

A CONCISE GUIDE TO WYOMING COAL 2007

An industry overview produced by the

WYOMING COAL INFORMATION
COMMITTEE

Wyoming Mining Association

www.wma-minelife.com

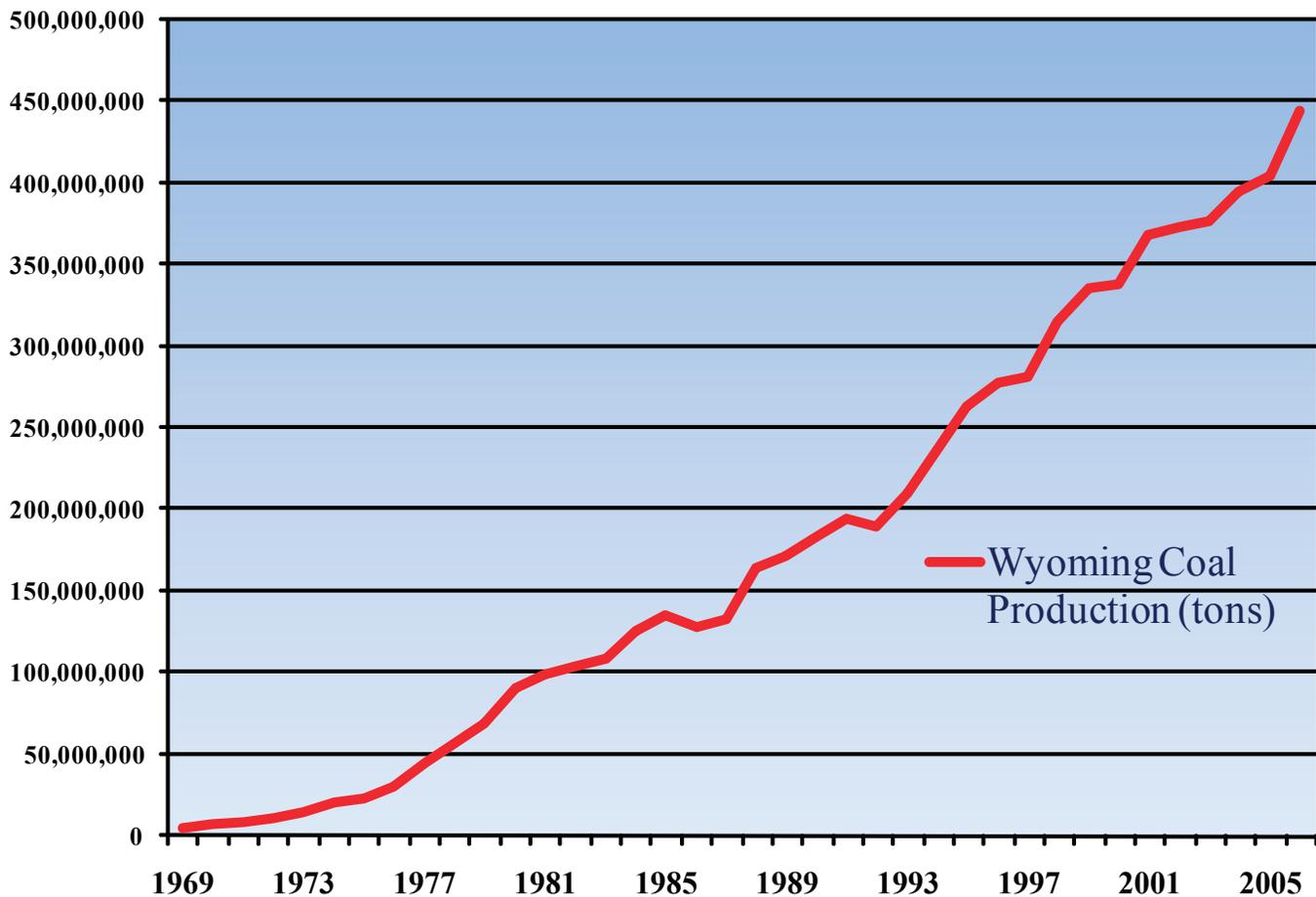
The Role of Coal

Wyoming is the nation's preeminent coal producer, providing a secure source of fuel for America's electrical power generators. The top ten producing mines in the country are all located in Wyoming's Powder River Basin, and Wyoming led the nation in coal production for the 20th consecutive year in 2006, producing 445 million tons. Wyoming coal production increased 9.9 percent or 40.3 million tons from 2005 to 2006.

Wyoming supplies 38 percent of the nation's coal production.

Electric power generation is by far the largest consumer of coal in the United States, using about 92 percent of all coal mined. Coal provides approximately 50 percent of the fuel needs for electrical generation. Wyoming coal was shipped to 36 states

Wyoming coal production (tons), 1969-2006



Source: State Inspector of Mines of Wyoming

The Energy Information Administration estimates that Wyoming's recoverable reserves, in seams thicker than 5 feet and less than 1,000 feet deep, total more than 41 billion tons. The total amount of coal within the state is more than 1.4 trillion tons. In some areas of Wyoming, coal can be found at more than 12,000 feet in depth.

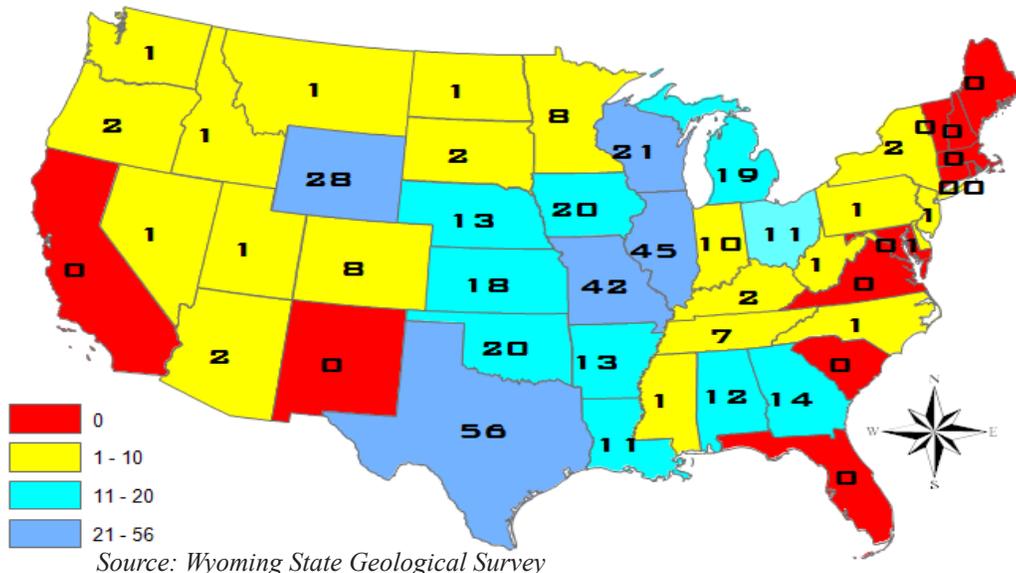
Wyoming
COAL

in 2006 and accounted for 38.5 percent of the nation's coal production.

Wyoming Coal Trends

The electrical power industry has increasingly trended toward western coals and particularly coal from Wyoming's Powder River Basin (PRB). There are several reasons for this shift: World-class coal seams (some more than 80 feet thick); low production costs due to proximity of coal to the surface; and a desirable low-sulfur composition. During 2006,

Millions of tons of Wyoming coal consumed, by state, 2005



more than 431 million tons were shipped out of the PRB on unit trains. Unit trains are made up of 120 to 150 cars. An average of 70 to 80 unit trains leave the PRB every day for energy markets throughout North America.

Major destinations for Wyoming coal in the United States are shown on the map above. The majority of the coal is used in Midwestern and Southern states.

The average price for Wyoming coal increased 24.6 percent in 2006 due to increased demand for electricity. Statewide, average prices rose from \$7.88 per ton in 2005 to \$9.82 per ton in 2006.

A Cleaner, Brighter Future for Coal

Mining companies and the State of Wyoming are actively seeking and supporting projects to enhance the state's economic position and to leverage our coal resources for the future. Several coal-fired power plants are in the planning stages or under construction in the PRB that will use the latest emission controls to meeting increasingly stringent air quality standards. New technologies are being

developed that focus on increasing fuel efficiencies and continued reductions in mercury, nitrogen oxides, particulates and sulfur emissions. It is worth noting that U.S. coal consumption has tripled since 1970, but coal emissions have dropped below historic levels during this same period.

Future developments such as coal-to-gas and coal-to-liquids will help add value to Wyoming coal, increasing benefits to the state. The technology for these processes has been around for decades, but is just starting to become economically viable at today's high petroleum prices. Advances in chemical engineering are making this a cleaner, more efficient process.

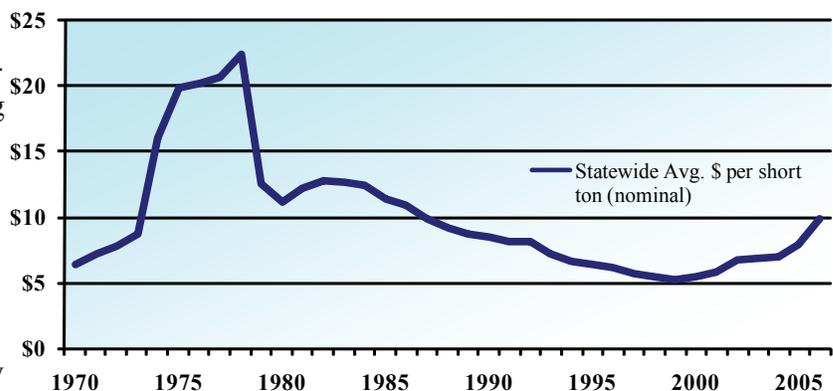
It is estimated that each coal-mining job supports three related jobs.

Local Impact

Coal is an important source of revenue for Wyoming's state and local governments.

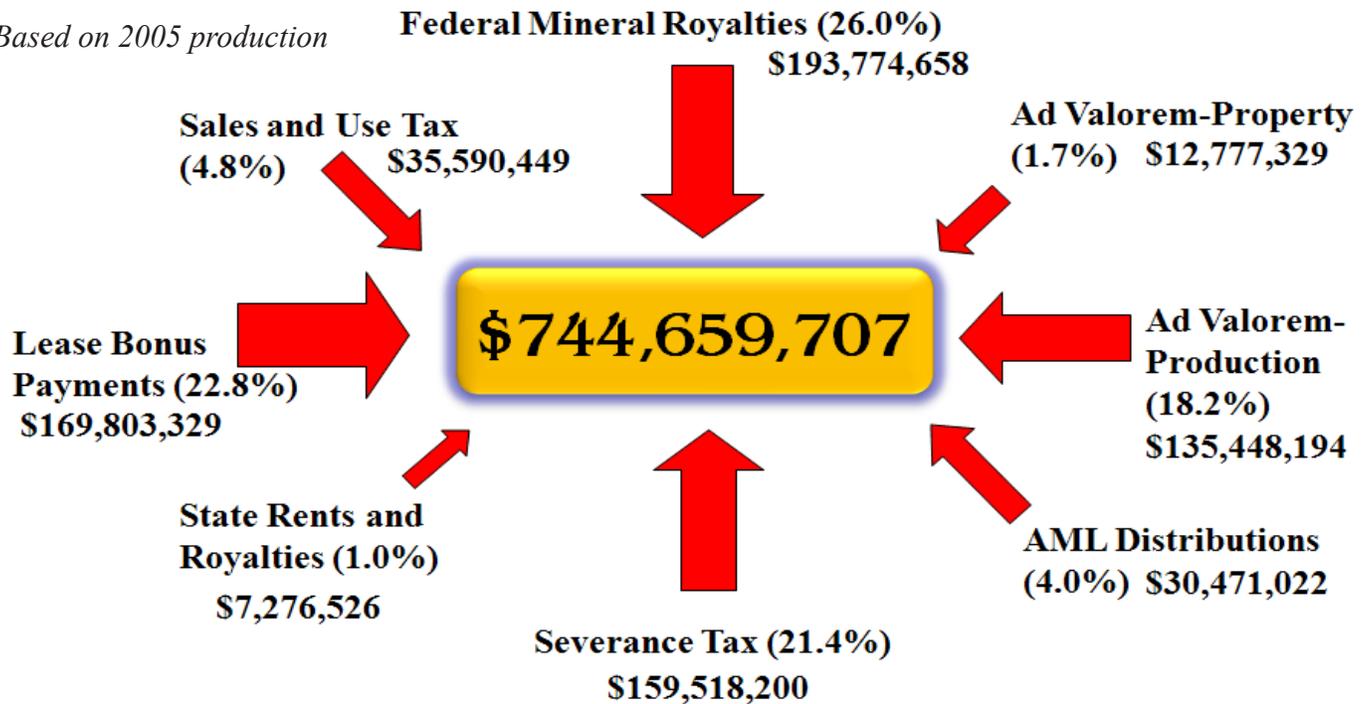
Coal mining companies pay taxes and royalties that are distributed among federal, state and local governments. The chart above shows that in 2006 coal contributed an estimated \$744 million to Wyoming state and local government. This is a \$10 million

Average price per ton, Wyoming coal



State and local government revenue from Wyoming coal, 2006.

Based on 2005 production



increase over 2005. (Note: not included in this analysis are the federal portion of fees and taxes, including black-lung taxes, AML fees and the federal portion of mineral royalties).

Employment

The coal industry continues to be a stable source of employment for the people of Wyoming. Between 2000 and 2006, employment in Wyoming's coal sector increased more than 36 percent. In 2006, Wyoming coal mines added jobs that increased employment more than 13 percent from 2005 to 6,030 people.



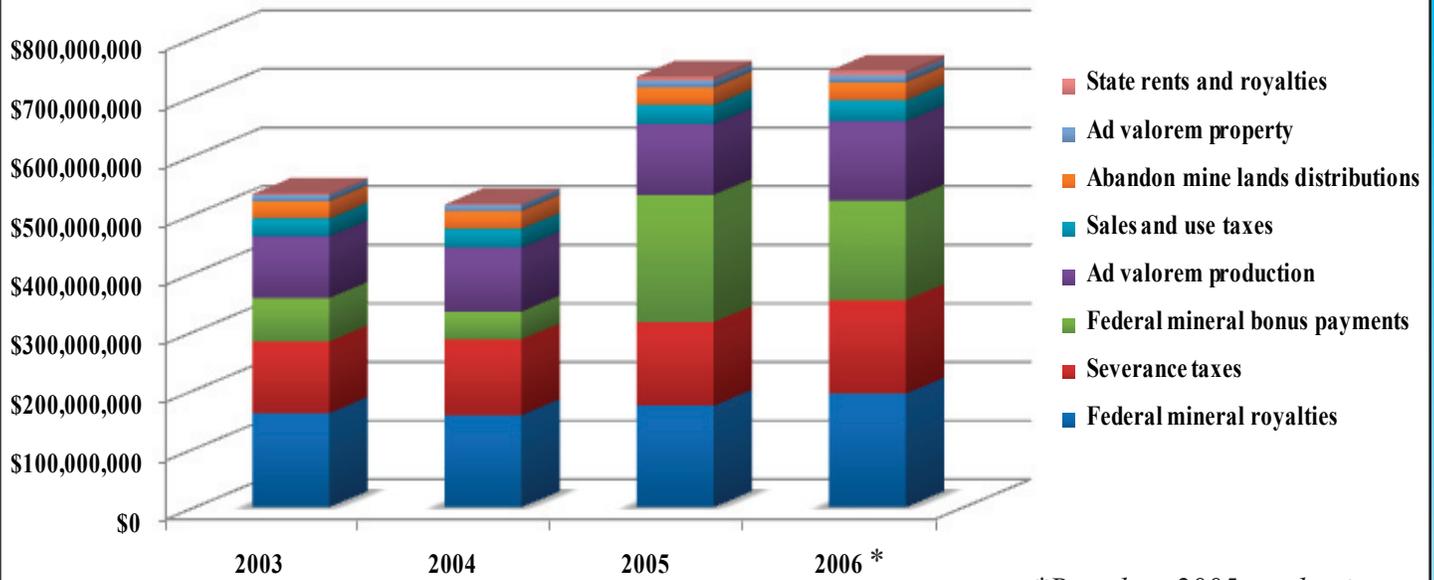
Mule deer on reclaimed coal mine land

Bonus bids and coal leasing

Before a mining company can obtain new coal reserves on federal lands, the company must nominate the lands for lease. The Bureau of Land Management (BLM) then reviews the proposed tract to determine the market value of the coal. It also requires completion of a detailed environmental assessment or an environmental impact statement, and then schedules a competitive lease sale. The process is known as Lease By Application or LBA.

To obtain the lease, the company must submit a sealed bid for the coal. The money is paid over and above any production taxes or royalties that must be paid when the coal is mined. The successful bidding company must pay one-fifth of the total bonus bid at the time of the sale and then pay another fifth every year for the next four years. The federal government keeps one-half of this money and the State of Wyoming gets the other half. Between 1992 and 2005, the BLM leased more than 5 billion tons of coal and Wyoming received more than \$1.5 billion for its share of the bonus bid money. Currently, the BLM has 4.5 billion tons of coal nominated for lease. These coal sales will occur upon the completion of the LBA process.

Trend in coal revenue to Wyoming state and local government, 2003 to 2006.



**Based on 2005 production*

It is estimated that each coal-mining job supports three related jobs in other business sectors for a total of more than 18,000 coal-related jobs statewide.

The trend in government revenue from coal has also been increasing over the last few years. The chart above shows a significant increase in revenue from 2004 to 2005, driven mainly by federal mineral bonus payments (see text box, page 4). Other sources of revenue have increased as well, but not at the rate of bonus payments. The continuation of revenue at this level depends on the industry's need to lease coal. As long as Wyoming coal remains in demand, mining companies will continue to submit bids for the coal leases that generate these payments. Longer term, changes in demand for coal could create variability in the level of revenue generated for state and local governments.

Coal industry jobs are among the best paying in Wyoming. The average income in the Wyoming coal industry in 2005 was \$69,453. This wage level is twice the state average of \$33,251 per job. The combination of both direct and secondary employment—or jobs in other business sectors created by the coal industry—has resulted in significant benefits for the state.

Minequest

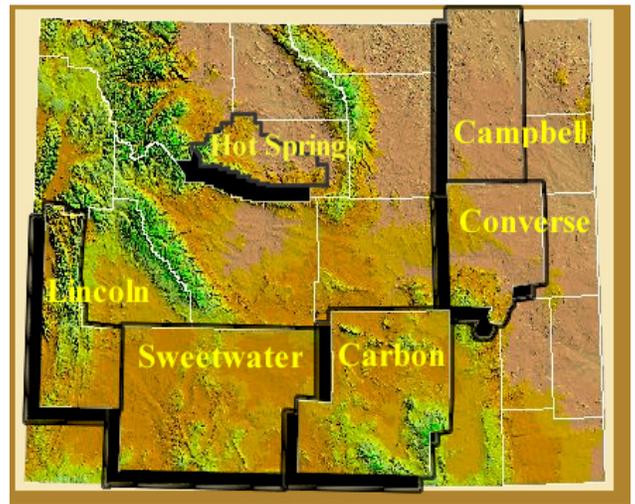
The Wyoming Mining Association has created Minequest, an educational website for young people, covering mining topics. Minequest satisfies Wyoming Teaching Standards for teachers in grades 4 through 12 in the areas of Math, Science, Social Studies, Language Arts, Career/Vocational and Technology.

An example activity for younger students is finding items around a classroom and determining if those items are made from an animal, vegetable or mineral. Older students can calculate the monthly costs of living and then find employment that will support their intended lifestyle. The Minequest website can be accessed at www.minequest.org.



Loading coal at the Jacob's Ranch mine

Wyoming Coal Production by County, 2006



Location/operator	Mine	Employees	Production
Campbell County			
Buckskin Mining Co.	Buckskin Mine	235	22,768,303
Evergreen Energy	KFX Plant/Fort Union Mine	51	87,863
Foundation Coal West	Belle Ayre Mine	265	24,593,035
Foundation Coal West	Eagle Butte Mine	270	25,355,158
Powder River Coal Co.	Caballo Mine	357	32,700,000
Powder River Coal Co	N. Antelope/Rochelle Complex	877	88,527,969
Powder River Coal Co	Rawhide Mine	170	17,092,993
Rio Tinto Energy America	Cordero Rojo Complex	569	39,747,620
Rio Tinto Energy America	Jacobs Ranch Mine	602	40,000,376
Thunder Basin Coal Co. LLC	Black Thunder Mine	1,046	92,517,728
Thunder Basin Coal Co. LLC	Coal Creek Mine	135	3,097,584
Western Fuels of Wyoming, Inc.	Dry Fork Mine	69	5,860,998
Wyodak Resources Develop. Corp.	Wyodak Mine	66	4,698,473
Campbell County Total		4,712	397,048,100
Carbon County			
Arch of Wyoming, LLC	Medicine Bow Mine	6	28,212
Converse County			
Rio Tinto Energy America	Antelope Coal Mine	422	33,894,178
Hot Springs County			
Grass Creek Coal Co.	Grass Creek Mine	3	1,086
Lincoln County			
Chevron Mining, Inc.	Kemmerer Mine	283	4,565,158
Sweetwater County			
Black Butte Coal Co.	Black Butte and Lucite Hills	172	3,410,309
Bridger Coal Co.	Surface operations	230	5,414,423
Bridger Coal Co.	Underground operations	175	519,151
New Stansbury Coal Co. LLC	Stansbury Mine	8	Idle
Sweetwater County Total		585	9,343,883
Employees at mines in final reclamation		19	
Wyoming Total		6,030	444,880,617

Source: State Inspector of Mines of Wyoming, 2007

Reclamation

Reclaimed mining lands represent sustainable development in action. Once the minable coal is removed, the reclamation process begins. The reclamation process includes several stages and is overseen by highly trained specialists employed by the mines as well as state and federal personnel to ensure compliance with all applicable laws. Reclamation stages include:

- Backfilling the void with overburden
- Contouring the final filled surface
- Replacing topsoil and preparing the surface
- Preparing the seedbed and sowing approved seed mixtures
- Monitoring plant growth and fauna populations.

Approved seed mixtures promote higher vegetative output than on pre-mined land. This in turn attracts species to re-establish themselves and promotes a sustainable ecosystem on the once mined land. An example is a reclaimed area on the Jacobs Ranch Mine in the Powder River Basin that now provides crucial winter habitat for elk. This reclaimed site is now part of a conservation easement through the Rocky Mountain Elk Foundation.

While facilities areas such as mine shops, coal plants and long-term roads and ponds cannot be reclaimed

Acres of disturbed land, Wyoming*

	Acres	Percent
Reclaimed land	68,330	47%
Active mining sites	31,588	23%
Facilities	39,793	30%
Disturbed by coal mines	134,711	100%
*as of August 9, 2007		

until long-term use is completed, the focus on all other areas in reclamation is demonstrated by comparison of current disturbance and reclamation acres as shown in the table.

Reclamation goes beyond just restoring contours and reseeding native plant species. Rebuilding sustainable natural ecosystems is the goal and innovative methods are constantly being developed to further enhance reclaimed areas. Some examples include:

- Re-establishing water features and storage in re-



Bobcat on reclaimed coal mine land

claimed streams, stock ponds and wetlands

- Replacing sage grouse leks (breeding grounds)
- Establishing mosaic patterns of grassland and shrubland reclamation
- Replacing rock outcrops and providing prey base habitats for eagles and other predators
- Reconstructing prairie dog towns and reclaiming mountain plover habitat.

Safety

Safety always comes first in the mining industry, and Wyoming coal mines have been recognized as some of the safest operations in the United States. All combined these facilities worked a total of 12.2 million man-hours in 2006. Of the 24 operating coal mines in the state, 18 operated the entire year of 2006 without a lost time accident. Each miner must attend 40 hours of safety training before their first day of work. Miners must also attend an eight-hour annual refresher on safety training.

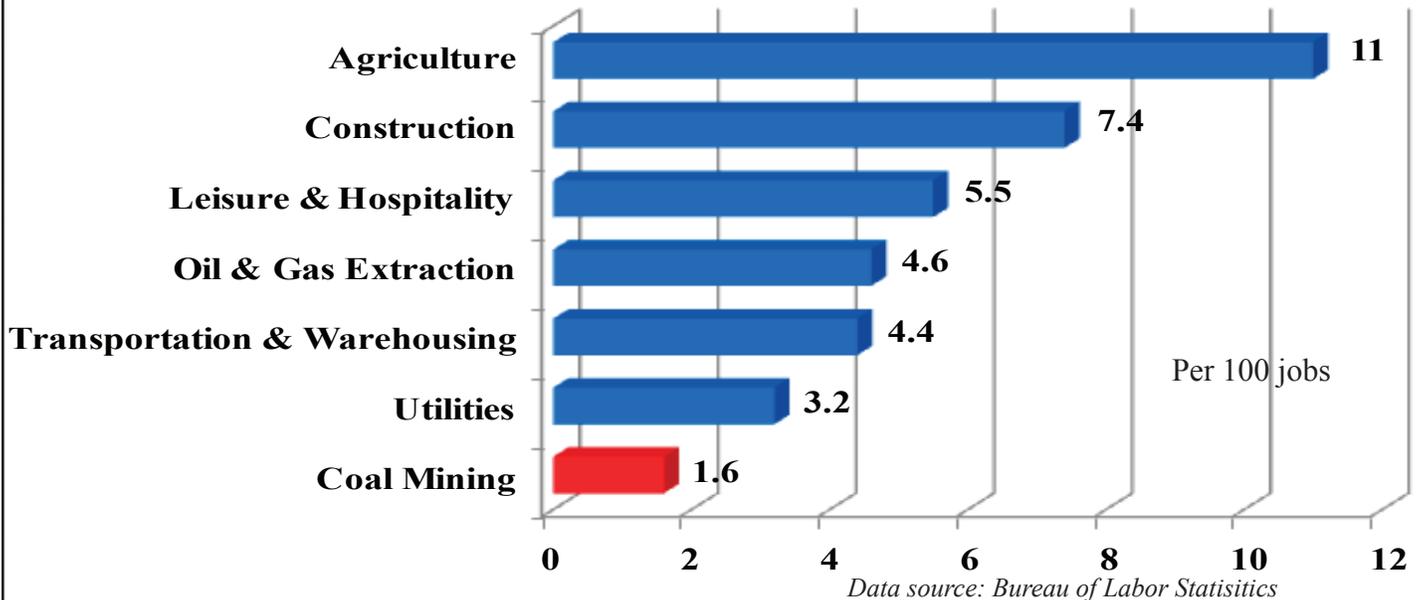


Stilling shed, used to control dust

The Mine Safety and Health Administration (MSHA) and the National Mining Association recognize the safest surface coal mine in the nation each year with

the “Sentinel of Safety” award. A Wyoming mine has won this award 12 times in the last 25 years.

Rate of non-fatal occupational injuries, selected industries, Wyoming 2005.



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