The West Virginia Coal Economy
2008

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Executive Summary

Since the discovery of coal in Boone County in 1742, West Virginia has substantially benefited from the growth and development of the coal mining and affiliated industries. This report provides an unbiased evaluation of the role coal plays in the state's economy by examining the historical and 2008 employment, wages, production, and tax payments of the industry. The study uses federal and state statistical agency data along with widely accepted research methodologies to estimate the direct, indirect and total economic impact of coal.

For purposes of this study the coal mining industry is defined by the North American Industry Classification System (NAICS) as all establishments whose primary activity involves one or more of the following: mining bituminous coal, anthracite, and lignite by underground mining, auger mining, strip mining, Culm bank mining and other surface mining; developing coal mine sites; and preparing coal.

Historically…

- wages per employee for the West Virginia coal mining industry has had an average annual increase of 3.9 percent.
- West Virginia's coal industry has employed the most individuals of all coal producing states.
- West Virginia's coal companies have paid significant amount of taxes to the state and local governments; enough that the loss of just property tax revenue from coal companies would be fatal to local governments.
- West Virginia's share of the value of total U.S. coal exports has risen from 16 percent in 2005 to 28 percent.

In 2008, the West Virginia coal industry was directly responsible for…

- production of approximately 158 million short tons of coal.
- employment of 20,454 individuals.
- payment of $ 1.5 billion in wages.
- payment of $676.2 million in taxes to the state in the form of property, severance, worker's compensation, corporate net income, special reclamation, sales and use, coal resource transportation road fund, and personal income taxes.

Direct, indirect, and induced economic impacts of the coal industry were measured in this study using the IMPLAN® input-output modeling system. Expenditures by the industry such as operating expenses for payroll, fringe benefits, rent, utilities, maintenance, construction, supplies, etc. represent the direct economic impacts of the industry. Indirect economic impacts are the economic activities (e.g. sales, wages, etc.) that result from purchases from suppliers of the industry. The induced economic impact of the industry represents the expenditures by households of the income they received associated with the direct and indirect impacts. The economic multipliers associated with the indirect and induced economic impacts are a clear indication of the strong economic linkage between the industry and the rest of the West Virginia

economy. The sum of the direct, indirect, and induced economic impacts is the total economic impact of the industry.

Key findings of the total economic impact of the coal industry in 2008 are the following:

- Total number of jobs created was 46,000.
- Total business volume generated was $19.8 billion.
- Total employee compensation was $2.8 billion.
- Total value added was $5.9 billion.

Once West Virginia coal has been mined, several industries create economic impacts using that coal and these additional economic impacts were also quantified for 2008. The additional analysis include the economic impact of taxes paid to the state and local government, the economic impact associated with the transportation of West Virginia coal, and the economic impact of the use of West Virginia coal in the generation of electric power within the state.

Key findings of these additional total economic impacts in 2008 are the following:

- Total number of jobs created was over 17,000.
- Total business volume generated was $5.5 billion.
- Total employee compensation was $840 million.
- Total value added was $1.7 billion.

When one adds these two sets of total economic impacts, one finds that coal has the following total economic impact:

- Total number of jobs created was over 63,000.
- Total business volume generated was $25.53billion.
- Total employee compensation was nearly $3.6 billion.
- Total value added was $7.6 billion

Besides the economic impacts of the coal operators, the coal industry also practices corporate responsibility by continuing to improve and develop local communities in which they operate through educational activities, local sports support, support of local service departments, foundations and charitable organization, and sponsorship of associations, clubs, councils, festivals and fairs.

The coal mining industry is subject to numerous regulations as a result of national and state public policy. While the size and growth of the coal mining industry in West Virginia depends heavily on the strength of the national and global economies, both current and proposed public policies also have the potential to dramatically affect the future of the coal mining industry in the state (and the associated economic contributions the industry makes to the state). A major threat to the coal industry comes from the potential limitations on surface mining permits currently imposed by EPA. A major concern over new public policy rests with the regulations relating to greenhouse gas emissions, including cap and trade legislation currently working its way through Congress, possible regulation of greenhouse gas emissions by the EPA, and the regulations associated with sequestration of carbon emissions.

Introduction

This report undertaken by the Center for Business and Economic Research (CBER) at Marshall University and the Bureau of Business and Economic Research (BBER) at West Virginia University[1]. Behind this study was a need for an unbiased evaluation of the role coal plays in the State's economy and for that reason only publically available data was used. Data required included a survey of coal companies within the state as well as publically available industry data. When estimates, projections and analysis are completed, the methods employed are fully explained to insure transparency.

CBER's primary responsibility was the development and administration of the industry survey and tax, foreign coal exports, and non-quantifiable economic impacts sections with contribution to the policy issues section. The Executive Summary was also prepared by CBER. BBER's primary responsibility was the compilation of the data, policy issues and the generation of the economic impact results. The latter were developed using the IMPLAN®, an input-output modeling system[2]. Both BBER and CBER reviewed each others' work. This report is a joint product.

The coal mining industry, as defined by the North American Industry Classification System (NAICS[3]), encompasses all establishments whose primary activity involves one or more of the following: mining bituminous coal, anthracite, and lignite by underground mining, auger mining, strip mining, Culm bank mining and other surface mining; developing coal mine sites, and preparing coal.

[1] Authors include: Amy Higginbotham, Tom S. Witt, and Randy Childs at West Virginia University and Cal Kent, Elizabeth Pardue, and Christine Risch at Marshall University.

[2] Economic impact results were estimated using IMPLAN 2008 data for West Virginia. More information regarding IMPLAN ® can be found at http://www.implan.com.

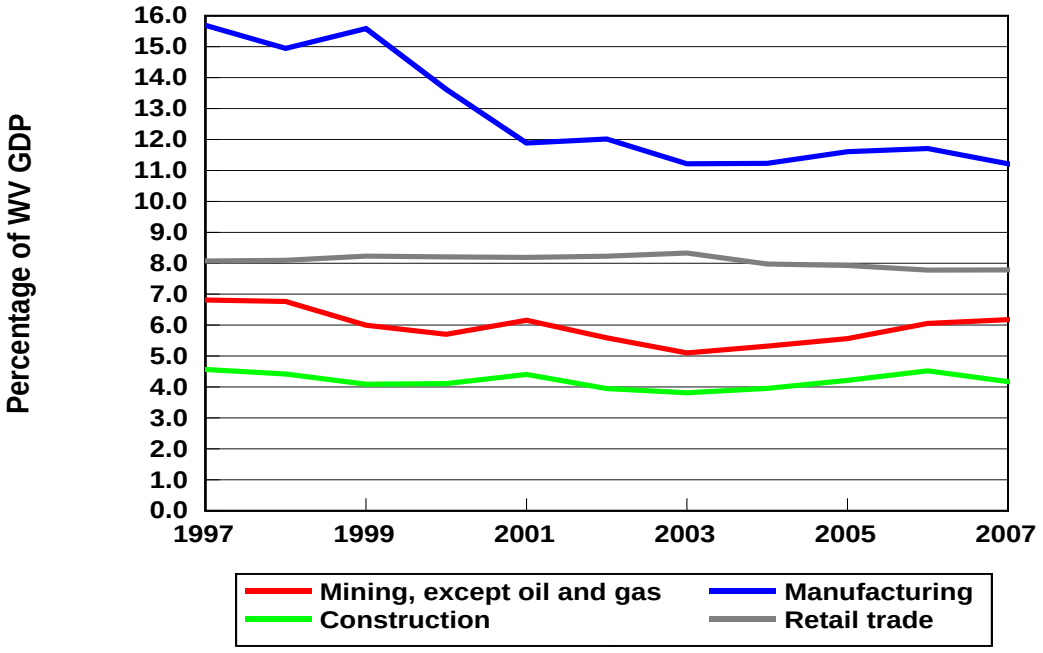
[3] The North American Industry Classification System (NAICS) classifies establishments by their primary type of activity. Further information regarding NAICS can be found at http://www.naics.com.

Coal Mining Industry in West Virginia

Since the discovery of coal in Boone County in 1742 by John Peter Shirley, West Virginia has substantially benefited from the coal mining industry. Coal mining has been a significant part of West Virginia's economy in terms of Gross Domestic Product[4], employment, wages, and tax revenues. The scope of this report is to quantify the economic impact of the coal mining industry on the West Virginia economy with special emphasis on 2008[5].

I. Gross Domestic Product

Figure 1: West Virginia's Gross Domestic Product by Major Sector 1997-2007



Source: U.S. Bureau of Economic Analysis

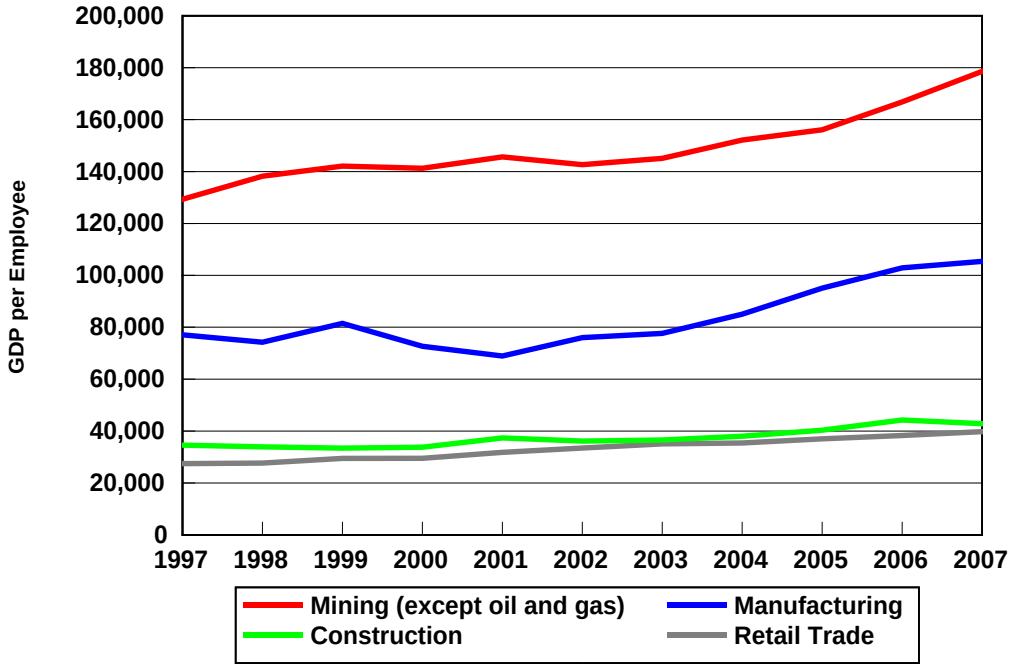
As defined by the U.S. Bureau for Economic Analysis (BEA), Gross Domestic Product (GDP) is a measurement of a state's output. It is the sum of value added from all industries in the state. For West Virginia, coal mining[6] has accounted for five to seven percent of West Virginia's GDP from 1997 to 2007, as shown in Figure 1. In 1997, coal mining accounted for 6.8% of West

[4] Gross Domestic Product as defined by the U.S. Bureau of Economic Analysis is a measurement of state's output. It is the sum of value added from all industries in the state. More information can be found at http://www.bea.gov.
[5] Unless otherwise stated, all statistics are presented in calendar year 2008 (January 1 – December 31) format. For estimates that could not be converted into calendar year format, fiscal or tax year numbers for 2008 were used.
[6] Mining (except oil and gas) refers to NAICS code 212 which includes industries primarily engaging in mining, mine site development, and beneficiating metallic minerals and non metallic minerals, including coal. When the term "coal mining" is used in this report oil and gas are excluded.

Virginia's GDP. From that point, the percentage accounted for by coal mining has declined. In 2003, coal mining only accounted for 5.1% of West Virginia's GDP. Since 2003, however, coal mining had increased the percentage of GDP to 6.2% reflecting the upturn in coal prices and production that occurred in those years. The GDP for the coal mining industry is for that industry only and does not contain the value added from sectors or industries that use coal or supply the coal mining industry.

Over this eleven year time period, other industries within West Virginia have fluctuated in terms of their percentage of the state's GDP. The most significant change has occurred in the manufacturing industry, whose percentage of West Virginia's GDP fell by 28.5%.

Figure 2: West Virginia Gross Domestic Product
by Major Sector per Employee
1997-2007

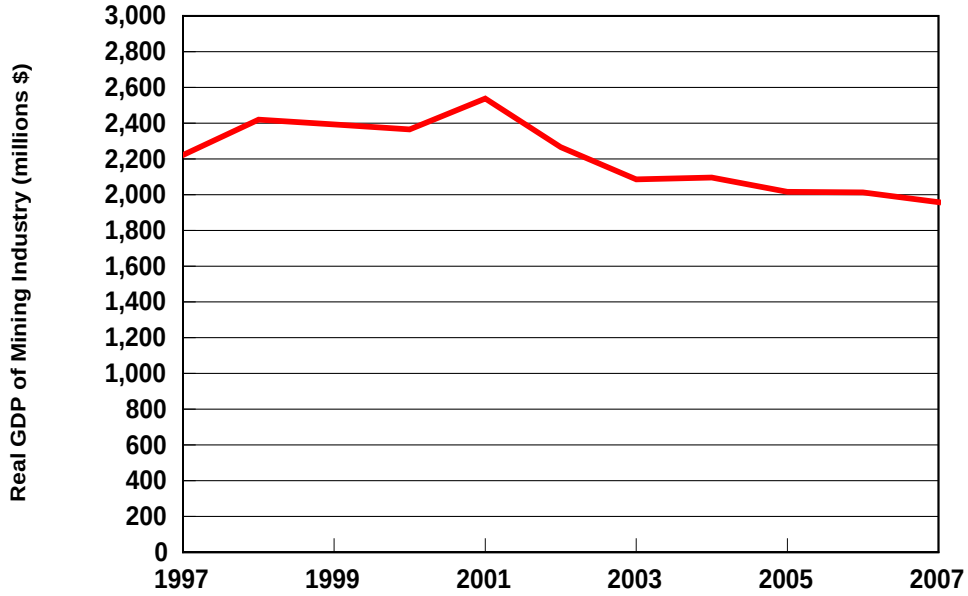


Source: U.S. Bureau of Economic Analysis

While the percentage of West Virginia's GDP that is accounted for by coal mining has been declining, the level of GDP per employee for the industry has been on the rise (Figure 2). GDP per employee for the coal mining sector has increased from $129,313 in 1997 to $178,611, an increase of 38 percent.

GDP per employee in the manufacturing and retail trade sectors, whose percentage of total West Virginia GDP was higher than the coal mining industry, was significantly lower from 1997 to 2007. For 2007, GDP per employee in the coal mining industry was 70 percent above manufacturing and 349 percent above retail trade.

Figure 3: Real GDP of West Virginia
Mining (Except Oil and Gas) Industry (NAICS 212)
1997-2007
(millions 2000 $)



Source: U.S. Bureau of Economic Analysis

An examination of inflation adjusted GDP or real GDP[7] shows that the level of GDP for the coal mining in West Virginia fluctuated from 1997 to 2007 with a peak in 2001 (Figure 3). Real GDP for the industry in 1997 was $2.22 billion and by 2001 it was $2.54 billion. For 2007, real GDP for the coal mining industry was at $1.96 billion.

II. Coal Production

2008 was a record year for coal production in the United States. According to the U.S. Energy Information Administration, the United States produced 1.17 billion short tons of coal, which was an increase of 2.2 percent from 2007. Approximately 40 percent of the nation's coal was produced in Wyoming while West Virginia coal mines produced 158 million short tons or 13.5 percent of the nation's coal (Table 1).

[7] Real GDP is defined as inflation-adjusted GDP and is characterized in year 2000 dollars.

Table 1: U.S. Coal Production 2008	
	Thousand Short Tons
Alabama	20,611
Alaska	1,477
Arizona	8,025
Arkansas	69
Colorado	32,028
Illinois	32,964
Indiana	36,159
Kansas	229
Kentucky	119,894
Louisiana	3,843
Maryland	2,807
Mississippi	2,842
Missouri	247
Montana	44,786
New Mexico	25,645
North Dakota	29,627
Ohio	26,263
Oklahoma	1,356
Pennsylvania	65,309
Tennessee	2,337
Texas	39,017
Utah	24,365
Virginia	24,582
West Virginia	157,994
Wyoming	467,644
US Total	1,171,483
Source: U.S. Energy Information Administration	

Major U.S. underground coal mines for 2008 include the following West Virginia mines:

- #3: McElroy (CONSOL Energy Inc.) produced 9.6 million tons
- # 12: Robinson Run (CONSOL Energy Inc.) produced 5.6 million tons
- #13: Blacksville No. 2 (CONSOL Energy Inc.) produced 5.6 million tons
- #14: Loveridge (CONSOL Energy Inc.) produced 5.2 million tons
- #19: Mountaineer II/Mtn. Laurel (Arch Coal Inc.) produced 4.0 million tons

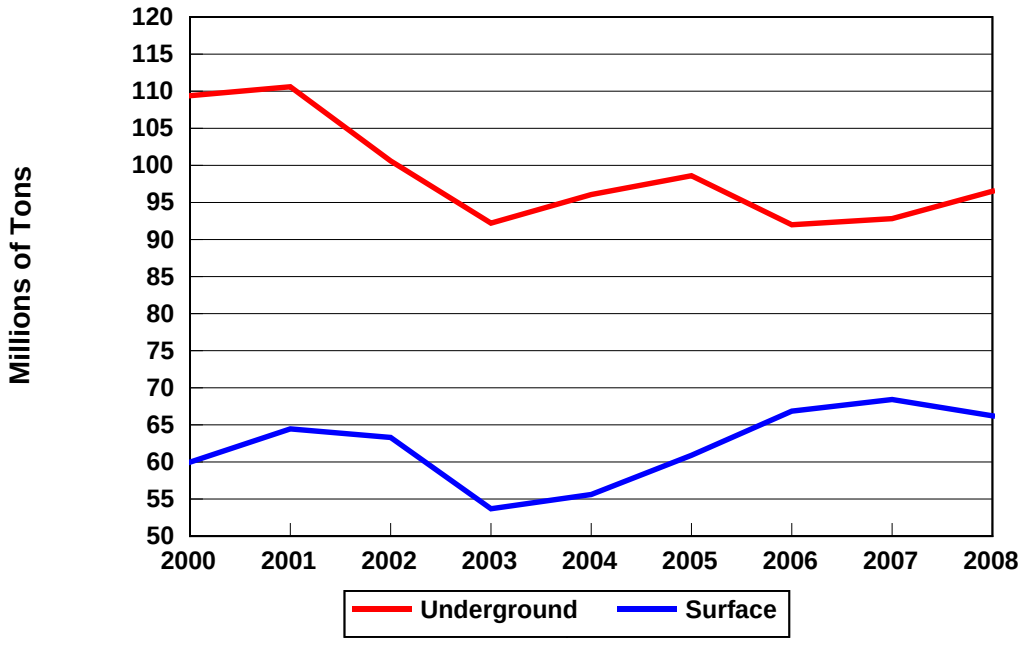
Major U.S. surface coal mines for 2008 include the following West Virginia mines:

- #25: Twilight MTR (Progress Coal Co./Massey) produced 5.1 million tons
- #34: Coal-Mac (Arch Coal Inc.) produced 3.4 million tons
- #38: Birch River (ICG Eastern LLC) produced 3.2 million tons
- #39: Black Castle (Black Castle Mining Co./Massey) produced 3.1 million tons

Total coal production in West Virginia has ranged from 145.9 million tons to 175.1 million tons from 2000 to 2008 according to the West Virginia Office of Miners' Health, Safety and Training.

The industry peaked in 2001 with total coal production at 175.1 million tons and two years later production had fallen by 16.7 percent to its lowest level during this time period. Underground coal production accounted for 61 to 65 percent of total coal production in the State from 2000 to 2005. Since 2005, underground coal production has only accounted for 57 to 59 percent of total production.

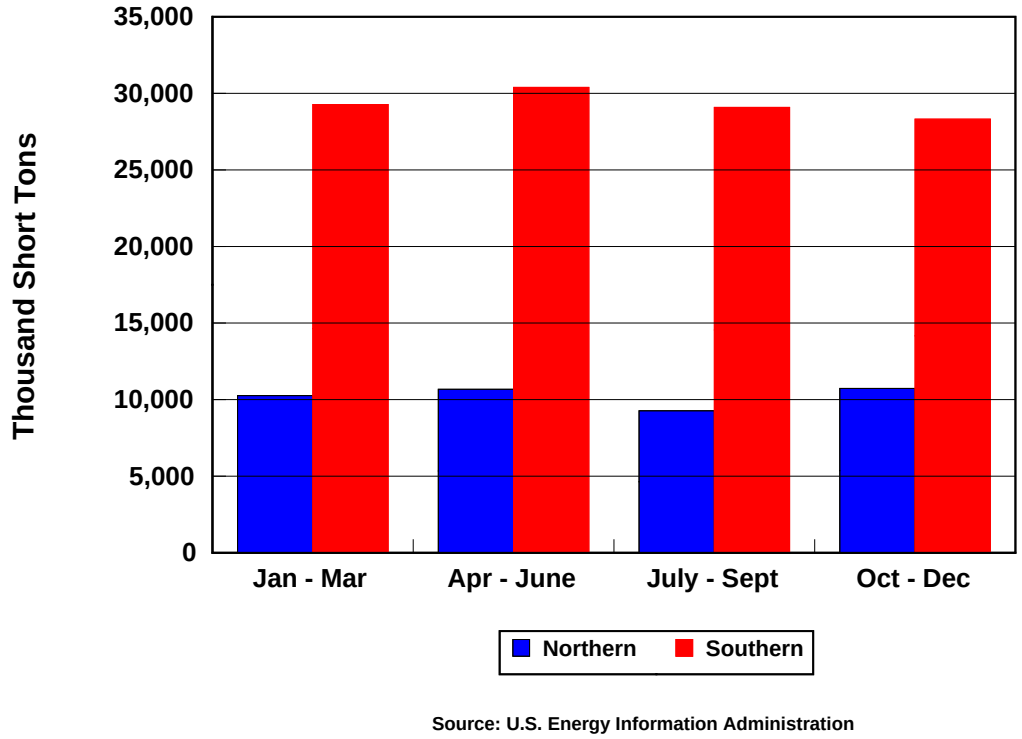
Figure 4: West Virginia Bituminous Coal & Lignite Underground Mining Production 2000-2008



Source: West Virginia Office of Miners' Health Safety and Training

Following the trend of total coal production in the state, underground coal production hit a high production level at 110.6 million tons in 2001 while surface mining produced 64.45 million tons that year (Figure 4). In 2003, both surface and underground coal production hit a low of 53.69 million tons and 92.21 million tons respectively. From 2003 to 2007, surface mining production has climbed at an average annual rate of 6.3 percent to a production level of 68.42 million tons. During this same time period, underground mining production fluctuated between 91.99 million tons to 98.61 million tons. In 2008, surface mine production fell to 66.22 million tons while underground mining production saw an increase of approximately 4 percent from the year before.

Figure 5: 2008 West Virginia Coal Production
By Quarter: 2008

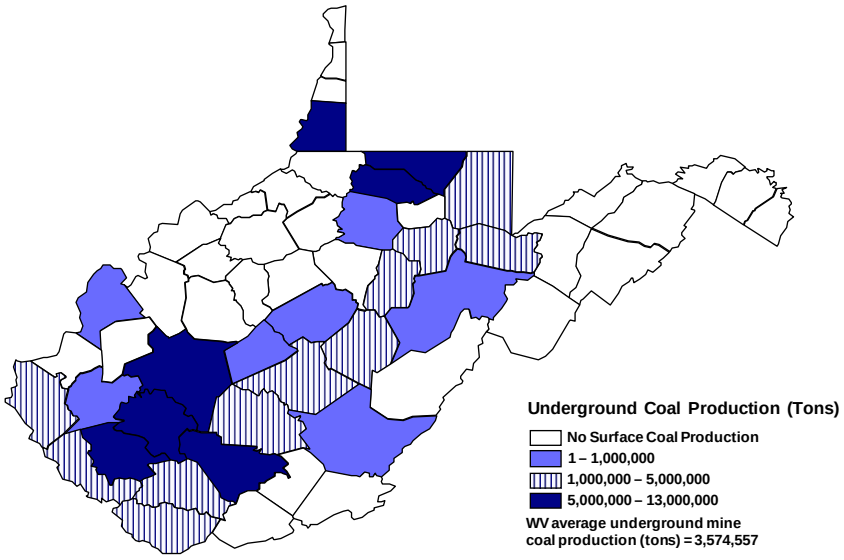


Source: U.S. Energy Information Administration

Figure 5 shows coal production in West Virginia for each quarter of 2008. Northern coal mine production[8] ranged from 9.3 million short tons to 10.8 million short tons in 2008. The coal production from the southern coal mines of West Virginia ranged from 28.3 to 30.4 million short tons.

[8] The U.S. Energy Information Administration defines West Virginia Northern coal mines as all mines in the following counties: Barbour, Brooke, Braxton, Calhoun, Doddridge, Gilmer, Grant, Hancock, Harrison, Jackson, Lewis, Marion, Mineral, Monongalia, Ohio, Pleasants, Preston, Randolph, Ritchie, Roane, Taylor, Tyler, Upshur, Webster, Wetzel, Wirt, and Wood. West Virginia Southern coal mines are defined as all mines in the following counties: Boone, Cabell, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer, Mingo, Nicholas, Pocahontas, Putnam, Raleigh, Summers, Wayne, and Wyoming.

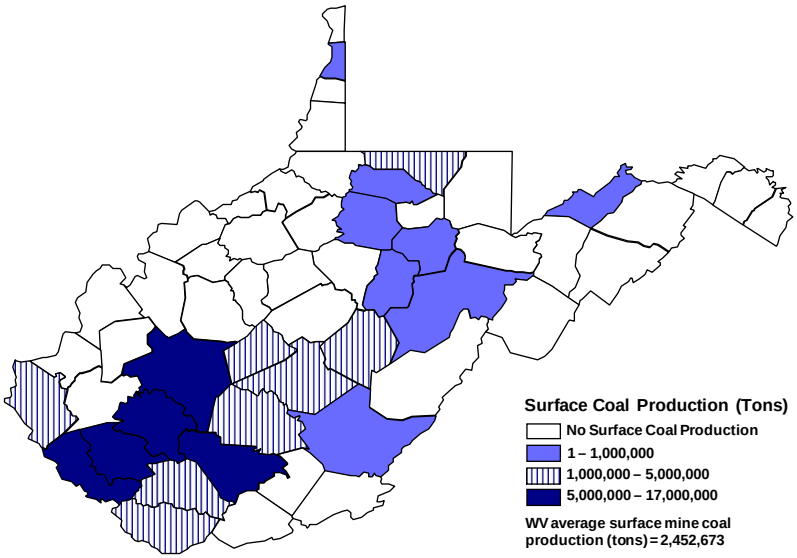
Figure 6: West Virginia Underground Coal Mining Production by County 2008



Source: West Virginia Office of Miners' Health Safety and Training

Approximately 59.3 percent of coal produced in West Virginia came from underground coal mines in 2008. Producing underground coal mines were located in 24 of the 55 counties in West Virginia as shown in Figure 6. The highest underground coal producing counties were Boone with 13 million short tons, Marion with 10.8 million short tons, and Marshall with 10.8 million short tons.

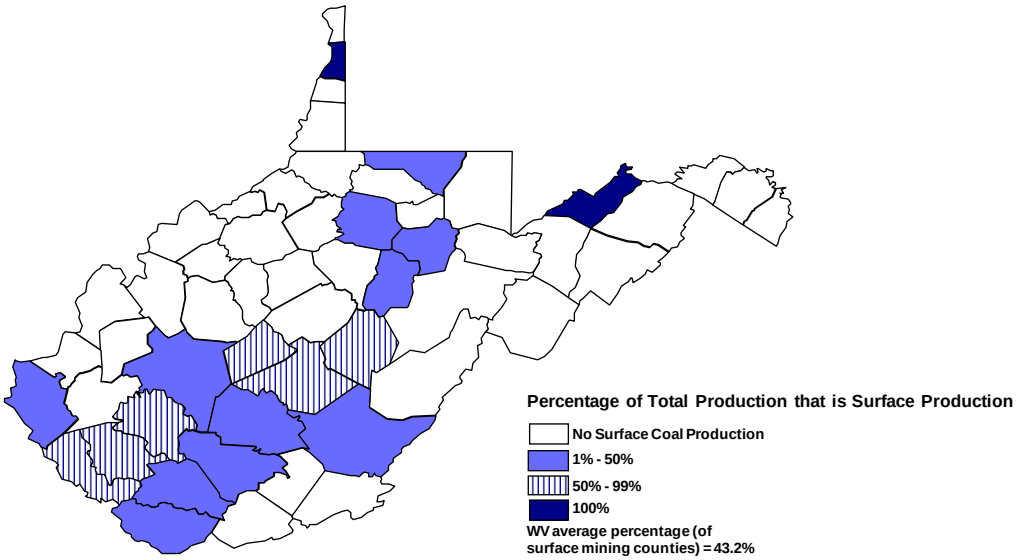
Figure 7: West Virginia Surface Coal Mining
Production by County
2008



Source: West Virginia Office of Miners' Health Safety and Training

Twenty-one West Virginia counties produced coal from surface mines in 2008 as shown in Figure 7. Eight of those counties produced less than 1 million short tons during the year. The most surface mine production was in five southern counties: Boone, Kanawha, Logan, Mingo, and Raleigh. Boone County produced the most coal in 2008 with 16.5 million short tons.

Figure 8: Percentage of Total West Virginia Coal Production that was Surface Coal Production 2008



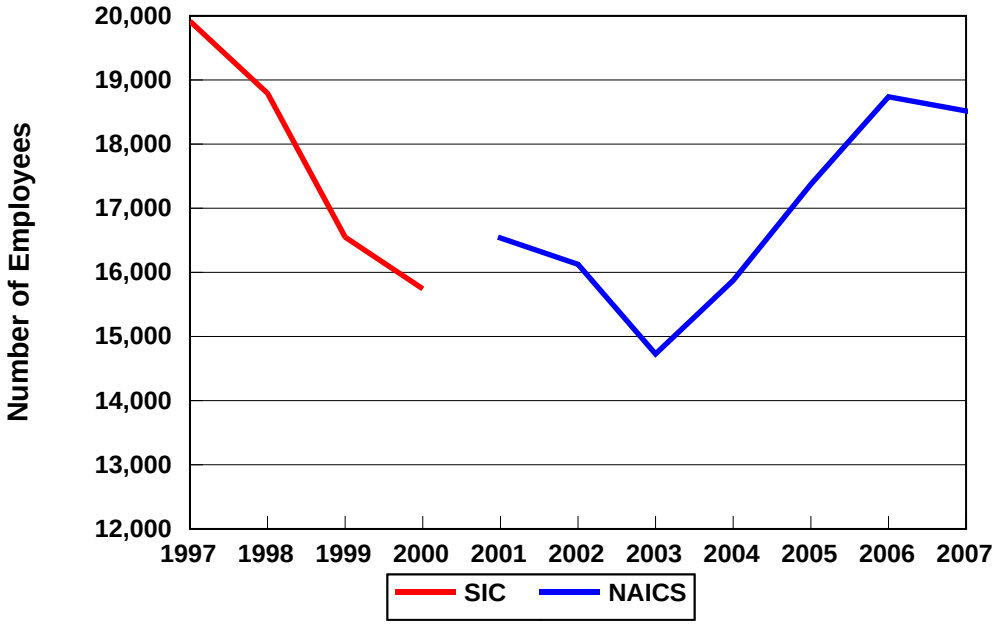
Source: West Virginia Office of Miners' Health Safety and Training

Surface mines produced approximately 40.7 percent of coal in the state during 2008. As shown in Figure 8, surface mine production was 100 percent of production in two counties: Brooke and Mineral. These two counties, however, only accounted for 607,000 short tons. Surface mine coal production accounted for over half of coal production in 6 counties while in 11 counties surface mine production was less than half of production.

III. Employment

From 1997 to 2000[9], coal mining[10] employment fell by 21 percent to a level of 15,743 employees in West Virginia as shown in Figure 9. In 2001, the coal mining industry employed over 16,500 individuals. From 2001 to 2003, the industry experienced a downturn and employment levels declined by 11 percent to a level of 14,727. Since 2003, coal mining employment levels have been on the rise. During the time period between 2003 and 2006 employment rose by an annual average rate of 8.4 percent. From 2006 to 2007, however, employment declined slightly to a level of approximately 18,500. Employment rallied in 2008 to 20,254 according to the U.S. Bureau of Labor Statistics (Table 2).

Figure 9: West Virginia Total Employment for Coal Mining Industry(NAICS 2121) 1997-2007



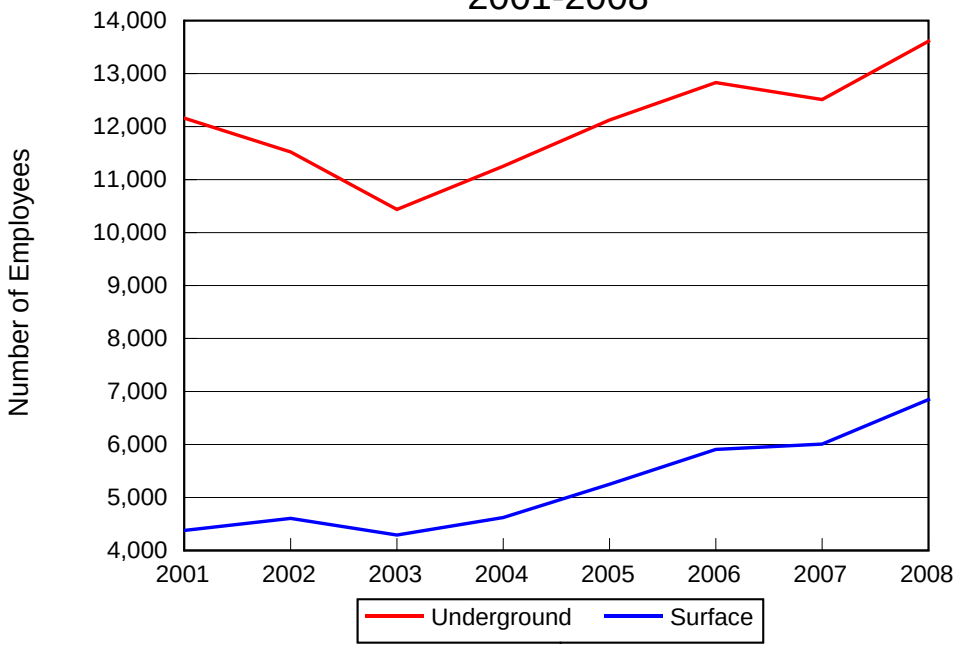
Source: Bureau of Labor Statistics
Note: SIC and NAICS classification systems are not comparable to one another

[9] Employment data from 1997 to 2000 is classified by the US Census Bureau using the Standard Industrial Classification System (SIC). The SIC was replaced by the North American Industry Classification System (NAICS). The employment data from 2001 to present time is classified under NAICS. Both systems were used to classify establishments by their primary type of activity

[10] The coal mining industry referenced in this report corresponds to NAICS sector 2121 and corresponding SIC sectors. NAICS 2121 refers to all establishments who primarily engage in one or more of the following: 1) mining bituminous coal, anthracite, and lignite by underground mining, auger mining, strip mining, Culm bank mining, and other surface mining; 2) develop coal mine sites; and 3) prepare coal.

The majority of total coal mining employment has been underground. In 2001, underground mining employment was 73.5 percent of the total. However, since 2001 the percentage of total employment that can be attributed to underground mining has declined while surface mine employment has been on the rise. For 2007, underground mining accounts for only 67.6 percent of total coal mining employment.

Figure 10: West Virginia Bituminous Coal Underground and Surface Mining Employment 2001-2008



Source: U.S. Bureau of Labor Statistics

Underground coal mining employment in West Virginia has varied between 10,400 and 12,900 since 2001 while surface mining employment has increased (Figure 10). Starting in 2001, underground mining employment equaled 12,160 while surface mining totaled only 4,377. From 2001 to 2003, underground mining employment fell by 14 percent while surface mining employment rose in 2002 and fell by 6.8 percent during the industry's downturn in 2003. After 2003 employment in both sectors of mining has been on the rise. Underground coal mining employment from 2003 to 2006 has risen by an annual average of 7.1 percent. However, from 2006 to 2007 underground employment fell by 2.5 percent. Surface mining employment rose to a level of 6,007from 2003 to 2007. In 2008, both underground and surface mining employment reached a peak of 13,607 and 6,847 employees respectively.

In 2008, the U.S. coal mining industry employed approximately 81,000 individuals according to the U.S. Bureau of Labor Statistics (Table 2). West Virginia's coal industry employed the most individuals of all coal producing states with a total employment of 20,454. The highest coal

producing state for 2008, Wyoming employed only 6,843 individuals due to its coal being produced from surface mines which are low cost and have thick seams.

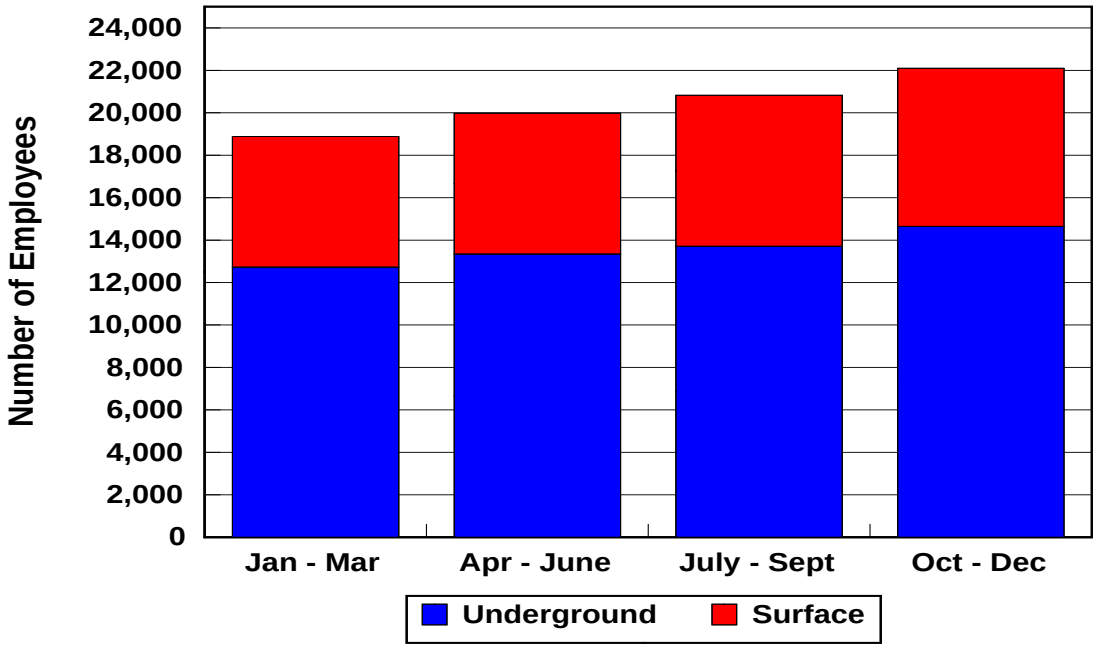
Table 2: U.S. Coal Mining Employment and Wages 2008

	Employees	Total Wages (in millions)
Alabama	4,146	$318.87
Colorado	2,285	$182.03
Indiana	2,952	$214.13
Kansas	71	$4.41
Kentucky	16,867	$1,115.68
Montana	846	$59.87
North Dakota	995	$79.59
Ohio	2,299	$148.25
Pennsylvania	7,872	$550.98
Tennessee	238	$9.93
Texas	2,565	$184.65
Utah	2,005	$135.05
Virginia	4,208	$285.24
West Virginia	20,454	$1,516.11
Wyoming	6,843	$529.14
US Total*	81,099	$5,857.07

Source: U.S. Bureau of Labor Statistics

* US Total is the sum of the states listed above as well as employment and wages from non-disclosal states.

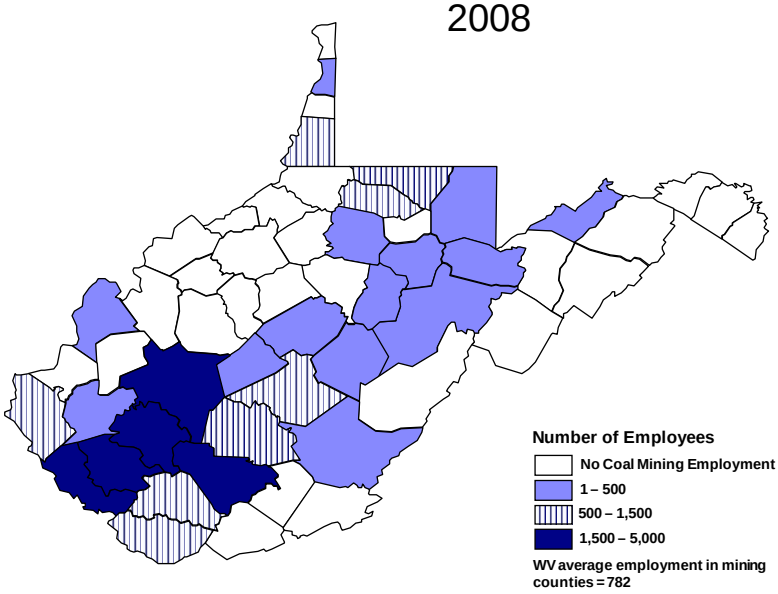
Figure 11: West Virginia Coal Mining Employment By Quarter: 2008



Source: Workforce West Virginia

West Virginia coal mining employment of 20,454 in 2008 can be divided into two major categories: underground and surface mining. Figure 11 shows the breakdown of total coal mining employment by type for each quarter of 2008. Underground mining employment was the highest in the state in each quarter accounting for 66 to 67 percent of total employment. From the first quarter of the year to the fourth quarter, all types of coal mining employment increased. In fact, underground mining employment in West Virginia increased at an average quarterly rate of 4.8 percent while surface employment rose to 7,450 employees in the fourth quarter.

Figure 12: West Virginia Coal Mining Employment by County 2008



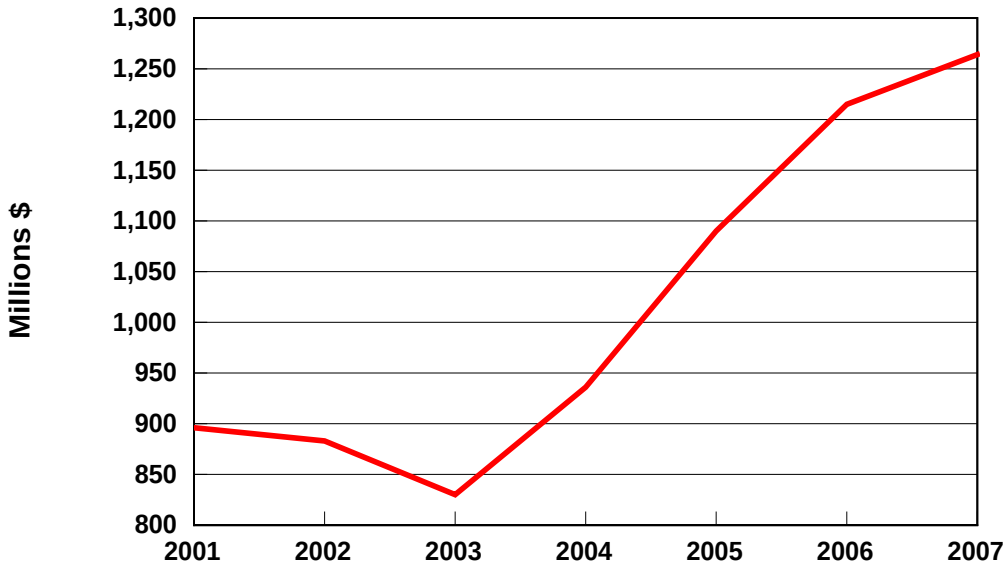
Source: West Virginia Office of Miners' Health Safety and Training

Coal mining companies employed individuals in 27 West Virginia counties in 2008 (Figure 12). Fourteen of those counties had coal mining employment between 1 and 500 individuals. Five counties, Boone, Kanawha, Logan, Mingo and Raleigh, had coal mining employment over 1,500 for the year. The most coal mining employment was found in Boone County where production was the greatest.

V. Compensation and Wages

Since 2001, the coal mining industry has paid $7.1 billion in wages in West Virginia (Figure 13). Of the total wages paid in West Virginia in 2001 only 4.7 percent were from the coal mining industry. From 2001 to 2003, wages declined from $896 million to $830 million. The total wages paid dramatically increased since 2003. From 2003 to 2007, total wages paid by the coal mining industry has increased by an average annual rate of 11.2 percent. For 2007, total wages for the industry were $1.26 billion and accounted for 5.3 percent of total wages paid in the state.

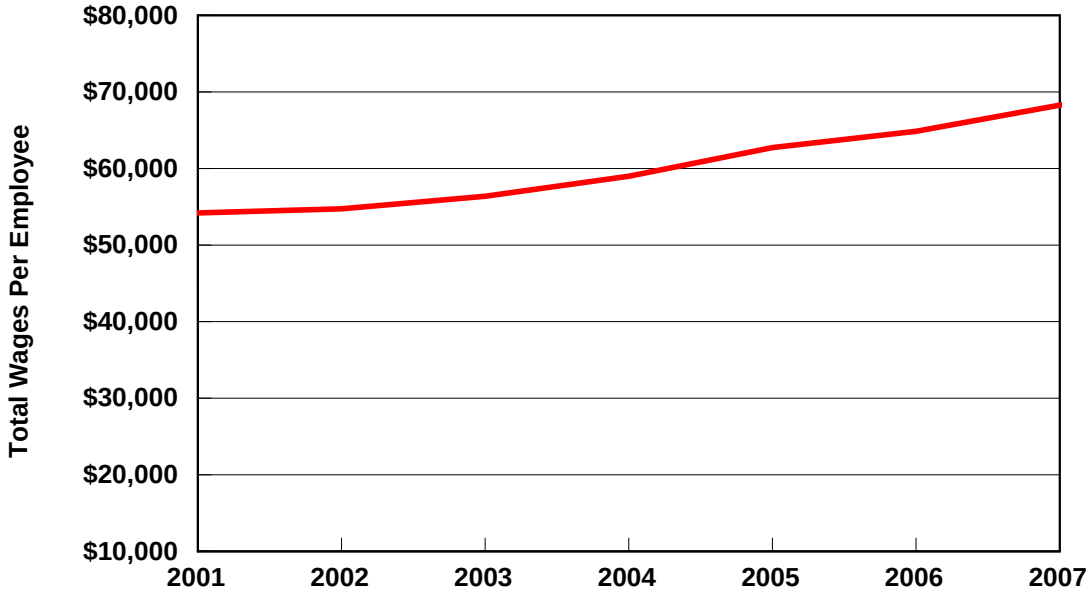
Figure 13: Total Wages Paid in West Virginia
Coal Mining Industry (NAICS 2121)
2001-2007
(millions $)



Source: U.S. Bureau of Labor Statistics

Average weekly wages for the coal mining industry has steadily risen reflecting the increase in per-worker productivity. From 2001 to 2007, average weekly wages for the industry increased by $271. The largest increase occurred from 2004 to 2005, when average weekly wages increased by 6.3 percent. For 2007, average weekly wages equaled $1,313, which was a 5.3 percent increase from 2006.

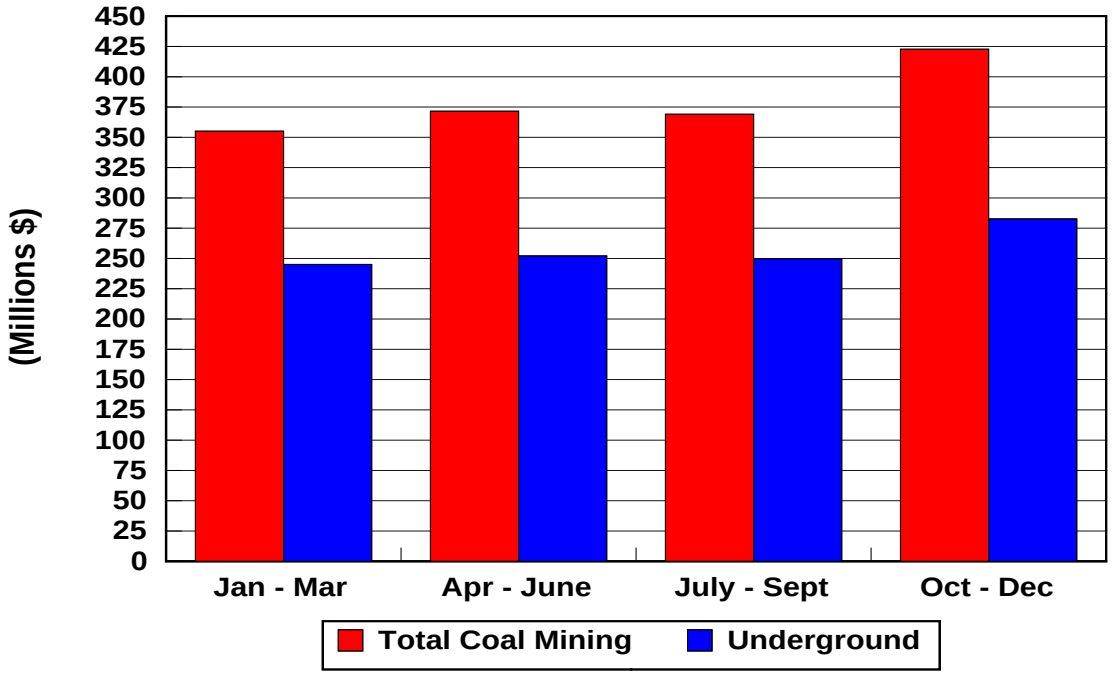
Figure 14: Total Wages Paid Per Employee
in West Virginia Coal Mining Industry (NAICS 2121)
2001-2007



Source: U.S. Bureau of Economic Analysis

Like average weekly wages, total coal mining wages per employee has been on the rise since 2001 (Figure 14). Wages per employee for the industry has had an average annual increase of 3.9 percent. In comparison to other major industries within the state, wages per employee in the coal mining industry were significantly higher. In 2007, wages per employee were 49 percent higher than in the manufacturing industry.

Figure 15: West Virginia Coal Mining Wages 2008



Source: Workforce West Virginia

In 2008, West Virginia coal mining wages paid in West Virginia totaled approximately 20 percent of national coal mining wages or $1.5 billion in 2008 as shown previously in Table 2. Approximately 72 percent of those wages were paid during the first three quarters of the year (Figure 15). In fact, wages paid during those quarters totaled between $350 and $375 million. In the fourth quarter, however, wages paid increased by 15 percent from the previous quarter to a level of $423 million. This surge in wages coincided with an increased in employment. Underground coal miners received approximately 67 to 68 percent of total coal mining wages in the state each quarter. In terms of wages, the coal mining industry paid over $5.8 billion to employees.

VI. Taxes Paid by Coal Companies

The current study focuses on six different taxes which are levied on coal in the State of West Virginia. These taxes are:

- Property Tax;
- Severance Tax;
- Workers' Compensation Tax;
- Corporation Net Income Tax;
- Special Reclamation Tax;
- Sales and Use Taxes.
- Coal Resource Transportation Fund
- Personal Income Taxes (paid by employees)

In addition, a special permit fee is imposed on commercial motor vehicles used to transport coal on coal resource transportation roads in West Virginia. This fee covers a required special permit for the vehicle and must be renewed annually.

Funds collected from the eight taxes and fees support the West Virginia general revenue fund, reclaim forfeited mining sites, and are distributed to counties and municipalities. Funds collected from the special permit fee are used to build, maintain, and repair public roads and bridges over which coal is transported. Table 3 provides the total amount collected from each tax.

Table 3: Taxes and Fees Levied on Coal In West Virginia 2008 (millions $)	
Tax Type	**Amount**
Property Taxes Levied:[1]	
Real Property:	
Producing coal property	$19.7
Non-producing coal property	$13.3
Buildings and Land[2]	$3.0
Personal Property	$54.8
Severance Taxes[3]	$412.7
Workers' Compensation Tax[4]	$80.0
Corporation Net Income Taxes[5]	$25.6
Special Reclamation Taxes[6]	$13.6
Sales and Use Taxes[7]	$3.6
Coal Resource Transportation Road Fund[8]	$3.9
Personal Income Taxes[9]	$46.0
Total	**$676.2**[9]

1: Represents approximate levy amounts based on estimated appraisals for tax year 2008 and the average 2008 statewide levy rates of 2.06%. These funds were not collected until 2009. Producing property represents permitted property and non-producing property represents non-permitted property. Figures obtained from the WV State Tax Department, Property Tax Division

2: Represents approximate real property taxes levied on buildings and land owned by the top 10 coal companies in West Virginia in TY 2009. The estimate is given on a select number of coal companies due to difficulties in obtaining information on subsidiaries of all coal companies. As with other taxes levied, assessed value is subject to the average 2008 state wide levy rate of 2.06%. Figure obtained from the WV State Tax Department, Property Tax Division.

3: Represents the amount collected from the coal severance tax for 2008. Figure obtained from the WV State Tax Department, Research and Development Division

4: Represents an estimate of the amount collected for the Workers' Compensation Tax on coal in 2008. Figure obtained from the WV State Tax Department

5: Represents amount collected from CNIT as related to coal mining for 2008. CNIT includes figures for the Business Franchise Tax and Non-Resident Withholding. Figure obtained from the WV State Tax Department

6: Represents collections for the SRF for 2008 (corresponds amounts to monthly coal production). This amount does not represent the amount levied for 2008. Figure obtained from the WV Department of Environmental Protection, Division of Mining and Reclamation

7: Represents the 2008 sales and use taxes collected from all self-classified mining firms, including oil and gas miners, multiplied by the approximate percentage of coal-related mining relative to total mining of 73.6%. Figure obtained from the WV State Tax Department.

8: Represents the amount collected for the CRTRF for 2008. Figure obtained from the WV Department of Transportation, Division of Highways

9: Represents personal income taxes as calculated in Appendix IV. Figure obtained from the WV State Tax Department

10: Coal taxes levied or collected are lower because of a decrease in coal production

A. Property Tax

The real property tax is levied on subsurface minerals separate from the surface value of the land as well as on the buildings and land owned by coal companies. In West Virginia, coal reserves are defined as a separate class of real property. The severed mineral interest is appraised differently based on the type and characteristics of the coal and where the coal bed is located. Equipment and machinery used in coal production are taxed as personal property. The assessed value of property is 60 percent of the appraised value. The levy rate, determined for each county, is then applied to the assessed value to determine the amount of property taxes levied.

West Virginia defines five types of coal property to be subject to property taxation. Active mining coal property is appraised by taking a three-year weighted average of production and

price figures. These production figures are then converted to an income stream and the present worth is determined through discounting.

Reserve coal property is appraised through a "reserve appraisal formula." Various factors are considered to determine the present value per acre of each coal bed in the State. These ten factors include:

- The present value per acre of a coal bed;
- The coal price per million BTU;
- The average royalty rate;
- The BTU and sulfur adjustment factor;
- The mid-year present worth factor;
- The BTU content in one pound of dry coal;
- A tonnage conversion factor;
- A tonnage per acre foot conversion factor;
- The clean coal recovery rate;
- The coal bed thickness in feet.

Unmineable coal property in West Virginia, which is a coal bed with a thickness of less than 30 inches, is appraised at a base rate of $5 per acre. Mined-out and barren coal properties, the last of the five types of coal property, are each appraised at $1 per acre. Certain conditions must be met when a site includes more than one type of coal property.

The final real property tax is levied on buildings and land owned by coal companies. This is classified as commercial and industrial real property for property taxation purposes. Commercial and industrial real property is appraised at fair market value of the property based on the consideration of three valuation methods: the cost approach, the income approach, and the market data approach. Determining fair market value through the cost approach takes three different figures into consideration: the replacement cost of the improvements, amount of accrued depreciation, and the estimated land value.

The income approach to fair market value measures the value of future income. In this approach, future income of the property is estimated and then discounted to calculate the present worth of the property. To calculate the fair market value using the income approach, the annual economic rent, which is defined as the amount of rent that would be charged to rent the piece of real property at the time of the appraisal, and the capitalization rate are used. To determine the fair market value of commercial and industrial real property through the market data approach, the selling prices, adjusted for age, location, construction, and amenities differences, of properties which are comparable to the property being appraised are considered.[11] All approaches are considered in the valuation of commercial and industrial real property. Once each approach is analyzed, the most accurate appraisal method is used.

For 2008, the amount of real property taxes levied on the five types of coal property in the State are estimated to exceed $36 million. Of these estimated real property taxes levied, approximately

[11] WV CSR §110-1-11.9(b)(1)(C).

$19.7 million is estimated for permitted properties and approximately $13.3 million is estimated for non-permitted properties. Permitted properties are defined as those producing coal under a permit from the State, while non-permitted properties represent properties for which no permit has been obtained and mining has not commenced. Taxes levied during 2009 for buildings and land owned by coal companies is estimated to be $2.96 million.

Personal property related to coal in West Virginia is considered commercial and industrial for taxation purposes. Because of information availability, the cost approach is often the most effective method used for appraising coal-related personal property. As with real property, personal property is assessed at 60 percent of the appraised value and then subject to the current levy rate for the county. For 2008, personal property taxes levied are estimated to be $54.8 million.

Total property taxes on all coal property totaled an estimated $91 million. This figure is very conservative as only the land and buildings owned by the 10 major coal companies was included. Nor was the property taxes paid by their subsidiary corporations included. Also omitted were property taxes on coal related businesses such as transportation and electric generation.

Figures from the West Virginia State Tax Department indicate that some counties receive 15 percent or more of their revenues from real and personal property taxes. In order to demonstrate how important property taxes are to local government finance, the data for West Virginia's primary producing county, Boone, was assembled. In that county, coal related property taxes constituted half of their financial resources. As noted in the tables of Appendix III, loss of property tax revenue would be fatal to some local governments. While not as great an impact in the other major coal counties, most would find it impossible to replace lost property taxes from coal given the limitations imposed by the West Virginia Constitution.

B. Coal Severance Tax

The coal severance tax is levied on the privilege of mining coal in West Virginia . The rate is 5 percent of the gross value of coal produced. The base tax is decreased to 2 percent if the thickness of the coal seam is between 37 inches and 45 inches and 1 percent if the thickness is less than 37 inches. Money collected from this tax is distributed into five funds. These funds are the General Revenue Fund, Infrastructure Fund, Local Governments fund, Tax Department Administration Fund, and the Excess Coal Transfer Fund.

A total of 0.35 percent is taken from the total severance taxes collected to fund the "county coal revenue fund" and the "all counties and municipalities coal revenue fund." Initially, $35,000 of the money set aside is given to the State Tax Department for administration of these funds. Specific formulas are calculated to determine how much each county and municipality in the state will receive from the remaining funds collected each year.

The "county coal revenue fund" benefits each coal producing county and is equal to 75 percent of the funds remaining after the deduction of the administration funds. The remaining 25 percent is distributed to local governments under the "all counties and municipalities coal revenue fund,"

which benefits all counties and municipalities in the State regardless of whether coal has been severed in that jurisdiction.

For 2008, approximately $412.7 million in annual severance taxes were collected in West Virginia. Approximately $327.3 million was distributed to the General Revenue Fund, $18.4 million was distributed to the Infrastructure Fund, and $28 million was distributed to the Excess Coal Transfer Fund. Approximately $39 million, excluding the $35,000 for administrative purposes, was distributed back to the counties, both those producing coal and those not producing coal, and municipalities in the State.

The receipts for each coal producing county are given in Appendix IV. The amount distributed to each county and each municipality are recorded in Appendices IV.

Coal companies are allowed a "Coal-Loading Facilities Credit" which can be applied to the severance tax. This credit is equal to 10 percent of the cost of an investment made in the coal-loading facility. The credit must be spread over a 10 year period. The figures used were net of that credit.

The workers' compensation tax is an additional annual severance tax which is levied on the privilege of producing coal in West Virginia. The rate of this tax is currently set at $0.56 per ton of clean coal severed or produced after November 30, 2005. Funds collected from this additional tax are deposited into the "Workers' Compensation Debt Reduction Fund" and used to pay down the unfunded liability of the Workers' Compensation Program in West Virginia. The amount of Workers' Compensation Tax related to coal severance for 2008 is estimated to be $80 million. This figure does not represent the full amount paid by coal-related business and is therefore a minimum estimate.

C. Corporate Net Income Tax

In West Virginia, coal companies are taxed no differently than other corporations doing business in the State. The corporate net income tax utilizes adjustments to determine the West Virginia taxable income from the federal taxable income for all companies with taxable presence in West Virginia. A base tax rate is then applied and a three factor state-specific apportionment formula calculated to determine the amount of income to be taxed by West Virginia. The three factors are sales, property, and payroll with sales being double weighted.

The State has instituted a number of changes to the corporation net income tax rates. While the full list is included in West Virginia Code, the base rate is currently being reduced from 8.5 percent, effective from January 1, 2009 to 6.5 percent on January 1, 2014. The base tax rate had increased previously from 6 percent on June 30, 1967 to the highest rate of 9.75 percent on July 1, 1987. For 2008, corporation net income taxes related to coal totaled approximately $25.64 million.

D. Special Reclamation Tax

The Special Reclamation Tax is levied on each ton of "clean coal" mined. Clean coal has been processed and cleaned prior to being shipped. The tax is set at 14.4 cent tax per ton of clean coal mined in the State. The proceeds from this tax benefit the Special Reclamation Fund and the Special Reclamation Water Trust Fund. These funds are used to reclaim forfeited mining sites and to correct the negative effects of acid mine drainage on the surrounding environment. Collections[12] of the Special Reclamation Fund totaled approximately $13.6 million for 2008.

E. Consumers Sales and Use Taxes

Coal and coal-related companies are subject to the West Virginia consumers retail sales and use tax for their covered activities. The tax is imposed on the sale, lease, or use of tangible personal property as well as certain business services. The current rate for this tax is 6 percent.

Coal producing firms are not subject to the tax due to the Natural Resource Production Business exemption. Sales to most coal consumers, such as electric utilities and manufacturers subject to the sales and use tax, are also not subject to the tax, as these transactions fall under the Purchases for Resale exemption. A third exemption involves sales for Environmental Testing Services.

Even so, the consumers sales and use tax does apply to a limited number of activities associated with the coal industry. For 2008 total sales and use taxes attributed to coal mining companies exceeded $3.6 million.[13] It was impossible to determine the sales taxes paid by other coal related companies as that data is not available. This figure is considered very conservative.

Because NAICS codes are self-reported by companies for taxation purposes, the actual sales and use tax figure for coal mining companies could vary dramatically from the estimated $3.6 million. This difference would be dependent on actual mining companies which may not have classified themselves by the NAICS classification for mining companies of 2121. The above estimate represents payments in the activity and liability period, not those payments collected during the collection period. These payments include:

- Sales taxes paid by direct pay permit holders;
- Use taxes paid by purchasers of taxable items from out-of-state vendors used in West Virginia;
- Sales and use retailer taxes collected by mining businesses on covered retail sales.

[12] These collections are corresponding amounts to production for each month, not the amount levied for that year.
[13] This figure assumes that 73.6% of sales and use taxes are attributed to coal mining companies only. This percentage is applied to the estimated 2008 sales and use tax figure for all mining companies including oil and gas.

F. *Coal Resource Transportation System*

A special permit is required for commercial motor vehicles transporting coal on public and state-maintained roads. The permitting program is maintained by the West Virginia Public Service Commission. Specific routes are designated as coal resource transportation roads. In ten large coal producing counties, the West Virginia Division of Highways (DOH) is responsible for designating roads as coal resource transportation routes. Eight other counties include coal resource transportation routes as well. Designation of these routes is the responsibility of the Coal Resource Transportation Designation Committee (CRTDC), as established in HB 3089 (2005).

This fund is used by the West Virginia Department of Highways to build and maintain public roads and bridges over which coal is transported. For 2008, approximately $3.9 million in revenue was collected in the fund. Specific information regarding weight limits can be found in Appendix V.

F. Personal Income Taxes

Those employed by the coal industry pay personal income taxes (PIT) to the state. Estimating the amount of personal income taxes paid by coal industry employees is problematical. No data exists which would allow for a precise estimate. Using the methodology described in Appendix VI, the PIT was estimated to be $46 million. This is a conservative estimate. Other estimates have concluded the PIT amount is twice that, but those estimates appear high.

To the extent that the PIT represents in-state spending by the State which would have not been spent by individuals with in-state business if they had kept the income, the PIT represents a gain to the West Virginia economy.

G. Other Taxes

The Abandoned Mine Land Program promotes the reclamation of sites mined and abandoned prior to 1977. To finance reclamation of abandoned mine sites throughout the nation, fees on coal production have been established and collections are divided into federal and state shares. In 2008, West Virginia received $41.4 million in funds from the Abandoned Mine Land Program[14].

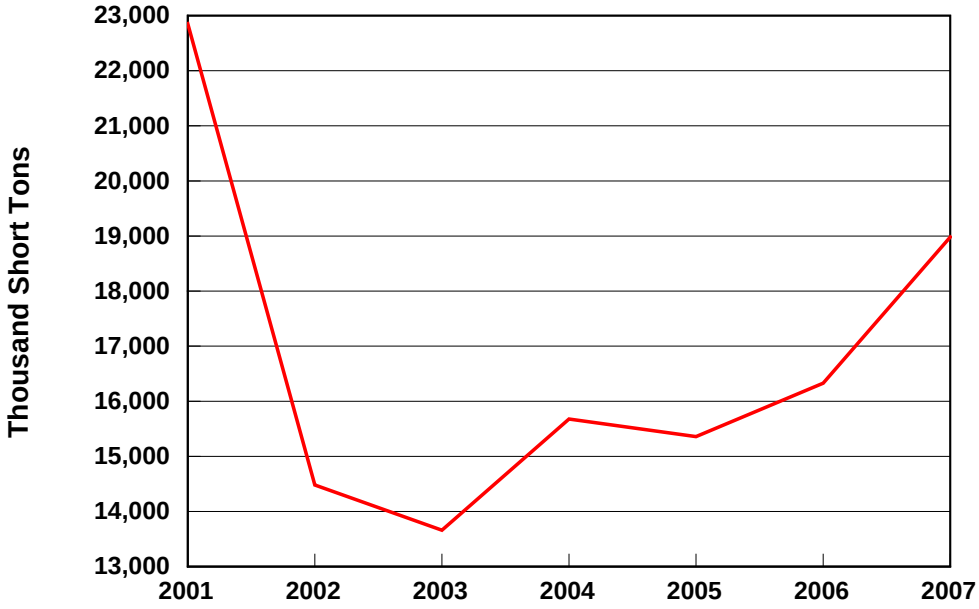
VII. Coal Exports

Selling products made in West Virginia in foreign markets is one of the best ways to stimulate the State's economy. These sales bring money into the State that reduces the nation's significant balance of payments problem as well. 2008 was a record year for exports from West Virginia and the most valuable export was coal. Of the $5.6 billion in exports, coal accounted for $2.1 billion or 37 percent of the total.

[14] Funds collected from the Abandoned Mine Land Program were not added to the total amount of taxes paid by coal companies in 2008 since the amount collected was just a share for the state. The amount was also not included in the economic impact of taxes paid by coal mine companies.

The Energy Information Administration (EIA) publishes annual reports on the foreign distribution of U.S. coal by state of origin. Total coal exports from West Virginia declined from 2001 to 2003, but have been increasing since 2005. Between 2001 and 2007 West Virginia exports accounted for 31 to 47 percent of the U.S. total.

Figure 16: Foreign Distribution of West Virginia Coal 2001-2007



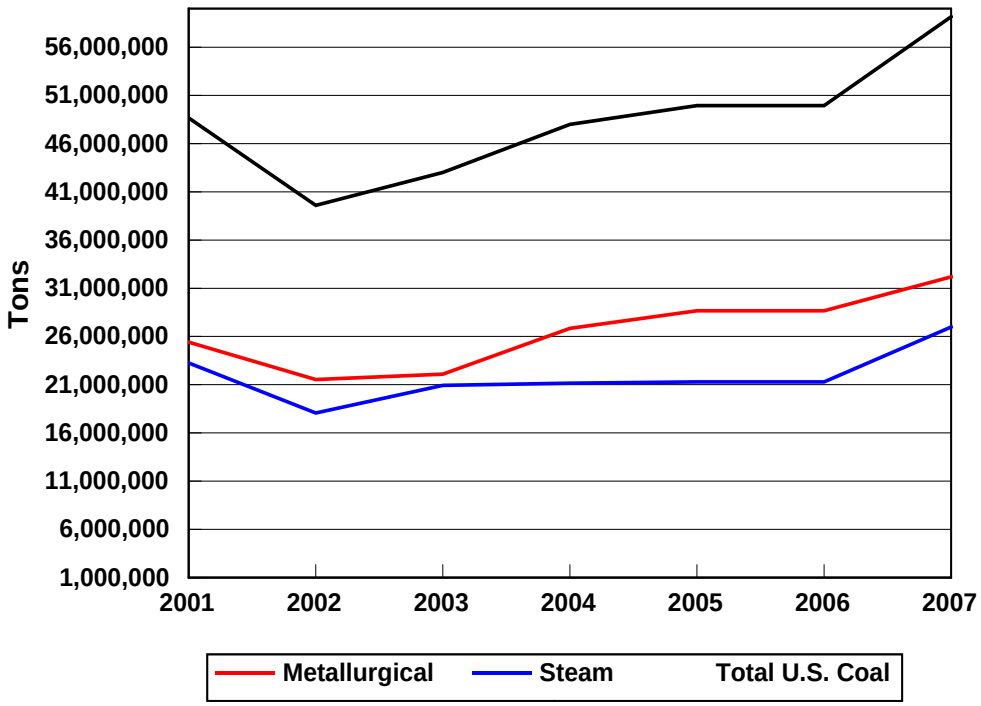
Source: U.S. Energy Information Administration

Table 4: U.S. Coal Exports, by Type and WV Share of Total (short tons)							
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Metallurgical	25,412,028	21,535,090	22,089,888	26,840,528	28,660,855	28,660,855	32,184,864
Steam	23,254,010	18,066,151	20,923,620	21,157,367	21,281,356	21,281,356	26,978,239
Total U.S. Coal	48,666,038	39,601,241	43,013,508	47,997,895	49,942,211	49,942,211	59,163,103
% Metallurgical	52.22%	54.38%	51.36%	55.92%	57.39%	57.39%	54.40%
% Steam	47.78%	45.62%	48.64%	44.08%	42.61%	42.61%	45.60%
WV Export Tons	22,855,000	14,480,000	13,660,000	15,677,000	15,358,000	16,327,000	18,981,000
WV Export Share	**47%**	**37%**	**32%**	**33%**	**31%**	**33%**	**32%**

Source: http://tonto.eia.doe.gov/FTPROOT/coal/qcrhistory.htm

More detailed data on the type of coal exported, metallurgical or steam, indicates that in recent history West Virginia exported more metallurgical than steam coal. From 2001 to 2003 metallurgical coal comprised the majority of coal exported from West Virginia: 75 percent in 2001, 81 percent in 2002, and 91 percent in 2003. The EIA discontinued this reporting in 2004. The U.S. export share by type is shown in Figure 17 below.

Figure 17: U.S. Coal Exports (by type)
2001-2007



Source: U.S. Energy Information Administration

The annual rankings of destination countries for West Virginia coal is also no longer reported by the EIA, but recent rankings had Canada, Italy, France, Brazil and the Netherlands consistently in the top five destinations in terms of tonnage. The value of West Virginia coal exports in 2005 to 2008 are similarly ranked but often show Belgium, Egypt, Turkey and India in the top five destination countries in addition to Brazil, Italy and France. In terms of value of exports Canada was 6th in 2005 and 2006 and 11th in 2007.

Table 5: Top Ten Rankings and Tonnage (thousand short tons) by Destination of WV Coal Exports

Ranking	2001		2002		2003	
1	Canada	4,974	Canada	4,515	Canada	2,808
2	Italy	4,257	Italy	2,276	Italy	2,095
3	France	2,287	France	1,277	France	1,608
4	Brazil	2,040	Brazil	1,016	Netherlands	1,061
5	United Kingdom	1,858	Netherlands	877	Brazil	967
6	Netherlands	1,372	Spain	691	Spain	846
7	Sweden	728	United Kingdom	642	United Kingdom	735
8	Spain	635	Sweden	403	Egypt	604
9	Turkey	323	Algeria	303	Turkey	532
10	Bulgaria	305	Turkey	262	Algeria	506

Source: http://www.eia.doe.gov/cneaf/coal/page/coaldistrib/coal_distributions.html

The following table shows commodity value as tracked by the U.S. Census Bureau by origin of movement and destination. This is the value of coal exported outside of the U.S. that originated in West Virginia. West Virginia's share of the value of total U.S. coal exports rose from 16 percent in 2005 to 28 percent in 2008.

Table 6: Top Ten Rankings by Value (million$) and Destination of WV Coal Exports								
Ranking	**2005**		**2006**		**2007**		**2008**	
Total Export Value	**All U.S.**	**$3,054**	**All U.S.**	**$3,242**	**All U.S.**	**$3,853**	**All U.S.**	**$7,543**
	All WV	**$486**	**All WV**	**$540**	**All WV**	**$822**	**All WV**	**$2,092**
1	Japan	$73	Italy	$100	Brazil	$108	India	$258
2	Belgium	$69	Belgium	$88	Italy	$96	France	$236
3	Italy	$63	India	$63	Belgium	$85	Brazil	$233
4	Turkey	$53	Brazil	$61	France	$81	Egypt	$161
5	Brazil	$51	Turkey	$47	Egypt	$78	U.K.	$149
6	Canada	$38	Canada	$38	India	$75	Turkey	$144
7	India	$37	France	$36	Netherlands	$52	Netherlands	$135
8	France	$32	Netherlands	$26	Turkey	$48	Belgium	$130
9	Netherlands	$23	Egypt	$23	Ukraine	$38	Italy	$123
10	Ukraine	$18	Romania	$9	Croatia	$35	Romania	$103

(Source: U.S. Census Bureau, Foreign Trade Statistics)

Economic Impact of Coal in the West Virginia Economy 2008

I. Overview of the economic impact

The economic impact of the coal industry on the West Virginia economy in 2008 was estimated through the IMPLAN ® input-output modeling system. This is standard methodology used in many national and regional economic impact studies. This methodology has been used by both West Virginia University and Marshall University in numerous studies.

This analysis of the coal industry quantifies the direct, indirect, induced and total economic impacts[15] that occurred as a result of the production of coal within the state in 2008. These economic impacts include estimates for business volume, output, employee compensation, employment, and associated taxes.

The first step in quantifying the economic impact of the coal industry was to explore the recirculation of funds throughout the state economy from expenditures by the industry. An estimation of expenditures including wages was compiled from responses to a survey to the companies[16] as well as publically available employment and wage data from WorkforceWV.

Direct, indirect, and induced economic impacts of the coal industry (NAICS 2121) are measured. Expenditures by the industry such as operating expenses for payroll, fringe benefits, rent, utilities, maintenance, construction, supplies, etc. represent the direct economic impacts of the industry. Indirect economic impacts are the economic activities (e.g. sales, wages, etc.) that result from purchases from suppliers of the industry. For example, a coal mining company may purchase supplies from an office supply store. The office supply store, in turn, purchases manufactured goods, utility services, and pay employee wages, among other expenditures. The continued backward linkages from organizations buying from their suppliers, and suppliers purchases from their suppliers, etc results in a continued respending of these funds. The induced economic impact of the industry represents the expenditures by households of the income they received associated with the direct and indirect impacts. For example, the individuals employed in a coal mining company earn wages and salaries, a portion of which they spend locally on the consumption of goods and services. The economic multipliers associated with the indirect and induced economic impacts are a clear indication of the strong economic linkage between the industry and the rest of the West Virginia economy. The sum of the direct, indirect, and induced economic impacts is the total economic impact of the industry.

Once West Virginia coal has been mined, several industries create economic impacts using that coal and these additional economic impacts were also quantified. The additional analysis include the economic impact of taxes paid to the state and local government, the economic impact of the transportation of West Virginia coal, and the economic impact of the use of West Virginia coal in the generation of electric power within the state.

[15] Appendix I defines the economic impact terms used throughout this report.
[16] Appendix III includes the survey instrument sent out to the West Virginia Coal Association membership.

II. Results

Table 7: Economic Impact of Coal Mining (NAICS 2121) in the West Virginia Economy 2008 (2008 dollars)			
	Direct	**Indirect and Induced**	**Total**
Business Volume (sales, billions $)	$7.45	$12.30	$19.78
Total Value Added (billions $)	$4.06	$1.87	$5.93
Employee Compensation (billions $)	$1.95	$0.87	$2.82
Employment (jobs)	20,500	25,600	46,000
Note: Columns may not sum to totals due to rounding.			

The economic contributions of the coal industry (NAICS 2121) on the West Virginia economy are significant. For 2008, the economic impact of the coal industry was $19.78 billion of business volume (Table 7). This economic activity generated $2.8 billion in employee compensation and accounted for 46,000 jobs within the state. Total value added generated by the coal industry was $5.93 billion with $4.1 billion directly from the industry[17]. Preliminary estimates released by the U.S. Bureau of Economic Analysis indicates that for 2008 mining, which includes coal mining, oil and gas extraction, and support activities for coal, accounted for $5.7 billion or 9.2 percent of GDP in West Virginia.

[17] Total value added estimated by the IMPLAN input-output modeling system is equal to gross domestic product for the industry in the state.

The economic impacts of the West Virginia coal mining industry (NAICS 2121) on the state economy in 2008 by major industrial sector are presented in Table 8 (employment impacts) and Table 9 (employee compensation impacts).

Table 8: Economic Impact of Coal Mining (NAICS 2121) in the West Virginia Economy 2008 Employment Impact (Jobs)

	Direct	Indirect and Induced	Total
Ag., Forestry, Fish, & Hunting	0	880	880
Mining	20,500	980	21,480
Utilities, Transport. & Warehousing	0	2,300	2,300
Construction	0	300	300
Manufacturing	0	780	780
Wholesale Trade	0	1,000	1,000
Retail Trade	0	4,000	4,000
Info., Finance, Insurance, & Real Estate	0	2,600	2,600
Services	0	12,400	12,400
Government	0	270	270
Total	20,500	25,510	46,010

Note: Columns may not sum to totals due to rounding.

Table 9: Economic Impact of Coal Mining (NAICS 2121) in the West Virginia Economy 2008 Employee Compensation Impact (millions 2008 dollars)

	Direct	Indirect and Induced	Total
Ag., Forestry, Fish, & Hunting	$0.0	$2.3	$2.3
Mining	$1,950.0	$62.4	$2,012.4
Utilities, Transport. & Warehousing	$0.0	$142.6	$142.6
Construction	$0.0	$12.9	$12.9
Manufacturing	$0.0	$44.4	$44.4
Wholesale Trade	$0.0	$57.3	$57.3
Retail Trade	$0.0	$88.2	$88.2
Info., Finance, Insurance, & Real Estate	$0.0	$80.4	$80.4
Services	$0.0	$362.4	$362.4
Government	$0.0	$15.4	$15.4
Total	$1,950.0	$868.3	$2,818.3

Note: Columns may not sum to totals due to rounding.

Table 8: Economic Impact of Coal Mining (NAICS 2121) in the West Virginia Economy 2008 Employment Impact (Jobs)			
	Direct	**Indirect and Induced**	**Total**
Ag., Forestry, Fish, & Hunting	0	880	880
Mining	20,500	980	21,480
Utilities, Transport. & Warehousing	0	2,300	2,300
Construction	0	300	300
Manufacturing	0	780	780
Wholesale Trade	0	1,000	1,000
Retail Trade	0	4,000	4,000
Info., Finance, Insurance, & Real Estate	0	2,600	2,600
Services	0	12,400	12,400
Government	0	270	270
Total	20,500	25,510	46,010
Note: Columns may not sum to totals due to rounding.			

III. Additional Economic Impacts

Taxes paid to the state by coal companies also create an economic impact. As mentioned in a previous section, coal companies paid approximate $676.25 million in taxes in 2008. These tax dollars were used to fund state and local government programs. Table 10 shows the economic impact of the taxes paid by coal companies to West Virginia in the form of severance taxes, corporate net income taxes, workers' compensation taxes, special reclamation taxes, personal income taxes, and coal resource transportation road fund fees[18].

Table 10: Economic Impact of Coal Mining Taxes in the West Virginia Economy 2008
(2008 dollars)

	Direct	Indirect and Induced	Total
Business Volume (sales, millions $)	$581.8	$814.8	$1,396.6
Total Value Added (millions $)	$330.9	$128.5	$459.4
Employee Compensation (millions $)	$261.4	$59.8	$321.2
Employment (jobs)	6,200	2,100	8,300

Note: Columns may not sum to totals due to rounding.

Companies transporting coal from the mines to electric generation facilities or other customers also create an economic impact. In West Virginia, 152.25 million tons of coal was distributed in 2008. Approximately 63 percent of coal was distributed by rail, as shown in Table 11. Another 16.2 million tons were distributed by water. This transportation of coal had a major economic impact on the state[19].

Table 11: Initial Method of Distribution of Mined Coal
West Virginia, 2008

	Tonnage	% of Total
Rail	95,675,063	62.8%
River	16,192,787	10.6%
Truck	34,152,350	22.4%
Belt	5,493,243	3.6%
Used Locally	973,319	0.6%
Total	**152,251,288**	

Source: West Virginia Office of Miners' Health Safety and Training

[18] Note that property taxes were not included in the estimate of the economic impact of coal mining taxes due to the complexity of the assessment and collection schedule. Also, funds received from the Abandoned Mine Land program were not included in the economic impact.

[19] The economic impact of the transportation of coal was limited to rail and water transportation due to insufficient data for truck, belt, and local transportation.

For 2008, the economic impact of the transportation of coal by rail was $2.61 billion of business volume (Table 12). This economic activity generated approximately $360 million in employee compensation and accounted for 6,200 jobs within the state. Total value added generated by the coal industry was $804.3 million.

Table 12: Economic Impact of Rail Transportation of Coal in the WV Economy* 2008
(2008 dollars)

	Direct	Indirect and Induced	Total
Business Volume (sales, millions $)	$1,000.8	$1,608.8	$2,609.6
Total Value Added (millions $)	$579.9	$224.4	$804.3
Employee Compensation (millions $)	$248.7	$110.8	$359.5
Employment (jobs)	2,700	3,500	6,200

* Economic impact for rail is based on 2007 statistics.

Note: Columns may not sum to totals due to rounding.

Source: Association of American Railroads indicated 94 percent of rail shipping in West Virginia in 2007 was for coal and there were 2,884 freight railroad employees in West Virginia.

The economic impact of the transportation of coal by water was approximately $769 million of business volume (Table 13). This economic activity created approximately $80 million in employee compensation, 1,700 jobs, and $154 million in total value added.

Table 13: Economic Impact of Water Transportation of Coal in the WV Economy 2008
(2008 dollars)

	Direct	Indirect and Induced	Total
Business Volume (sales, millions $)	$312.1	$456.7	$768.8
Total Value Added (millions $)	$82.9	$70.9	$153.8
Employee Compensation (millions $)	$43.0	$37.1	$80.1
Employment (jobs)	600	1,100	1,700

Note: Columns may not sum to totals due to rounding.

Note: Assumed eighty percent of transportation by water was for West Virginia coal in 2008.

A significant amount of the coal mined in West Virginia coal mines is distributed for the generation of electricity in coal-fired power plants located within the state. As shown in Table 14, coal use at West Virginia power plants has declined from 2005 to 2007 from 37.4 million short tons to 34.6 million short tons due to maintenance of utility companies throughout the state.

Table 14: Coal Use At West Virginia Power Plants 2005-2007

	2005	2006	2007
AEP	19,658,382	18,311,428	18,640,195
Allegheny	12,278,550	13,582,121	12,153,420
Dominion	5,475,000	4,500,000	3,855,600
Total	37,411,932	36,393,549	34,649,215

Source: West Virginia Coal Association Coal Facts

The economic impact of the generation of electricity using West Virginia coal can be estimated at $674 million of business volume (Table 15). This economic activity generated 1,170 jobs with $78 million in employee compensation. Total value added produced by the electricity industry using West Virginia coal was $260 million. Another additional economic impact comes from the transmission and distribution of electricity produced by WV coal by WV power plants. These additional impacts can be significant; however, they are not estimated within this report.

Table 15: Economic Impact of Electricity Generation using WV Coal in the West Virginia Economy* 2008
(2008 dollars)

	Direct	Indirect and Induced	Total
Business Volume (sales, millions $)	$279.3	$394.7	$674.0
Total Value Added (millions $)	$212.3	$47.6	$259.9
Employee Compensation (millions $)	$57.9	$20.0	$78.0
Employment (jobs)	520	650	1,170

* Economic impact for rail is based on 2007 statistics. Assumed 95% of coal used in the production of electricity in West Virginia was mined within the state.

Note: Columns may not sum to totals due to rounding.

Source: Allegheny, AEP and Dominion

IV: Summary of Economic Impacts

Business volume generated from the coal mining industry in the West Virginia economy was significant for 2008. The coal mining industry, as defined in NAICS sector 2121, generated $19.78 billion in direct, indirect, and induced business volume. Additional impacts that are the result of coal mined in West Virginia totaled $5.4 billion in business volume.

Table 16: Economic Impact Coal Summary 2008
Business Volume
(millions 2008 $)

	Direct	Indirect and Induced	Total
Industry Impact			
Coal Mining (NAICS 2121)	$7,450.0	$12,300.0	$19,780.0
Additional Impacts			
Taxes Paid by Coal Mining Industry	$518.8	$814.8	$1,333.6
Rail Transportation of WV Coal	$1,000.8	$1,608.8	$2,609.6
Water Transportation of WV Coal	$312.1	$456.7	$768.8
Electricity Generation with WV Coal	$279.3	$394.7	$674.0
Total	$9,561.0	$15,575.0	$25,166.0

Note: Columns may not sum to totals due to rounding.

Total value added as estimated in IMPLAN® totaled $5.93 billion for the coal mining industry (NAICS 2121) for 2008. Additional impacts from the transportation of coal equaled another $958.1 million in total valued added while taxes paid by the coal mining industry and electricity generated using West Virginia coal was estimated at $719.3 million in 2008.

Table 17: Economic Impact Coal Summary 2008
Total Value Added
(millions 2008 $)

	Direct	Indirect and Induced	Total
Industry Impact			
Coal Mining (NAICS 2121)	$4,060.0	$1,870.0	$5,930.0
Additional Impacts			
Taxes Paid by Coal Mining Industry	$330.9	$128.5	$459.4
Rail Transportation of WV Coal	$579.9	$224.4	$804.3
Water Transportation of WV Coal	$82.9	$70.9	$153.8
Electricity Generation with WV Coal	$212.3	$47.6	$259.9
Total	$5,266.0	$2,341.4	$7,607.4

Note: Columns may not sum to totals due to rounding.

The direct, indirect, and induced employee compensation generated from the coal mining industry in West Virginia in 2008 totaled $2.8 billion. Additional employee compensation from industries directly affected by the state's coal industry accounted for another $588.5 million of direct and $222.9 million of indirect and induced.

Table 18: Economic Impact Coal Summary 2008
Employee Compensation
(millions 2008 $)

	Direct	Indirect and Induced	Total
Industry Impact			
Coal Mining (NAICS 2121)	$1,950.0	$870.0	$2,820.0
Additional Impacts			
Taxes Paid by Coal Mining Industry	$238.9	$55.0	$293.9
Rail Transportation of WV Coal	$248.7	$110.8	$359.5
Water Transportation of WV Coal	$43.0	$37.1	$80.1
Electricity Generation with WV Coal	$57.9	$20.0	$78.0
Total	$2,538.5	$1,092.9	$3,631.5

Note: Columns may not sum to totals due to rounding.

Employment generated from the coal mining industry in the West Virginia economy was substantial. The employment created from the coal mining companies totaled 43,800 (Table 19). These jobs included the direct employment of individuals by the industry as well as the indirect and induced employment that was created due to the industry, which includes retail, transportation, and service providing jobs. Additional employment impacts that were a result of the coal mining industry accounted for 61,450 more jobs.

Table 19: Economic Impact Coal Summary 2008
Employment (Jobs)

	Direct	Indirect and Induced	Total
Industry Impact			
Coal Mining (NAICS 2121)	20,500	23,500	43,800
Additional Impacts			
Taxes Paid by Coal Mining Industry	5,800	1,700	7,500
Rail Transportation of WV Coal	2,700	4,200	6,900
Water Transportation of WV Coal	600	1,400	2,000
Electricity Generation with WV Coal	520	730	1,250
Total	30,120	31,530	61,450

Note: Columns may not sum to totals due to rounding.

The state and local taxes generated from the coal mining industry was also very substantial to the state in 2008 (Table 20). Approximately $702.16 million taxes were paid as a result of direct, indirect and induced coal mining operations. Indirect and induced taxes paid by the rail, water, and electricity industry as a result of West Virginia coal totaled approximately $19.49 million.

Table 20: Tax Impact of Coal Summary 2008 (millions $)

	Direct	Indirect and Induced	Total
Industry Impact			
Coal Mining (NAICS 2121)	$676.25[1]	$25.91	$702.16
Additional Impact			
Rail Transportation of Coal	-	$13.09	$13.09
Water Transportation of Coal	-	$2.93	$2.93
Electricity Generation with Coal	-	$3.47	$3.47
Total	$676.25	$45.40	$721.65

1: Taxes directly paid by the coal industry are listed in detail on Table 3.
Note: Indirect and induced taxes paid to the state include: sales and use taxes, personal income taxes, business franchise and corporate net income taxes.
Note: Columns may not sum to totals due to rounding.

Non-Quantifiable Economic Impacts on West Virginia

I. Reclaimed Coal Mine Sites

The public is generally not aware of the multiple uses for reclaimed mine sites. In a state with a shortage of flat land and buildable sites reclaimed mine land has become a positive factor in bringing jobs to coal counties. Reclaimed sites have provided industrial, commercial and recreational areas throughout the coal fields.

Across the State reclaimed mine sites are home to four industrial parks, four retail malls, eight recreation facilities, three high schools, three correctional facilities, two airports, two residential parks and other major government operations. About 85 percent of Weirton is built on abandoned mine sites. The new Federal Corrections Institution in McDowell County will create 320 full time jobs. The FBI complex in Harrison County provides employment for 3,000 individuals. Had the level land with infrastructure not been there, these sources of employment may not have come.

Recently, the Boy Scouts of America have announced they will build The Summit: Bechtel Family National Scout Reserve on a 10,600 acre reclaimed strip mine site in Fayette County. This will be Boy Scout's largest high-adventure camp and the permanent site of the National Jamboree. Estimations show that the project will create 80 permanent jobs and 1,200 seasonal jobs with up to 20,000 visitors coming each year when completed.

Mingo County has made use of reclaimed sites. In addition to the Air Transportation Park and the Twisted Gun Golf Course, a reclaimed sites house the 650 acre Wood Products Industrial Park. A 15 mile segment of the King Coal Highway was built on reclaimed land and was paid for by the coal companies adding 1,500 more acres of potential building sites.

II. Corporate Responsibility and Community Involvement and Development

The West Virginia coal industry has direct positive impacts on the economy of the State and also the communities located throughout the State. As noted earlier the coal industry provides over 20,454 coal miners with employment and pays over $676 million in taxes in 2008. Besides the direct economic impacts of the coal operators, these companies also practice corporate responsibility by continuing to improve and develop local communities in which they operate.

No attempt was made to calculate the total monetary impact of these activities but it is significant. For the coalfield counties these programs undergird their quality of life. Without them these poorest counties would lack many of the amenities which sustain them. These are not just financial contributions as volunteers from the companies provide hours of support as well.

The Coal Operators' survey conducted by Marshall University and West Virginia University (located in Appendix II) provided the data reinforcing the magnitude of activities, donations, partnerships and sponsorships in which West Virginia coal companies participate. When the responses from the eighteen responding coal companies were totaled, over 300 community and

educational activities were listed. The following table illustrates the categories with the largest number of responses from the responding coal operators. Other responses included support of local churches, training programs, senior centers, food banks and local community cleanup projects.

Table 21: Community Involvement and Development Responses from WV Coal Companies	
	Number of Responses
Educational Activities (including partnerships with local schools, purchase of supplies, sponsorship of educational activities, scholarships)	73
Sports (including team sponsorship, field repairs, youth tournaments)	52
Local Service Departments (including support of local fire departments, police departments, EMT units, and rescue squads)	29
Associations, Clubs and Councils (including the WV Coal Association, Rotary Clubs, Boys and Girls Boys and others)	20
Foundations and Charitable Organizations (including American Cancer Society, Salvation Army, United Way, Habitat for Humanity, Make a Wish Foundation and others)	17
Festivals and Fairs (including the WV Coal Festival, the WV Strawberry Festival, county fairs and others)	13

Policy Issues

The coal mining industry is subject to numerous regulations as a result of national and state public policy. While the size and growth of the coal mining industry in West Virginia depends heavily on the strength of the national and global economies, both current and proposed public policies also have the potential to dramatically affect the future of the coal mining industry in the state (and the associated economic contributions the industry makes to the state).

West Virginia University's Bureau of Business and Economic Research recently released its updated *Consensus Coal Production Forecast for West Virginia 2009-2030*. The consensus forecast is based on four coal production forecasts from three forecast providers. The individual forecasts used to generate the consensus forecast are from the Energy Information Administration (2 forecasts), Wood Mackenzie (formerly Hill & Associates), and the Bureau of Business and Economic Research at WVU.

The consensus forecast calls for state production to decline from 158.0 million tons in 2008 to 140.2 million tons in 2009, a decrease of 11.3 percent. State coal production is expected to rebound modestly as the national economy recovers from the current recession and coal inventories are depleted. The rebound in production is expected to end by 2015 as production declines throughout the forecast period with production gradually decreasing to 130.2 million tons by 2030.

The consensus forecast assumes an end to the recession by the end of 2009 and includes the effects of the American Recovery and Reinvestment Act. The effects of current public policy are also included in the consensus forecast of state coal production, including: NO_x and SO_2 emission restrictions in the Clean Air Interstate Rule (CAIR); updated Corporate Average Fuel Economy (CAFÉ) standards; Surface Mining Control & Reclamation Act (SMCRA); and, Sections 401, 402, and 404 of the Clean Water Act. The Clean Air Mercury Rule (CAMR) was not included in the consensus forecast since it was vacated by the courts in 2008. State mercury mitigation laws were modeled in those states where laws were passed. While a national cap and trade program on carbon emissions was not modeled, the effects of the Regional Greenhouse Gas Initiative (RGGI) that includes 10 states was included in the consensus forecast.

While the consensus coal forecast attempts to model current public policy, disagreements over the implementation of current public policy and proposed public policies regarding greenhouse gas emissions pose a very real threat to coal production in the state. The court battles over 404 surface mining permits, those regulating the placement of fill materials into streams (valley fills), and the delays that have occurred in getting these permits approved have the potential to negatively affect coal production in West Virginia, especially in the southern part of the state. The various regulations that may result directly or indirectly from public policies addressing greenhouse gas emissions also have the potential to negatively affect coal production in West Virginia.

I. Current Public Policy

A major threat to the coal industry comes from the potential limitations on surface mining permits currently imposed by EPA. The EPA has virtually ended the issuance of new permits for surface mines. Under a cooperative agreement reached between the EPA, U.S. Army Corps of Engineers (Corps), the U.S. Department of the Interior, 23 permits in West Virginia have been set aside for additional review. Other surface mine applications have not yet received EPA action and constitute what EPA admits is a "significant backlog".

The EPA found that after "careful review" that each of these permits as proposed did not meet the standards of the Clean Water Act. Allowing them to proceed, "… is likely to result in significant harm to water quality and the environment". These permits are now returned to the Corps which will coordinate discussion with the mining companies and the regulatory agencies to devise ways to reduce the environmental impact. How long this negotiation will take, what will result, and how this process will influence the other cases is unknown.

If new permits are not allowed, and as the current permits are consumed, then surface mining will come to a stop. As the data above indicated surface mining constitutes about 40 percent of coal production in West Virginia. That loss within itself would be costly. But there is a tight relationship between surface and underground mining. As documented in an earlier CBER report the two types of mining work together in many locations. The loss of the ability to use the facilities established for both would increase the cost of underground mined coal. It is probable that many of these underground facilities would also cease production.

II. Proposed Public Policy

A major concern over new public policy rests with the regulations relating to greenhouse gas emissions, including cap and trade legislation currently working its way through Congress, possible regulation of greenhouse gas emissions by the EPA, and the regulations associated with sequestration of carbon emissions. Capturing and sequestering carbon emissions is critical to the future of coal if greenhouse gas emissions are limited through cap and trade legislation or through administrative restrictions imposed by the EPA. Cap and trade legislation, administrative restrictions, and regulations regarding the sequestration of carbon are discussed below.

III. American Clean Energy and Security Act (Cap and Trade)

Coal mining's biggest hurdle may come from environment regulations now being considered by Congress. The American Clean Energy and Security Act of 2009 (ACESA), commonly referred to as the Waxman-Markey bill or as the Cap and Trade bill, was passed by the U.S. House of Representatives on June 26, 2009. While the cap and trade on greenhouse gas emissions (carbon dioxide and other gases measured in terms of their carbon dioxide equivalence) is the backbone of the ACESA, it also includes regulations regarding clean energy and energy efficiency.

Title I of the ACESA includes clean energy provisions including the Combined Efficiency and Renewable Electricity Standard (CERES) that will require utilities to have 20 percent of their load coming from renewable energy or efficiency savings by 2020. Title I also promotes carbon

capture and sequestration (CCS) and establishes the Clean Energy Deployment Administration. Title II of the ACESA addresses energy efficiency through building codes, lighting and appliance efficiency, transportation efficiency, and industrial energy efficiency. Title III (and V) of the ACESA addresses the reduction in greenhouse gas emissions through a cap and trade program on carbon dioxide (and carbon dioxide equivalent) emissions. The cap and trade program would begin in 2012 and would reduce emissions from 2005 levels gradually beginning with a 3 percent reduction in 2012 and ending with an 83 percent reduction by 2050. Title IV of the ACESA addresses industry competitiveness and distributional effects on low income households. These issues are addressed through a variety of rebates, refunds, and tax credits.

If the ACESA passes the Senate[20], it will reduce coal production both nationally and in the state. The impacts of the ACESA are currently being estimated by the WVU BBER for release this fall (Fall 2009). While these public policies have the potential to limit coal production in the state, improvements in advanced coal technologies (e.g. coal-to-liquids, carbon capture and sequestration, etc.) that address the environmental concerns have the potential to positively affect coal production in the state.

IV. Administrative Restrictions on Carbon Emissions

Unwilling to wait for the uncertain outcome of the greenhouse gas bills now in Congress, the Obama Administration has ordered the EPA to draft its own regulations. While the rules to implement the regulations are yet to be drafted, the EPA Administrator provided on September 30, 2009 an outline of what will be included. In many respects these rules may have more unfavorable consequences than cap and trade legislation. The ACESA contains provisions which remove the EPA's jurisdiction in this matter.

What the rules cover are the emission from any source emitting at least 25,000 tons of CO2 a year and five other pollutants[21]. Under the rules any user of coal which met this standard and was undergoing renovation, as well as any new power plant which would be constructed, would be covered. These facilities would have to prove that they are employing the Best Available Technology regardless of the cost.

These rules would apply to 14,000 coal fired electric generation plants. All major West Virginia power plants would be covered as would be virtually all out of state plants which now use West Virginia coal. EPA estimates that the covered facilities now account for over 70 percent of the greenhouse gas emissions in the U.S.

There are no estimates from EPA as to the cost of implementing these regulations. The rules are now being drafted and will be available for public comment. The EPA intends to have the program in place and operational by 2011. Considering the time needed to draft the regulations,

[20] As this report is being written Senator Boxer has introduced the "Clean Energy, Jobs and American Power Act". Its goals are to reduce CO_2 production by 20 percent in 2020 and 80 percent in 2050 from 2005 levels. Like the ACESA it uses a cap and trade system. But this legislation would only apply to the 7,500 largest carbon emitters. In many respects it is similar to the EPA rules discussed above.

[21] The other pollutants are methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

the anticipated extent of public comment and the inevitable litigation, that date is unlikely. But the EPA makes it clear they will continue with implementation.

V. Geologic Sequestration of Carbon Dioxide

On September 17, 2009 the EPA announced its public hearing on its Notice of Data Availability and Request for Comment on Carbon Capture and Sequestration (CCS). CCS refers to taking the CO_2 emitted from the burning of coal and injecting it into subsurface formations. This process has been used extensively in many states, including West Virginia, for enhanced oil and gas recovery.

CCS has significant potential for West Virginia coal. If CO_2 can be captured and stored at a cost that leaves coal competitive with other fuels then CCS has possibilities of allowing coal to continue to play a major role in the nation's energy future. The West Virginia EPA has a Task Force established which is studying all aspects of CCS. CBER is participating in the study of the feasibility of alternative methods of capture and sequestration.

There are three keys involved in the successful use of CCS in West Virginia which will involve government regulation. The first concerns the applicability of Underground Injection Controls (UIC) which are now used in oil and gas fields. The idea is to use abandoned coal mines and coal seams as storage sites. Questions remain regarding the use of UICs in the entirely different geological formations for coal. Particularly, can the UICs be adapted or will new processes need to be engineered?

The second concerns the transportation of CO_2 from the point of generation to the site for capture. This would involve construction of a new set of pipelines with all the siting problems that entails. Safety concerns will also have to be addressed by law or regulation.

The third issue concerns who will regulate? Under existing law, states have the primary responsibility for UIC regulation, but the EPA has oversight. The EPA can and has supplanted state regulation in 17 states. West Virginia is one of 33 states still with primary jurisdiction.

That could change under the proposed rules. The Safe Drinking Water Act would become the principal source of regulation and the UIC program placed under it. The priority is to avoid endangerment of underground sources of drinking water. The rules concern issues related to CO_2 leakage into water systems and long term storage. The depth required under the proposed rules could severely limit the use of coal fields as injection sites. While the proposal does allow for waivers to inject CO_2 above the underground water table, the future of CCS in West Virginia is not clear even if it were economically feasible.

What CCS would cost is also unknown. Estimates range from $25 to $90 dollars per ton of CO_2. This would be reflected in the cost of using coal. Other fuels including today's higher cost alternatives could drive coal from the market.

Summary

Probably there is not another industry more vital to West Virginia's economy than is coal. This report documents that statement. As it spread throughout the state, the loss of coal production or even its substantial reduction in use would have serious consequences.

West Virginia is a low income state. Reduction in the use of coal would worsen an already bad situation particularly in those areas which are most in need of jobs and income. At the same time the demands placed on State government would accelerate for public assistance, support of schools and medical services. But the reduced income received by the State would leave it without the fiscal resources to respond.

The benefits from coal in this report have been conservatively stated. The most widely used economic model, IMPLAN, has been employed to make projections. Data has come from publically available sources. The methodology is transparent. The authors are well aware that the report will be scrutinized. It was not our intention to make the coal industry appear to be more important than it is. But its value to the state should not be underestimated.

Appendix I: Economic Impact Definitions

Business Volume:	Sales plus net increase in finished inventories and the value of intra-corporate shipments. Equals output (see below) plus the cost of goods sold in retail and wholesale trade.
Employment:	The number of jobs in a business, industry, or region. Also, the number of jobs attributable to an impact (see below). This is a measure of the number of full-time and part-time positions, not necessarily the number of employed persons. Jobs are annual average by place of work. A job year is equivalent to one job for one year.
Employee Compensation:	Wages and salaries plus employers' contribution for social insurance (social security, unemployment insurance, workers compensation, etc.) and other labor income (pension contributions, health benefits, etc.). By place of work unless otherwise stated.
Impacts:	The results of the recirculation of funds throughout a regional economy due to the activity of a business, industry, or institution. Estimated by tracing back the flow of money through the initial businesses' employees and suppliers, the businesses selling to the employees and suppliers, and so on. Thus, they are a way to examine the distribution of industries and resources covered in the costs of the initial activity.
Output:	For most sectors, measured as sales plus net inventories and the value of intra-corporate shipments. For retail and wholesale trade, measured as gross margins (i.e. sales minus cost of goods sold, also equal to the mark-up on goods sold).
Value Added	A measure of the value created by a business or industry or attributable to an impact (see above). Equal to the value of production minus the cost of purchased goods and services. Also equal to employee compensation plus capital income (profits, interest paid, depreciation charges), and indirect business taxes (e.g. severance, excise). Corresponds to the aggregate concepts of gross domestic product (GDP).

Appendix II: Survey of Coal Mining Companies

June 3, 2009

West Virginia Coal Industry Survey Participant:

The Center for Business and Economic Research (CBER) at Marshall University and the Bureau for Business and Economic Research (BBER) at West Virginia University have been retained by the West Virginia Coal Association to provide an economic impact analysis of the coal industry in West Virginia. This study will provide an updated, aggregate summary of the contribution of all coal-related economic activity to the State economy.

The purpose of the study is to provide the public and policy makers an unbiased and reliable determination of how important the coal industry is to West Virginia. Using input-output modeling the study will provide a "snapshot" of the impact of coal on output, income, jobs and government revenue.

Due to data limitations, your assistance is requested to improve the analysis. Without your input the study will not have the desired credibility. For that reason, your timely response is critical.

You can contribute to this study by answering the attached survey questions for your firm. This will help characterize certain aspects of the coal industry that are not available through other data sources. Your company's individual responses will not be identified in the report. Only aggregate information will be presented. Your data will be kept confidential!

The survey questions are attached as a single page that can be faxed, mailed or saved and emailed. An instruction sheet is also included that will answer many of the questions you may have about the content of the survey. Surveys should be sent to:

Marshall University
Center for Business and Economic Research
Attn: Survey Department
One John Marshall Drive
Huntington, WV 25755
Fax: 304-696-6088
Phone: 304-696-4817
Email: cber@marshall.edu

Please return this information by June 24, 2009. This project is time sensitive. Follow up calls will be made as reminders.

Remember, the results of this study will be used to increase awareness of the important role of the coal industry in the West Virginia economy. Thank you for your assistance.

Bill Raney, President – West Virginia Coal Association
Cal Kent, Vice President of Business & Economic Research – Marshall University
Tom Witt, Associate Dean for Research and Outreach – West Virginia University

Marshall University-West Virginia University

Coal Operator Survey

INSTRUCTION SHEET

Your firm's participation in this survey is important and very much appreciated. A high response rate will permit us to have better quality results.

- The answers provided by individual firms will be strictly confidential.
- The survey answers from all firms will be combined to provide the overall impact of the coal industry in West Virginia.

Things to keep in mind:

- Please respond for all properties/operations held by your firm.
- Do not respond for your contractors. They are part of your extended impact.
- Please answer for calendar year 2008, unless otherwise indicated.
- For those who wish to fill out the survey electronically and do not already have the Adobe Reader you can download it for free at http://get.adobe.com/reader.
- If you need further assistance with the survey contact Kent Sowards at (304)696-4817 or email him at sowards10@marshall.edu.

Please return the form as soon as possible and no later than **June 24, 2009**.

Thank you for your time.

The survey can be emailed directly by clicking the "Submit by Email" button at the top right-hand corner of the form.

You may also fax, mail or email this form to:

Marshall University
Center for Business and Economic Research
Attn: Survey Department
One John Marshall Drive
Huntington, WV 25755
Fax: 304-696-6088
Phone: 304-696-4817
Email: cber@marshall.edu

Submit by Email

STUDY TITLE: The Economic Impact of the Coal Industry in West Virginia
June 2009 Coal Operator Survey - Marshall University & West Virginia University

1. Name of firm: _____

2. Do you actively mine coal? ☐ YES ☐ NO

3. Firm employment in 2008: _____ Full-time _____Part-time

4. What percentage of your firm's annual operating costs is used for:
   a. Wages, salaries and benefits _____ %
   b. Fuel & Utilities _____ %
   c. Equipment and machinery _____ %
      - Percentage manufactured in WV? _____%
   d. Reclamation _____ %
      [Reclamation applies to all stages of planning and site work through bond release.]
   e. Other _____ %
      100

5. What is your average capital expenditure outside of annual operating costs? [3-year average.] $_____ Percentage manufactured in WV? _____%

6. How much do you pay, or pay for your royalty owners, in the following state & local taxes?

- State
  - Franchise $_____
  - Corporate Net Income $_____
  - Unemployment $_____
  - Worker's Compensation $_____
  - Retail sales $_____
- Local
  - Real Property
    - Land and fixtures $_____
    - Reserves $_____
  - Personal (county) $_____
  - Other local tax/fees* $_____

  * Other local tax/fees include permits for mining and hauling and clearances

7. Please describe any community activities in which you engage in West Virginia (donations, charitable events, community service etc.). [Continue on back if needed.]
   _____
   _____
   _____

8. Describe any educational activities to which you contribute (local schools, state institutions, worker training, in-school programs, and scholarships/fellowships).
   _____
   _____
   _____

9. Describe any of your firm's post-mining land use plans that are improvements to installed mining infrastructure (roads, buildings, recreation facilities, etc.).
   _____
   _____
   _____

ALL RESPONSES ARE CONFIDENTIAL.

Appendix III: Property Taxation on Coal in Boone County, West Virginia

Property Tax Assessments and Revenue in Boone County TY 2008			
	Real Property Tax Assessments	**Personal Property Tax Assessments**	**Property Tax Revenue**
Boone total	$652,004,990	$782,681,147	$35,423,995
Coal total	$303,800,116	$539,065,587	$21,290,788
Coal as a percentage of Boone total	46.60%	68.90%	60.10%

[1] Boone County assessment and revenue figures obtained from the TY 2008 WV Classified Assessed Valuations, published by the WV State Tax Department, Property Tax Division

[2] Coal assessment and revenue figures for Boone County obtained from the WV State Tax Department, Property Tax Division. Revenue figures represent total coal assessment for TY 2008 multiplied by Boone County's TY 2008 levy rate for Class III and IV property

Property Tax Revenue of West Virginia Coal Counties TY 2009				
Rank	**County**	**Total Revenue**	**Coal Revenue**	**Coal Revenue as a % of Total**
1	Boone	$35,423,995	$21,290,788	60.1%
2	Logan	$30,389,807	$13,029,578	42.9%
3	Mingo	$22,264,153	$7,095,782	31.9%
4	Kanawha	$176,601,643	$7,186,715	4.1%
5	Marshall	$34,058,791	$5,438,560	16.0%
6	Raleigh	$51,241,583	$7,563,371	14.8%
7	Harrison	$59,241,057	$1,375,720	2.3%
8	Marion	$36,525,039	$3,066,935	8.4%
9	Fayette	$24,861,810	$3,062,242	12.3%
10	Monongalia	$66,410,203	$2,315,597	3.5%

Sources: EIA and the WV State Tax Department, Property Tax Division.

Note: County rank determined by 2007 coal production figures obtained from EIA.

Note: Total Revenue represents total taxes levied as obtained from the WV Classified Assessed Valuations, TY 2008

Note: Coal Revenue consists of personal and real property taxes levied. Assessment figures were obtained from the Property Tax Division and multiplied by each counties' respective TY 2008 levy rate to determine the amount levied.

Appendix IV: County Coal Revenue Fund Distribution

I. Distribution to coal producing counties

Distribution to Coal-Producing Counties			
County	**CY 2008**	**CY 2007**	**CY 2006**
Barbour	$165,435.99	$151,786.05	$96,513.48
Boone	$4,794,338.06	$4,681,502.07	$3,918,530.60
Braxton	$47,527.11	$56,733.62	$63,719.87
Brooke	$71,308.27	$47,590.20	$47,623.72
Clay	$443,067.62	$508,943.65	$365,885.17
Fayette	$485,442.64	$504,199.30	$393,736.45
Grant*	$0.00	$14,113.18	$9,575.63
Greenbrier	$148,085.29	$18,794.60	$105,394.56
Harrison	$42,069.19	$78,919.45	$72,959.28
Kanawha	$895,684.81	$973,395.16	$902,255.68
Lincoln	$530,065.85	$628,249.76	$717,933.36
Logan	$2,687,031.62	$1,796,126.11	$1,785,980.19
Marion	$1,736,648.39	$1,492,903.38	$1,288,977.65
Marshall	$1,559,763.10	$1,532,820.92	$1,733,321.97
Mason*	$113,246.22	$22,041.08	$0.00
McDowell	$788,001.81	$522,126.87	$573,800.48
Mercer*	$691.68	$129,894.94	$2,629.79
Mineral	$12,303.79	$5,178.71	$8,447.66
Mingo	$1,707,004.71	$1,737,684.87	$1,598,731.64
Monongalia	$710,918.60	$760,076.28	$685,940.46
Nicholas	$887,822.66	$539,202.21	$525,052.42
Preston	$201,883.86	$185,110.04	$170,937.13
Raleigh	$1,632,540.76	$1,318,224.96	$992,704.63
Randolph	$52,462.17	$79,373.97	$46,437.66
Tucker	$418,651.46	$218,118.23	$35,111.59
Upshur	$95,714.50	$92,529.21	$89,302.87
Wayne	$554,973.60	$344,524.72	$279,171.31
Webster	$636,976.35	$681,826.50	$563,587.02
Wetzel*	$16,341.41	$97,508.54	$298,290.02
Wyoming	$643,545.06	$677,834.36	$747,873.98
Total	**$22,079,546.58**	**$19,897,332.94**	**$18,120,426.27**

Source: West Virginia State Treasurer's Office.

Note: CY 2008 distributions includes figures from January, April, June, and September 2008; CYs 2006 and 2007 include figures from January, April, June, and October for respective years.
*Some yearly distributions to these counties are smaller because coal mining did not occur in one (or more) quarter(s).

II. Distribution to all counties

Distribution to All Counties			
County	**CY 2008**	**CY 2007**	**CY 2006**
Barbour	$42,526.75	$38,048.20	$35,308.72
Berkeley	$247,016.76	$221,003.11	$205,090.74
Boone	$87,882.19	$78,627.21	$72,965.99
Braxton	$48,680.54	$43,553.93	$40,418.03
Brooke	$57,601.85	$51,535.73	$47,825.12
Cabell	$179,231.97	$160,356.81	$148,811.02
Calhoun	$28,558.79	$25,551.23	$23,711.52
Clay	$39,628.96	$35,455.58	$32,902.76
Doddridge	$26,849.40	$24,021.84	$22,292.26
Fayette	$124,743.63	$111,606.70	$103,570.95
Gilmer	$22,140.48	$19,808.85	$18,382.58
Grant	$34,907.84	$31,231.64	$28,982.95
Greenbrier	$93,380.66	$83,546.60	$77,531.20
Hampshire	$73,515.32	$65,773.32	$61,037.60
Hancock	$48,151.44	$43,080.54	$39,978.72
Hardy	$40,894.70	$36,588.04	$33,953.66
Harrison	$138,626.14	$124,027.23	$115,097.19
Jackson	$84,272.18	$75,397.36	$69,968.72
Jefferson	$139,098.26	$124,449.65	$115,489.19
Kanawha	$399,309.77	$357,257.93	$331,535.14
Lewis	$49,636.95	$44,409.62	$41,212.09
Lincoln	$82,591.26	$73,893.47	$68,573.11
Logan	$135,854.57	$121,547.54	$112,796.04
Marion	$109,355.21	$97,838.86	$90,794.40
Marshall	$77,707.35	$69,523.87	$64,518.13
Mason	$72,123.35	$64,527.95	$59,881.90
McDowell	$82,481.38	$73,795.16	$68,481.87
Mercer	$175,801.03	$157,287.19	$145,962.40
Mineral	$76,628.83	$68,558.94	$63,622.66
Mingo	$94,589.44	$84,628.11	$78,534.82
Monongalia	$198,600.81	$177,685.89	$164,892.40
Monroe	$54,248.19	$48,535.25	$45,040.67
Morgan	$55,986.07	$50,090.11	$46,483.59
Nicholas	$84,618.09	$75,706.84	$70,255.91
Ohio	$42,600.05	$38,113.79	$35,369.58

Distribution to All Counties Continued			
County	**CY 2008**	**CY 2007**	**CY 2006**
Pendleton	$30,113.48	$26,942.18	$25,002.34
Pleasants	$18,156.01	$16,243.97	$15,074.40
Pocahontas	$30,207.10	$27,025.95	$25,080.06
Preston	$89,693.31	$80,247.59	$74,469.71
Putnam	$160,571.29	$143,661.32	$133,317.61
Raleigh	$238,929.84	$213,767.83	$198,376.41
Randolph	$78,024.77	$69,807.89	$64,781.66
Ritchie	$26,023.19	$23,282.65	$21,606.27
Roane	$52,485.96	$46,958.59	$43,577.54
Summers	$41,183.72	$36,846.61	$34,193.64
Taylor	$41,973.30	$37,553.02	$34,849.18
Tucker	$17,162.94	$15,355.50	$14,249.88
Tyler	$24,781.86	$22,172.06	$20,575.64
Upshur	$71,952.46	$64,375.04	$59,740.01
Wayne	$129,021.09	$115,433.71	$107,122.41
Webster	$33,540.38	$30,008.19	$27,847.58
Wetzel	$35,176.47	$31,471.99	$29,205.99
Wirt	$19,857.25	$17,766.04	$16,486.88
Wood	$163,407.99	$146,199.27	$135,672.86
Wyoming	$88,211.85	$78,922.12	$73,239.69
Total	**$4,740,314.47**	**$4,241,105.61**	**$3,935,743.39**

Source: West Virginia State Treasurer's Office.

Note: CY 2008 distributions included figures from January, April, June, and September 2008; CYs 2006 and 2007 include figures from January, April, June, and October for respective years.

III. Distribution to all municipalities

Distribution to All Municipalities			
Municipality	**CY 2008**	**CY 2007**	**CY 2006**
Addison	$3,288.53	$2,963.51	$2,698.85
Albright	$1,005.27	$905.93	$825.03
Alderson (Monroe)	$842.48	$759.46	$692.14
Alderson (Greenbrier)	$3,597.87	$3,242.03	$2,951.99
Anawalt	$1,107.00	$997.58	$908.50
Anmoore	$2,787.91	$2,512.37	$2,288.01
Ansted	$6,414.26	$5,780.32	$5,264.11
Athens	$4,485.09	$4,041.80	$3,680.86
Auburn	$419.21	$377.78	$344.04
Bancroft	$1,493.68	$1,346.05	$1,225.84
Barboursville	$12,954.59	$11,674.23	$10,631.68
Barrackville	$5,242.06	$4,723.95	$4,302.10
Bath	$2,698.34	$2,431.65	$2,214.50
Bayard	$1,216.88	$1,096.60	$998.69
Beckley	$70,222.75	$63,282.33	$57,630.99
Beech Bottom	$2,466.36	$2,222.61	$2,024.12
Belington	$7,277.05	$6,557.83	$5,972.19
Belle	$5,124.07	$4,617.65	$4,205.26
Belmont	$4,216.45	$3,799.73	$3,460.40
Benwood	$6,450.83	$5,813.28	$5,294.13
Bethany	$4,008.91	$3,612.69	$3,290.07
Bethlehem	$10,789.39	$9,723.04	$8,854.73
Beverly	$2,649.54	$2,387.68	$2,174.45
Blacksville	$712.21	$641.82	$584.50
Bluefield	$46,604.85	$41,998.69	$38,248.05
Bolivar	$4,253.12	$3,832.75	$3,490.48
Bradshaw	$1,176.17	$1,059.93	$965.27
Bramwell	$1,733.76	$1,562.41	$1,422.87
Brandonville	$415.18	$374.14	$340.73
Bridgeport	$29,734.97	$26,796.14	$24,403.14
Bruceton Mills	$301.17	$271.40	$247.16
Buckhannon	$23,300.40	$20,997.53	$19,122.37
Buffalo	$4,765.87	$4,294.84	$3,911.30
Burnsville	$1,957.65	$1,764.17	$1,606.61
Cairo	$1,070.42	$964.62	$878.48
Camden-On-Gauley	$638.99	$575.83	$524.40

Distribution to All Municipalities Continued			
Municipality	**CY 2008**	**CY 2007**	**CY 2006**
Cameron	$4,932.79	$4,445.26	$4,048.29
Capon Bridge	$814.00	$733.55	$668.04
Carpendale	$3,882.68	$3,498.94	$3,186.48
Cedar Grove	$3,508.29	$3,161.56	$2,879.22
Ceredo	$6,817.13	$6,143.36	$5,594.74
Chapmanville	$4,928.67	$4,441.55	$4,044.90
Charles Town	$11,831.32	$10,661.99	$9,709.83
Charleston	$217,420.17	$195,931.63	$178,434.19
Chesapeake	$6,686.93	$6,026.05	$5,487.89
Chester	$10,549.31	$9,506.68	$8,657.69
Clarksburg	$68,143.00	$61,408.15	$55,924.16
Clay	$2,413.44	$2,174.91	$1,980.68
Clearview	$2,401.30	$2,163.97	$1,970.72
Clendenin	$4,542.06	$4,093.15	$3,727.62
Cowen	$2,087.84	$1,881.50	$1,713.46
Danville	$2,238.50	$2,017.26	$1,837.10
Davis	$2,539.66	$2,288.66	$2,084.27
Davy	$1,518.11	$1,368.08	$1,245.90
Delbarton	$1,929.17	$1,738.50	$1,583.25
Dunbar	$33,186.06	$29,906.02	$27,235.28
Durbin	$1,066.29	$960.91	$875.09
East Bank	$3,797.25	$3,421.95	$3,116.35
Eleanor	$5,474.03	$4,933.01	$4,492.48
Elizabeth	$4,045.49	$3,645.65	$3,320.09
Elk Garden	$883.19	$795.90	$724.82
Elkins	$28,619.80	$25,791.18	$23,487.95
Ellenboro	$1,518.11	$1,368.08	$1,245.90
Fairmont	$77,723.60	$70,041.87	$63,786.87
Fairview	$1,770.41	$1,595.43	$1,452.96
Falling Springs	$850.65	$766.57	$698.12
Farmington	$1,575.08	$1,419.41	$1,292.65
Fayetteville	$11,208.61	$10,100.82	$9,198.77
Flatwoods	$1,416.34	$1,276.36	$1,162.37
Flemington	$1,168.08	$1,052.63	$958.64
Follansbee	$12,677.85	$11,424.85	$10,404.57
Fort Gay	$3,333.27	$3,003.83	$2,735.58
Franklin	$3,243.71	$2,923.12	$2,662.07
Friendly	$647.16	$583.19	$531.11

Distribution to All Municipalities Continued			
Municipality	**CY 2008**	**CY 2007**	**CY 2006**
Gary	$3,732.10	$3,363.24	$3,062.89
Gassaway	$3,667.04	$3,304.61	$3,009.49
Gauley Bridge	$3,003.64	$2,706.77	$2,465.05
Gilbert	$1,697.18	$1,529.45	$1,392.86
Glasgow	$3,186.75	$2,871.79	$2,615.33
Glen Dale	$6,316.52	$5,692.23	$5,183.90
Glenville	$6,283.98	$5,662.92	$5,157.20
Grafton	$22,339.86	$20,131.92	$18,334.07
Grant Town	$2,673.98	$2,409.69	$2,194.50
Grantsville	$2,299.51	$2,072.24	$1,887.19
Granville	$3,166.44	$2,853.48	$2,598.65
Hambleton	$1,001.24	$902.28	$821.70
Hamlin	$4,554.27	$4,104.15	$3,737.65
Handley	$1,473.29	$1,327.69	$1,209.12
Harman	$512.84	$462.15	$420.88
Harpers Ferry	$1,249.48	$1,125.99	$1,025.43
Harrisville	$7,496.81	$6,755.87	$6,152.54
Hartford	$2,112.27	$1,903.51	$1,733.51
Hedgesville	$976.79	$880.25	$801.64
Henderson	$1,322.72	$1,191.99	$1,085.53
Hendricks	$1,298.28	$1,169.97	$1,065.47
Hillsboro	$989.01	$891.27	$811.67
Hinton	$11,721.45	$10,562.97	$9,619.65
Hundred	$1,400.06	$1,261.69	$1,149.02
Huntington (Wayne)	$16,760.00	$15,103.54	$13,754.74
Huntington (Cabell)	$192,740.09	$173,690.77	$158,179.53
Hurricane	$21,253.19	$19,152.65	$17,442.23
Huttonsville	$883.19	$795.90	$724.82
Iaeger	$1,457.03	$1,313.02	$1,195.76
Jane Lew	$1,652.36	$1,489.05	$1,356.08
Junior	$1,831.50	$1,650.48	$1,503.09
Kenova	$14,183.75	$12,781.91	$11,640.45
Kermit	$850.65	$766.57	$698.12
Keyser	$21,582.90	$19,449.77	$17,712.83
Keystone	$1,843.71	$1,661.49	$1,513.12
Kimball	$1,672.75	$1,507.42	$1,372.81
Kingwood	$11,981.91	$10,797.69	$9,833.41
Leon	$537.20	$484.10	$440.87
Lester	$1,310.49	$1,180.98	$1,075.51

Distribution to All Municipalities Continued			
Municipality	**CY 2008**	**CY 2007**	**CY 2006**
Lewisburg	$14,749.43	$13,291.68	$12,104.70
Logan	$6,634.02	$5,978.35	$5,444.46
Lost Creek	$1,900.68	$1,712.82	$1,559.87
Lumberport	$3,813.51	$3,436.60	$3,129.71
Mabscott	$5,710.13	$5,145.78	$4,686.24
Madison	$10,895.22	$9,818.40	$8,941.60
Man	$3,133.82	$2,824.10	$2,571.90
Mannington	$8,644.58	$7,790.20	$7,094.51
Marlinton	$4,900.18	$4,415.89	$4,021.53
Marmet	$6,890.44	$6,209.42	$5,654.90
Martinsburg	$60,935.13	$54,912.66	$50,008.76
Mason	$4,330.40	$3,902.40	$3,553.89
Masontown	$2,633.27	$2,373.02	$2,161.10
Matewan	$2,026.82	$1,826.50	$1,663.39
Matoaka	$1,290.18	$1,162.67	$1,058.84
McMechen	$7,883.50	$7,104.34	$6,469.89
Meadow Bridge	$1,306.45	$1,177.33	$1,072.20
Middlebourne	$3,540.83	$3,190.87	$2,905.91
Mill Creek	$2,694.29	$2,428.00	$2,211.18
Milton	$8,978.27	$8,090.93	$7,368.37
Mitchell Heights	$1,225.05	$1,103.97	$1,005.38
Monongah	$3,821.68	$3,443.96	$3,136.40
Montgomery (Kanawha)	$2,291.34	$2,065.03	$1,880.94
Montgomery (Fayette)	$5,612.47	$5,057.62	$4,605.63
Montrose	$634.94	$572.18	$521.08
Moorefield	$9,666.14	$8,710.78	$7,932.88
Morgantown	$109,111.02	$98,327.11	$89,546.13
Moundsville	$40,691.28	$36,669.59	$33,394.86
Mount Hope	$6,052.01	$5,453.87	$4,966.81
Mullens	$7,199.69	$6,488.12	$5,908.71
New Cumberland	$4,472.87	$4,030.81	$3,670.84
New Haven	$6,345.00	$5,717.90	$5,207.26
New Martinsville	$24,354.48	$21,947.42	$19,987.44
Newburg	$1,465.21	$1,320.39	$1,202.48
Nitro (Putnam)	$4,721.12	$4,254.59	$3,874.77
Nitro (Kanawha)	$23,052.14	$20,773.76	$18,918.42
North Hills	$3,581.53	$3,227.54	$2,939.32
Northfork	$2,112.27	$1,903.51	$1,733.51
Nutter Fort	$6,861.89	$6,183.70	$5,631.46

Distribution to All Municipalities Continued			
Municipality	**CY 2008**	**CY 2007**	**CY 2006**
Oak Hill	$30,886.78	$27,834.11	$25,348.43
Oakvale	$577.90	$520.78	$474.27
Oceana	$6,308.42	$5,684.93	$5,177.25
Paden City (Tyler)	$3,605.95	$3,250.06	$2,960.86
Paden City (Wetzel)	$8,034.09	$7,239.55	$6,591.98
Parkersburg	$134,710.91	$121,396.87	$110,555.68
Parsons	$5,954.34	$5,365.84	$4,886.66
Paw Paw	$2,132.66	$1,921.88	$1,750.25
Pax	$708.15	$638.17	$581.17
Pennsboro	$4,879.87	$4,397.58	$4,004.85
Petersburg	$9,861.46	$8,886.81	$8,093.18
Peterstown	$2,030.88	$1,830.15	$1,666.73
Philippi	$11,680.74	$10,526.28	$9,586.25
Piedmont	$4,126.88	$3,719.02	$3,386.89
Pine Grove	$2,323.94	$2,094.26	$1,907.24
Pineville	$2,910.01	$2,622.39	$2,388.20
Pleasant Valley	$12,714.51	$11,457.88	$10,434.65
Poca	$4,122.84	$3,715.36	$3,383.57
Pratt	$2,242.55	$2,020.91	$1,840.43
Princeton	$25,831.88	$23,278.82	$21,199.93
Pt. Pleasant	$18,872.27	$17,007.04	$15,488.26
Pullman	$687.84	$619.87	$564.52
Quinwood	$1,770.41	$1,595.43	$1,452.96
Rainelle	$6,288.03	$5,666.56	$5,160.52
Ranson	$12,010.40	$10,823.35	$9,856.79
Ravenswood	$16,405.92	$14,784.45	$13,464.14
Reedsville	$2,104.18	$1,896.21	$1,726.88
Reedy	$805.82	$726.18	$661.34
Rhodell	$952.36	$858.24	$781.60
Richwood	$10,081.23	$9,084.85	$8,273.55
Ridgeley	$3,101.28	$2,794.77	$2,545.20
Ripley	$13,280.19	$11,967.65	$10,898.89
Rivesville	$3,715.85	$3,348.59	$3,049.55
Romney	$7,895.64	$7,115.28	$6,479.85
Ronceverte	$6,336.91	$5,710.60	$5,200.63
Rowlesburg	$2,494.84	$2,248.28	$2,047.50
Rupert	$3,825.72	$3,447.62	$3,139.73
Salem	$8,164.28	$7,357.38	$6,700.33
Sand Fork	$716.32	$645.55	$587.89

Distribution to All Municipalities Continued			
Municipality	**CY 2008**	**CY 2007**	**CY 2006**
Shepherdstown	$3,268.14	$2,945.14	$2,682.12
Shinnston	$9,340.53	$8,417.38	$7,665.67
Sistersville	$6,463.06	$5,824.29	$5,304.15
Smithers	$3,679.20	$1,908.50	$3,019.46
Smithfield	$720.38	$2,056.24	$591.21
Sophia	$5,294.96	$4,771.65	$4,345.53
South Charleston	$54,496.44	$49,110.34	$44,724.60
Spencer	$9,572.51	$8,626.43	$7,856.05
St. Albans	$47,076.98	$42,424.16	$38,635.53
St. Marys	$8,209.10	$7,397.76	$6,737.11
Star City	$5,559.56	$5,010.08	$4,562.66
Stonewood	$7,386.94	$6,656.85	$6,062.37
Summersville	$13,406.40	$12,081.40	$11,002.49
Sutton	$4,114.75	$3,708.07	$3,376.92
Sylvester	$793.62	$715.19	$651.31
Terra Alta	$5,925.86	$5,340.18	$4,863.29
Thomas	$1,839.60	$1,657.78	$1,509.74
Thurmond	$28.48	$25.67	$23.38
Triadelphia	$3,325.10	$2,996.47	$2,728.88
Tunnelton	$1,367.54	$1,232.39	$1,122.33
Union	$2,230.33	$2,009.89	$1,830.41
Valley Grove	$1,648.32	$1,485.40	$1,352.75
Vienna	$44,203.63	$39,834.80	$36,277.40
War	$3,207.12	$2,890.15	$2,632.05
Wardensville	$1,001.24	$902.28	$821.70
Wayne	$4,497.31	$4,052.82	$3,690.89
Weirton (Brooke)	$13,292.41	$11,978.46	$10,908.33
Weirton (Hancock)	$69,779.10	$62,882.73	$57,267.47
Welch	$10,919.66	$9,840.43	$8,961.65
Wellsburg	$11,766.19	$10,603.28	$9,656.37
West Hamlin	$2,832.65	$2,552.69	$2,324.73
West Liberty	$4,965.33	$4,474.58	$4,074.99
West Logan	$1,701.23	$1,533.09	$1,396.18
West Millford	$2,649.54	$2,387.68	$2,174.45
West Union	$3,280.36	$2,956.14	$2,692.15
Weston	$17,569.95	$15,833.43	$14,419.45
Westover	$16,039.61	$14,454.35	$13,163.52
Wheeling (Marshall)	$577.90	$532.91	$511.76
Wheeling (Ohio)	$127,295.44	$114,702.17	$104,432.37

Distribution to All Municipalities Continued			
Municipality	**CY 2008**	**CY 2007**	**CY 2006**
White Hall	$2,421.61	$2,182.27	$1,987.38
White Sulphur Springs	$9,421.93	$8,490.71	$7,732.47
Whitesville	$2,116.40	$1,907.23	$1,736.89
Williamson	$13,894.81	$12,521.52	$11,403.31
Williamstown	$12,193.50	$10,988.36	$10,007.07
Windsor Heights	$1,754.14	$1,580.77	$1,439.61
Winfield	$7,561.95	$6,814.57	$6,206.02
Womelsdorf	$1,005.27	$905.93	$825.03
Worthington	$691.90	$623.51	$567.83
Total	**$2,619,534.37**	**$2,360,634.84**	**$2,149,821.35**

Source: West Virginia State Treasurer's Office.

Note: CY 2008 distributions include figures from January, April, June, and September 2008; CYs 2006 and 2007 include figures from January, April, June, and October for respective years.

Note: County names in parentheses represent municipalities which span multiple counties.

Appendix V: West Virginia Coal Resource Transportation Road Information

Weight Limits for Vehicles With and Without CRTS Permit				
Vehicle Type	**Axles**	**Maximum Gross Weight**		**Special Permit Fee**
		Without CRTS Permit	**With CRTS Permit**	
Single unit	1 steering axle and 2 axles in tandem	60,000 lbs.	80,000 lbs.	$100
Single unit	1 steering axle and 3 axles in tridem	70,000 lbs.	90,000 lbs.	$160
Tractor-semitrailer combination	5 axles	80,000 lbs	110,000 lbs.	$300
Tractor-semitrailer combination	6 or more axles	80,000 lbs	120,000 lbs.	$500
Source: WV Code §17C-17A-4(b) and §17C-17-9a(b). Note: Weight limits without permits have a 10 percent tolerance and with permits have a 5 percent tolerance.				

Appendix VI: Estimating Personal Income Taxes Paid by Coal Employees

The estimate began by retrieving the WV state level 2008 employment and wage figures for two NAICS codes, 2121 (Coal Mining) and 213113 (Support Activities for Coal Mining). As the direct employment for 324199 (All Other Petroleum and Coal Products Manufacturing) and 42352 (Coal and Other Mineral merchant Wholesalers) could not be isolated directly to coal they were excluded from the analysis.

The 2008 (Preliminary) estimates from the Bureau of Labor Statistics Quarterly Census of Employment and Wages provided approximate distributions of wages for NAICS 2121 as follows (distributions for 213113 were not disclosed):

Preliminary 2008 Wage Distribution by Percentile					
	10th	**25th**	**Median**	**75th**	**90th**
2121 Coal Mining	$28,450	$35,910	$44,270	$52,830	$72,710
Source: U.S. Bureau of Labor Statistics					

As taxes are levied on taxable income rather than wages a figure for taxable income for industry employees had to be calculated. Using the ratio of total state wages (from the Bureau of Labor Statistics) and the total taxable income for the state (from the Statistics of Income series from the Internal Revenue Service) a ratio of 93.12% was derived. While this number appears high, it takes into account components of income rather than wages (interest, dividends, rent, etc.). Applying that percentage statewide to direct wages by industry employees provides us with an estimate of taxable wages across the distribution set.

It should be noted that the exact distribution of wages is unknown, so the assumption is based upon attributing an entire group to a particular percentile's level. It should be noted here that because the exact distribution of the 10 percent of employees earning above the 90th percentile is not known, the 90th percentile wage is applied for that group, underestimating their taxes paid by a potentially large sum.

Preliminary 2008 Employment Distribution by Percentile						
	10th	**25th**	**Median**	**75th**	**90th**	**Remain**
2121 and 213113 Employment	2,232	3,347	5,579	5,579	3,347	2,232
Source: Estimated via data from the Bureau of Labor Statistics						

The 2008 West Virginia Tax Rate Schedule for Single, Head of Household, Widow(er) with Dependent Children and Married Filing Jointly (see below) were then applied to the taxable wages per distribution group.

West Virginia 2008 Tax Rate Schedule Single, Head of Household, Widow(er) with Dependent Children and Married Filing Jointly				
At Least	**But Less Than**	**Fixed Amount +**	**Percentage**	**Exceeding**
	$10,000		3%	
$10,000	$25,000	$300	4%	$10,000
$25,000	$40,000	$900	4.5%	$25,000
$40,000	$60,000	$1,575	6%	$40,000
$60,000		$2,775	6.5%	$60,000
Source: West Virginia Department of Taxation				

The resulting figures provide the approximate estimates of personal income taxes paid for the distribution set.

Preliminary 2008 Employment Distribution by Percentile							
	10th	**25th**	**Median**	**75th**	**90th**	**Remain**	**Total**
2121 and 213113 Employee Personal Income Taxes Paid	$2,158,211	$4,283,678	$9,196,084	$11,864,198	$10,965,371	$7,619,553	$46,087,096