The Economic Value of Federal Public Lands
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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

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.

Wildlife and Biodiversity
Scenery

https://headwaterseconomics.org

Photo: National Park Service http://www.nps.gov/arch/photosmultimedia/index.htm
Culture, Heritage
Engage Youth and Diversity
Outdoor Recreation

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

Ecosystem Services

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

National Forests provide 33% of our water in the West

Quality of Life

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

The outdoors as a way to attract business
Recruitment of Talent

“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.

Bozeman, Montana in the 1990s
Recruitment of Talent

Colorado Springs, Colorado
Context:
The U.S. Economy
95% of New Jobs in U.S. in SERVICES

New jobs 2000-2016

Health care & social assistance
Accommodation & food services
Real estate & rental & leasing
Professional & technical services
Administrative & waste services
Other services, except public admin.
Finance & insurance
Educational services
Transportation & warehousing
Arts, entertainment, & recreation
Government & government enterprises
Retail Trade
Mining
Management of companies & enterprises
Wholesale trade
Forestry, fishing, & related activities
Construction
Utilities
Farm employment
Information
Manufacturing

Services
Non-Services

https://headwaterseconomics.org
Jobs & Value of Production Track Closely

All industries in U.S.

Jobs & Value of Production Track Closely

Health Care

Health Care And Social Assistance Value Added (Billions of 2014 $s)

Health Care And Social Assistance Full & Part-Time Jobs (Thousands)
Jobs & Value of Production Track Closely

Professional & Technical Services

Jobs

Value


https://headwaterseconomics.org
Manufacturing is the Exception

Productivity higher than ever, but with fewer workers

88% of job loss due to automation

Other Sectors Are Outperforming Manufacturing

- **Professional, Scientific, & Technical Services**
  - Average hourly earnings: $33.17
  - U.S. jobs (millions): 19.8

- **Health & Social Assistance**
  - Average hourly earnings: $22.43
  - U.S. jobs (millions): 18.7

- **Manufacturing**
  - Average hourly earnings: $20.04
  - U.S. jobs (millions): 12.3

Figures for U.S. http://www.bls.gov/industries at a glance
Context:
The West’s Economy
The West Outperforms the Rest of the Country


https://headwaterseconomics.org
90% of New Jobs in West in SERVICES

Health care & social assistance: 1,689,711
Professional & technical services: 806,230
Real estate & rental & leasing: 788,790
Accommodation & food services: 786,689
Administrative & waste services: 519,518
Other services, except public admin.: 493,550
Educational services: 401,286
Retail Trade: 391,378
Government & government enterprises: 370,565
Finance & insurance: 356,965
Transportation & warehousing: 314,538
Arts, entertainment, & recreation: 308,576
Wholesale trade: 195,846
Mining: 126,138
Forestry, fishing, & related activities: 75,558
Management of companies & enterprises: 43,435
Utilities: 12,895
Construction: -22,355
Farm employment: -43,079
Information: -64,079
Manufacturing: -591,364

New jobs 2000-2016

https://headwaterseconomics.org

West Personal Income by Source 2016

- **Government**: 45.8%
- **Non-Labor**: retirement, investments, etc. - 36.1%
- **Extractive**: mining, oil, gas, timber - 11.0%
- **Manufacturing, construction, agriculture** - 1.4%
- **Services**: health, engineering, education, etc. - 12.4%

Rural West Personal Income by Source 2016

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

https://headwaterseconomics.org
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

**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

In 3 years ¼ 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/
How Many Western Counties Dependent on ...?

Timber

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

1%
How Many Western Counties Dependent on ...?

Mining

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

12% all mining
2% oil & gas

https://headwaterseconomics.org
How Many Western Counties Dependent on ...?

Services

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

41%
How Many Western Counties Dependent on ...?

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

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

Over Time …

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

https://headwaterseconomics.org
97% of West’s population lives in METRO or CONNECTED
Access to Population Centers is Critical

The advantage of cities is the social network

Diverse perspectives and ideas lead to innovation
Access to Population Centers is Critical

“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

Human capital is critical

Communities compete to attract talent
Conclusions About the Economy

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

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

County share of federal land in rural western counties:
- Bottom 25th percentile
- Top 25th percentile

Growth 1970-2015

Population
- Few federal lands: 20%
- Most federal lands: 97%

Employment
- Few federal lands: 51%
- Most federal lands: 157%

Personal Income
- Few federal lands: 90%
- Most federal lands: 223%

Per Capita Income
- Few federal lands: 57%
- Most federal lands: 61%

Does not imply cause & effect

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?

- National Parks
- Wilderness
- National Monuments
- National Rec. Areas
- Wild & Scenic Rivers
- National Wildlife Refuges
What is the Role of Protected Federal Lands?

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), 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

Population: 34% in the bottom 25th percentile, 89% in the top 25th percentile.
Employment: 72% in the bottom 25th percentile, 169% in the top 25th percentile.
Personal Income: 108% in the bottom 25th percentile, 252% in the top 25th percentile.
Per Capita Income: 54% in the bottom 25th percentile, 73% in the top 25th percentile.

Does not imply cause & effect.

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 25th percentile

Bottom 25th 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

https://headwaterseconomics.org/dataviz/national-monuments/
National Parks Create Jobs

In the WEST

In 2016, 104 million visitors spent $6.7 billion creating 104,000 jobs & $3.7 billion in labor income

Photo: Shutterstock. In the U.S. 307 million visitors spent $16.9 billion, creating 293,300 jobs & $11.1 billion in labor income
Conclusions About Federal Lands

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
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public lands slide show