

The Impact of Coal on the Kentucky State Budget

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Executive Summary

Rapid and dramatic changes in the world's approach to energy have major implications for Kentucky and its coal industry. Concerns about climate change are driving policy that favors cleaner energy sources and increases the price of fossil fuels. The transition to sustainable forms of energy, already underway, will become a major economic driver, as states move aggressively to develop, produce and install the energy technologies of the future. Long reliant on coal for jobs and electricity, Kentucky faces major challenges and difficult choices in the coming years.

These energy challenges come in the midst of Kentucky's state fiscal crisis and sluggish economic performance. The

gap between Kentucky's revenues and expenditures makes it increasingly difficult to sustain existing public services. A recent University of Kentucky report notes that Kentucky ranks 44th among states in per capita income, just as in 1970, while other southern states like North Carolina and Georgia have out-performed the Commonwealth in recent years.¹ Eastern Kentucky still includes 20 of the 100 poorest counties in the United States measured by median household income.²

In this critical energy, fiscal and economic context, it is increasingly important for Kentuckians to understand the role and impact of coal in our state. Coal provides economic

benefits including jobs, low electricity rates and tax revenue. But the coal industry also imposes a number of costs ranging from regulatory and public infrastructure expenses to environmental and health impacts.

Coal and the Budget

The Impact of Coal on the Kentucky State Budget tells one aspect of the story of coal's costs and benefits. The report provides an analysis of the industry's fiscal impact by estimating the tax revenues generated by coal and the state expenditures associated with supporting the industry. **We estimate for Fiscal Year 2006 Kentucky provided a net subsidy of nearly \$115 million to the coal industry (see Figure 1).**

Revenues	
Industry-generated	\$303,172,748
Generated from direct employment	83,040,392
Generated from indirect employment	141,509,362
Total Revenues	\$527,722,502
Tax Expenditures (Foregone Revenues)	
Off-budget items (tax expenditures) specific to coal	(84,753,280)
On-Budget Expenditures	
On-budget items supporting coal	(270,467,828)
Support for direct employment	(73,140,605)
Support for indirect employment	(214,192,262)
Total Expenditures	(\$642,553,975)
Net Impact	-\$114,831,474

Figure 1: Fiscal Impact Summary

Coal is responsible for an estimated \$528 million in state revenues and \$643 million in state expenditures. The \$528 million in revenues includes \$224 million from the coal severance tax and revenues from the corporate income, individual income, sales, property (including unmined minerals) and transportation taxes as well as permit fees. The \$643 million in estimated expenditures includes \$239 million to address the industry's impacts on the coal haul road system as well as expenditures to regulate the environmental and health and safety impacts of coal, support coal worker training, conduct research and development for the coal industry, promote education about coal in the public schools and support the residents directly and indirectly employed by coal. Total costs also include \$85 million in tax expenditures designed to subsidize the mining and burning of coal.

The Impact of Coal on the Kentucky State Budget examines coal-related state revenues and expenditures in three parts.

1. Industry-generated revenues and expenditures.

A review of coal industry-generated revenues to the state and expenditures from the state suggests that the industry actually costs more than it brings to the state. Using state budget and other official state agency data, we estimate the coal industry generated revenues of \$303 million for Fiscal Year (FY) 2006. In the same year, on-budget spending to support coal industry activities totals more than \$270 million and off-budget tax expenditures add \$85 million to the coal industry's bill for a total of more than \$355 million. The net direct impact of the industry on the state budget for FY 2006 is an estimated -\$52 million.

2. Revenues and expenditures attributable to direct employment by the industry.

State data sources suggest that FY 2006 revenues attributable to direct employment in coal total \$83 million while coal employees' share of state expenditures totals \$73 million. The net impact of direct employment in coal on the state budget for FY 2006 is \$10 million.

3. Revenues and expenditures related to indirect employment attributable to the coal industry.

Based on public data and the use of economic impact multipliers, revenues generated by the employment of Kentuckians in supply industries and in sectors that serve those employed by coal total \$142 million for FY 2006. State spending to support those whose employment is indirectly attributable to coal totals \$214 million. The net impact of indirect employment on the Kentucky state budget is -\$73 million.

These figures cover only a portion of the full costs of the coal industry to the state. We do not include the many externalized costs imposed by coal including healthcare, lost productivity resulting from injury and health impacts, water treatment from siltation caused by surface mining, water infrastructure to replace damaged wells, limited development potential due to poor air quality, and social spending associated with declines in coal employment and related economic hardships of coalfield communities. Some of these externalities impose additional costs directly to the state budget while others are borne by communities that mine and burn coal and by those outside the region. The report relies on 2006 figures and does not include the significantly expanded subsidies for advanced coal enabled by House Bill 1 of the 2007 special session of the Kentucky General Assembly.

Assessing the fiscal impact of an entire industry, especially one that is tied to natural resources and that has been a part of our economic and policy structure for so long, is methodologically difficult. The task requires that we rely on numerous assumptions and estimates. However, the approach used here improves upon unsubstantiated speculation of the industry's impact and assessments that only focus on coal's benefits.

Economic Context

The economic and energy contexts for the coal industry are changing. Coal employment continues its long historic decline due to ongoing mechanization of the industry (see Figure 2). In 2008, coal mining accounted for only one percent of Kentucky employment (see Figure 3). Even in the eastern Kentucky counties with the highest share of jobs in coal, mining jobs range from three to 23 percent of the employment base, although coal's high wages make it a larger share of county income. These counties, however, face significant long-term unemployment and poverty rates as high as 37 percent.

Kentucky coal struggles to remain competitive with western coal due to higher production costs. Debate continues over how many years of economically recoverable coal remain in Kentucky, but official sources project a significant decline in production as easy-to-mine coal is depleted. In the future, coal faces additional challenges as aging coal-fired power plants are retired and new laws on carbon emissions raise the price of coal relative to cleaner alternatives. Industry representatives and supporters embrace the potential for new technologies like Carbon Capture and Sequestration to solidify a future for coal. But these technologies face high costs and significant risk and uncertainty, and are already utilizing large public subsidies.

Kentucky Coal Mining Production and Employment (1979-2006)

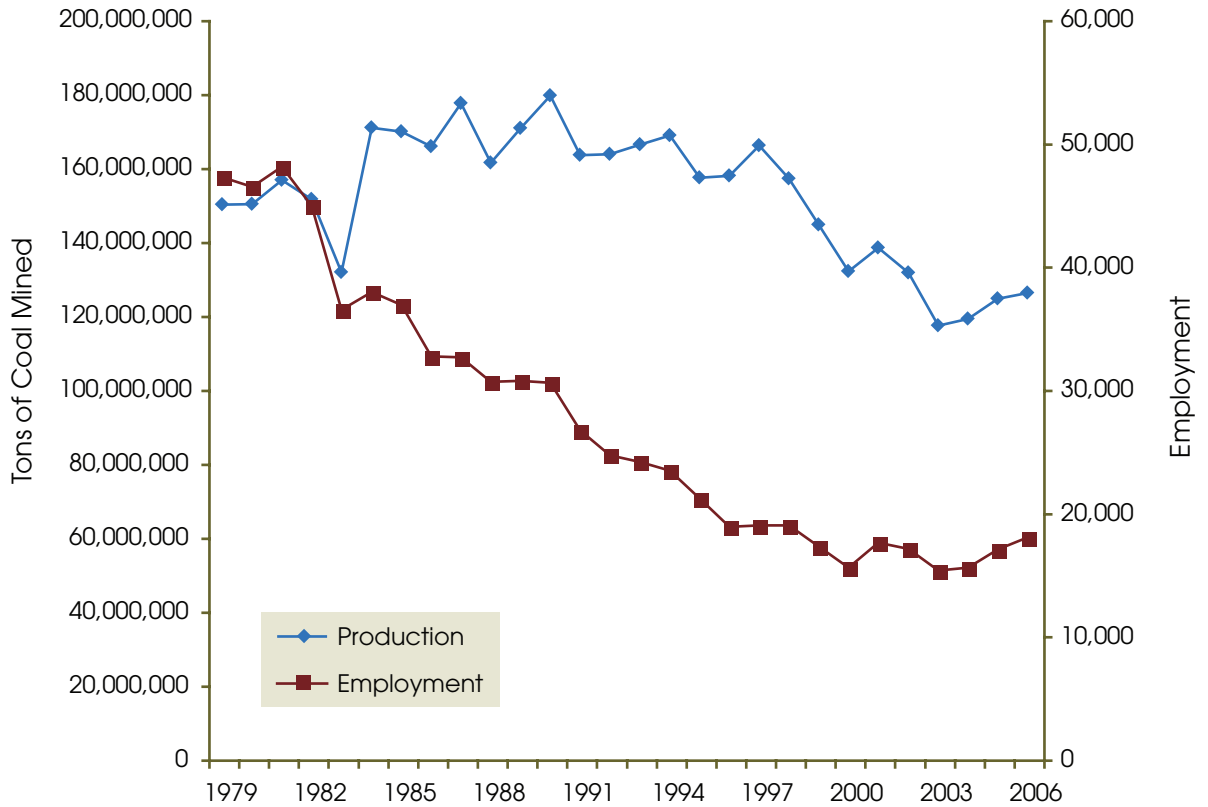


Figure 2: Kentucky Coal Mining Production and Employment.
 Source: Kentucky Coal Facts (http://www.coaleducation.org/Ky_Coal_Facts/default.htm)
 For more information on the economy of coal in Kentucky, visit www.maced.org/coal.

Kentucky Employment by Industry 2008

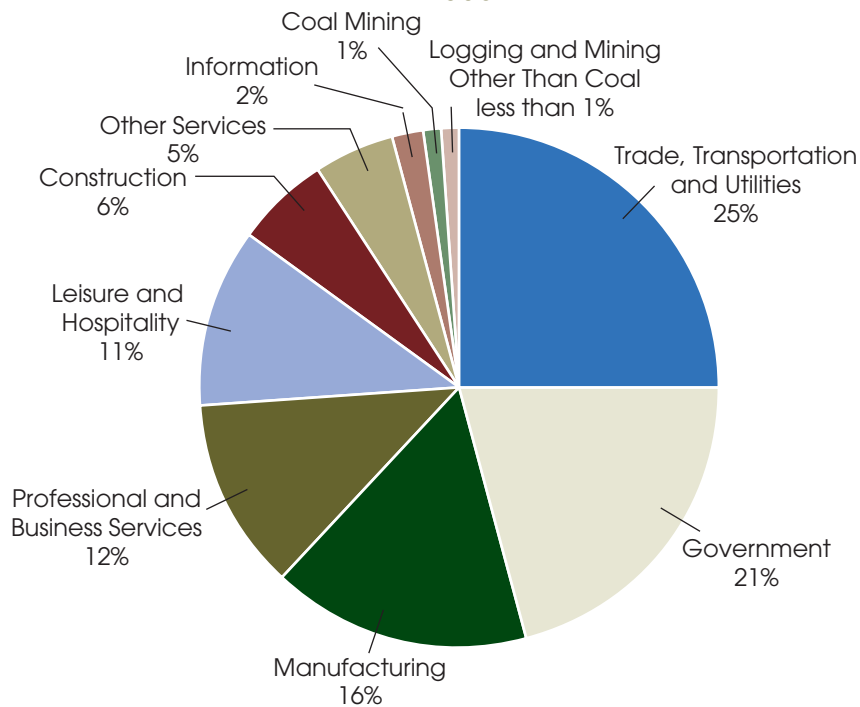


Figure 3: Kentucky Employment by Industry.
 Source: Kentucky Workforce Investment, Current Employment Statistics, 2008 Annual Data.

Recommendations

The Impact of Coal on the Kentucky State Budget suggests three key recommendations for Kentucky leaders.

- **Compare future investments in coal to investments in energy alternatives.**

The state launched a period of more active energy policy with the recent passage of House Bill 1 in a 2007 special session, House Bill 2 in the 2008 General Assembly, and the release of Governor Beshear's new energy plan. Kentucky invests modestly in renewable energy and energy efficiency, while it aggressively pursues policies to support coal and invest in new coal technologies. As the nation and the world begin to reduce dependence on fossil fuels, the Commonwealth must make strategic energy choices based on the full costs and benefits of the options before us.

- **Pursue economic diversification.**

As this report indicates, the costs associated with hosting the coal industry are significant. The long-term downward trend in coal employment and the approaching end of low coal-fired electricity prices further diminish the industry's economic development benefits. While no one knows for sure how long coal will be mined in Kentucky, it is not a renewable resource. We must work harder to achieve lasting economic diversification throughout Kentucky and its coalfield communities.

- **Examine the way coal is taxed and subsidized in the state.**

While the coal severance tax is often referenced for its contribution to Kentucky communities and the state budget, its benefits are diminished when the costs associated with hosting the coal industry are more fully represented. At the same time, tax expenditures for the coal industry are a set of growing but largely hidden subsidies that reduce revenue to the state budget. Taxation theory suggests higher taxes on activities, like the mining of coal, which cannot be relocated to other states. But the Commonwealth has not adjusted several coal-related taxes and fees in many years.³ Kentucky should examine its rate of taxation and use of subsidies and think strategically about the needs of the Commonwealth and the best path to a prosperous future.

The energy landscape is changing in the U.S. and beyond. Kentucky coal faces a challenging future. Kentuckians must think carefully about how we will engage the coming transition. We must move forward making informed choices about policy and public investments with a clear and honest accounting of the costs and benefits of our choices. *The Impact of Coal on the Kentucky State Budget* raises important questions to consider as we chart our economic and energy future.

- 1 Jepsen, Christopher, Kenneth Sanford and Kenneth R. Troske. 2008. "Economic Growth in Kentucky: Why Does Kentucky Lag Behind the Rest of the South?" Lexington, KY: Center for Business and Economic Research.
- 2 US Census Bureau. 2007 Poverty and Median Income Estimates — Counties.
- 3 Cheves, John. 2009. "Coal Tax Won't Take a Hike." *Lexington Herald-Leader* (May 6): A1.



Visit www.maced.org/coal for the full report and more information on the economy of coal in Kentucky.

