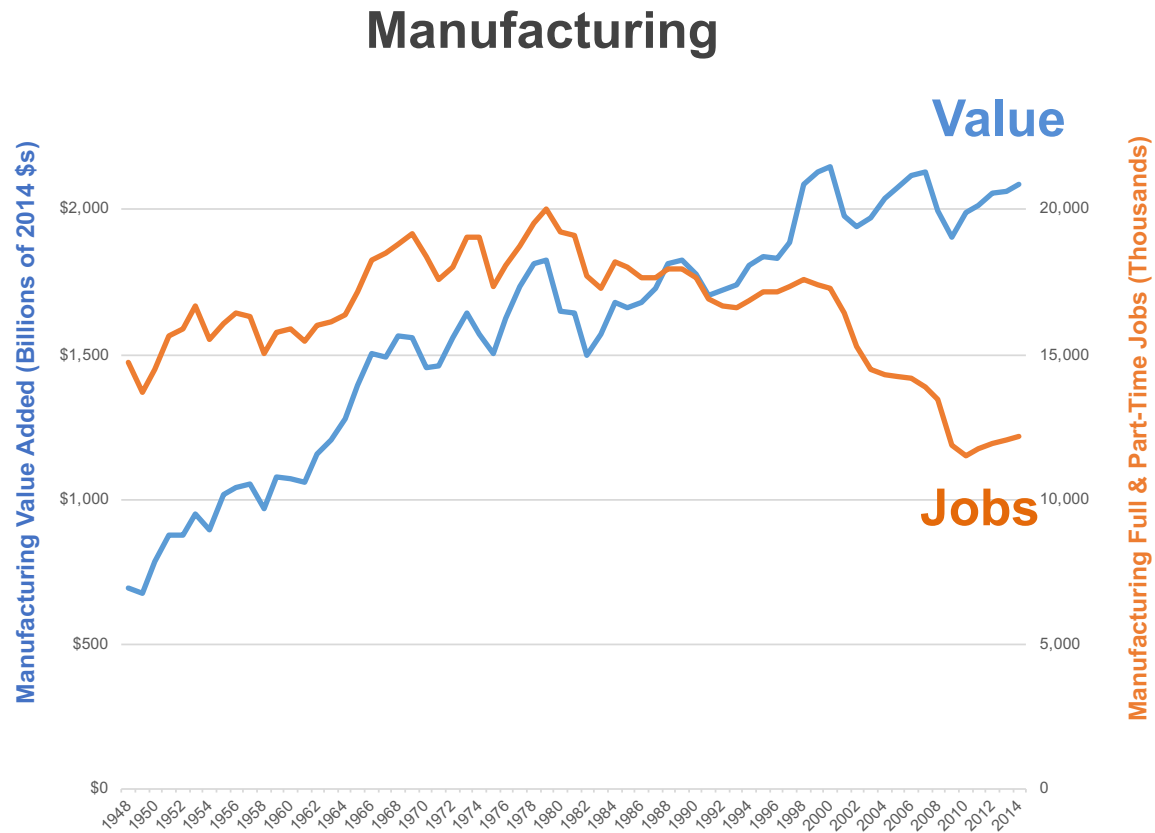
# Jobs & Value of Production Track Closely



# Jobs & Value of Production Track Closely



# Manufacturing is the Exception



Productivity  
higher than  
ever, but with  
fewer  
workers

88% of job  
loss due to  
automation

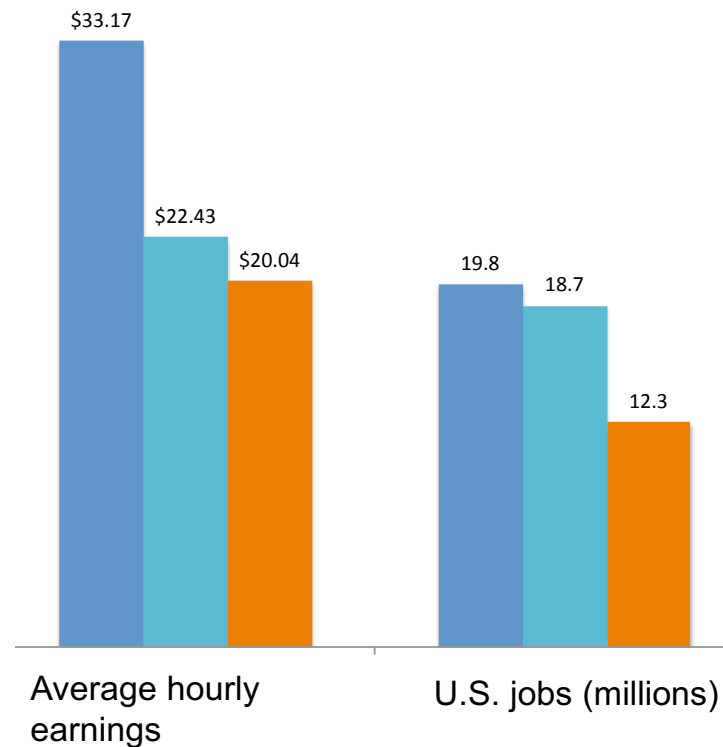
<https://headwaterseconomics.org>

Figure is for U.S. <https://headwaterseconomics.org/economic-development/trends-performance/changing-role-manufacturing/> Automation figure from: Hicks MJ and Devaraj S. 2015. The Myth and the Reality of Manufacturing in America. Muncie, IN: Center of Business and Economic Research, Ball State University. <http://conexus.cberdata.org/files/MfgReality.pdf>.

# Other Sectors Are Outperforming Manufacturing

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■ Professional, Scientific, & Technical Services ■ Health & Social Assistance ■ Manufacturing



<https://headwaterseconomics.org>

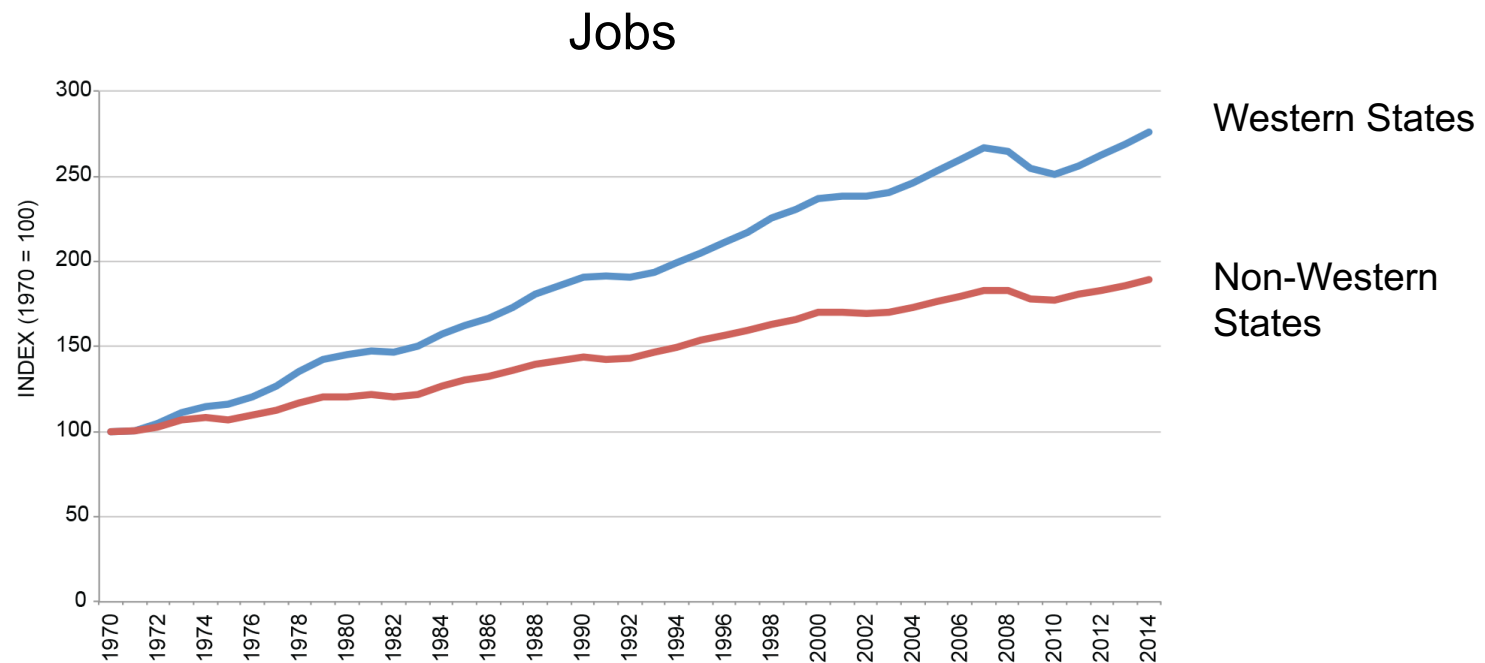
Figures for U.S. <http://www.bls.gov/> industries at a glance

An aerial photograph of a small town situated along a wide river. The town is characterized by numerous houses and buildings, many of which are surrounded by trees displaying vibrant autumn foliage in shades of yellow and orange. A bridge crosses the river in the foreground. The surrounding landscape is a mix of green fields and brown, hilly terrain under a cloudy sky. A semi-transparent white box is overlaid on the upper portion of the image, containing the title text.

# **Context: The West's Economy**

# The West Outperforms the Rest of the Country

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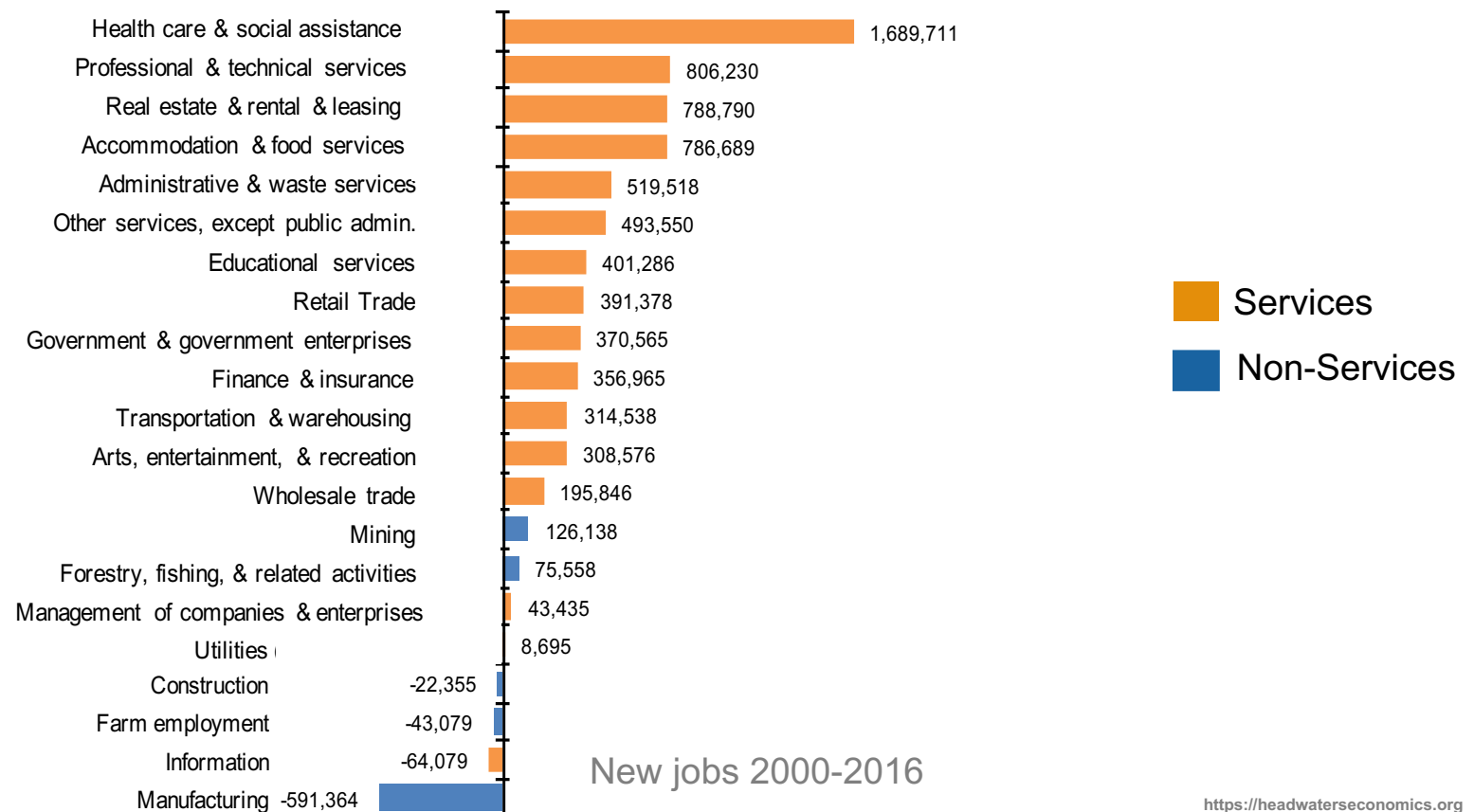


<https://headwaterseconomics.org>

U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Information System, Washington, D.C. Table SA25N.



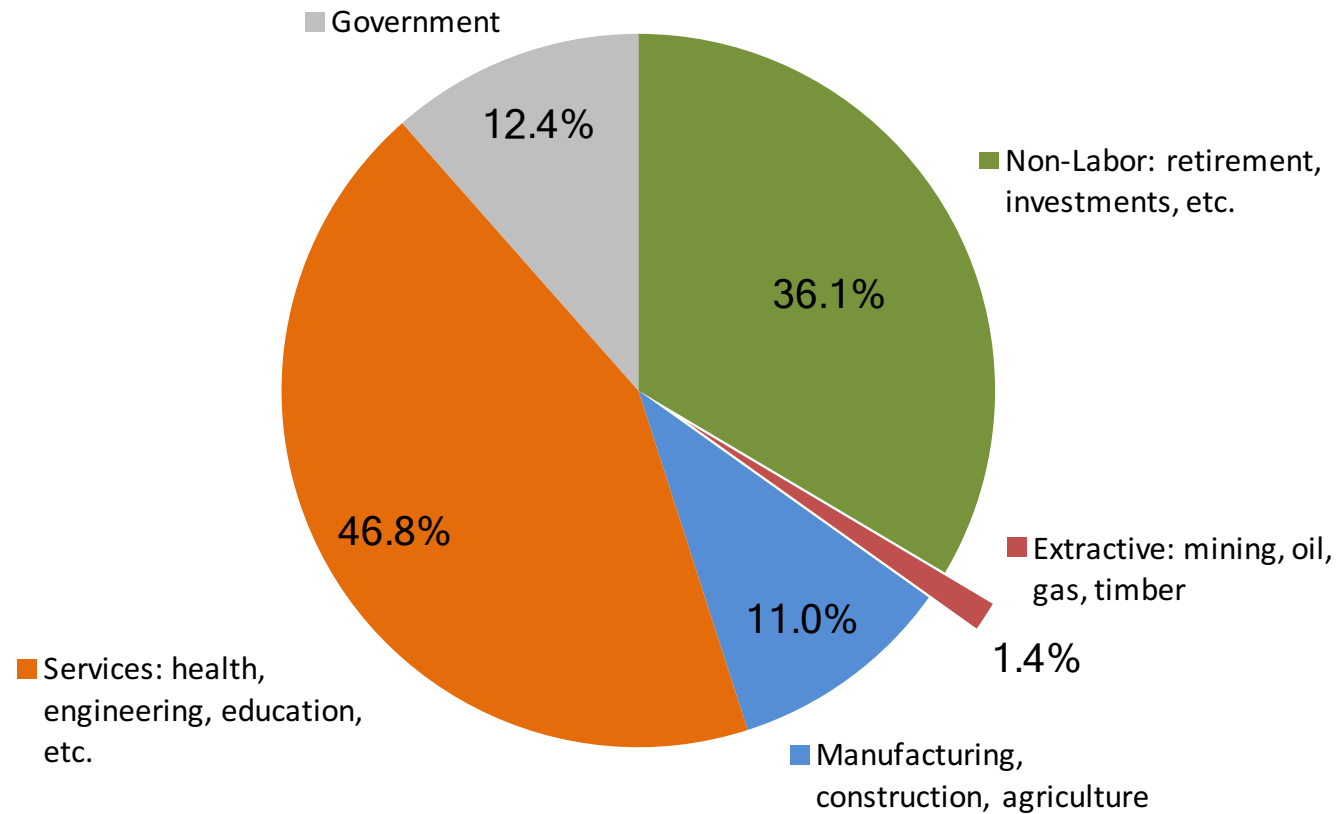
# 90% of New Jobs in West in SERVICES



<https://headwaterseconomics.org>

# West Personal Income by Source 2016

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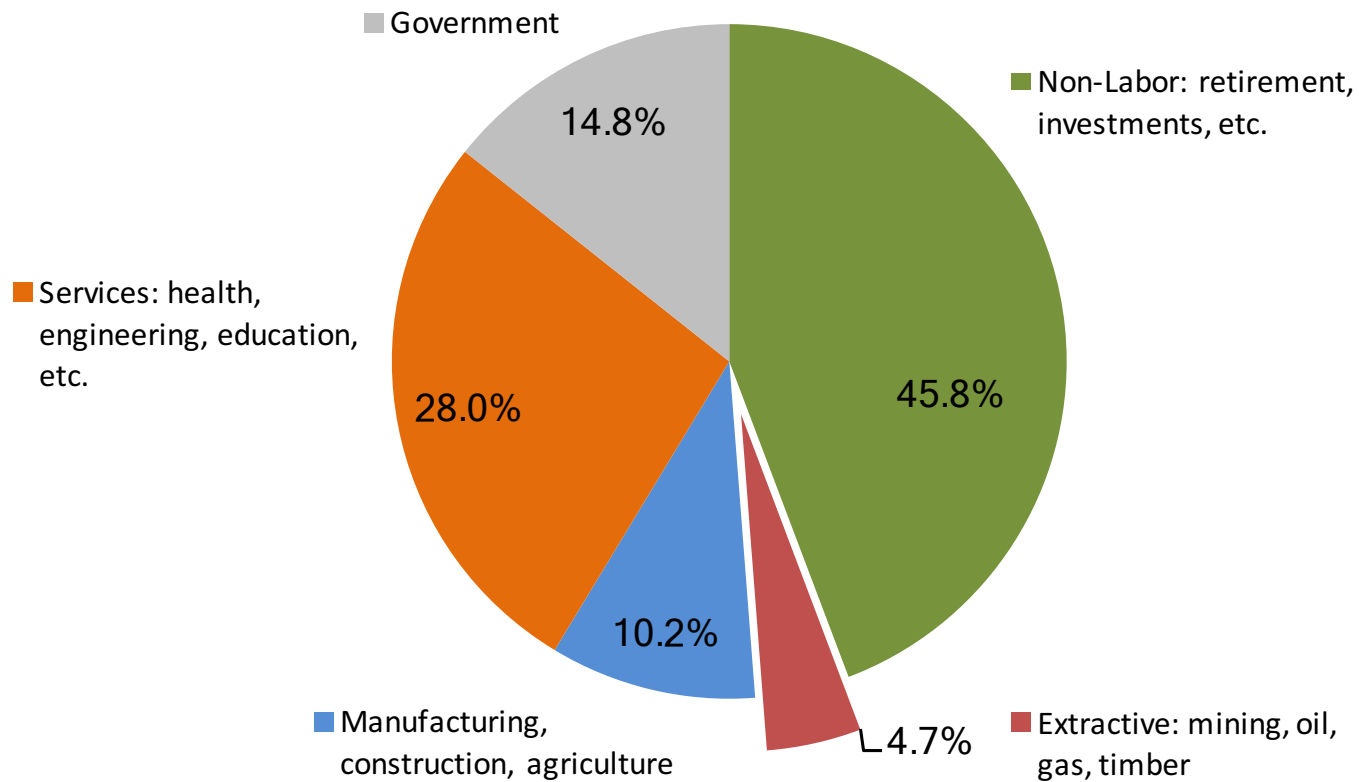
<https://headwaterseconomics.org>

Data from: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C. Table CA25N



# Rural West Personal Income by Source 2016

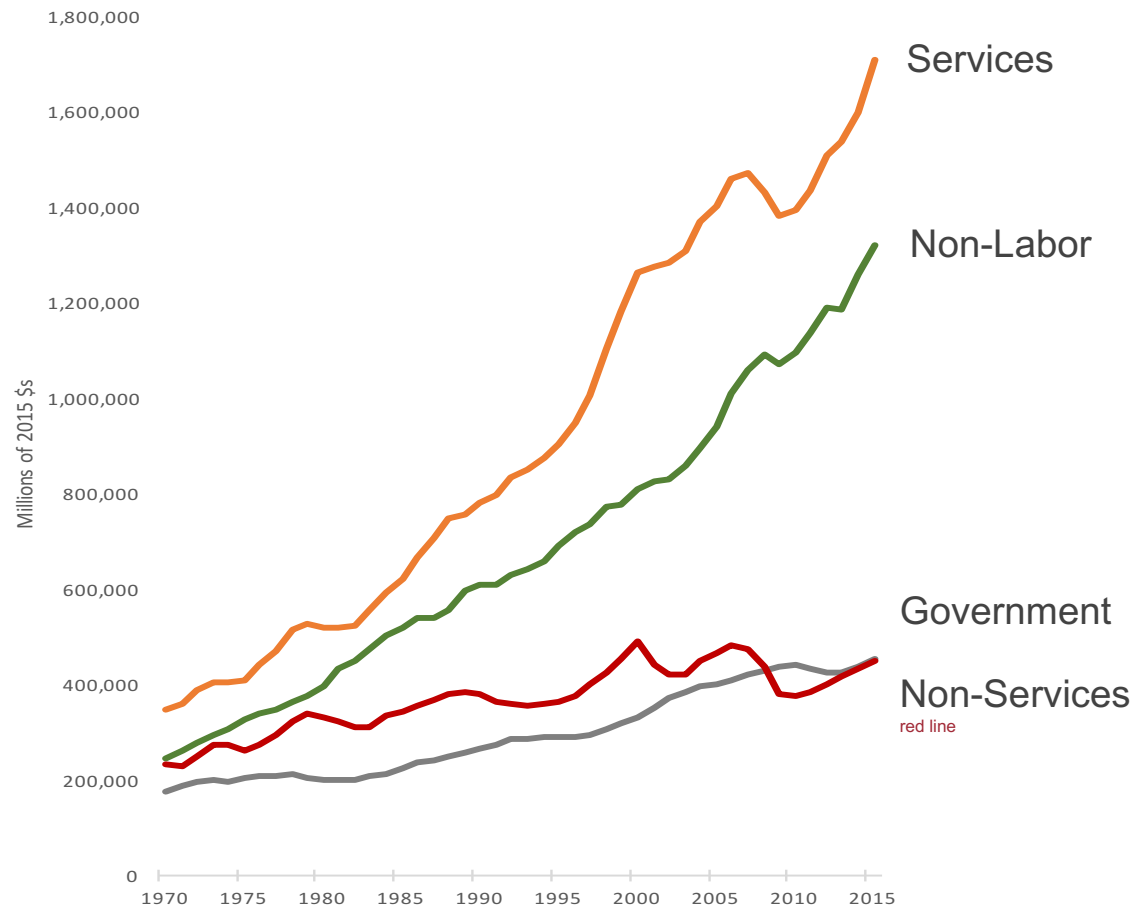
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<https://headwaterseconomics.org>

Data from: U.S. Department of Commerce. 2016. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C. Table CA25N . We define non-metro as rural. Metro counties contain a core population of 50,000 or more people or are "outlying" counties and tied economically to the core areas by labor force commuting.

# Personal Income in the West



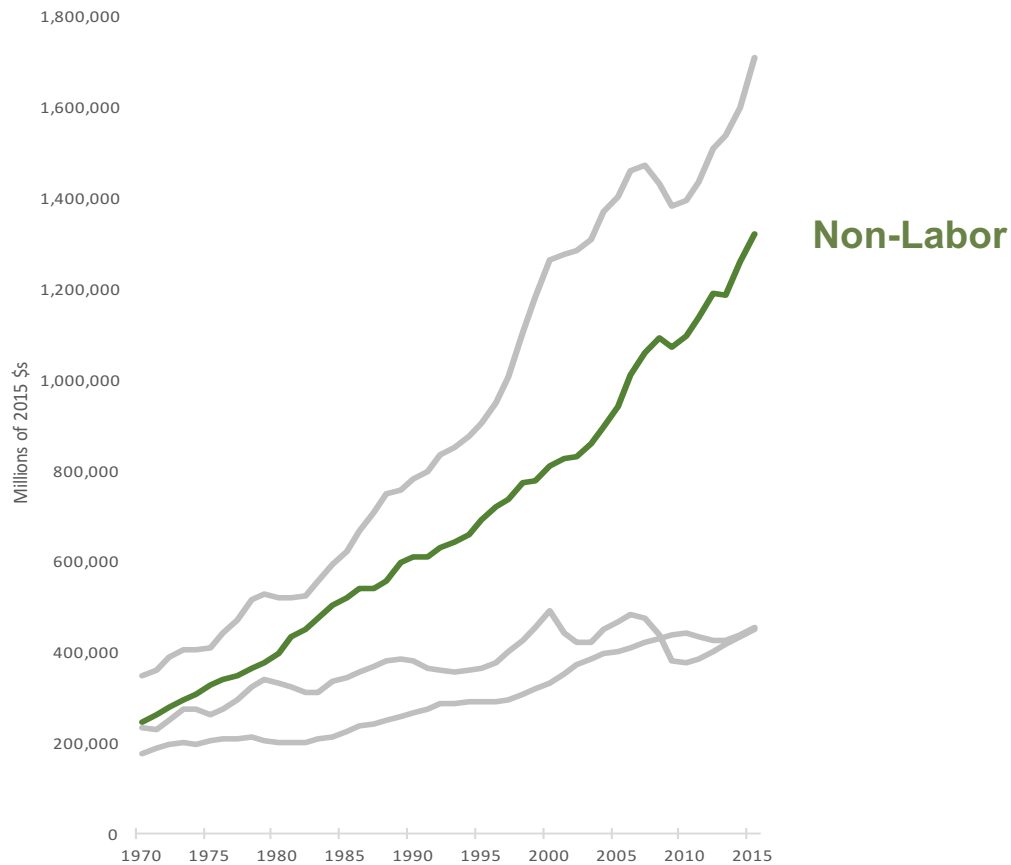
Doctors, engineers, lawyers, accountants, waiters, barbers, high-tech workers, etc.

Retirement, investments, Social Security, Medicare, Medicaid, etc.

Local, state, federal

Construction, manufacturing, mining, oil & gas, agriculture

# Much of the Growth is From Non-Labor Sources



**40% on average of county income in the West**

**55% of net growth in personal income in the last decade**

**Driven by:**

- Baby Boomers
- Stock market
- Amenity migration

**Drives other sectors: construction, health care, retail, etc.**

# There Are Three Types of Non-Labor Income

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## Investment-related

Dividends, Interest, Rent  
20%

of personal income in the West



## Age-related

Social Security, Medicare  
8%

## Hardship-related

Medicaid, income maintenance,  
unemployment compensation  
5.7%



# Non-Labor Income Will Keep Growing

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In 3 years  $\frac{1}{4}$  will be over 55 years

Baby Boomers control 80% of the country's financial assets

75 million are Baby Boomers, born between 1946 and 1964. By 2020, 25% of all workers will be at least 55 years old and every month, more than a quarter-million Americans turn 65. Yet, only 17% of Baby Boomers are currently retired. <http://fivethirtyeight.com/features/what-baby-boomers-retirement-means-for-the-u-s-economy/>.

<https://headwaterseconomics.org>

# How Many Western Counties Dependent on ...?

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## Timber

% of counties with >10% of  
labor income from lumber and  
wood products:

1%

# How Many Western Counties Dependent on ...?

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## Mining

% of counties with >10% of  
labor income from:

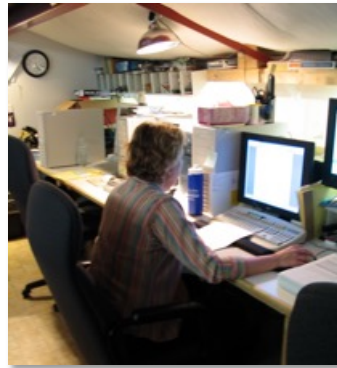
12% all mining

2% oil & gas



# How Many Western Counties Dependent on ...?

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## Services

% of counties with >50% of labor income from service industries:

41%



# How Many Western Counties Dependent on ...?

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## Non-Labor Income

% of counties with >50% of total personal income from non-labor sources:

25%

# A Theory of Rural Development





# Access to Populations Centers is Critical

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## Access to major population centers drives economic opportunity

- ❖ Tech workers travel by air 60-400% more than general workforce
- ❖ Nearly 4 out of 5 air trips are for leisure



<https://headwaterseconomics.org>

4 out of 5 statistic from USTravel.org <https://www.ustravel.org/answersheet>. Tech worker stat from: Kasarda, J.D., 2000a. Logistics and the rise of aerotropolis. Real Estate Issues 27 (4), 43–49. and Kasarda, J.D., 2000b. Aerotropolis: airport-driven urban development. Cities in the 21st Century. Urban Land Institute, Washington, D.C., pp. 32–41.

# Over Time .....

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**Agriculture  
& resource  
extraction**



**Tourism**



**Transportation  
infrastructure**



**Diverse economy:**

Agriculture, resource  
industries, tourism, plus ...

high-tech

footloose businesses

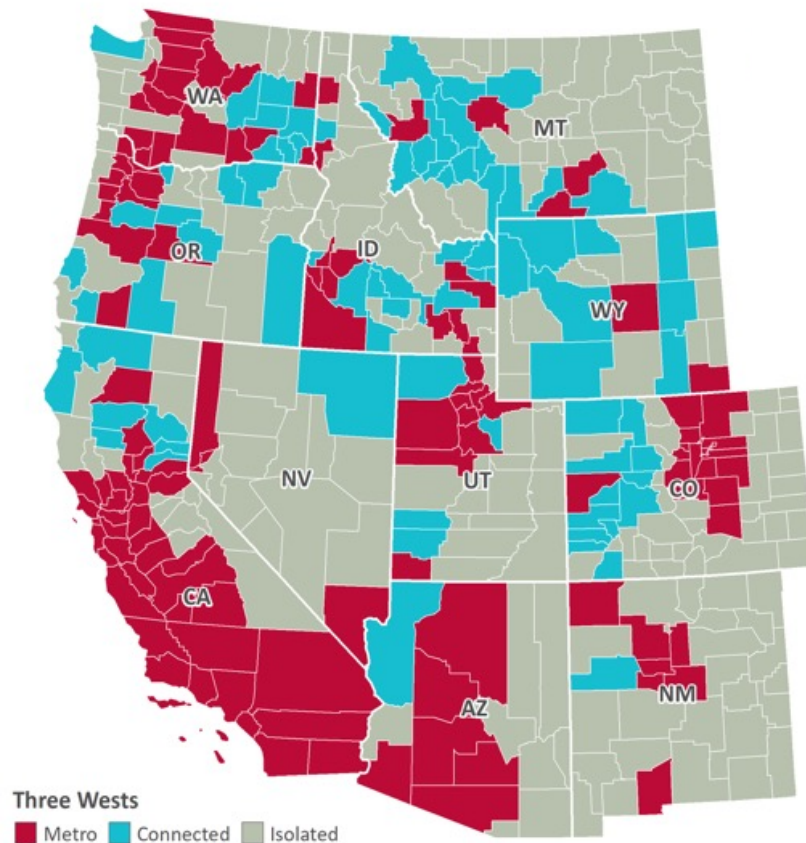
investment income,  
retirement, semi-retirement

construction, health care,  
retail, etc.

**AMENITY MIGRATION**

Access to population centers via airports diversifies the  
economy beyond resource industries and tourism

# Three Types of Counties in the West



**METRO** Higher wages  
Less volatility  
More high-wage services  
Fastest-growing  
Younger, More educated

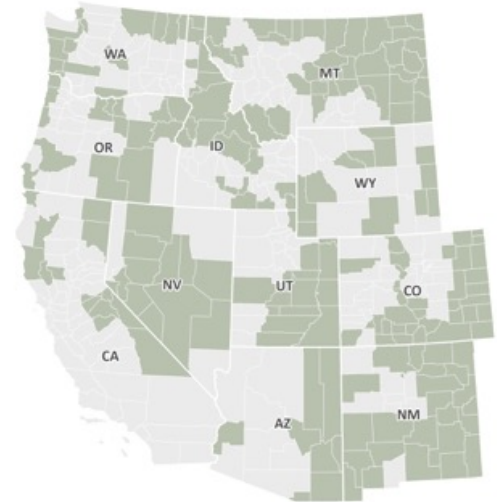
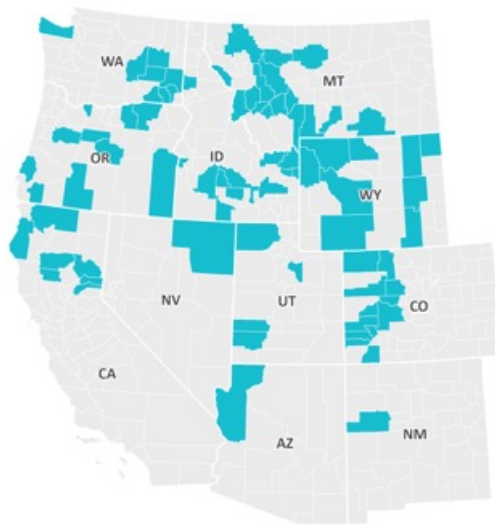
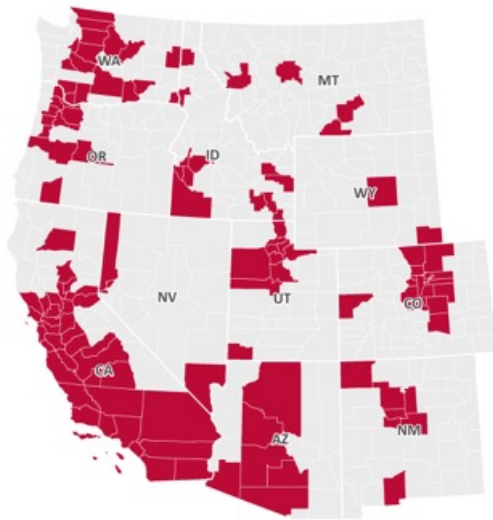
**CONNECTED** (via airports)  
Over time, perform like METRO



**RURAL & ISOLATED**  
Lowest wages  
Most volatility  
Few high-wage services  
Slowest-growing  
Older & aging  
Less educated

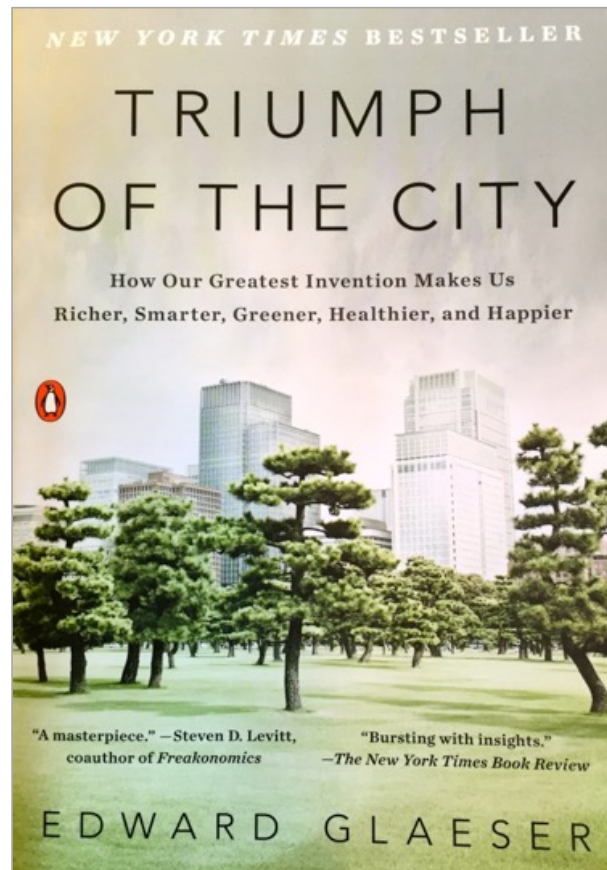
97% of West's population lives in  
**METRO** or **CONNECTED**

3%



# Access to Population Centers is Critical

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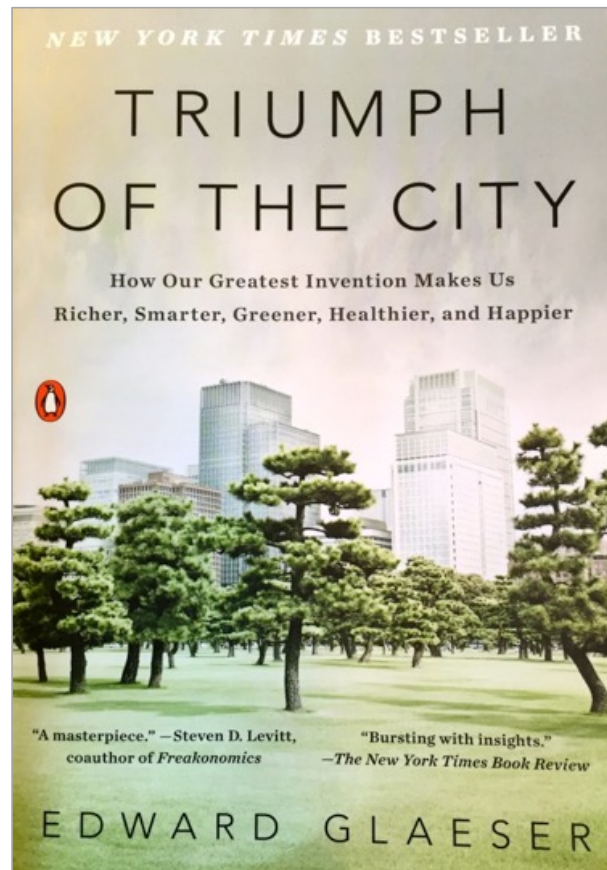
**The advantage of cities  
is the social network**

**Diverse perspectives  
and ideas lead to  
innovation**



# Access to Population Centers is Critical

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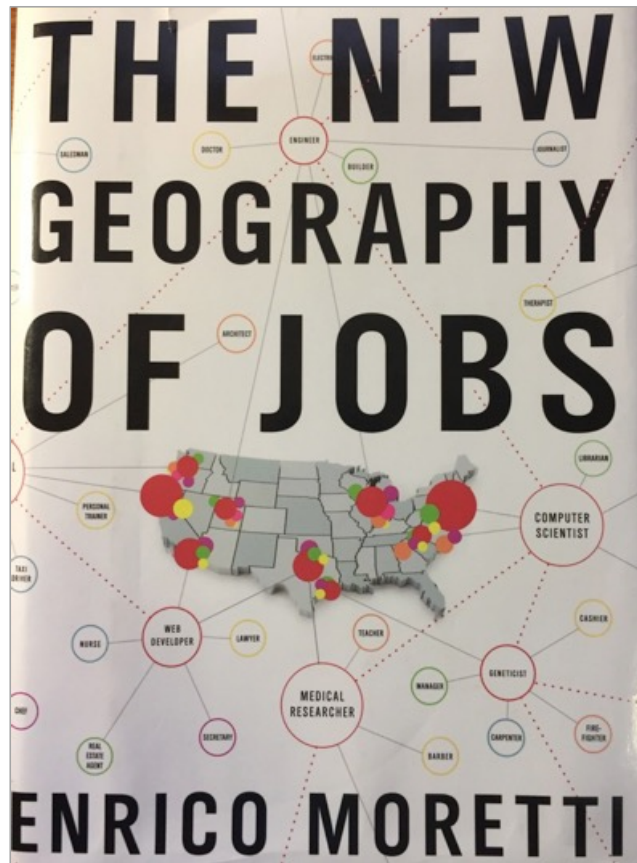


“For over a century pundits have been predicting that new forms of communication would make urban life irrelevant.

To defeat the human need for face-to-face contacts, our technological marvels would need to defeat millions of years of human evolution that has made us into machines for learning from the people next to us.”

# Access to Population Centers is Critical

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**Human capital is  
critical**

**Communities  
compete to attract  
talent**

# Conclusions About the Economy

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The West is mostly urban



Rural counties with airports do better



Resource dependence is rare



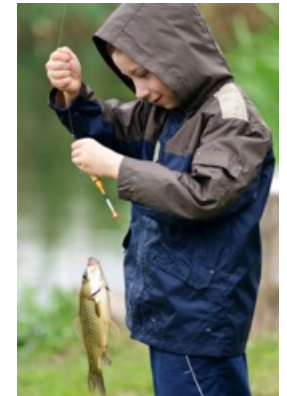
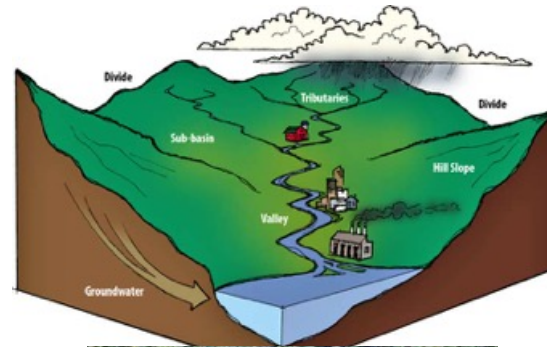
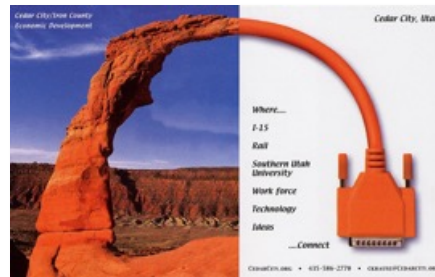
Growth mostly in services & non-labor income



Human capital is key



# Federal Public Lands Are An Economic Asset



<https://headwaterseconomics.org>

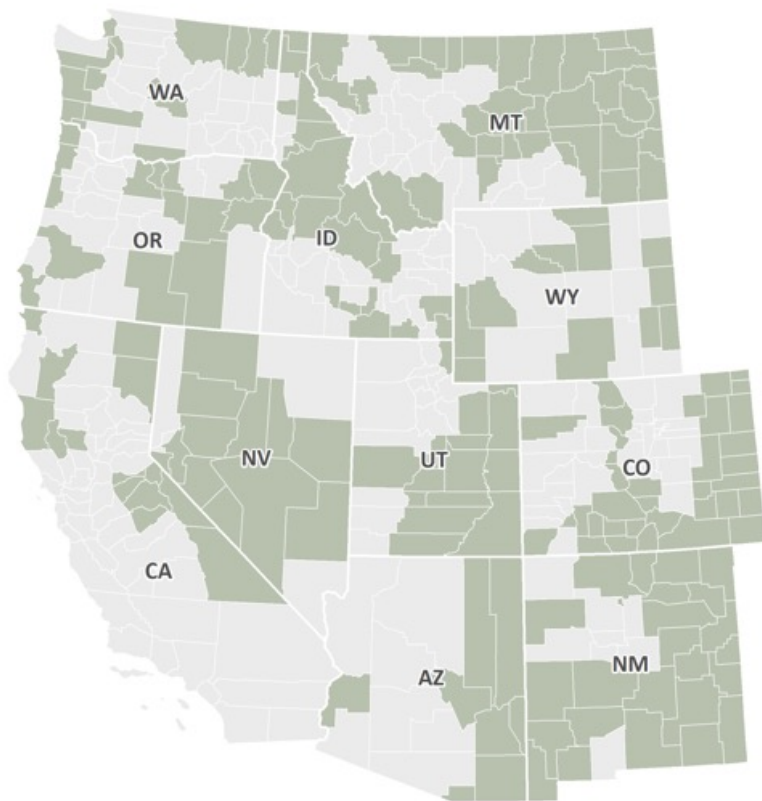


# **The Role of Federal Lands in Rural Development**



## Only 3% Live in Rural, Isolated Counties

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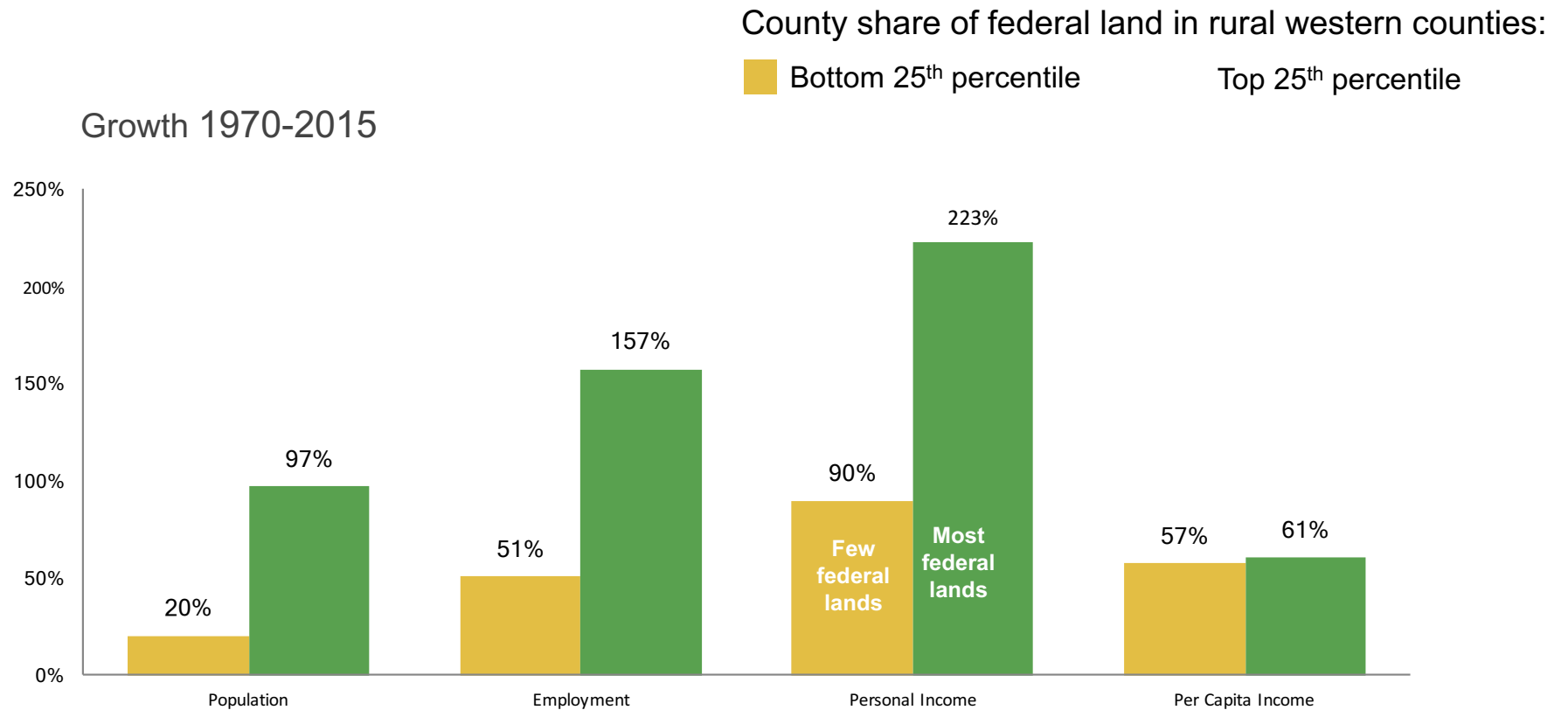


These counties are  
50% of the land

What is the economic  
contribution of federal  
lands in non-metro  
areas?



# Non-Metro Counties w/ Federal Lands Grow Faster



Does not imply cause & effect

<https://headwaterseconomics.org>

Rural is defined as non-metro. All income figures adjusted for inflation. <https://headwaterseconomics.org/public-lands/federal-lands-performance/>

# What About Protected Federal Lands?

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National Parks

Wilderness

National Monuments

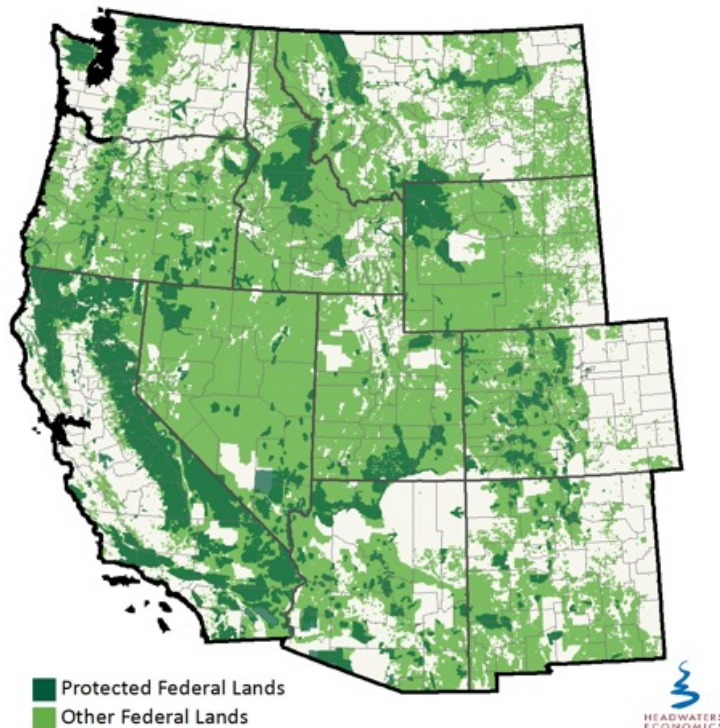
National Rec. Areas

Wild & Scenic Rivers

National Wildlife Refuges

# What is the Role of Protected Federal Lands?

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**Protected** (Nat. Park, Wilderness, N. Monument, etc.)

25%

**Somewhat protected** (Wilderness Study, Roadless)

14%

**Multiple Use**

61%

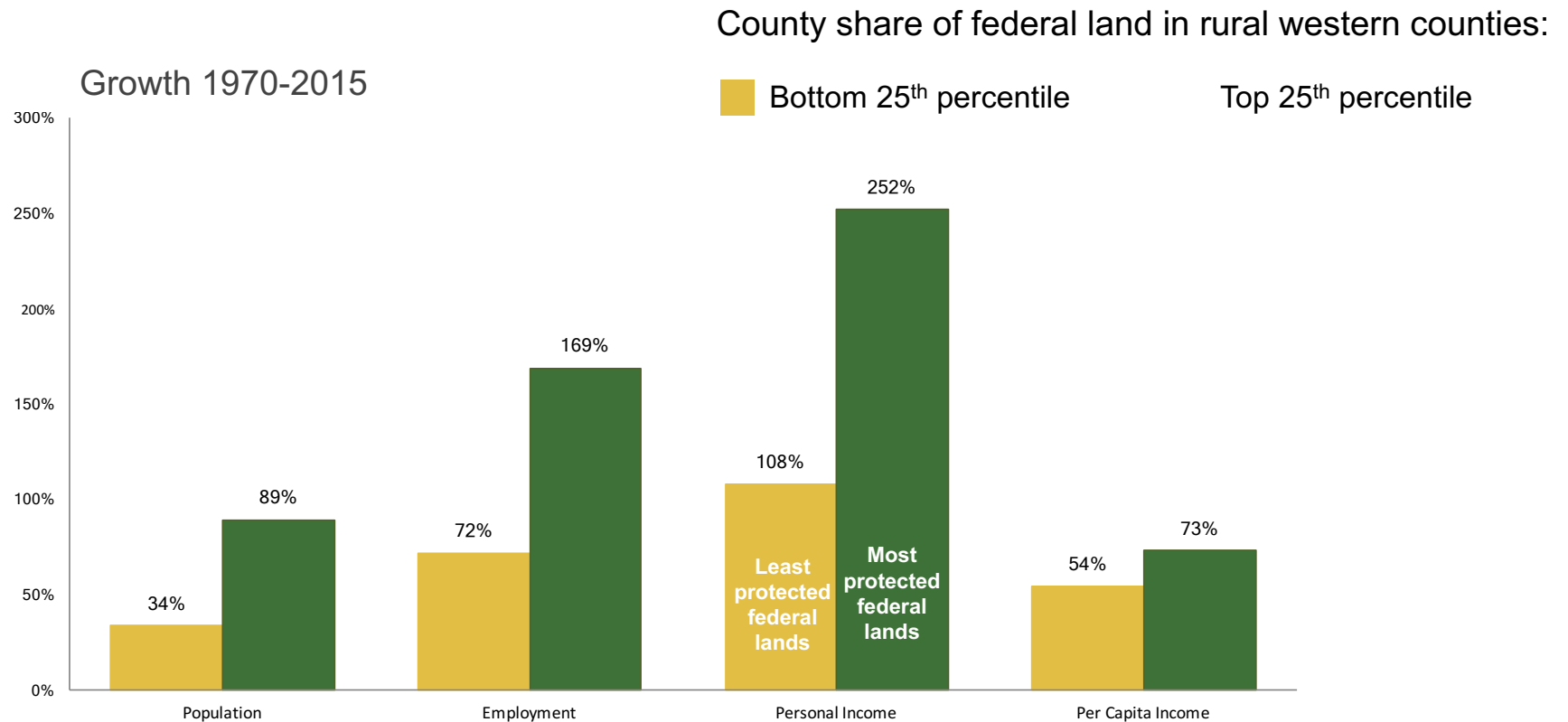
\* Protected includes: National Parks and Preserves (NPS), Wilderness (NPS, FWS, FS, BLM), National Conservation Areas (BLM), National Monuments (NPS, FS, BLM), National Recreation Areas (NPS, FS, BLM), National Wild and Scenic Rivers (NPS, FS, BLM), Waterfowl Production Areas (FWS), Wildlife Management Areas (FWS), Research Natural Areas (FS, BLM), Areas of Critical Environmental Concern (BLM), and National Wildlife Refuges (FWS).

\* Somewhat protected includes: Wilderness Study Areas (NPS, FWS, FS, BLM), Inventoried Roadless Areas (FS).

\* Multiple use includes Public Domain Lands (BLM), O&C Lands (BLM), National Forests and Grasslands (FS).

Source: U.S. Geological Survey, Gap Analysis Program. 2016. Protected Areas Database of the United States (PADUS) version 1.4

# Non-Metro Counties w/ Protected Federal Lands Grew Faster



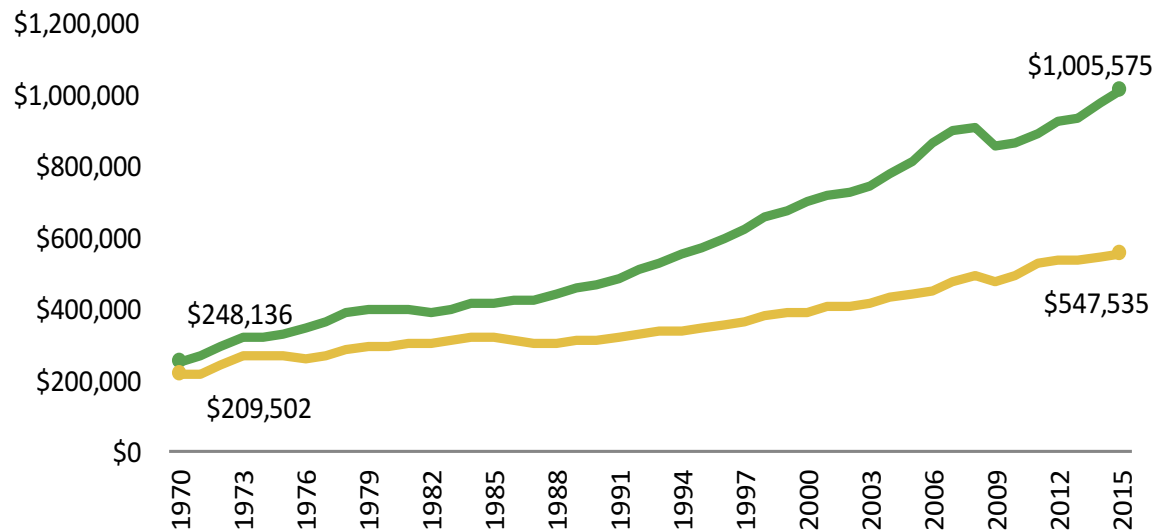
Does not imply cause & effect

<https://headwaterseconomics.org>

Rural is defined as non-metro. All income figures adjusted for inflation. <https://headwaterseconomics.org/public-lands/federal-lands-performance/>

# Faster Growth with Protected Federal Lands

Average Total Personal Income Growth 1970-2015



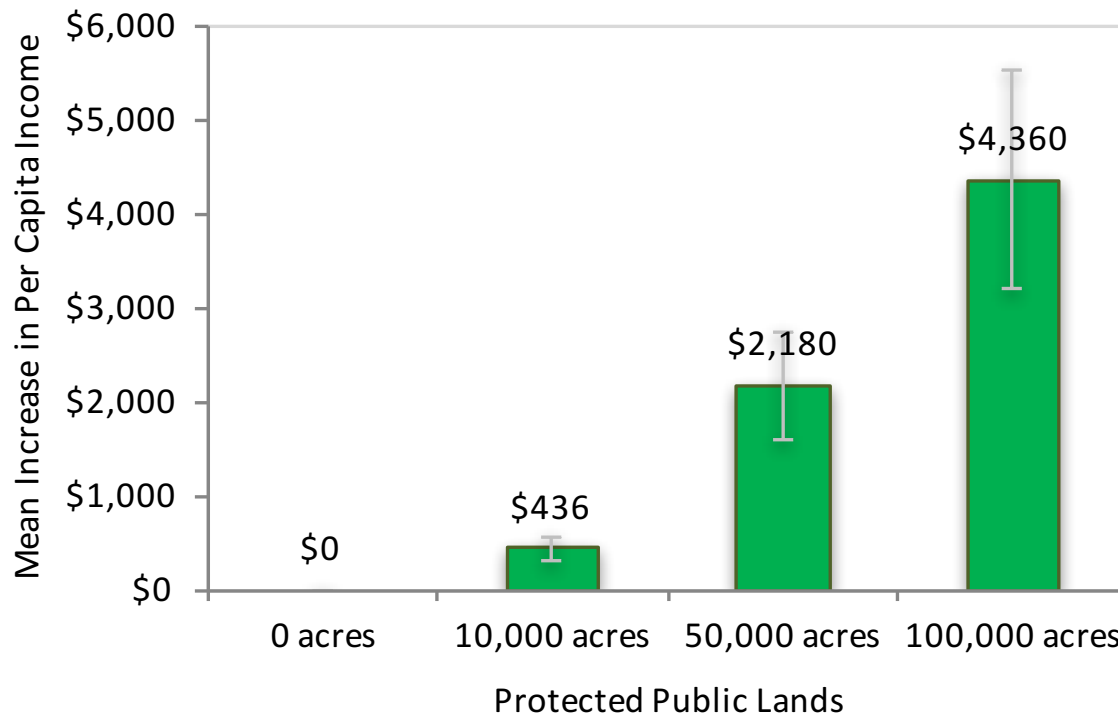
Non-Metro County  
share of PROTECTED  
federal land:

Top 25<sup>th</sup> percentile

Bottom 25<sup>th</sup> percentile

# Protected Lands Related to Higher Per Capita Income

For each 100,000 acres of Wilderness, National Park, National Monument in a non-metro county the Per Capita Income increases \$4,360

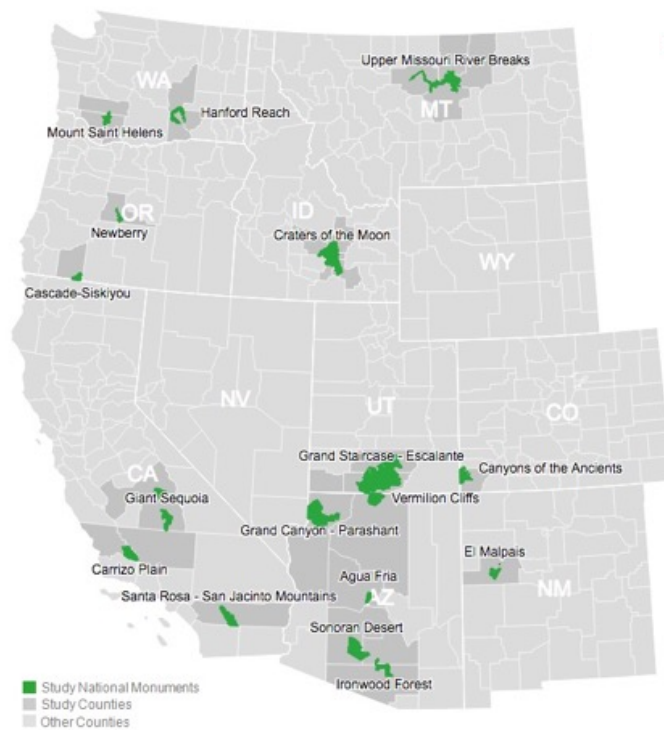


If counties A & B were identical in every way, but county A had a 50,000 acres of protected public land and county B had none, you would expect income in county A to be on average \$2,180 higher per person.



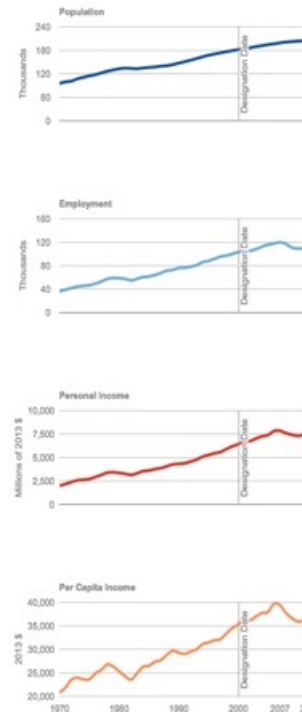
# Faster Growth After National Monument Designation

17 National Monuments >10,000 acres & designated in 1982 or later

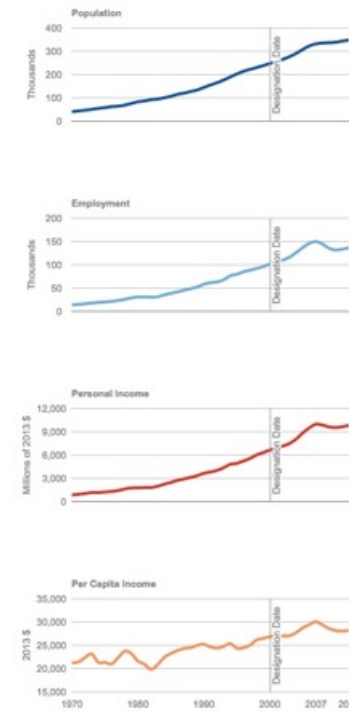


Does not imply cause & effect, but proves no decline in economy

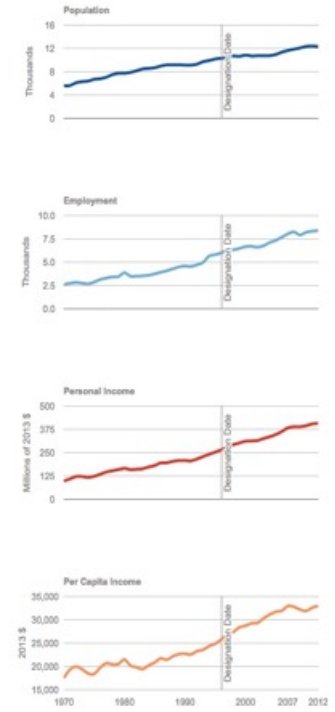
**Cascade-Siskiyou National Monument**  
Designation Date: 2000



**Grand Canyon - Parashant National Monument**  
Designation Date: 2000



**Grand Staircase - Escalante National Monument**  
Designation Date: 1996



# National Parks Create Jobs

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## In the WEST

In 2016,  
104 million visitors spent  
\$6.7 billion

creating 104,000 jobs &

\$3.7 billion in labor income



<https://headwaterseconomics.org>

Photo: Shutterstock. In the U.S. 307 million visitors spent \$16.9 billion, creating 293,300 jobs & \$11.1 billion in labor income  
<https://www.nps.gov/subjects/socialscience/vse.htm> and <https://headwaterseconomics.org/public-lands/protected-lands/economic-impact-of-national-parks/>

# Conclusions About Federal Lands

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The economy of West is diverse and growing

**Federal lands play a key role:**

- ❖ Attract and retain a talented workforce
- ❖ Provide water, clean air and other services
- ❖ Recreation, amenity migration, retirement
- ❖ Wildlife, biodiversity, climate adaptation
- ❖ Commodity production





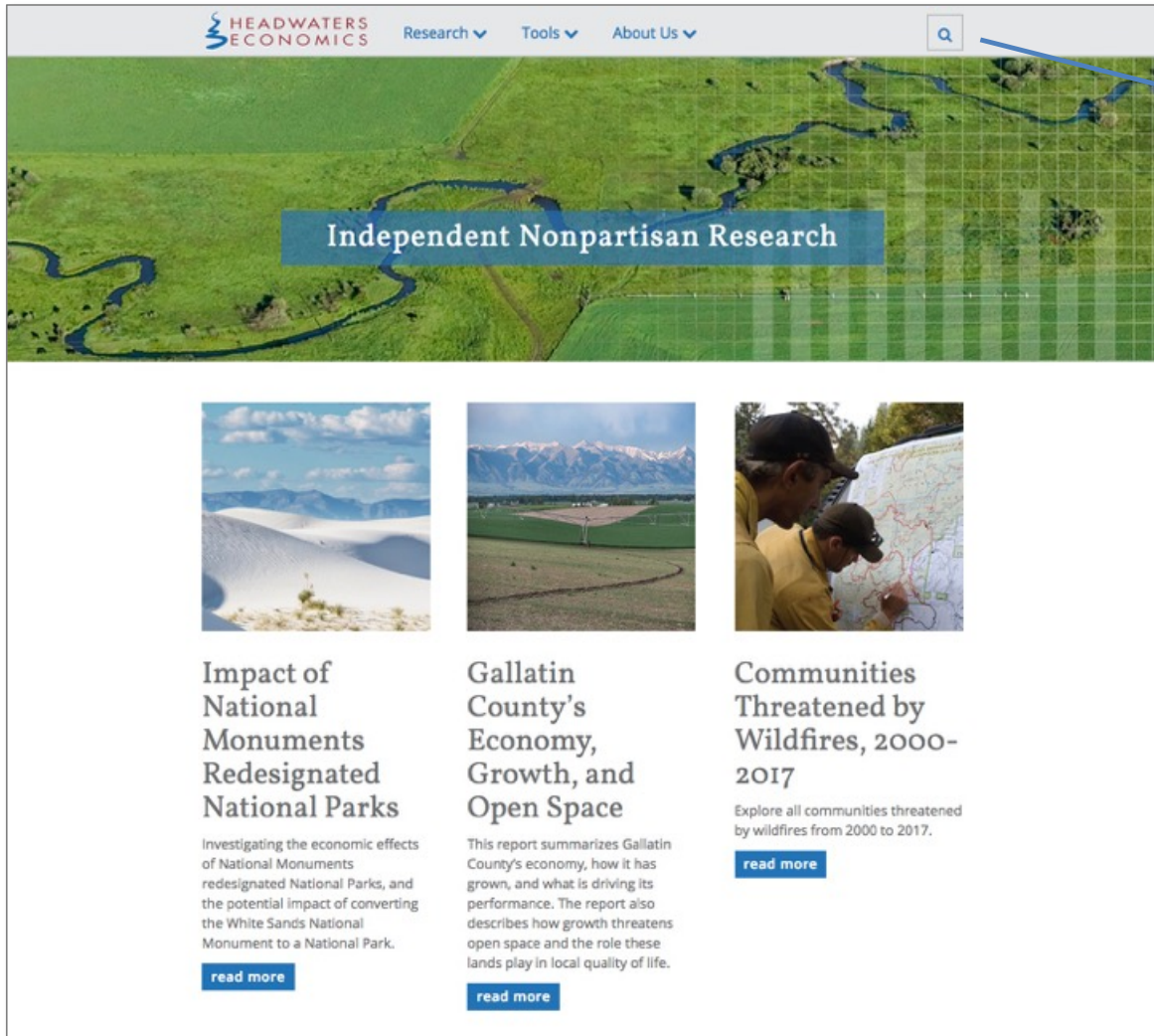
**Ray Rasker, Ph.D.**

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**<https://headwaterseconomics.org>**





public lands slide show

[https:// headwaterseconomics.org](https://headwaterseconomics.org)