

**Report Digest: *Impacts of Energy Development in Wyoming,
With a Case Study of Sweetwater County***



HEADWATERS
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Overview: No other state in the Intermountain West is as reliant as Wyoming on energy industries to sustain its economy and tax base. This report studies Wyoming, with a case study of the energy-focused county of Sweetwater County, to ask what happens when an economy is focused on energy extraction, especially during a time of renewed volatility in energy prices.

The report is divided into five sections:

- (1) The significance of fossil fuel energy development for Wyoming;
- (2) The economic role of energy development for Sweetwater County;
- (3) The implications of energy development on Sweetwater County's fiscal well being;
- (4) How energy development can help Wyoming and Sweetwater County build a more diverse and stable economic future;
- (5) Conclusions and public policy options.

The report will assist the public and elected officials in making informed choices about energy development to benefit the region over the long-term. The *Wyoming* report is the seventh in Headwaters Economics' *Energy and the West* series which can be found at www.headwaterseconomics.org/energy.

SUMMARY FINDINGS

Wyoming is more energy-dependent than any other state in the Intermountain West and this specialization could harm the outlook for long-term growth

Wyoming's economy has been highly specialized for the past 35 years and today has the greatest exposure to the volatility of fossil fuel industries of any state in the lower 48. In 2006, earnings from mining constituted 13.7 percent of total personal income in the state. That same year, oil and natural gas revenue (\$2.8 billion) accounted for nearly 40 percent of all state and local government revenue (\$7.2 billion) in Wyoming.

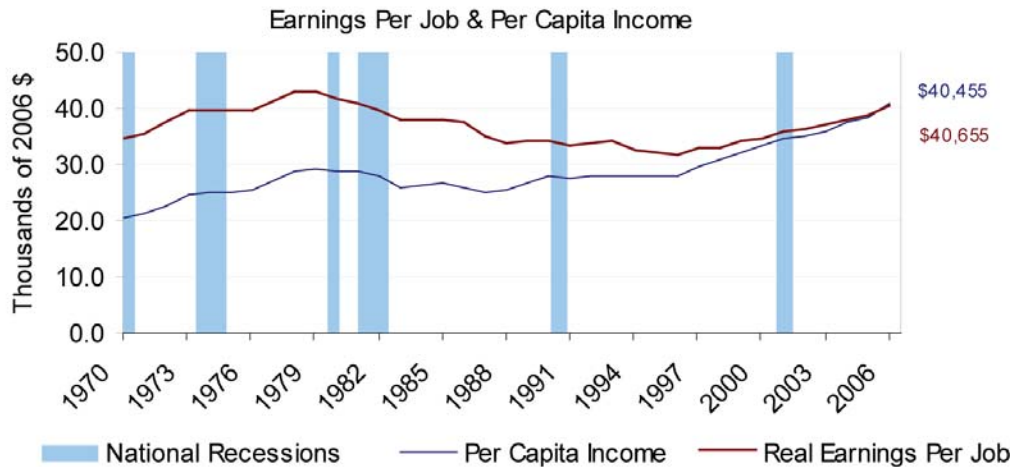
Energy specialization also has led to a history of energy booms and busts. When the energy boom ended in the early 1980s, Wyoming was left highly exposed and suffered two decades of economic stagnation. While other states in the region during the 1990s developed more diverse economies, Wyoming was unable to rebound from the bust and was the slowest growing western state.

With the recent dramatic increases in the production value of oil and natural gas, Wyoming has again seen a number of benefits: rapidly increasing revenue, significant cash reserves, low unemployment, lower tax burden, and the ability to fund specific goals such as increased state support for education.

The long-term, broader economic effects of the current energy surge, however, are uncertain. Real earnings per job in Wyoming in 2006, for example, were about \$2,000 less than what they were in 1979 because higher-skilled, higher-paying service occupations have not taken root in most parts of the state. (See Figure 1.) Nor is it clear that the current energy surge has slowed outmigration from

the state. While the state’s population grew overall by roughly 40,000 in the 1990s, at the same time Wyoming was losing nearly half that number (18,874) of adults between the ages of 25 to 39, a trend that has continued during the current energy surge.

Figure 1: Earnings Per Job and Per Capita Income in Wyoming, 1970-2006 (in 2006 \$s)



Source: Headwaters Economics, from U.S. Bureau of Economic Analysis, Regional Economic Information System data (2006 CD, Table CA30).

Sweetwater County remains an energy-focused county but higher energy wages have not sparked wider growth

The mining sector, which includes oil and natural gas extraction, has been a steady contributor to Sweetwater County’s economy: providing 29 percent of personal income in 2006 (and an average of 31 percent from 1970 to 2000). The pace of recent energy activity was staggering. At the start last year 10,139 oil and gas wells operated in the four-county area of the greater Green River Basin. Even with a potential decrease in energy activity, tens of thousands of new wells are projected for the region in the next twenty to thirty years.

Like the state, Sweetwater County is growing in numbers of workers but still lost more people in the 25 to 39 year-old age group than the regional average, suggesting a failure to attract and retain younger workers by providing a variety of employment options.

While energy-related wages are high, most local workers are relatively poorly paid. This wage disparity has caused hardships for many through increased housing prices, competition for employees, and other costs. Also, because few higher-wage jobs have been created outside of fossil fuels extraction, the county is at economic risk when activity in the energy industry eventually declines.

Local costs from energy development exceed Sweetwater County’s revenue:

Despite the high production value of mineral extraction in Sweetwater County, return to the county through state severance taxes made up only 10 percent of total county revenue in 2007. This trend

is true across Wyoming. The state returns only a small portion of total revenue directly to local governments (7% to counties and 1% to cities and towns in 2008 or \$196 million and \$25 million respectively).

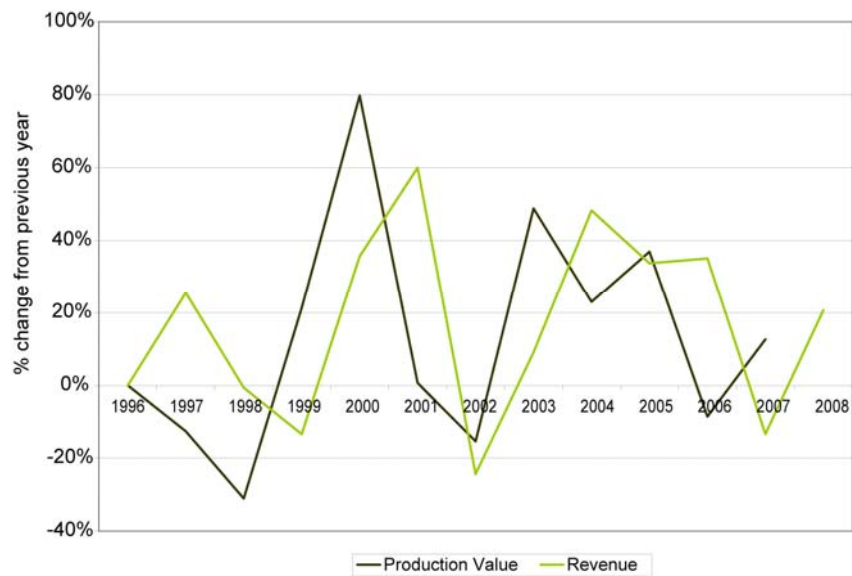
Revenues from the energy surge are neither strengthening Sweetwater County’s fiscal health nor assisting efforts to improve long-term economic development. The county’s ability to keep pace with increasing service demands—housing, crime, and infrastructure—is mixed, and its ability to fund capital improvements is especially weak. Because new expenditures are in excess of revenue, the county, municipal government, and local institutions (such as schools and hospitals) must scramble to assemble critical funding from a variety of unreliable sources or downgrade their level of service provision.

Wyoming does an efficient job of collecting and saving energy-related revenue but local needs remain unmet.

In a number of ways, Wyoming is taking advantage of increased energy revenue. The state has the highest effective tax rate in the Intermountain West. Wyoming also is a regional leader in stockpiling reserves “for a rainy day,” and has strongly supported some important economic development efforts such as increased educational funding.

While Wyoming has successfully dampened the volatility of revenue through consistent tax policy and investments in the state’s severance tax permanent fund, revenue volatility remains high and changes in revenue show a short lag between extraction activities and tax and royalty collections. Figure 2 shows the volatility in both production value and the revenue generated from production value. These factors combined place many basic Wyoming services at risk because of the uncertainty associated with budgeting from year to year.

Figure 2: Volatility of Production Value and Revenue from Oil and Natural Gas, Wyoming, 1996-2008.



Source: Headwaters Economics, from U.S. Energy Information Administration and Wyoming Oil and Gas Commission data.

Wyoming also is not adequately mitigating the local impacts of the energy surge. Counties such as Sweetwater are a major source of the state's fiscal surplus, but they are not receiving adequate support from the state to offset energy production impacts that are beyond the ability of local governments to meet.

Conclusion and Public Policy Options

Wyoming and Sweetwater County face a dilemma: fossil fuel extraction brings short-term benefits, but has failed to yield long-term prosperity and may limit the development of alternative paths to wealth. Can Wyoming and local governments diversify their economy and fit energy development into a larger economic development framework? We think so and offer the following recommendations:

- 1) Target tax incentives to exploration and capture more revenue from the production phase of energy development. As in Alaska, Wyoming's closest energy-producing peer-state in terms of dependence on minerals for revenue, this would result in new, and timely, revenue to mitigate local impacts and support increased investment in more lasting forms of economic activity without affecting industry activities in the state.
- 2) Direct more state revenue to counties and communities where extraction takes place to redefine the terms of their relationship to energy development. This investment would enable local governments to do a better job of protecting communities and neighboring landscapes from the damaging aspects of the resource development.
- 3) Use energy revenue to spark economic diversification. Investing in infrastructure, education and renewable energy, for example, will broaden income generation across a variety of sectors and increase the economy's resilience while positioning the state and local areas for stronger long-term growth.
- 4) Protect Wyoming's quality of life. Safeguarding air and water quality, hunting grounds and access, view sheds, and safe communities will pay dividends. For example, Wyoming has an innovative higher education program, but its impact is lessened significantly because so many young graduates leave the state.