

Think Wyoming



No. 1 Business Friendly Tax Climate

Tax Foundation (2014, 2015)

Think Wyoming

Think about all the State
of Wyoming has to offer

Wyoming is rich in natural resources and American West heritage. Its landscape is as varied as its energy resources. Windswept prairies and flat croplands yield to large expanses of sagebrush steppe and majestic mountains. World-class destinations such as Yellowstone National Park and open spaces are enjoyed by residents, businesses and visitors alike.

That's only half the story.

Wyoming consistently receives high marks for state management and deep financial reserves, which, in turn, provides business owners a reliable, collaborative environment in which to work.

The Wyoming Legislature is statutorily required to maintain a balanced budget and the state has an approximately \$16 billion savings. Solidly in the black, Wyoming is able to invest in education and infrastructure critical to public and private business needs. Wyoming maintains a Standard and Poor's AAA

credit rating year in and year out. 24/7 Wall Street calls Wyoming the Second Best Run State in the Country. And counter to these often acrimonious political times, a Gallup poll ranks Wyoming No. 2 for Highest Rate of Trust in State Government (76 percent).

Wyoming government's polished business practices spill over to its favorable business climate. The Pollina Corporate Top 10 Pro-Business States report ranks Wyoming No. 2.

There are no state income and inventory taxes in Wyoming. Sales and property taxes are low, as are operating costs.

Wyoming's open-door access to legislators and the Governor is especially attractive to startup companies in highly regulated industries. This access, coupled with numerous grant, loan and incentive programs, provides businesses with key financial resources.

Thinking about expanding, relocating or investing? Think Wyoming.



Above

L&H Industrial employees perform precision manufacturing and repair work on heavy industrial equipment.

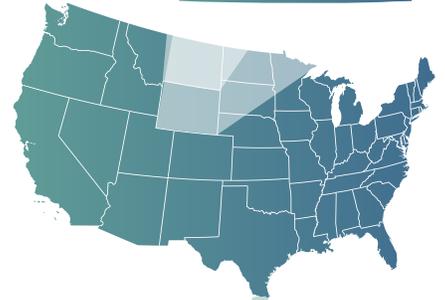


Wyoming's Future

Wyoming hosts many world-class companies committed to producing our world-class energy products. Wyoming has the infrastructure and labor force capable of exporting minerals around the world.

Our Goals

- Develop long-term energy and investment relationships for the next 50 to 100 years.
- We are committed to working with our foreign partners and ask for your long-term help.
- We pledge support in providing clean energy to improve the quality of life and environment across the globe.



Wyoming Facts

Population: 584,153 (2014)

Size: 97,814 square miles
(253,348 kilometers)

Capital: Cheyenne

Governor:
Matthew H. Mead

President of the Senate:
Phil Nicholas

Speaker of the House:
Kermit Brown



Wyoming State Capitol
Cheyenne



World-Class Tourist Destination

- Teton Mountain Range
- Yellowstone National Park
- Devils Tower
- National Forests
- Hunting, fishing and outdoor recreation opportunities



Wyoming Energy & Mining Production

#1 state in coal
production and
economic reserves

#1 state in uranium
production and
economic reserves

#1 state in trona
production and
economic reserves

#1 state in bentonite
production and
economic reserves

#2 state in rare
earth minerals

#2 state in
helium production

#5 state in natural
gas production

#8 state in oil
production

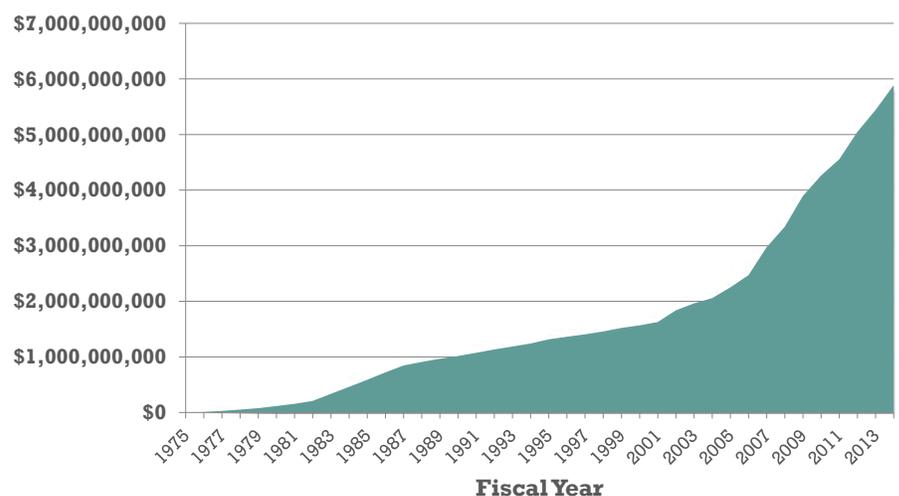
#12 state in
wind generation
and #1 in on-shore,
high-capacity wind
resources

Billions in Savings

- Permanent Wyoming Mineral Trust Fund is an inviolate fund
- Funded for future generations from constitutional, statutory and direct appropriations
- Invested in equities which tend to provide higher returns when energy prices are low
- Only interest, dividends and realized capital gains are available for expenditure



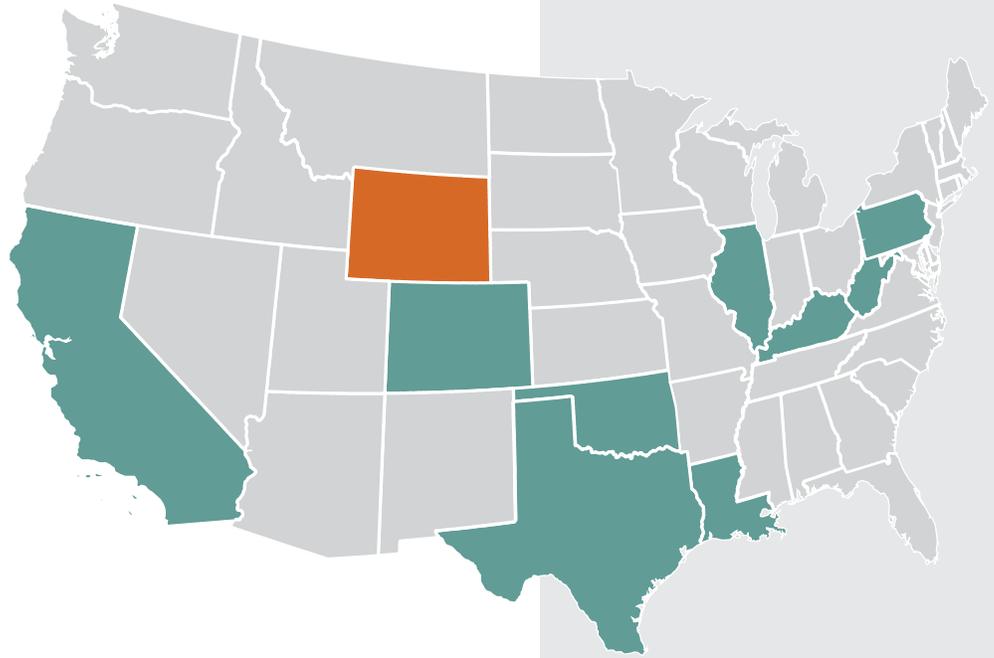
Permanent Wyoming Mineral Trust Fund Growth



Top 10 Energy-producing States

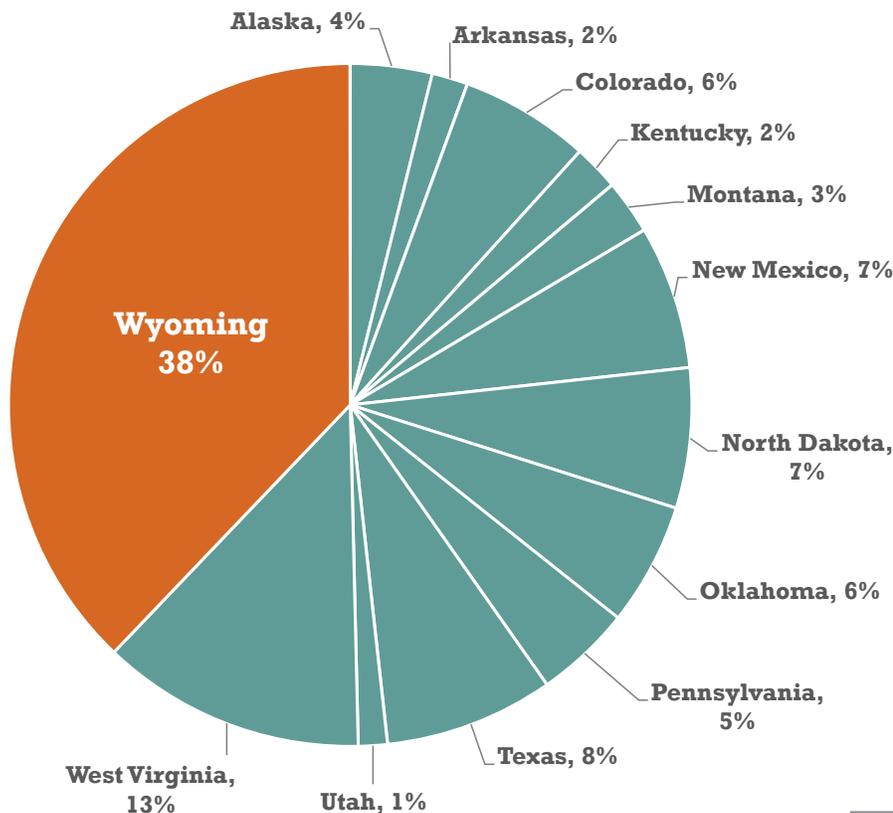
Onshore Energy Production

1. Texas
2. Wyoming
3. Pennsylvania
4. Louisiana
5. West Virginia
6. Oklahoma
7. Colorado
8. Illinois
9. Kentucky
10. California



Net State Exports of Energy

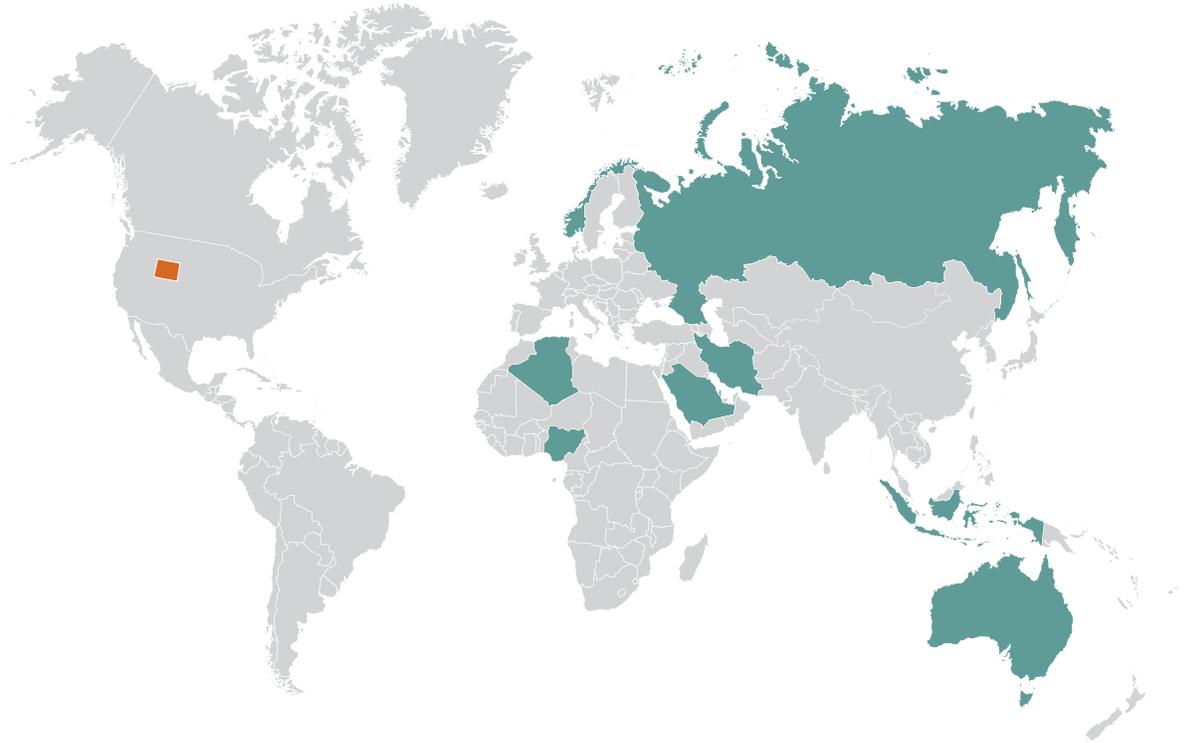
- Only 13 states produce more energy than they consume.
- Wyoming accounts for 38% of the net exports, including interstate exports.



Wyoming Compared to the World

Energy Production minus Consumption

1. Russia
2. Saudi Arabia
3. Wyoming
4. Indonesia
5. Norway
6. Iran
7. Australia
8. Qatar
9. Algeria
10. Nigeria

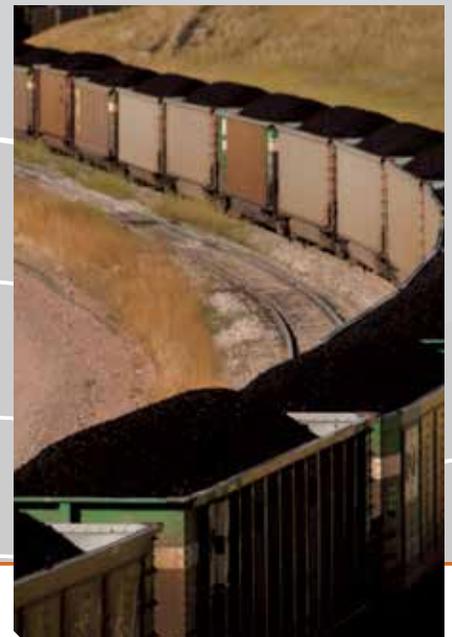


Our extractive industries produce low-cost raw minerals and energy for the world.

Wyoming Leading the Charge

- Wyoming produces more energy than the lowest-ranking 28 states combined.
- Wyoming oil, gas and coal production account for more than 12 percent of total U.S. energy production.
- Although Texas produces more energy than Wyoming, it is still a net importer of energy. Wyoming exports 9,064 trillion BTUs. Texas net imports 1,919 trillion BTUs.
- None of these statistics account for uranium mined in Wyoming, the leading producer of uranium in the U.S.
- Energy and mineral production is vital to Wyoming's economy and employment.
- If Wyoming were its own country, it would be the third-largest energy exporter in the world.

Coal Export Opportunities



Existing and Approved Ports:

Prince Rupert Port Authority

- 12 million tons per year

Fraser Surrey Docks

- 10 million tons per year

Westshore Terminals

- 30 million tons per year

Proposed Ports:

Gateway Pacific Terminal

- Cherry Point, Wash.
- About 50 million tons per year
- SSA Marine

Millennium Bulk Terminals

- Longview, Wash.
- 44 million tons per year
- Ambre Energy Ltd., Arch Coal Inc.

Port of Morrow

- Boardman, Ore.
- 8 million tons per year
- Ambre Energy

POWDER RIVER BASIN COAL

GROSS CALORIFIC VALUE (GCV) RANGE

- 4600Kcal/Kg to 5000

TOTAL MOISTURE (ARB)

- 19.5-29.3%, Avg. 22.2%

ASH CONTENT (ADB)

- 6.6-15.7%, Avg. 10.3%

FIXED CARBON (ADB)

- 34.6%

TOTAL SULPHUR (ADB)

- 0.2-0.3%



No. 2 Best Business Climate

U.S. Chamber of Commerce Foundation (2014)

Think Big

Value-Added Mindset

Wyoming is laser-focused on exploring new and innovative ways to add values to its raw materials.

Through partnerships uncommon in other states but typical for Wyoming, researchers, legislators and industries work together to unearth new technologies.

Examples include:

- The Hess Corporation has invested \$25 million since 2013 in the University of Wyoming School of Energy Resources. The partnership is designed to research the complex rock-fluid interactions that occur in the reservoirs of unconventional plays, increase the amount of oil and gas recovered from shale reservoirs and help meet the world's future energy needs. Hess is the single largest corporate partner in the university's history.
- Houston, Texas-based Baker Hughes Inc. has invested \$1.5 million since 2012 in the School of Energy Resources. The company's initial \$500,000 donation went toward construction of the university's High Bay Research Facility. Baker Hughes invested \$1 million in 2015 to support research on unconventional oil and gas reservoirs in Wyoming.





Billions in Investments are Underway

Several large energy projects are on the horizon in Wyoming including:

- The 1,000-turbine Chokecherry and Sierra Madre Wind Energy Project to be located south of Rawlins and Sinclair in south-central Wyoming. It will be the largest wind farm in the U.S.
- The TransWest Express transmission line from south of Rawlins to southern Nevada.
- The Integrated Test Center at Basin Electric's Dry Fork Station coal-fired power plant north of Gillette, Wyoming, will provide a lab for carbon-capture research.

You Can Make it in Wyoming

Manufacturing companies are increasingly finding Wyoming to be the place to set up shop. Wyoming manufacturing employment grew 13.5 percent between December 2009 and March 2014. The statewide average industrial power rate is 6.70 cents per kilowatt hour (kWh) (July 2015). The Mountain West regional average is 7.57 cents/kWh.

Manufacturing Sales Tax Exemption

The sales tax burden is exempt on the sale or lease of machinery to be used in the state of Wyoming directly and predominantly in manufacturing tangible personal property.

Sales Tax Exemption on Electricity Used in Manufacturing

The sales tax burden is exempt on sales of power or fuel to a person engaged in the business of manufacturing, processing or agriculture when the same is consumed directly in the manufacturing process.

Positive Regulatory Support

The state of Wyoming has worked hard to create a strong, efficient and sensible regulatory environment that reflects its commitment to energy and mining. In addition, many Wyoming companies take advantage of the industrial revenue bonds from the state. For more information about industrial revenue bonds, visit our website: wyomingbusiness.org.



Wyoming Knows Energy

Wyoming has a reputation as one of the most natural resource-rich geographies in the world, and for good reason. It is the No. 1 American producer of coal, bentonite, trona (soda ash) and uranium.

It ranks second in rare earth minerals, fifth in natural gas production and eighth in crude oil production. In fact, an amazing 40 percent of U.S. coal is from Wyoming, as well as more than 50 percent of uranium reserves.

Wyoming mines are committed to the environment as demonstrated by award-winning reclamation projects. The Excellence in Surface Coal Mining Award is given by the Office of Surface Mining Reclamation and Enforcement each year to “those responsible for the nation’s most outstanding achievements in environmentally sound surface mining and reclamation.” Several Wyoming mines have won this award since the program started in 1986.



Wyoming Leads in Innovation

- Reclamation
- Air and water quality
- CO₂ sequestration
- Beneficial uses for CO₂ and Integrated Test Center

Rich in Natural Resources

Coal

- In 2014, Wyoming mines produced 392,751,713 tons of coal. This represented 40% of the coal mined in the United States. Wyoming produced more coal than the next five largest coal-producing states:
 - Wyoming – 388 million tons
 - West Virginia – 112 million tons
 - Kentucky – 77 million tons
 - Pennsylvania – 61 million tons
 - Illinois – 58 million tons
 - Montana – 45 million tons
- Average price for a ton of Powder River Basin coal in September 2015 was \$11.
- Wyoming exports coal to more than 30 states throughout the nation.
- Wyoming hosts nine of the top 10 producing mines in the nation.
- Wyoming has led the nation in coal production since 1986.
- On average, coal is mined at a rate of 12 tons per second, and 80 to 85 unit trains leave the Powder River Basin daily.

Uranium

- In 2014, Wyoming produced 2.9 million pounds of uranium.
- Wyoming has been the nation's leading producer of uranium ore since 1995. The state accounted for approximately 65% of U.S. production in 2014.
- At \$50 per pound for U308, Wyoming has 350 million pounds of recoverable reserves, or 52% of the recoverable reserves in the U.S.
- Since 1991, all Wyoming uranium has been recovered by the in-situ recovery (ISR) method.
- More than 13% of the world's electricity is generated from uranium in nuclear reactors.
- There are currently five uranium mines in production in Wyoming, with four operators.

Soda Ash (Trona)

- In 2014, Wyoming soda ash production exceeded 17 million tons.
- Wyoming supplies 90% of the soda ash used in the U.S. and has the largest world deposits. Soda ash is Wyoming's No. 1 international export.
- The average price of a ton of soda ash in 2013 was \$146.81.
- At the current rate of operation, Wyoming's soda ash reserves will last more than 2,000 years.
- Wyoming produces natural soda ash from 4 trona mining and processing operations (all located in Sweetwater County): Tronox Ltd., OCI Wyoming LP, Tata Chemicals Ltd. and Solvay Chemicals Inc.
- World soda ash consumption is expected to increase nearly 34 percent by 2023.

Bentonite

- In 2014, Wyoming produced 5 million tons of bentonite.
- Wyoming leads the U.S. in bentonite production.
- Wyoming has 70 percent of the world's known supply of bentonite.
- Wyoming bentonite has unique characteristics because of the presence of sodium instead of calcium; it can swell up to 16 times its original size and absorb up to 10 times its weight in water.

Rare Earth Minerals

- Northeast Wyoming is home to one of the highest grade rare earth deposits in the world. The Bear Lodge Critical Rare Earth Project is currently under development.
- The mine is the most advanced rare earth development project in North America. The preliminary feasibility study was completed in 2014.
- Wyoming rare earth elements include, but are not limited to: Scandium, Yttrium, Lanthanum, Cerium, Praseodymium, Neodymium, Promethium, Samarium, Europium, Gadolinium.

Crude Oil

- In 2013, Wyoming crude oil production totaled 63,232,000 barrels – up 9.5% from 2012.
- In 2013, Wyoming crude oil produced 2.3% of the total U.S. production.
- Wyoming ranked 7th in production of crude oil during 2013.
- In 2013, approximately 11,196 wells produced oil, with an average daily production of 16.7 barrels.
- 2013 crude oil reserves were 706 million barrels.
- At the beginning of 2013, Wyoming ranked 6th in the nation in proved reserves of crude oil and 3rd in natural gas proved reserves.

Natural Gas

- In 2013, Wyoming-marketed natural gas sales totaled 1.888 trillion cubic feet.
- This production represented 7.4% of the natural gas produced in the U.S.
- In 2013, Wyoming ranked 5th in marketed natural gas production nationally.
- In 2013, approximately 24,981 wells produced natural gas. Of that, 11,153 were coal-bed methane wells. Average daily production per well was 203 MCFs.
- In 2012, Wyoming produced enough natural gas to supply nearly 19 million homes for an entire year.
- Wyoming has 43 operating gas plants processing nearly 87% of the state's gas production.
- 2013 natural gas reserves were 31.63 trillion cubic feet.

No. 2 New Business Startup Activity

Kauffman Index (2015)

Think New

Technology Center of the High Plains

Wyoming isn't just talking about diversifying its economy and growing its technology sector into a top industry in the state. Wyoming investments are creating results.

Wyoming Unified Network

The recently completed, \$15.8 million, 100-gigabit, redundant, statewide network backbone known as the Wyoming Unified Network is a unique public-private effort to enhance educational opportunities, promote business growth, expand tele-health services and improve quality of life, among other items.

The project allowed the state to boost its education and government broadband capacity from 2.5 gigabits to 100. Schools have experienced a 40-fold increase in broadband capacity.

The network also presents opportunities for all of the service providers in Wyoming to improve existing connections and services and bring connections to small, rural communities that normally wouldn't warrant investment.

Diverse Tech Sector Emerges

The NCAR-Wyoming Supercomputing Center went online in 2012 in Cheyenne. The National Center for Atmospheric Research's 1.5-petaflop Yellowstone Supercomputer is one of the world's fastest big-data computers.

Thanks to the Wyoming-NCAR Alliance, a portion of the Yellowstone systems, about 75 million core-hours per year, is reserved for University of Wyoming-led projects in the atmospheric, earth system, geological and related sciences.

The \$100 million project was funded with public, private and federal facility monies.

The supercomputing center served notice that Wyoming – with its low cost of doing business, ample space and temperate climate – is the place to be for tech-related businesses.

Microsoft began developing data centers west of Cheyenne in 2012 and has now invested nearly three-quarters of a billion dollars.

Other data-centric companies located or operating in Wyoming include:

- [EchoStar](#)
- [Green House Data](#)
- [Mountain West Technology Network](#)
- [Ptolemy Data Systems](#)

Additionally, international safety science company Underwriters Laboratories expanded to Laramie in 2014 after researching 17 locations nationwide. The office houses UL's technology development and support services for enterprise applications and global clients in the technology sector.



Above
Servers located at Green House Data in Cheyenne.

Below
University of Wyoming students work in the WPX Drilling Simulator Teaching Lab and the Shell 3-D Visualization Laboratory inside UW's Energy Innovation Center.

Crossroads of the West

Wyoming's advantageous geographic location and ample transportation infrastructure provide reliable access to and from communities statewide.



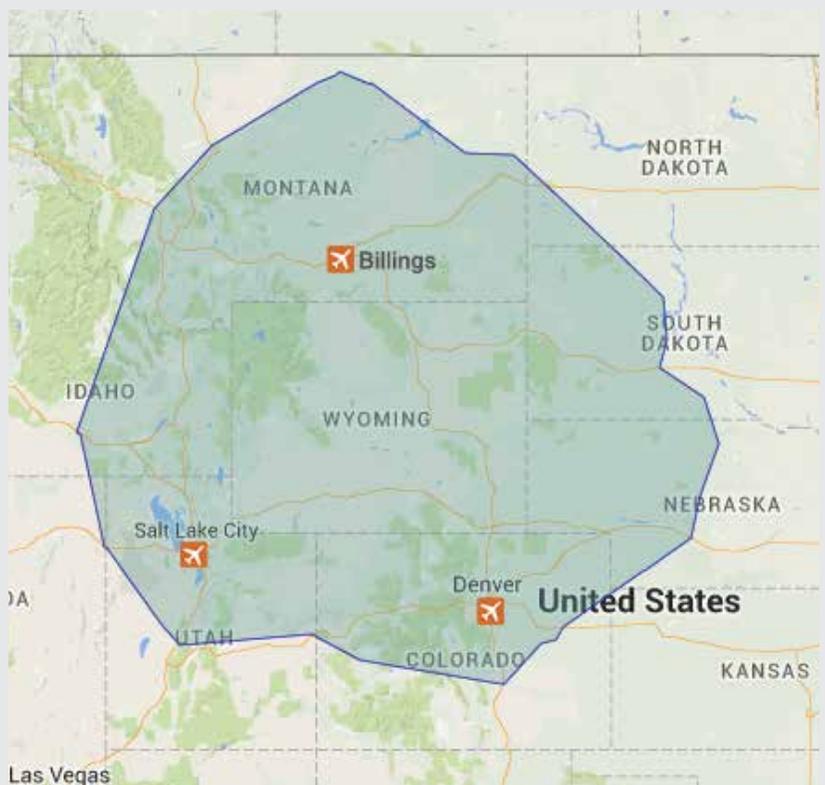
Three Interstate highways:

- I-80 (New Jersey to California)
- I-25 (New Mexico to Wyoming)
- I-90 (Massachusetts to Washington)

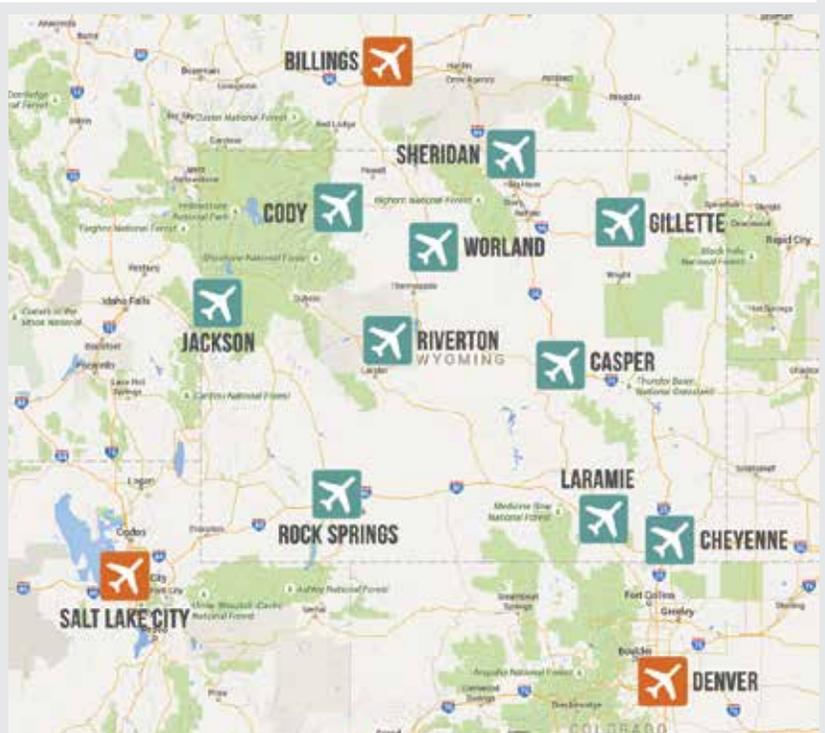
915 interstate miles cross Wyoming



750-KM RADIUS FROM GEOGRAPHIC CENTER



AIRPORTS IN AND NEAR WYOMING



Two class one railroads connect Wyoming to major markets.

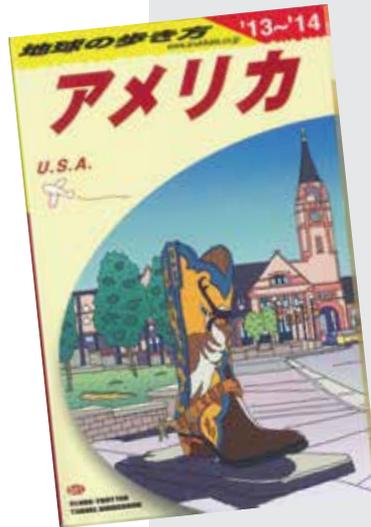


There are 10 commercial airports in Wyoming, with final destination service to major cities around the world.

Three major international airports about the state in Billings, Montana; Denver, Colorado, and Salt Lake City, Utah.

No. 4 Highest in Well-Being

Gallup-Healthways Well-Being Index (2014)



The cover of the 2013-2014 Globe-Trotter Travel Guidebook features the historic Union Pacific Depot/Cheyenne Depot Museum in the background and Depot Plaza in the foreground in downtown Cheyenne, Wyoming. The 8-foot-by-8-foot cowboy boot artwork was one of 19 painted by various artists in 2005; the boots were purchased by civic-minded businesses and displayed around town.

Think Local

Quality of Life

Quality of life makes a community worth living in: comprehensive planning/visioning, cultural and recreational opportunities, adequate and affordable housing, health care, good schools, police and fire protection and curb appeal.

Wyomingites enjoy boundless recreational and cultural opportunities. Residents and visitors alike can even enjoy a day outdoors and a night on the town – all in the same day.

Wyoming features two national parks, 12 state parks and five national forests along with plenty of open spaces to hunt, fish, bike, hike and climb.

The state is also home to seven ski areas and resorts, from Jackson Hole in the northwest corner to minutes from Laramie in the southeast.

Arts and culture? Wyoming offers a wide array of Western- and urban-themed events throughout the state, from rodeos to galleries to symphonies to farmers markets to brew fests.

Quality of Life Accolades

No. 1 State for Future Retirees

National Institute on Retirement Security (2014)

No. 1 Best State for Military Retirees

Wallet Hub (2014)

No. 4 Lowest Poverty Rate for Children

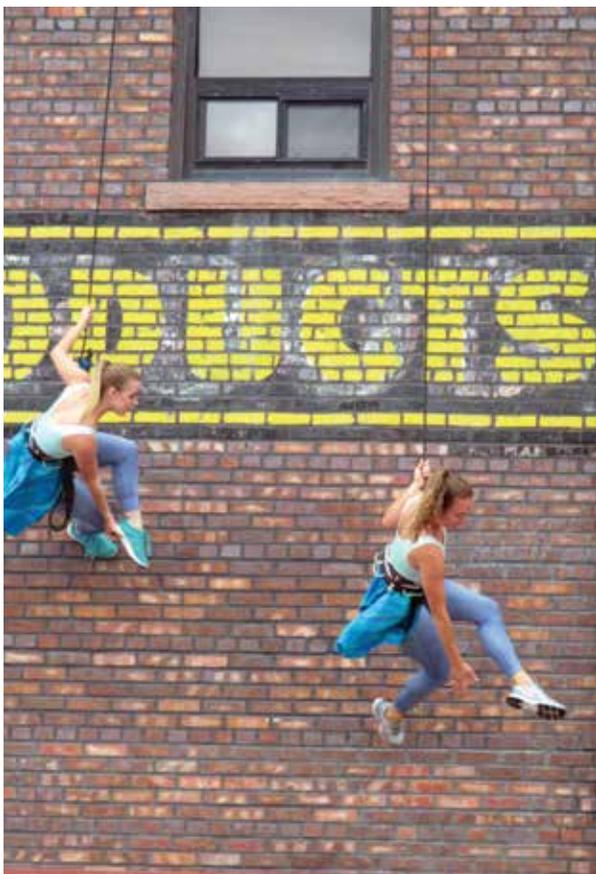
U.S. Census Bureau (2013)

No. 3 Best State to Make a Living

MoneyRates.com (2015)

No. 4 for Hardest Working City (Cheyenne)

Wallet Hub (2015)



Top
Riverton native Tyler Gilmore and band perform “A Rambling Stretch” tour at Central Wyoming College in Riverton.

Above
Plein Air Festival at Jackson National Museum of Wildlife Art in June 2015.

Left
University of Wyoming Vertical Dance duo performs on the side of the Asher Building in downtown Cheyenne in August 2015.

No. 3 Per Capita Income Growth

U.S. Chamber of Commerce Foundation (2014)

Think Small

Investing in People

Wyoming recognizes what makes a well-run business successful: Its people.

Wyoming is in the enviable position of being able to invest in both its workforce of today and its workforce of tomorrow.

The state's population has been growing at nearly twice the U.S. average the past five years, and its labor force is growing nearly six times as fast as the national average. This signals the availability of a solid labor force of skilled workers for businesses now and in the future.

Low-Cost, High-Impact Education

There's a reason Forbes magazine ranks the University of Wyoming No. 9 as a Best Value College.

In 2005, Wyoming legislators created the Hathaway Scholarship program for qualified students who graduate from Wyoming high schools. The initial \$400 million endowment funds scholarships to attend the university and any of the state's eight community colleges.

The program is designed to provide an incentive for Wyoming students to prepare for and pursue post-secondary education within the state of Wyoming. The program consists of four separate merit scholarships, each with specific eligibility requirements, and a need-based scholarship for eligible students that supplements the merit awards.

The university also maintains the UW/Casper College Center, nine outreach education centers and Extension Service centers in all 23 counties and on the Wind River Indian Reservation.





Research Centers of Excellence

The University of Wyoming's \$115 million Tier 1 Engineering Initiative, launched in 2012, is designed to lead the state's only four-year public institution to the national forefront in education and research. The initiative includes industry partnerships and provides the added benefit of workforce and economic development. The Tier 1 reach includes the Science Initiative and Education Initiative at UW.

The UW School of Energy Resources partnered with the College of Engineering and Applied Science for facilities and investments to enhance education and research in the following areas:

- Improved oil and gas recovery
- Clean coal and gas to liquids
- High-performance computational science and engineering
- Oil and gas flow in unconventional reservoirs

*Additional centers of excellence will be developed in the future including research in critical water resources.

Tier 1 Initiative facilities constructed or currently under construction include:

- **Energy Innovation Center:** A \$25 million public-private investment and home to the School of Energy Resources. It is a collaborative facility where students, researchers, academic professionals and industry partners can engage in solving challenges in the energy industry.
- **Michael B. Enzi STEM Facility:** A \$50 million public investment. The facility provides 32 teaching laboratories equipped for chemistry, biology, physics, mathematics and computer science.
- **NCAR-Wyoming Supercomputing Center:** \$100 million public-private-federal investment. UW has enjoyed privileged access to the National Center for Atmospheric Research's supercomputing center in Cheyenne since 2012. It's one of the world's fastest big-data computers.
- **New Engineering Building:** The new College of Engineering Building will be a learning and discovery continuum to promote innovation and creativity. It will offer an integrated approach to education and research by crystalizing the latest thinking from wide-ranging perspectives.
- **High Bay Research Facility:** A \$50 million public-private investment. This facility will be equipped to carry out large-scale research and development to solve energy-related challenges. It will initially host studies and projects to improve understanding in porous media, unconventional reservoir production and coal conversion.

Graduate student Ying Wang works in the Peabody Energy Advanced Coal Technology Laboratory inside University of Wyoming's Energy Innovation Center.

No. 3 Highest Annual Increase in GDP

Bureau of Economic Analysis (2014)

Think Global

New Markets Overseas

State and federal efforts to increase Wyoming exports have made a profound impact on businesses' bottom lines. Wyoming exports nearly doubled from 2010 to 2014 (\$983 million to \$1.8 billion respectively).

Wyoming's top five export markets in 2014 were, in order, Canada, Brazil, Indonesia, Japan and Chile. The state's top five export industries were, in order, chemicals, machinery, petroleum and coal products, oil and gas and minerals and ores.

A total of 452 companies exported from Wyoming locations in 2013. Of those, 332 (73.5 percent) were small- and medium-sized enterprises with fewer than 500 employees.



Ted Braummond, UW Photo Service



Foreign Direct Investment

Foreign direct investment (FDI) plays a significant role in supporting jobs in Wyoming. Majority-owned U.S. affiliates of foreign firms currently employ approximately 9,000 workers in Wyoming.

Twelve FDI projects have been announced in Wyoming since 2003 and, if completed at their announced levels, they would represent \$371.5 million in capital investment. Projects, by industry, include chemicals; metals; industrial machinery, equipment and tools; coal, oil and natural gas, and financial services.

Manufacturing is the leading FDI industry sector in Wyoming with approximately 2,900 jobs in 2012.

Belgium, Canada, Australia, Germany, the UAE and Spain have all invested in Wyoming since 2008. Top countries investing in Wyoming include the United Kingdom, Switzerland, Japan, France, the Netherlands and Germany.

Casper Foreign Trade Zone

The Casper/Natrona County International Airport, strategically located in central Wyoming, has an active foreign trade zone comprising 1,476 acres.

Any form of imported merchandise may be stored, packaged, assembled, manufactured, cleaned, sorted and graded in the foreign trade zone without the expense of customs duties or taxes.

The Casper/Natrona County International Airport is adjacent to a Burlington Northern Santa Fe rail spur and is minutes from Interstate 25. Additionally, approximately 30,000 linear feet of fiber optic cable was installed in and around the airport business park. The project included 30 drops to existing businesses, and the loops were strategically run to provide fiber connectivity for future developments.

International Students and Scholars

The University of Wyoming's office of International Students and Scholars (ISS) annually serves more than 850 international students, 100 scholars and 200 international dependents. More than 90 countries are represented at the university.

The ISS supports the university's goal to internationalize. The office partners with other university offices, departments and divisions to nurture the growth of an international community and to assist in the development of a campus environment that is responsive to their educational, intellectual and social needs. This includes assistance in adjusting to a new university, community, country and culture.

Additionally, the university's International Resource Center provides opportunities for a variety of cross-cultural activities. The center includes a study lounge/meeting room, international publications, a student exchange library, satellite television and a computer lab.



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About the Wyoming Business Council. Our mission is to increase Wyoming's prosperity. We envision a Wyoming where industries are strong, diverse and expanding. Small business is a big deal. Communities have the highest quality of life. Wyoming is the technology center of the High Plains. Wyoming knows no boundaries. Please go to www.wyomingbusiness.org for more information.