

Coal in the West Virginia Economy

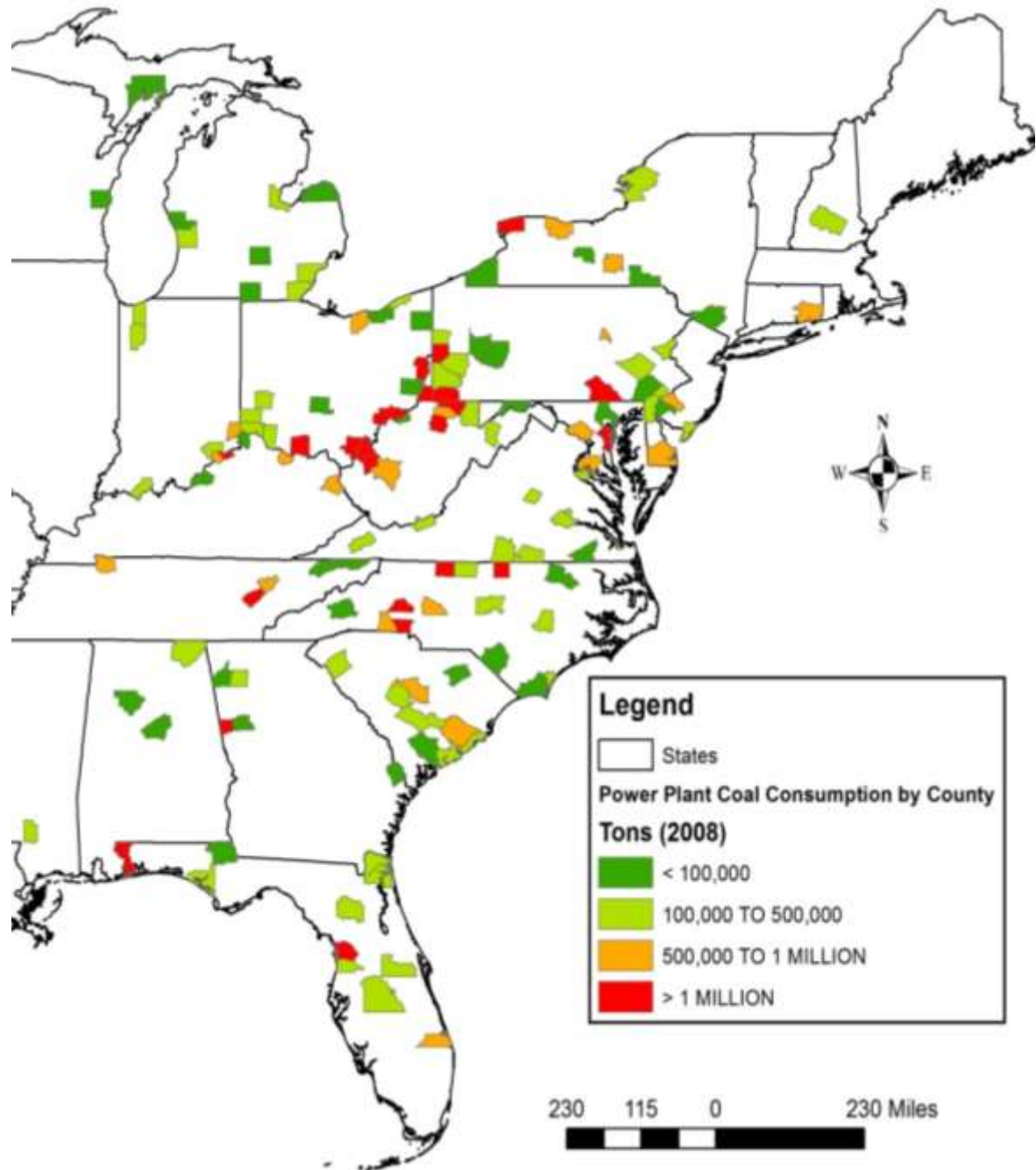


MARSHALL UNIVERSITY
CENTER FOR BUSINESS AND ECONOMIC RESEARCH

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May 19, 2011



Counties with power plants that used WV coal in 2009





Coal is How Many Jobs?

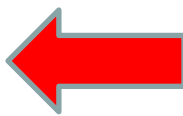
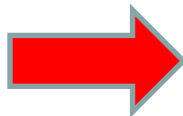
- In All WV: 8% (Marshall/WVU, 2009)
- In eastern KY: 32% (University of KY, 2001)
- 5-County Cluster: Boone, Lincoln, Logan, Mingo, Wayne
 - about 29% of employment (1 in 3.5 jobs)

These include multiplier effects.



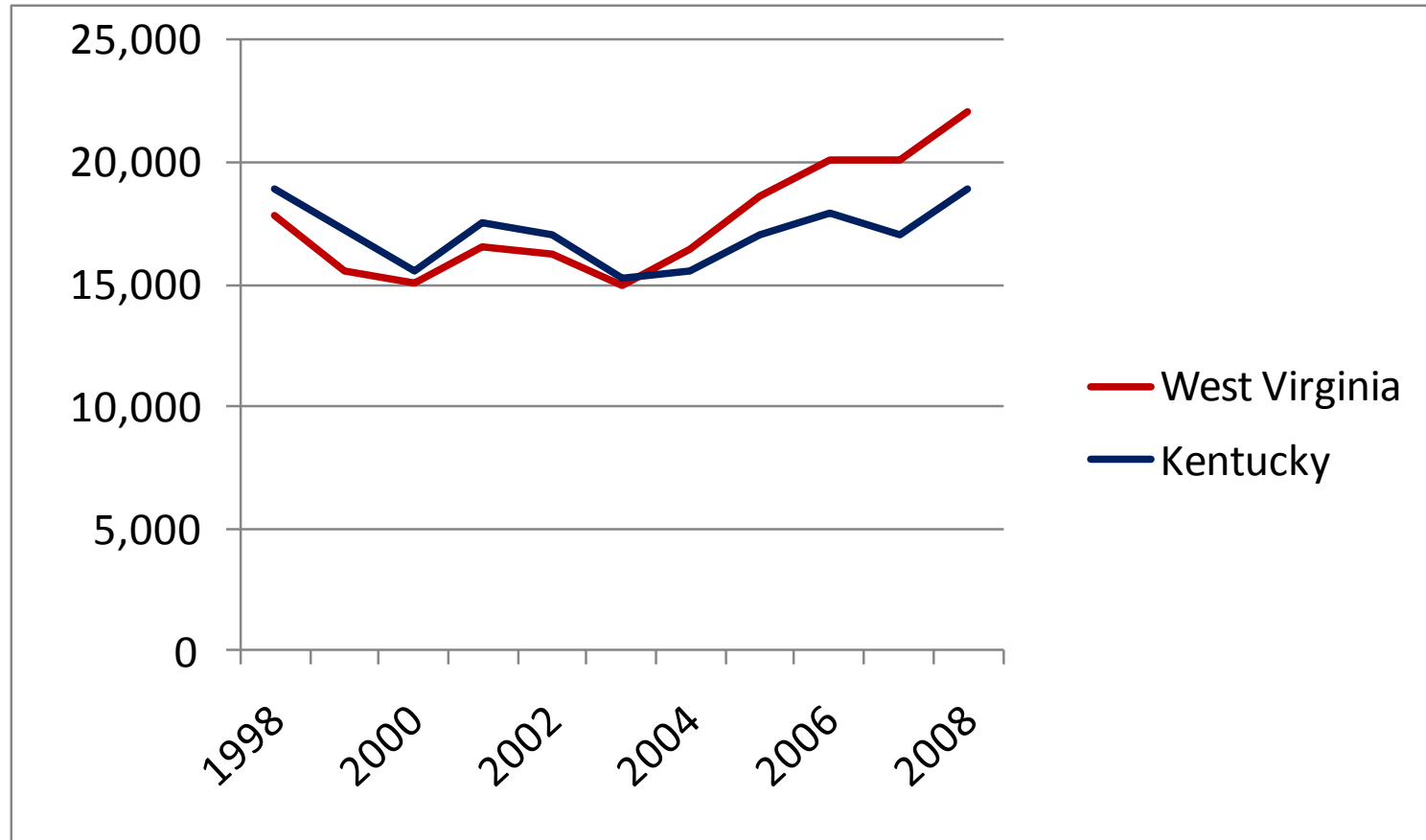
US Coal Mining Employment & Wages, 2008

	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



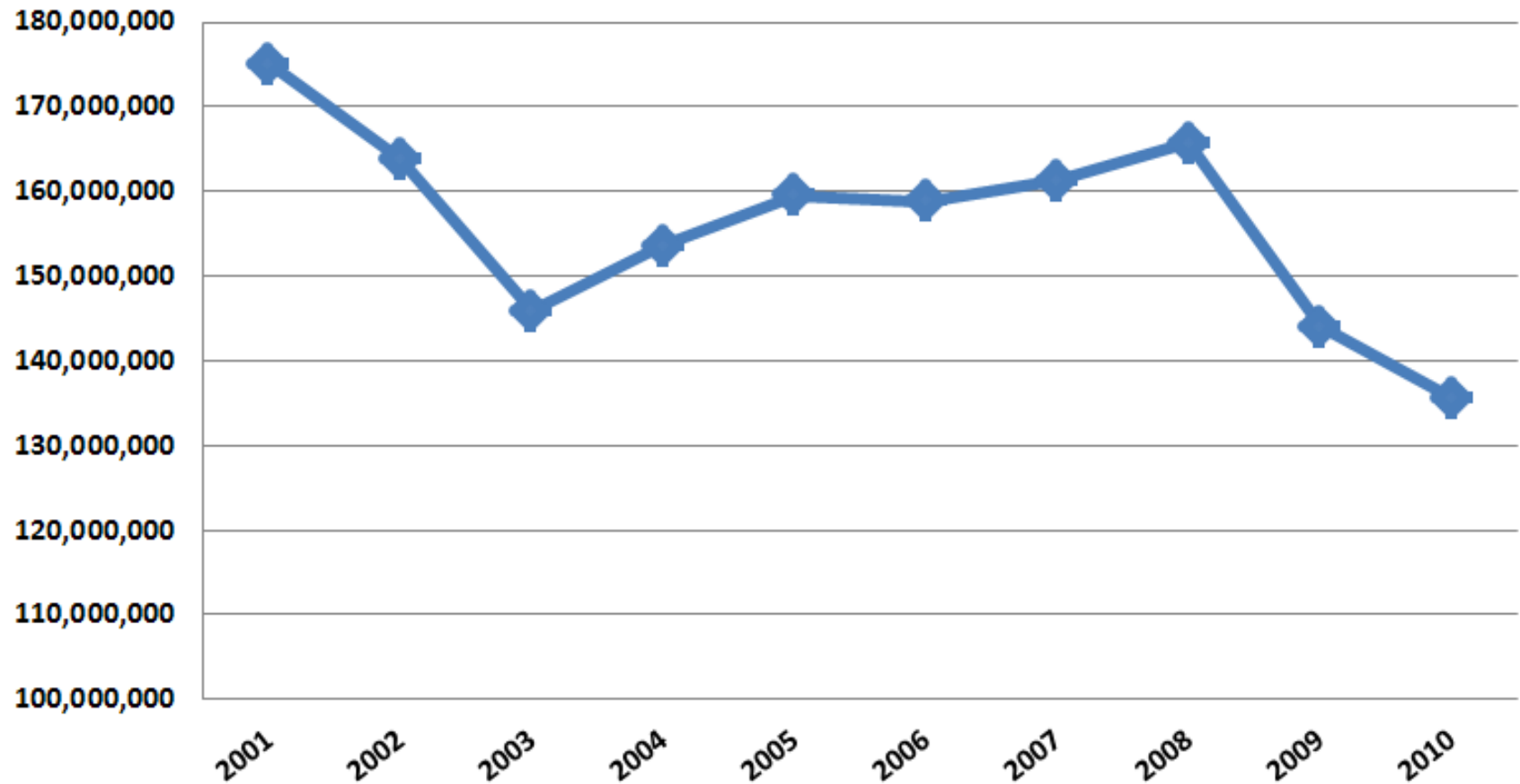


Direct Coal Mining Employment



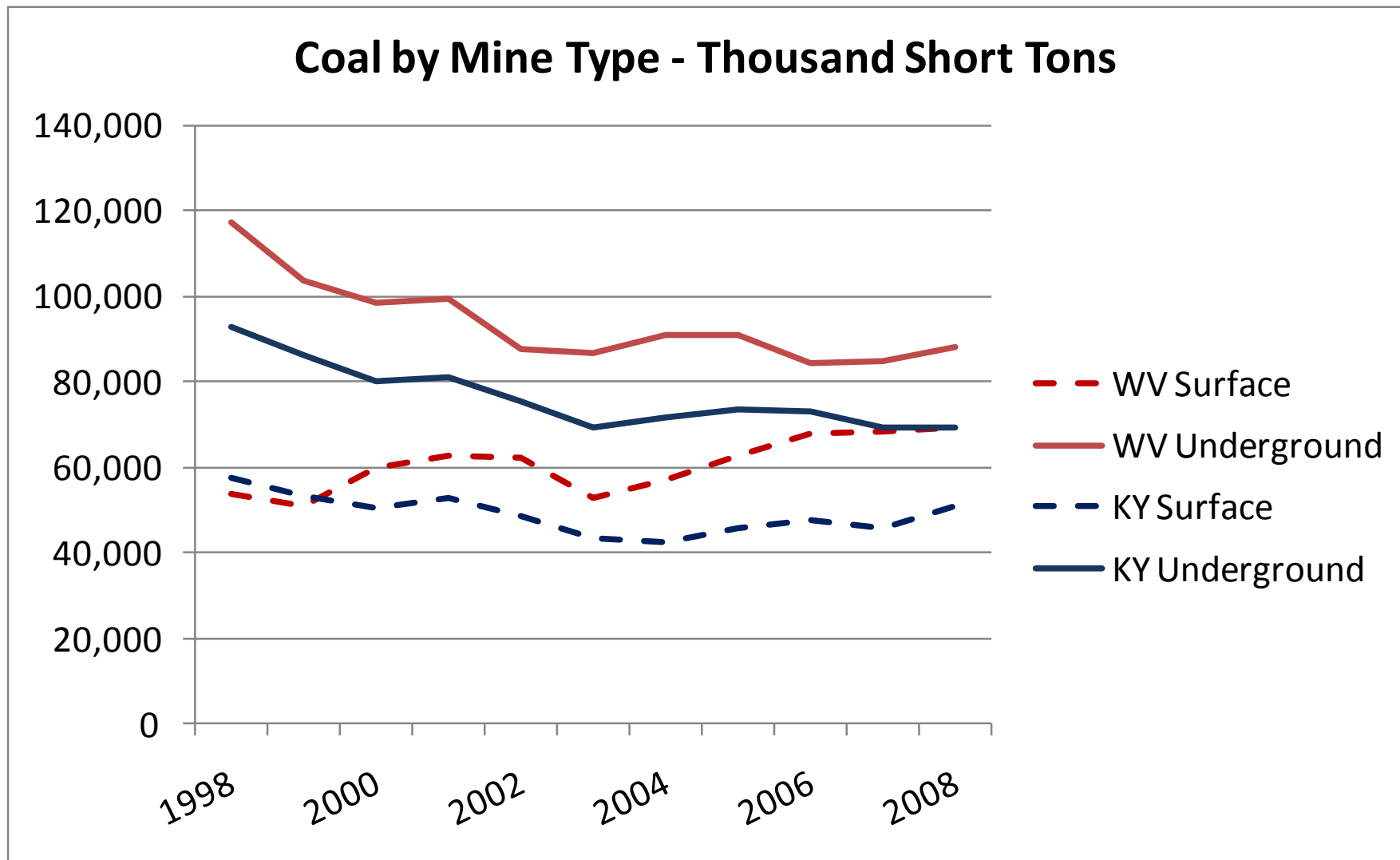


Recent WV Coal Production, 2001 to 2010



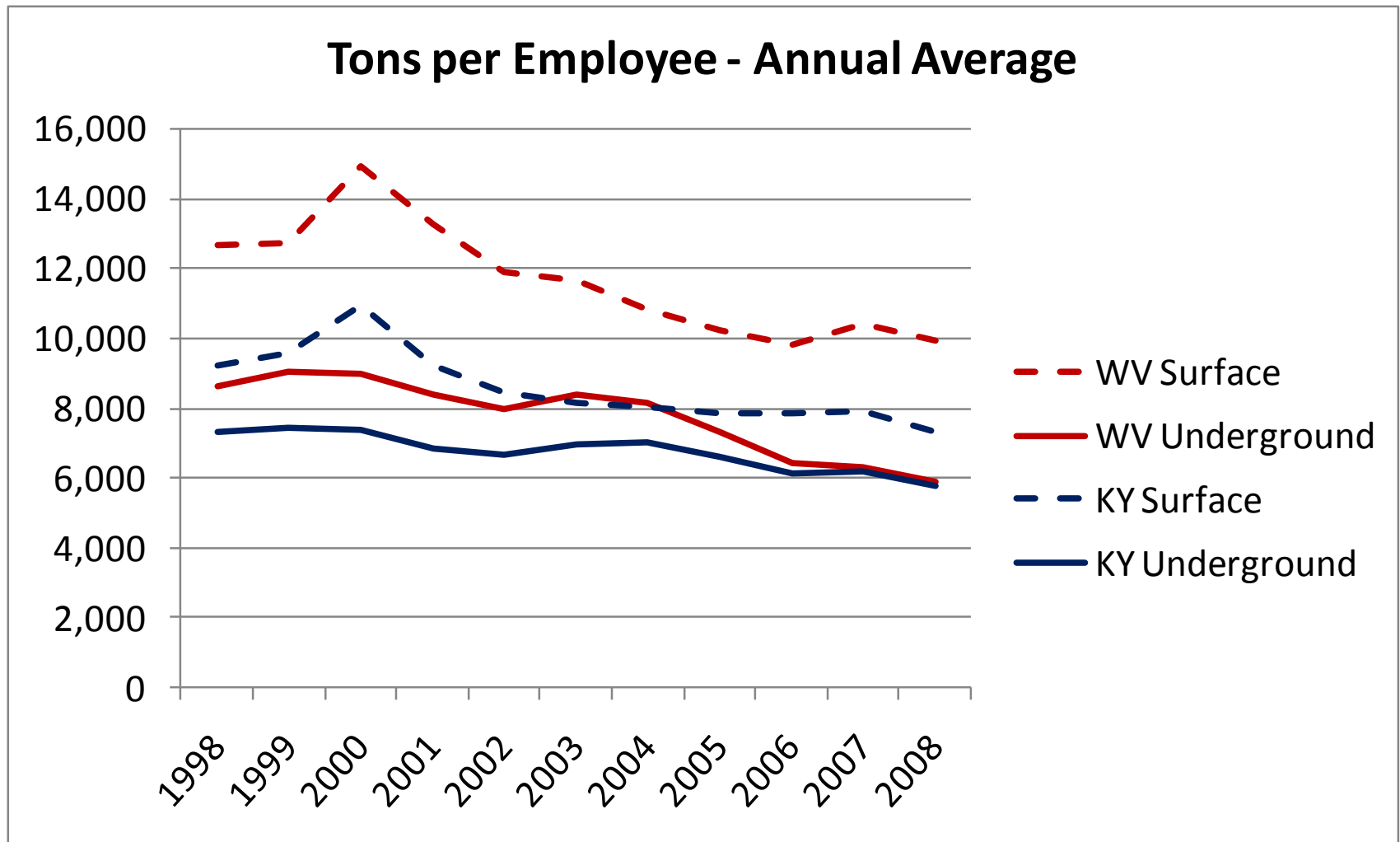


Recent Production by Type






Productivity





Top Destinations by Value



	West Virginia	\$ in 20008
1	India	258,026,672
2	France	236,059,839
3	Brazil	232,713,669
4	Egypt	160,535,763
5	United Kingdom	149,186,947
6	Turkey	144,413,623
7	Netherlands	134,691,776
8	Belgium	129,557,563
9	Italy	122,827,623
10	Romania	102,926,294

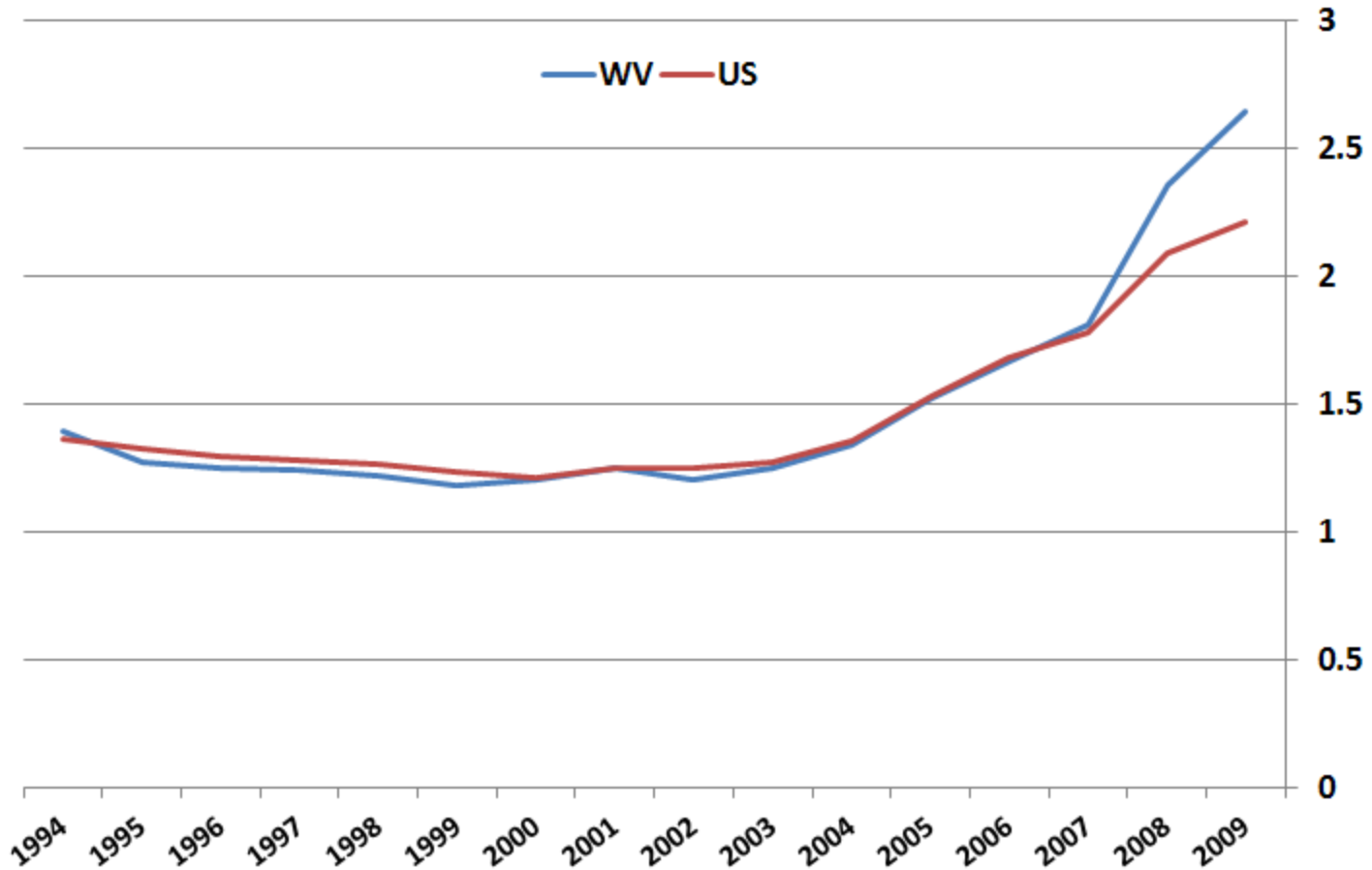


	Kentucky	\$ in 20008
1	Netherlands	10,666,920
2	United Kingdom	10,105,501
3	Canada	8,034,862
4	Korean Republic	7,844,872
5	Germany	5,534,597



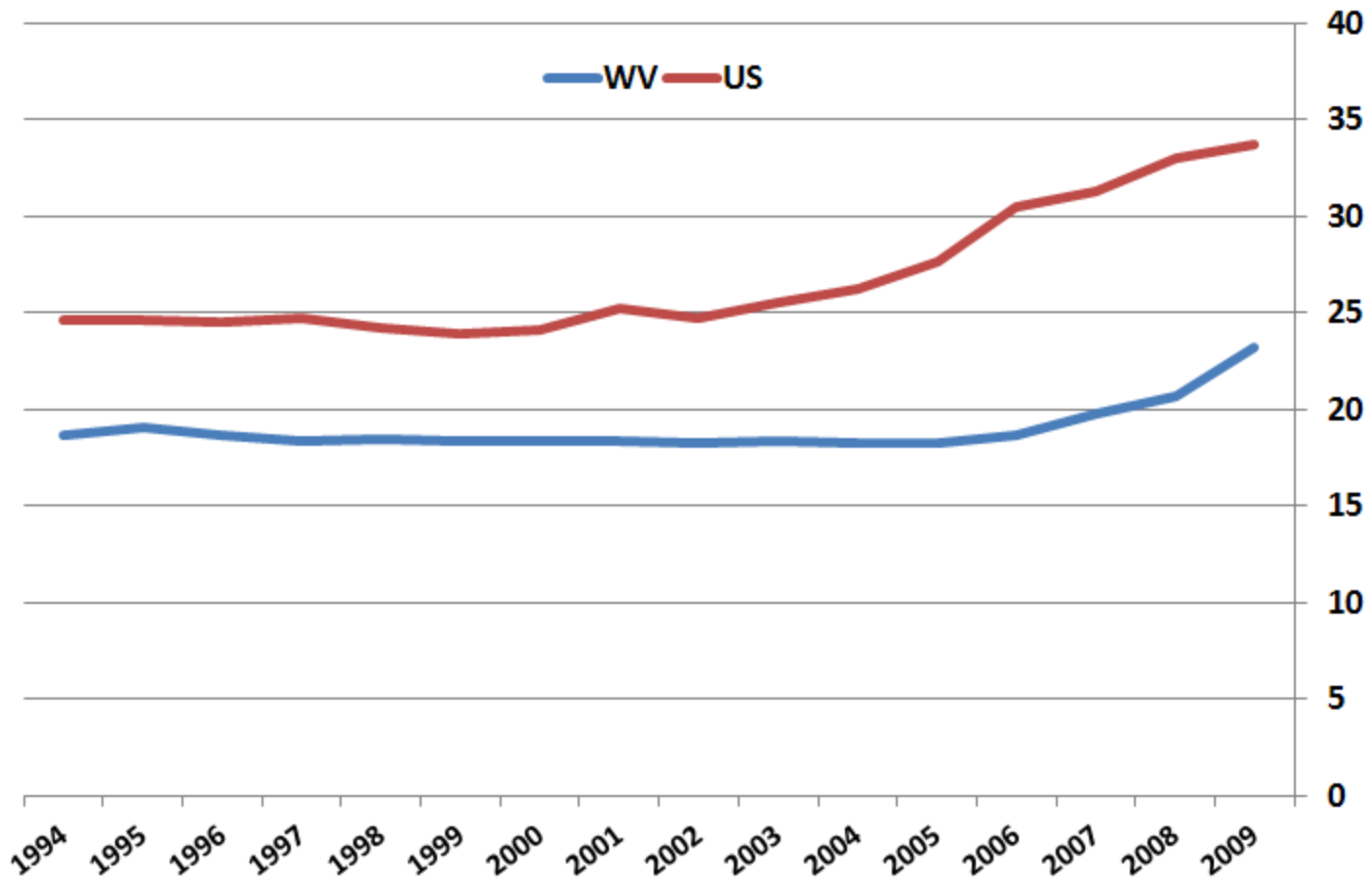


Coal Prices for Electric Power – WV vs US, \$/mmbtu



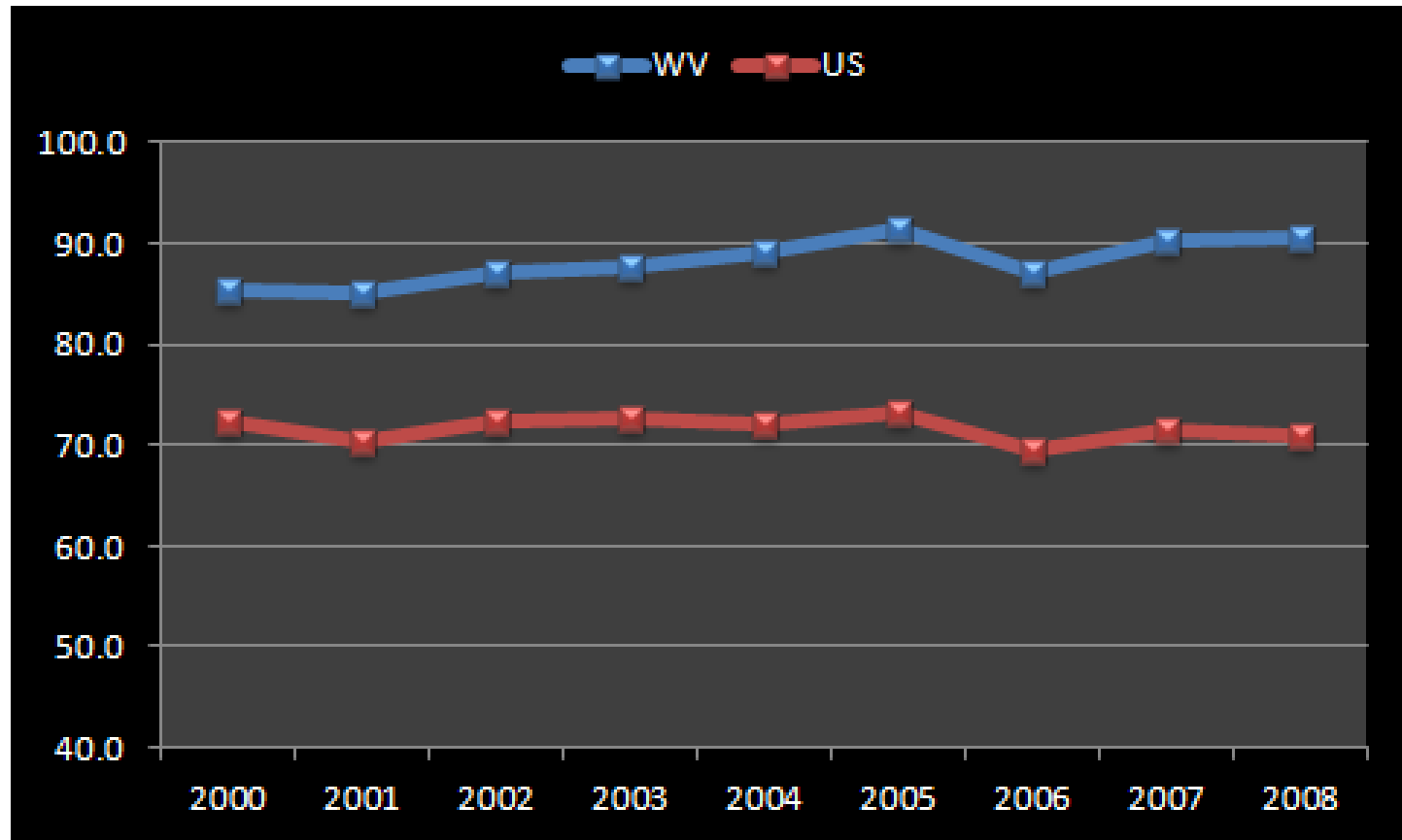


Residential Electricity Prices, US vs WV (\$/mmbtu)





Residential Energy Consumption per Capita (mmbtu)







Economic Links to Coal

- **Inputs** to production
 - Households (labor)
 - Area Business (capital goods, materials, services)
 - Out-of-Area Business (imports)
- **Output** is the value of everything produced.
- **Business Volume** is Output plus cost of goods sold.



Business Volume Impacts

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.			



Value Added Impacts (GSP)

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.



General Fund Taxes

- Severance \$412.7 million
- Corporate Net Income \$25.6 million
- Sales and Use Taxes \$3.6 million
- Personal Income Taxes \$46.0 million
- Total general fund \$487.9 million

Estimated to be 12.5% of General Fund revenues during 2008



Other Taxes

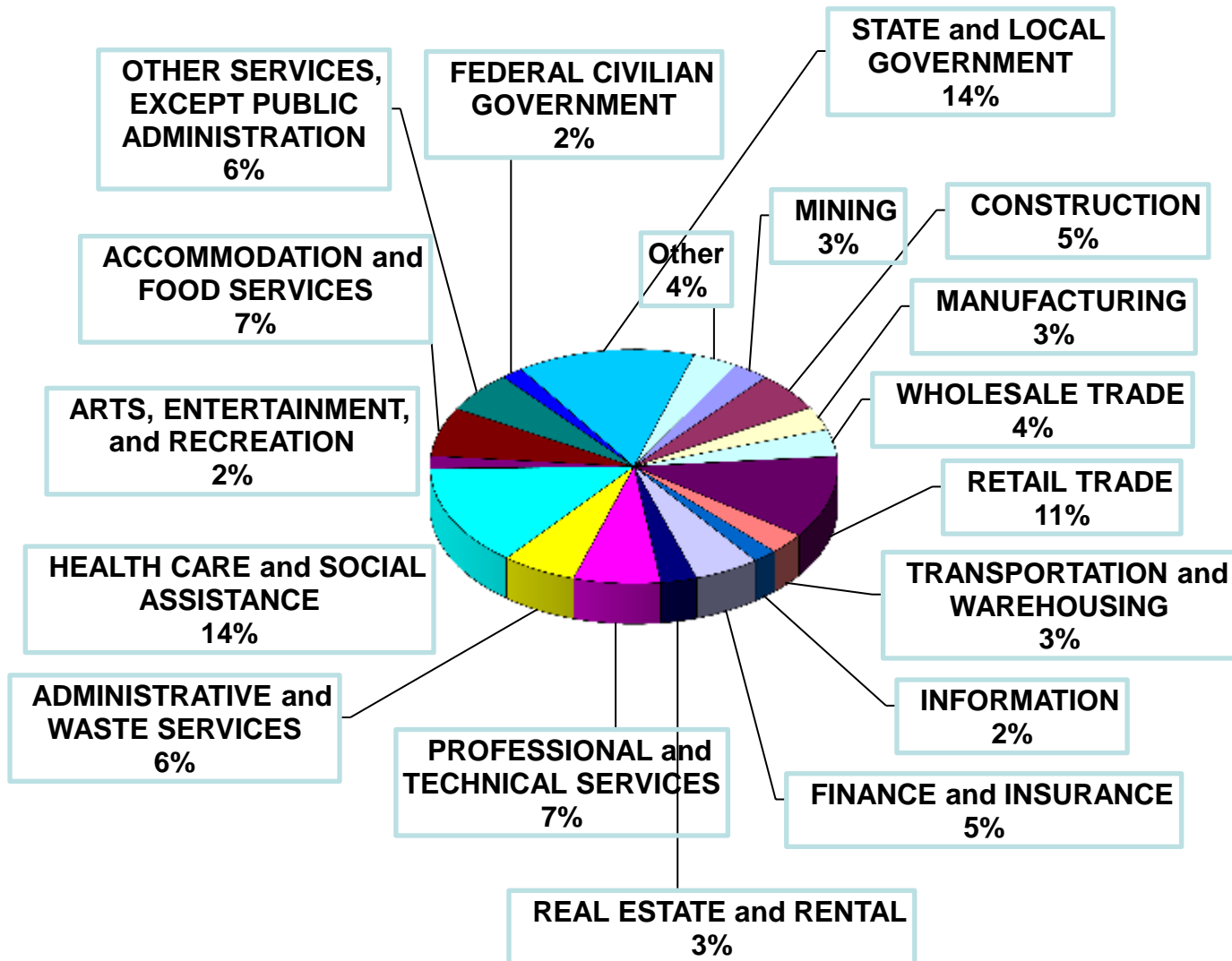
- Workers compensation \$80.0 million
- Special reclamation taxes \$13.6 million
- Coal Resource Transportation Road Fund \$3.9 million
- Real & Personal property - \$90.8

* Does not include other fees, such as permits, paid by the industry



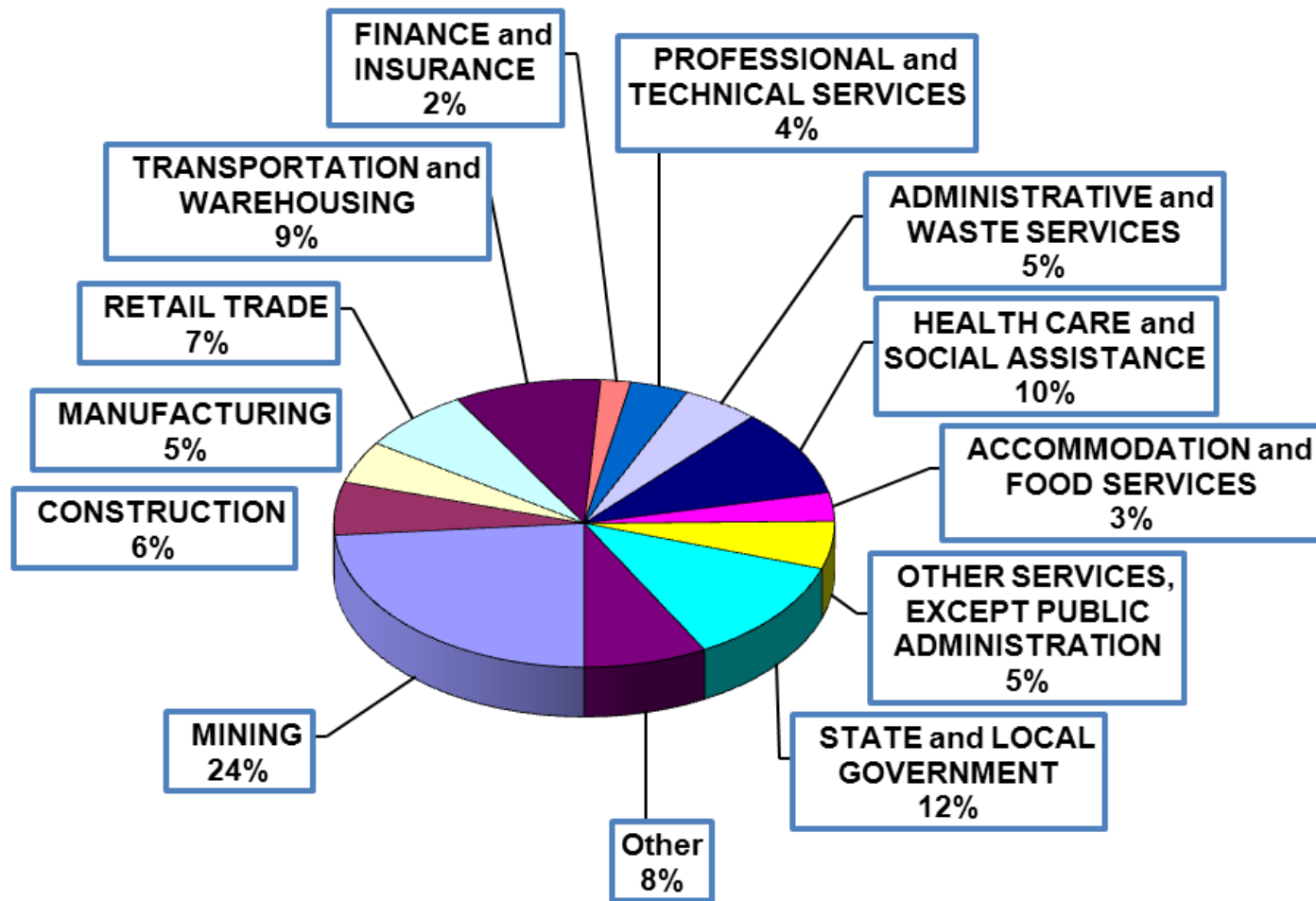


Distribution of Employment in 2007 - Kanawha County



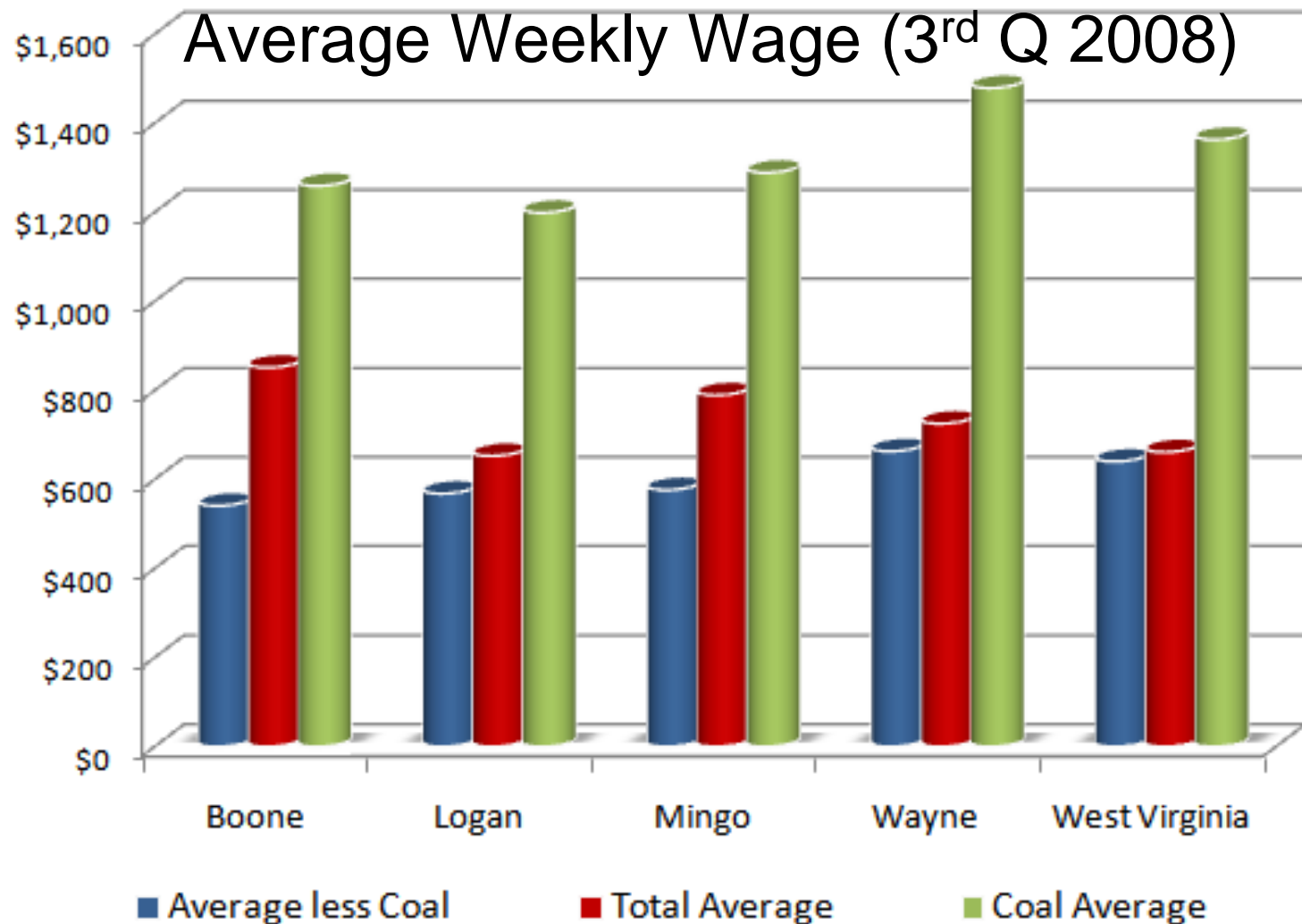


Distribution of Employment in 2007 - Mingo County





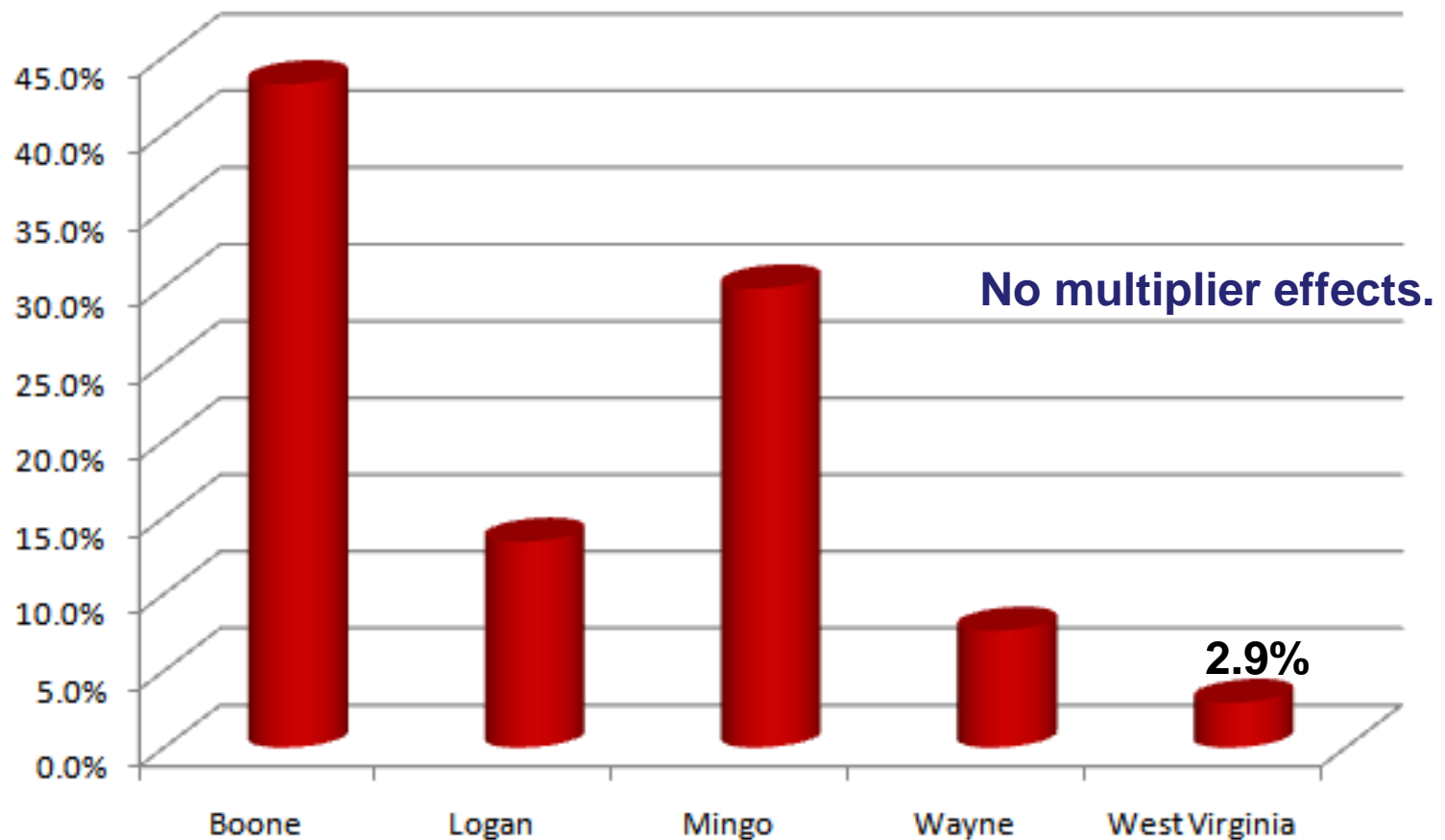
Relative Wages





Job Shares

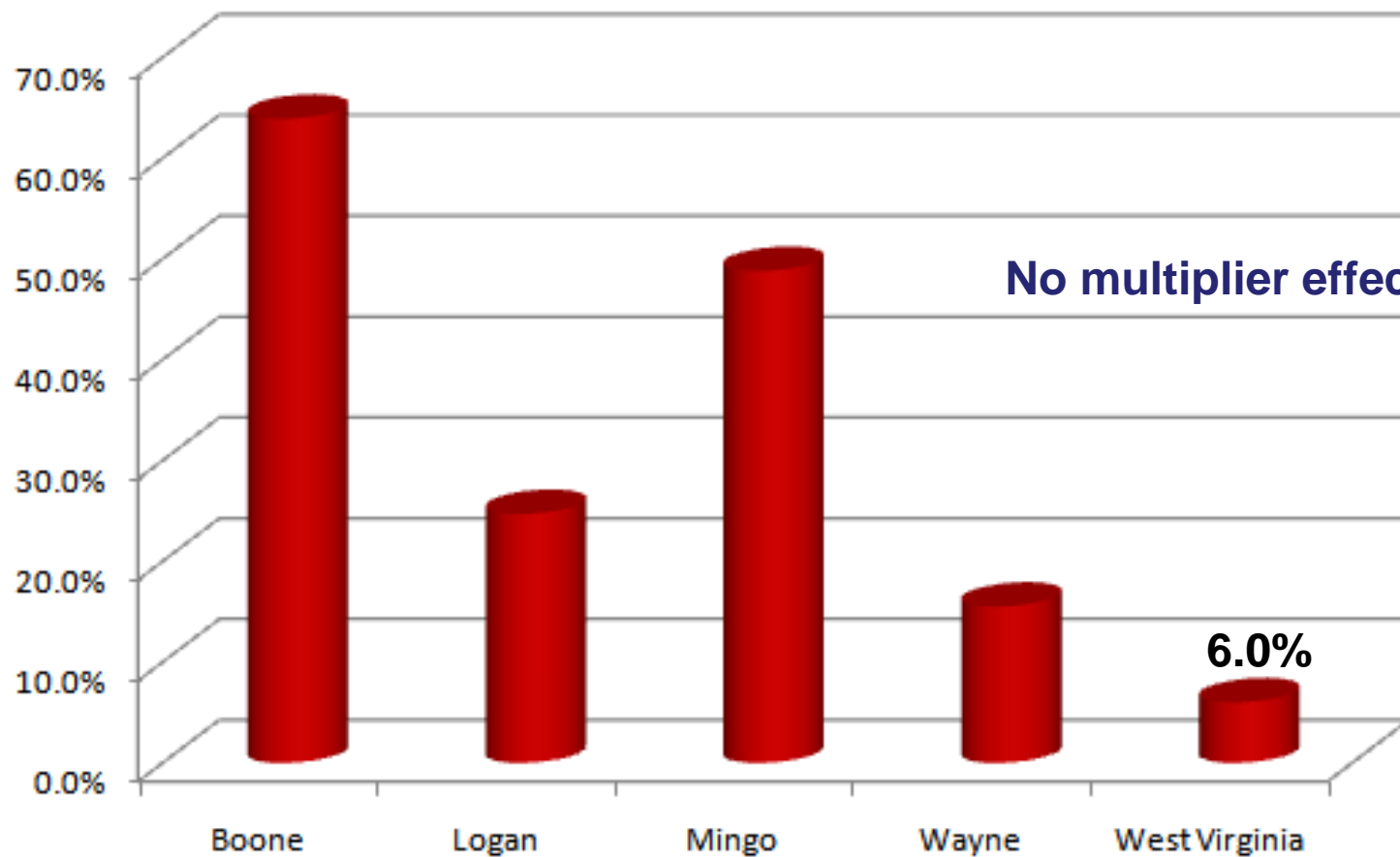
Coal Mining Share of Employment





Wage Shares

Coal Wages as a Percentage of Total Wages





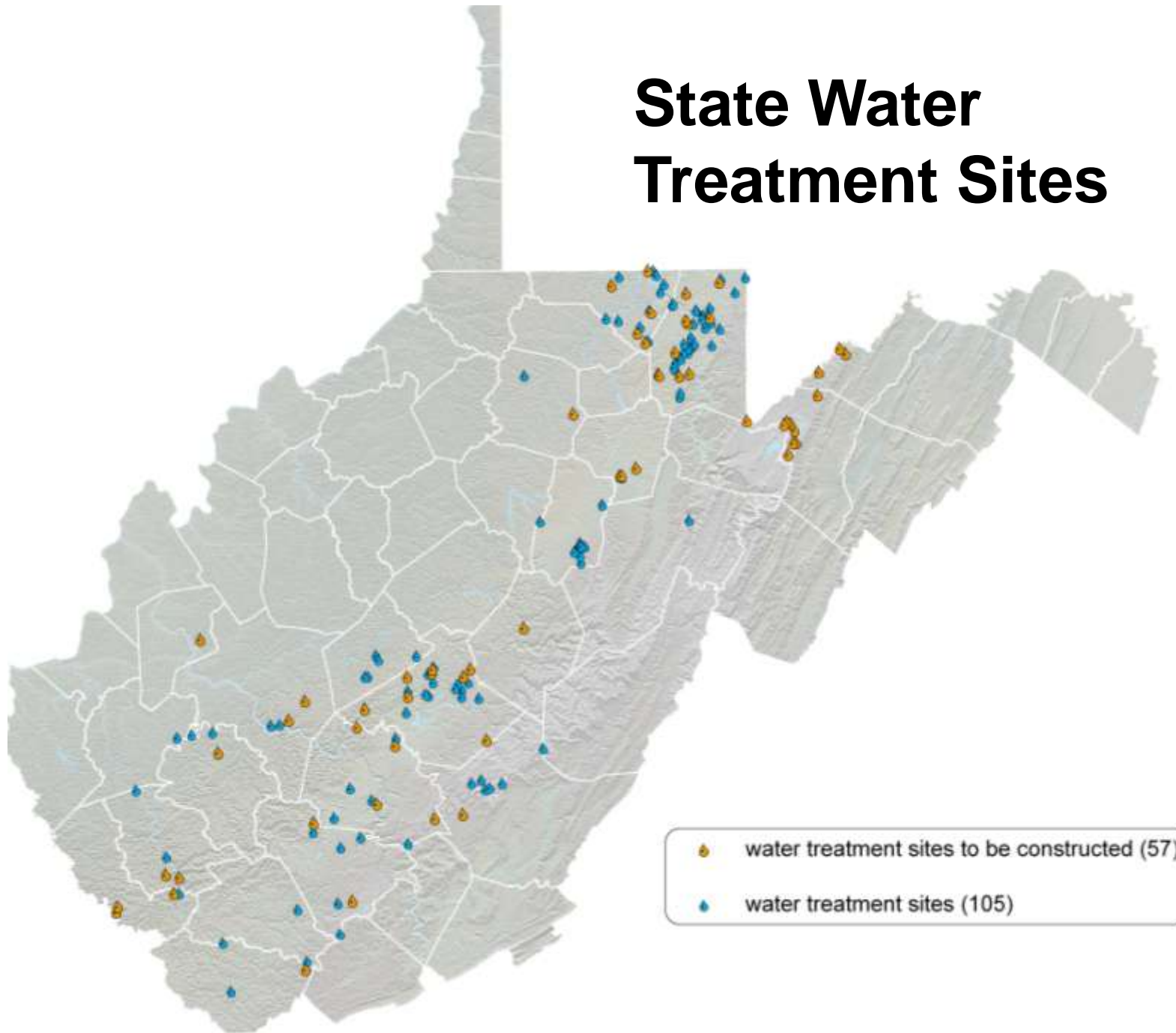


Reclaimed Mine Sites

- Reclaimed mine sites are home to: 4 industrial parks, 4 retail malls, 8 recreation facilities, 3 high schools, 3 correctional facilities, 2 airports, 2 residential developments.
- Boy Scouts Bechtel Family National Scout Reserve Fayette County
- FBI complex in Harrison County
- Wind power facilities in Tucker and Grant



State Water Treatment Sites





Active Permits Treating Water





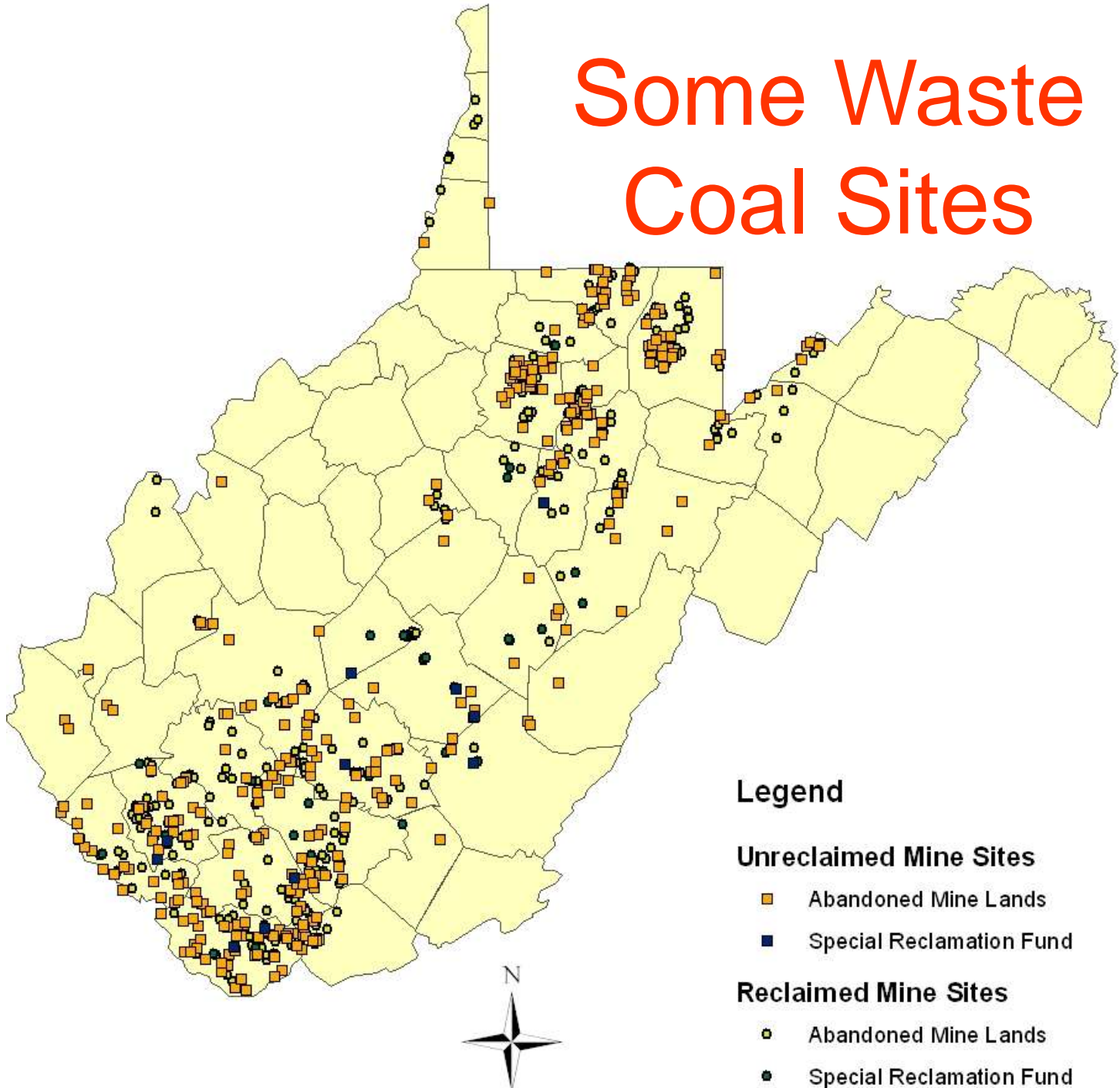
Waste Coal/Gob



Pinnacle Impoundment, June 2006



Some Waste Coal Sites





Thank You