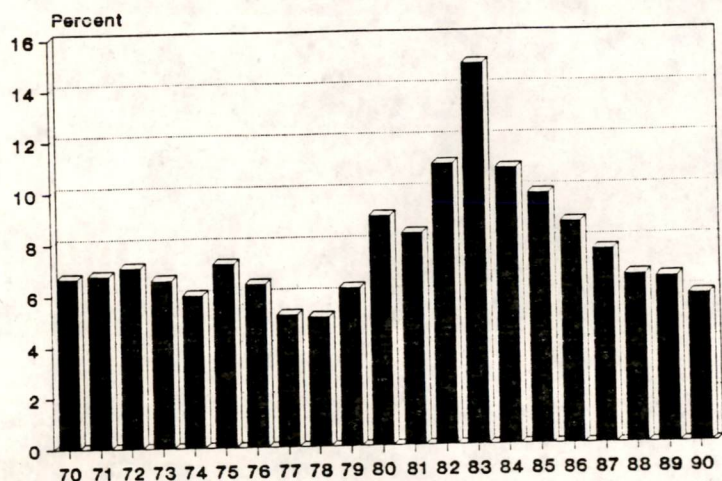


W. Va., Dec. 6-8, 1990

West Virginia Economic Indicators

WV Unemployment Rate
July 1970-1990

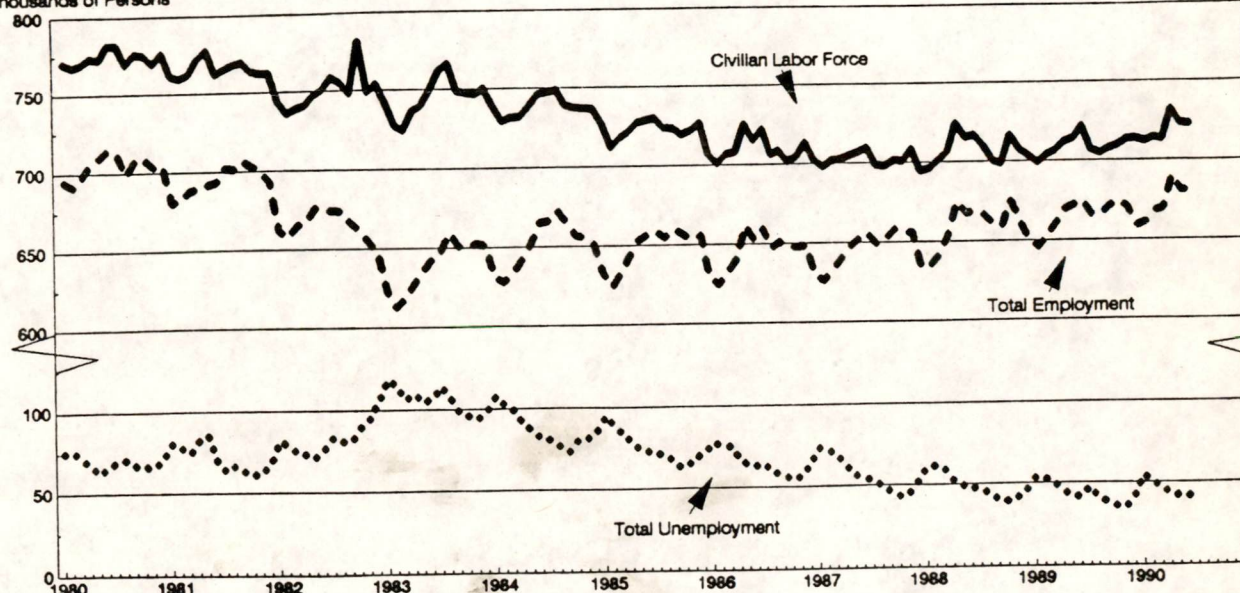


EMPLOYMENT: Total employment in West Virginia decreased 100 during the month to an estimated 681,000 in mid-July. A comparison with year-ago figures shows that there were 6,600 more people employed in West Virginia this July than in July of last year.

Nonagricultural payroll employment is 26,300 ahead of last July. However, some 17,200 of this increase is due to the labor dispute in the coal industry which was in effect last July.

UNEMPLOYMENT: The number of unemployed West Virginians declined 400 to an estimated 41,600 in mid-July. The unemployment rate for July is 5.8 percent. This is the lowest July unemployment rate since 1978.

Thousands of Persons



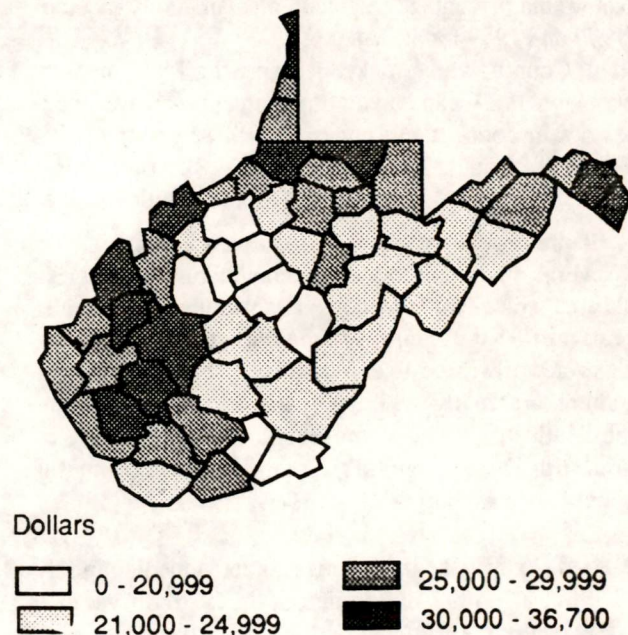
July 1990

Median Family Income

West Virginia had a median family income of \$28,300 in 1989, ranking 41st among the states. (Mississippi ranked 50th with a median family income of \$23,400 and Alaska ranked 1st with \$46,200.) In 1979, West Virginia ranked 38th with a median family income of \$17,307. Over the decade, West Virginia dropped slightly in comparative state rankings, despite improving its median family income by 63.5 percent.

Table 1 on page i of insert displays 1989 estimated median family income for all West Virginia counties, as well as 1979 median family income and percentage change. HUD prepared the 1989 median family income estimates only for nonmetropolitan counties and MSA's. Since there are no separate estimates for counties that are components of MSA's, these counties have been assigned the median family income value for the appropriate MSA.

Figure 1
Median Family Income, 1989



Among the counties and MSA's, Wetzel County had the highest estimated median family income in 1989, \$36,700. Boone County ranked 2nd, with a median family income of \$35,700. The Charleston, WV MSA, which includes Kanawha and Putnam counties, followed with \$33,300. Wood County, which is a part of the Parkersburg-Marietta MSA, ranked 5th with a median family income of \$32,800. In order, the other counties among the top 12 were Berkeley, Mason, Monongalia, Jefferson, Brooke, Hancock and Logan. Figure 1 on page 1 illustrates median family income in 1989, by county. The map clearly displays the location of the highest income counties compared to the lowest income counties.

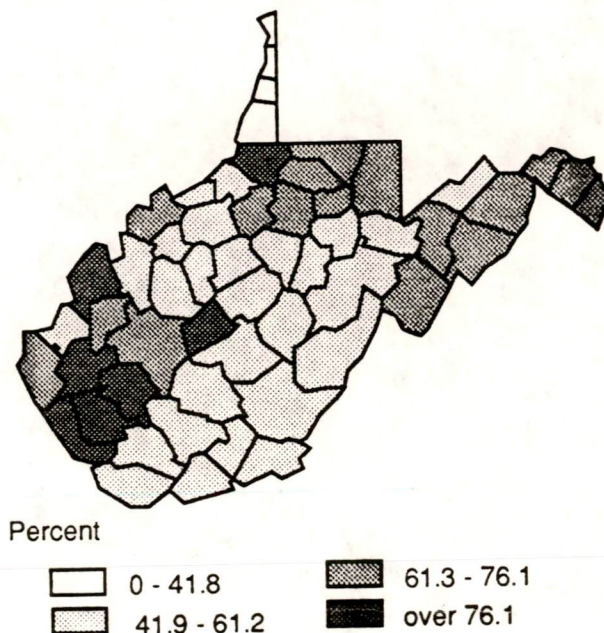
As expected, most of the high ranking counties were in or near urban areas, or were major coal mining counties. Kanawha and Putnam counties showed increases of 63.5 and 65.9 percent, respectively, compared to 1979 median family income figures. Wood County, in the Parkersburg-Marietta MSA, had an increase of 71.1 percent. Brooke and Hancock counties, in the Steubenville-Weirton MSA, were unique among the high ranking counties, in that they were also among the lowest in percent increase since 1979 (37.5 and 28.7 percent, respectively). The four counties in the Northern Panhandle had the four lowest percent increases in median family income, a likely consequence of the decline in manufacturing employment in the area.

On the other hand, Berkeley and Jefferson counties, in the Eastern Panhandle, and among the few counties that have shown any growth in population since 1980, both exhibited healthy increases in median family income of about 76 percent. Monongalia County, the home of West Virginia University and one of the State's major medical centers, increased 68.1 percent. Coal producing Boone and Logan counties were among the counties that had the highest percent change in median family income since 1979 - 93.3 and 82.9 percent, respectively. Figure 2 shows the percentage change in median family income between 1979 and 1989 for all counties.

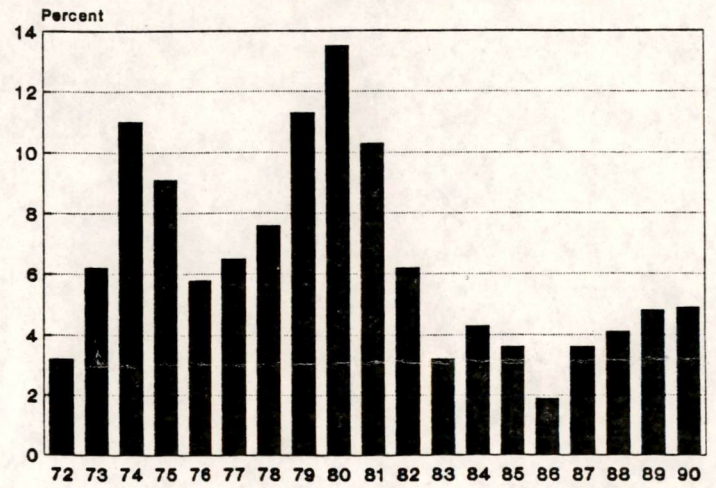
Wetzel County, which ranked a surprising 1st in median family income in 1989, and had an 85.5 percent increase since 1979, does not fit comfortably into any of these patterns. Of the estimated 1988 population of 20,600 persons, about a third reside in the city of New Martinsville. A representative of the Region X Planning and Development Council explained that there are several chemical and aluminum plants in the New Martinsville area which employ a considerable number of middle level executives. In the interior of the county, Hope Natural Gas employs a work force that is relatively highly paid. In addition, there are many well paid skilled laborers in the construction industry. The demographics of the county in conjunction with these economic factors might account for Wetzel County's top ranking.

Calhoun County had the lowest estimated median family income in 1989, \$17,300. Rounding out the bottom five were Webster, Braxton, and Gilmer counties, all adjacent to each other in the center of the State, and Monroe County in the south. Of the 12 counties lowest in median family income in 1989, nine were clustered around Calhoun County and three were in the southernmost part of the State. Clay County, one of the 12 lowest counties in median family income in 1989, increased 93.6 percent since 1979 - the highest increase of all West Virginia counties. With the exception of Doddridge County which showed an increase of 73.5 percent, the other low income counties had increases ranging from 48.9 to 60.7 percent.

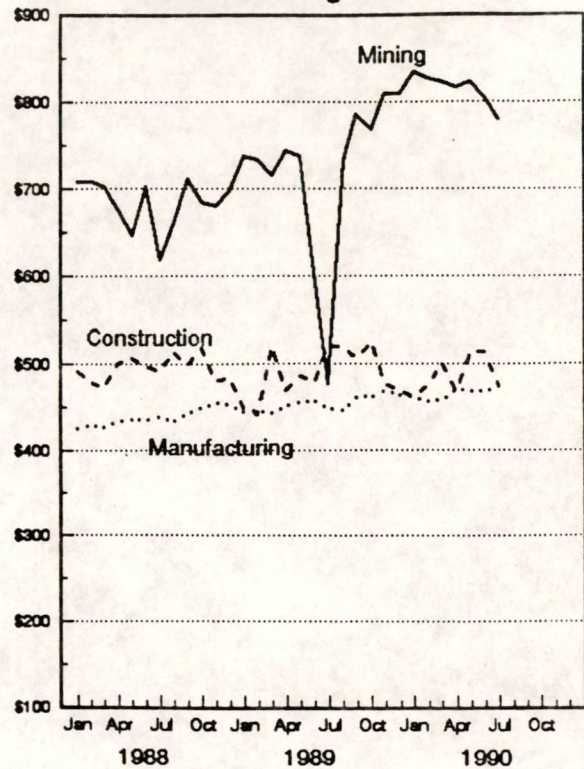
Figure 2
Median Family Income, 1989
Percent Change



Consumer Price Index
1972-89; (Jan-Jul 1990)



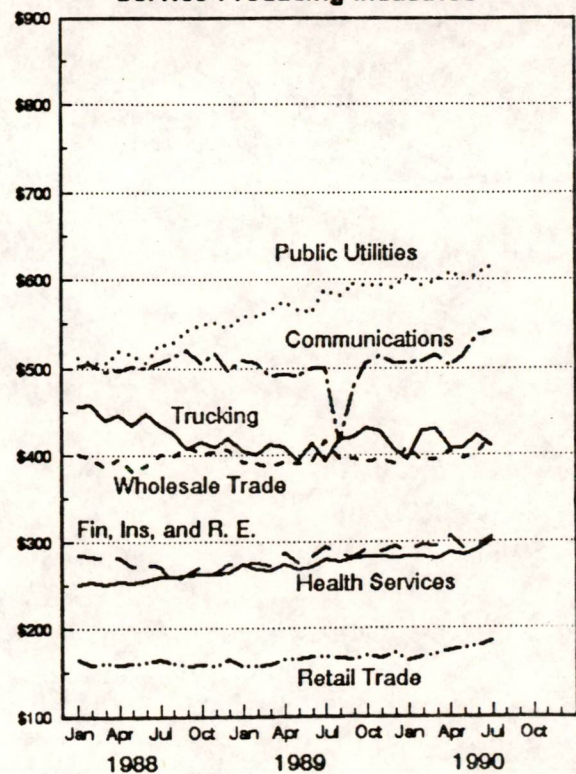
Average Weekly Earnings Goods Producing Industries



Average Weekly Earnings
Prelim. Revised Revised
Jul. '90 Jun. '90 Jul. '89

Manufacturing	\$472.28	\$469.36	\$447.82
Stone, Clay & Glass Products	448.47	457.73	417.49
Primary Metals Industries	645.00	618.34	584.16
Fabricated Metal Products	398.92	463.14	382.28
Industrial Machinery & Equipment	470.40	462.11	451.57
Electronic & Electrical Equipment	504.71	515.02	416.50
Chemical & Allied Products	682.00	675.40	674.49
Coal Mining	781.10	805.50	477.62
Construction	475.09	514.17	521.80

Average Weekly Earnings Service Producing Industries



West Virginia's Constitutional Property Tax Rate Limits
A National Perspective

Richard R. Almy
Consultant in Property Taxation
6230 S. Peck Avenue
La Grange, IL 60525
708,354,8265

I. Introduction

A. Holistic approach

B. "Realities" of taxation

1. You can't win:

"To tax and to please, no more than to love
and be wise, is not given to men."

-Edmund Burke, 1774

2. But you can lose:

"Governments last as long as the undertaxed
can defend themselves against the overtaxed."

-Bernhard Berenson

3. And there is no free lunch:

Someone--I forget who--said, that when tax
rates are unequal, those who bear the highest
rate of tax effectively limit the amount of
revenue a tax can produce.

C. West Virginia in perspective

1. Economy (business climate, labor force,
prospects for prosperity)

a. Population (1988): 1,876,000 (34th)

b. Personal income (1987):

(1) \$20,907,000,000--34th

(2) Per capita (\$11,020)--49th (U.S.
average: \$15,481)

2. Fiscal status (overall level of spending,
sources of revenue, intergovernmental
relationships)

(The following statistics are for fiscal year 1987-88.)

a. Total state and local government expenditure:

(1) \$5,009,363,000--37th

(2) Per capita (\$2,670.24)--42nd (U.S. average: \$3,365.09)

(3) Per \$1,000 personal income (\$204.76)--14th (U.S. average: \$186.36)

b. Total state and local government expenditure for education

(1) \$1,627,241,000--35th

(2) Per capita (\$867.40)--39th (U.S. average: \$987.29)

(3) Per \$1,000 personal income (\$77.83)--14th (U.S. average: \$64.40)

c. Total state and local government expenditure per capita for finance administration (\$50.19)--31st (U.S. average: \$55.28)

d. Total state and local government general revenue from own sources per \$1,000 personal income (\$158.00)--29th (U.S. average: \$161.76)

e. Total state and local government property tax revenue per \$1,000 personal income (\$20.52)--43rd (U.S. average: \$35.09)

3. Tax base (classes and level of assessment)

4. Tax limits

Four constitutional aggregate tax rates ranging between \$0.50 per \$100 assessed valuation to \$2.00. Ratio of high to low: 4.0. Actual rates are greater than constitutional limits as a result of overrides.

5. Assessment equity

Based on sales ratio data published in the 1977 and 1982 Censuses of Governments, I

ranked West Virginia 36th and 38th, respectively--not a good showing because only the top 15 or so states achieved acceptable levels of performance.

6. Summary (effective tax rate range)

II. Existing tax and revenue limit mechanisms

Are local government budgetary processes unresponsive to the wishes of the people? Most legislators apparently think so. Only 7 states do not have limits. About 16 states have constitutional limit measures. The source of the following statistics is Gold 1989.

A. Property tax rate limits

30 states, including West Virginia.

B. Property tax revenue limits

15 states, excluding the 12 states with property tax rollbacks.

C. Property tax rate rollbacks

12 states.

D. Spending limits

3 states.

E. Assessment increase limits

6 states.

F. Truth-in-taxation measures

16 states.

III. Classified property tax systems

A. Assessment ratio classes

13 states. Plus 1 county in Illinois and 2 counties in New York. The status of South Dakota is unclear. Iowa has an assessment "rollback" law which may have the same effect as classification.

B. Property tax rate classes

2 states, including West Virginia. Plus the District of Columbia.

IV. Policy choices

A. Control vs. Performance

1. Controlling is relatively easy.
2. Improving performance and establishing accountability for performance are comparatively difficult. Objectives:
 - a. Rational allocation of resources (increasing net public benefits, that is providing greater benefits than any alternative spending proposal and benefits greater than incremental costs) between public and private sectors, among governmental programs, and within programs.
 - b. Effectiveness (doing the right things).
 - c. Efficiency (doing things right).
 - d. Economy (consuming minimal resources).

B. Rigidity vs. flexibility

1. Across jurisdictions.
2. Over time.

C. Unintended effects

1. Misdirection of political responsibility
 1. Loopholes.
 2. Complexity.
 3. Inequity.

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- Gold, Steven D. and Martha A. Fabricius. 1989. How States Limit City and County Property Taxes and Spending. Denver: National Conference of State Legislatures.
- U.S. Bureau of the Census. 1990. Government Finances in

1987-88, GF-88-5, Washington: U.S. Government
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U.S. Bureau of the Census, 1989, 1987 Census of
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Washington: U.S. Government Printing Office.

***** 1 GENERAL FUND *****	*****	APPROVED REVENUES	APPROVED REVISIONS	REVISION NUMBER
RESERVE FOR ENCUMBRANCES		0	18,052	2
UNENCUMBERED FUND BALANCE		25,000	58,638	2
- 1 AD VALOREM TAXES		1,428,079 ✓		
- 2 PRIOR YEAR TAXES		40,000 ✓		
- 6 SUPPLEMENTAL TAXES		15,000 ✓		
- 10 SURPLUS		5,000 ✓		
- 11 F AND D LAND DISTRIBUTION		5,000 ✓		
TAX PENALTIES AND INTEREST		12,000 ✓		
COMMISSIONS		1,500		
ANIMAL CONTROL TAX		2,000		
SHERIFF'S COMMISSION		10,000		
MOTOR VEHICLE LICENSE FEES		11,000		
JAIL FEES		3,000		
SHERIFF'S EARNINGS		12,000		
COUNTY CLERK'S EARNINGS		25,000		
CIRCUIT CLERK'S EARNINGS		8,000		
PROPERTY STAMP TAX REVENUE		8,000		
WINE AND LIQUOR TAX		500		
FEDERAL PAYMENTS IN-LIEU-OF TAXES		11,000		
INTEREST EARNED ON INVESTMENTS		10,000		
CHARGES TO OTHER ENTITIES		0	20,258	1
REIMBURSEMENTS		35,000		
HOTEL OCCUPANCY TAX		8,000		
MISCELLANEOUS REVENUE		2,000		
GENERAL FUND		1,677,079	1,749,027	2

Handwritten notes:
A bracket groups the following revenues: 1,428,079, 40,000, 15,000, 5,000, 5,000, and 12,000.
Next to the bracket is the handwritten sum: 1,505,079.
Below the sum is the handwritten percentage: 90%.

OF WEST VIRGINIA
PARTMENT
INSPECTOR DIVISION

1989 - 90 EXPENDITURE SUMMARY
WYOMING 55

REPORT NO.: TXLGR13
REPORT DATE: 09/28/8

MENT OR TY	GENERAL FUND			COAL SEVERANCE FUND			REVENUE SHARING FUND			TOTAL
	APPROVED EXPENDITURE	APPROVED REVISION	REV #	APPROVED EXPENDITURE	APPROVED REVISION	REV #	APPROVED EXPENDITURE	APPROVED REVISION	REV #	
COUNTY COMMISSION	113,903	117,876	2			0			0	117,876
COUNTY CLERK	142,921	144,601	2			0			0	144,601
CIRCUIT CLERK	142,325	144,171	2			0			0	144,171
SHERIFF-TREASURER	159,555	160,675	2			0			0	160,675
PROSECUTING ATTORNEY	135,581	135,639	2			0			0	135,639
ASSESSOR	140,462	140,991	2			0			0	140,991
MAGISTRATE COURT	20,000	20,000	0			0			0	20,000
COMMUNITY DEVELOPMENT (HOUSING)	8,124	8,705	2			0			0	8,705
PURCHASING DEPARTMENT	18,286	18,622	2			0			0	18,622
REGIONAL DEVELOPMENT AUTHORITY			0	5,512	5,512	0			0	5,512
BUILDING INSPECTION	1,800	1,800	0			0			0	1,800
LECTIONS	41,721	41,721	0			0			0	41,721
COURTHOUSE	117,873	117,966	2	197,792	351,350	1			0	469,316
DOG WARDEN/HUMANE SOCIETY	13,046	13,046	0			0			0	13,046
MENTAL HEALTH			0	4,000	4,000	0			0	4,000
VITAL STATISTICS	200	200	0			0			0	200
SHERIFF-LAW ENFORCEMENT	313,891	328,212	2			0			0	328,212
INVESTIGATIVE SERVICES AND CONTROL	0	15,054	1			0			0	15,054
COUNTY JAIL	251,747	254,624	2			0			0	254,624
FIRE DEPARTMENT			0	45,500	45,500	0			0	45,500
WASTE DEPARTMENT			0	0	185	1			0	185
LANDFILL AND INCINERATOR DEPARTMENT			0	83,094	85,057	1			0	85,057
BOY SCOUTS CAMPS	17,871	19,471	2			0			0	19,471
PORTS			0	30,102	30,625	1			0	30,625
SOCIAL SERVICES	15,868	16,012	2			0			0	16,012

OF WEST VIRGINIA
 DEPARTMENT
 INSPECTOR DIVISION

1989 - 90 EXPENDITURE SUMMARY
 WYOMING 55

REPORT NO.: TXLGR13B
 REPORT DATE: 09/28/89

MENT OR TY	GENERAL FUND			COAL SEVERANCE FUND			REVENUE SHARING FUND			TOTAL
	APPROVED EXPENDITURE	APPROVED REVISION	REV #	APPROVED EXPENDITURE	APPROVED REVISION	REV #	APPROVED EXPENDITURE	APPROVED REVISION	REV #	
EAPPRAISAL COSTS	17,905	21,503	2			0			0	21,503
RAVEL COUNCIL	4,000	9,498	2			0			0	9,498
ONTINGENCIES	0	18,640	2			0			0	18,640
COUNTY TOTALS	1,677,079	1,749,027		366,000	522,229		0			2,271,256
GRAND TOTALS	130520340	137830028		13,402,579	17,261,941		0	0		155091969

P r o g r a m . . .

PROSPECTS FOR APPALACHIA
FROM POVERTY TO PROSPERITY BY 2000

Chesterfield House
CHARLESTON, WEST VIRGINIA

December 6-8, 1990

PURPOSES

To explore the public strategies--and particularly the tax policies--needed to create an economic climate that will:

- * Promote the public welfare
- * Assure the health of all sectors of the private economy
- * Strengthen our state and local governments
- * Develop models for easing problems of Appalachia

Conference Directors

C. Lowell Harriss - Chairman
George Smoulder - Host Sponsor
Walter Rybeck - National Coordinator
Arthur Rybeck - West Virginia Coordinator
Bob McDonald - Charleston Arrangements
Erika Rybeck - Registration

General Information

Message Center Phones:

Chesterfield House 304 345-5071
Kanawha City Motor Lodge 304 344-2461

All conference sessions at CHESTERFIELD HOUSE.

Lunches, dinners and refreshment breaks at CHESTERFIELD HOUSE.
Breakfasts - on your own at nearby restaurants.

The follow-up Conference Report will be prepared by the Center for Public Dialogue. For information, W. Rybeck: 301 933-3535.

This conference is planned as a sharing of ideas.

Short, impromptu remarks are the order of the day.

To give the discussions structure, participants have been listed according to their areas of expertise. However...

All are urged to join in any of the discussions, to share their insights and to put forward their ideas and proposals.

THURSDAY, DECEMBER 6

10 am Registration

Orientation about Appalachia

"West Virginia--A Welcome Change," video courtesy W.Va.

Roundtable

12 noon Lunch - Walter Rybeck, Moderator

Welcome to Charleston, Martha Pettit

Conference Challenge, Richard Noyes

1:15 pm Is Appalachia Doomed to Chronic Poverty?

Hon. John Burger, Moderator

Roberta Fowlkes, a business view

Joseph Powell, a labor view

Rev. Homer Davis, a social view

Discussion

2:30 pm Economic Conditions and Trends

Farming

Hon. Cleve Benedict

Steve Hanna

Forestry

Roger Sherman

Dick Waybright

THURSDAY (continued)

3:15pm Refreshment break

Mining

Mark Polen

Hon. Eugene Claypole

Natural Gas

Mike Ross

Manufacturing

Tourism/Conservation

Cindy Rank

Discussion

5:45pm Informal Reception

6:15pm Dinner - Susan Beard, Moderator
Welcome from Secretary of State Ken Heckler
Are Business and Labor Natural Enemies?
George Collins

7:15pm Framework for the Enterprise System
West Virginia's Tax Structure
Ned Rose
Private Finance and Venture Capital
Hon. James H. Paige, III
Government and Politics
James Forrester
Discussion

FRIDAY, DECEMBER 7

8:30am

A Surplus of Needs, A Shortage of Revenues

Moderator, K. Duane Hurley

Strapped Local Governments

John Hoff

Jimmy Sago

George Smoulder

A Decade of Property Tax Struggles: Where We Are Today

Hon. Lyle Sattes

New Appraisals and Assessments

Bob Hoffman

Discussion

Constitutional Issues/Classes and Rates

Michael Farber

Challenge of Meeting New Property Tax Requirements

Jack MacDonald

10:00am

Coffee Break

Best or Worst Tax? Property Tax Features to Stress and to Avoid

Richard Almy

Ronald Welch

John Behrens

Discussion

School Finance - Rev. Ronald English, Moderator

Needs of Schools: Have Strike Terms Been Met?

Perry Bryant

Henry Marockie

Fiscal Status and Trends

Dan Curry

Higher Ed Problems

Sidney Bell

Robert Hall

A Possible Statewide Solution

Ted Gwartney

Other Approaches/Discussion

All Participants

- 12:30pm Lunch - Hon. David Grubb, Moderator
 Ideal Ways of Taxing Natural Resources
 Mason Gaffney
 Discussion
 Coal, gas, oil - John David, Moderator
 Robert Paschall
 Jerry Knight
 Discussion
 Farmland and Timber
 Dale Colyer
 Hazel Kennedy
 Gene Wunderlich
 Richard Noyes
 Discussion
- 3:00pm Refreshment break
- 3:25pm Housing and the Health of Cities, Rev. Homer Davis, Moderator
 Robert Detjen
 Joe Hatfield
 Edward Dodson
 Henry E. King
 Beth Thomasson
 Discussion
- 5:30pm Informal Reception
- 6pm Dinner - Prosperity Through Tax Justice, Jim Sessions, Moderator
 John Burger
 Walt Mueller
 Success Stories in Land Economics
 Taiwan's Transformation
 Sein Lin
 How Does Tax Reform Play in Peoria?
 John Kelly
 A Canadian Parallel to Appalachia
 Ted Gwartney
 Quiet Tax Revolt in Pennsylvania
 Steven Cord
 Discussion

SATURDAY, DECEMBER 8

8:30am A New Economic Climate? Paula Crawford, Moderator
 Is Prosperity by 2000 a Realistic Goal?
 Which Taxes to Keep, Which to Throw Out, Which to Revise?
 Can West Virginia Go to Top of Economic Ladder?
 Biggest Obstacles to Progress?

All Attendees

10am Coffee break

Unfinished Business Art Rybeck, Moderator

Where Do We Go from Here?

Short-term and Long-term Actions Needed?

Who Agrees To Do What?

All Attendees

12:30pm Lunch - Paula Crawford
to Summing Up--What We've Learned, Challenges and Opportunities
2pm Lowell Harriss

Sponsors

Appreciation is owed to the following organizations for their generous support of the Prospects for Appalachia conference:

AMERICAN ASSOCIATION OF RETIRED PEOPLE (AARP)
CATHOLIC COMMUNITY SERVICES OF THE WHEELING-CHARLESTON DIOCESE
CENTER FOR THE STUDY OF ECONOMICS
COMMISSION ON RELIGION IN APPALACHIA (CORA)
COMMON CAUSE OF WEST VIRGINIA
FEDERAL NATIONAL MORTGAGE ASSOCIATION (FANNIE MAE)
HENRY GEORGE SCHOOL OF SOCIAL SCIENCE
MOUNTAINEERS UNITED FOR SANE TAXATION (MUST)
PUBLIC REVENUE EDUCATION COUNCIL
ROBERT SCHALKENBACH FOUNDATION
UNITED METHODIST CHURCH, BOARD OF CHURCH AND SOCIETY
WEST VIRGINIA LABOR FEDERATION, AFL-CIO
WEST LIBERTY STATE COLLEGE
WEST VIRGINIA STATE DEPARTMENT OF EDUCATION

COAL FACTS '89



**WEST
VIRGINIA
COAL
ASSOCIATION**

West Virginia COAL FACTS 1989

Hugh Lucas

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President

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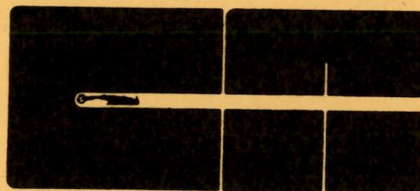
*Vice-President/Health, Safety
& Environmental Affairs*

Mark Polen

*Vice-President/Legislative,
Governmental & Public Affairs*

Published by the West Virginia Coal Association, this eighteenth annual edition of West Virginia COAL FACTS is designed to be the definitive source document statistically profiling the state's leading industry. All data have been compiled from recognized sources—principally government agencies—and proper attribution is noted. In many instances, methodology used in computing data is explained. New data reporting requirements have been instituted by some government agencies, and attempts have been made to reconcile new reports with prior years' information. Content and distribution of this publication has expanded greatly since its conception and WVCA hopes it continues to be a useful informational source.

The West Virginia Coal Association is a trade association—formed in 1915—principally representing the state's underground mining industry. Its purpose and responsibility is to promote the general welfare of the industry and improve the industry's service to the public. The Association's member companies account for approximately 80 percent of underground production in West Virginia and about two-thirds of the total coal output.



WEST VIRGINIA COAL ASSOCIATION

Prepared and Distributed by:
**West Virginia Coal Association
1301 Laidley Tower
Charleston, West Virginia 25301**

Price: \$10.00

COAL FACTS '89



Prepared and Distributed by:
West Virginia Coal Association
1301 Laidley Tower
Charleston, West Virginia 25301

Price: \$10:00

Coal Facts . . . At A Glance

(1988 DATA)

U.S. Production, Bituminous Coal and Lignite (tons)	946,710,000
Underground	381,546,000
Surface	565,164,000
West Virginia Production (tons)	144,917,788
Underground	109,540,880
Surface	35,376,908
Number of Mines, West Virginia	1,488
Underground	789
Surface	699
Productivity (tons per man day) — All West Virginia Mining	22.16
Underground	20.58
Surface	29.10
Productivity (tons per man day) — All U.S. Mining	30.30
Underground	19.67
Surface	46.75
Total Coal Employment, West Virginia — 12 Month Average	24,609
Underground	20,309
Surface	4,300
Fatal Injuries, U.S. Total	52
Fatal Injuries, West Virginia Total	13
Underground	8
Surface	5
Fatal Incident Rate, Per 200,000 Man Hours Worked	
U.S.	.04
West Virginia	.04
Estimated Coal Wages, West Virginia	\$1,110,237,218
Average Weekly Coal Wage, Coal Mining in West Virginia	\$715.10
Average Number of Days Worked, West Virginia Mines	224
Underground	227
Surface	221
Coal Consumed in West Virginia (tons)	36,435,000
Electric Utilities	31,704,000
Coke Plants	Withheld
Other Industrial	2,598,000
Residential & Commercial	Withheld
Coal Exported from U.S. to Foreign Destinations (tons)	95,023,014
Coal Exported from West Virginia to Foreign Destinations (tons)	35,233,000
Coal Imported by U.S. (tons)	2,134,030
Coke Imported by U.S. (tons)	2,688,007
Average Price Per Ton, All U.S. Coal F.O.B. Mine	\$22.00
Average Price Per Ton, All West Virginia Coal F.O.B. Mine	\$28.22
Coal Taxes Paid in West Virginia, Calendar 1988	\$123,692,189
Leading Coal Producing County (Boone)	22,040,817
Leading Coal Producing Company (Consolidation)	24,136,181
Largest Mine — Blacksville #2 of Consolidation Coal, Monongalia County	3,589,902

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West Virginia Coal in 1988

Present Competitive Challenges Conquered With Pressures Increasing In Future

West Virginia Coal in 1988 responded to the intense competitive challenges presented by the world coal market by recording a recent high in production of 144.9 million tons, establishing a phenomenal underground productivity record of 20.58 tons per man day and increasing its coal exports by 5.8 million tons to 35.2 million tons, the highest export total since 1982. However, West Virginia was not alone in efficiently producing coal, as ten states and the nation registered production highs during 1988. Perhaps more ominous was the fact that nine of the ten production records were set in western states and that Wyoming surpassed Kentucky's (which passed West Virginia for good in 1973) production by 164.0 million tons to 157.9 million tons to take the national lead. Overall, the eastern share of coal production dropped to its lowest ever, at 61.8% of the total 946.7 million tons produced nationwide.

Despite serious looming environmental policy problems resulting from lawsuits and proposed Congressional actions, national coal consumption increased by 50 million tons, with most of the increase credited to electric utilities. U.S. coal exports rose by 15.4 million tons to 95.0 million tons, as eight nations increased their purchases of U.S. coal by more than one million tons. Only Brazil, recently a fast growing U.S. coal customer, failed to contribute to the trend by decreasing its imports by 600,000 tons. U.S. coal exports in 1988 were at the highest level since 106.2 million tons were shipped in 1982.

Nationally, only one small region of the country failed to increase its domestic purchases of coal and West Virginia increased its market share in many important states like Florida and Massachusetts but saw purchases with the state decline by a precipitous four million tons.

West Virginia coal industry employment declined only slightly during the year to an average of 24,609, continuing a long established trend. Coal industry tax payments further decreased due to the effects of an unstable and declining world price, as they declined by \$6 million, a pattern West Virginia state government could ill afford. On a positive note, West Virginia's coal industry again paid the highest wages, at a weekly rate of \$715.10, an 11.9% increase over 1987. The state also continued its steady emphasis on safety performance, recording a fatal incident rate frequency equal to the national average of .04.

Trends to monitor in the future centered on the downward course of coal prices and the upward growth of trucking as a primary mode of coal transport. The tonnage initially transported by rail in West Virginia declined by 4.6 million tons between 1984 and 1988, while the trucking industry increased its share by 15.5 millions tons over the same period.

For 1989 and the foreseeable future, West Virginia's already razor sharp competitive instincts would need to be honed still further, as there appeared to be significant environmental regulatory changes affecting the mining, uses and prices of coal on the near term horizon. West Virginia state governmental dependance on the coal industry began to wear extremely thin, as a cash strapped government pushed a market squeezed industry for still more.

(The remainder of this section is a year-by-year condensation of the summary sections of COAL FACTS 1973-1987).

1973 — Production 115.2 million tons: (A new) lowest production year since 1962 and compared to our 6% production decline from 1972, total U.S. output fell less than 1%. Kentucky jumped back

into the No. 1 spot (where it has remained continuously since). Productivity in West Virginia mines fell by another nearly 4%. The year also saw a flurry of wildcat strikes, such as protesting gasoline allocation limit for automobiles. The surface mining protest issue has moved to Congress, making many companies reluctant to enter into any such new development. Nevertheless, hope was expressed "that 1973 represented the bottom of West Virginia's downward trend . . ." (Obviously, it was not to be.)

1974 — Production 101.7 million tons: The decline continues — by 12.6% from the year before — as the state produces less coal than in any year since 1938. The national contract strike consumed most of November and December, accounting for a large measure of the decrease. Nationally, however, production rose by 10 million tons and No. 1 Kentucky was up by over 9 million tons. Compared to, for example, 1970 when there were six, only two West Virginia counties this year accounted for over 10 million tons of production. Those were Monongalia and McDowell. Productivity declined still further, and for the first time in nearly 15 years, underground productivity in the state fell below 10 tons per man day, registering at 9.3.

1975 — Production 109.1 million tons: The state showed its second lowest year since 1938 while Kentucky rocketed onward to a new high of 140.4 million tons. U.S. production rose to 648 million tons and there was the start of talk of a doubling of U.S. output by 1985. Matters of the federal Clean Air Act and state conformities, increasing duplicate federal-state regulatory and enforcement roles and, in West Virginia continued widespread wildcat strikes plagued the state's role in sharing of national coal growth. Total U.S. coal exports increased by

9.6%, but West Virginia's share of business dropped.

1976 — Production 108.8 million tons: Even though coal employment jumped over the 60,000 mark for the first time in 20 years and average coal wages went over \$300 per week, continued massive wildcat strikes and declines in worker productivity (nearing 7 tons per man day) contributed to the slight drop in production while the national total jumped another 30 million tons. It was estimated wildcat strikes had eroded nearly 10 million tons of production in West Virginia.

1977 — Production 95.4 million tons: National production was boosted another 13 million tons to over 690 million tons — another modern day record — while West Virginia dipped to its biggest one-year drop since 1971. Wildcat strikes became even more commonplace—accounting for an estimated 11 million tons of lost production—and on the heels of that, the national contract strike began in early December (not to end until the following March). One state news service ranked coal's problems in 1977 as the second most important story of the year. On the federal scene, there were sweeping changes to the Federal Coal Mine Health & Safety Act; substantial costs were added through Black Lung legislative changes; and, the Federal Surface Mining & Reclamation Control Act was finally put into law. At the state level, the Legislature concluded it didn't have the expertise to address the technical issues of mine safety and created a new seven-member Board of Coal Mine Health & Safety to handle these matters. Yet, in something of a paradox the legislature at the same time enacted reams of restrictive new requirements in the mining laws.

1978 — Production 84.7 million tons: An absolutely dismal year, as production fell to the state's LOWEST SINCE 1919! The first quarter of the year was nearly obliterated by the record setting 111-day national contract strike. Ever-increasing production costs arising from an eight-year deluge of new regulatory requirements and payroll costs from

new contracts began taking a heavier toll on the state's producers in the competitive marketplace. Then, in mid-summer a three-month railroad strike added further to consumers both here and abroad seriously questioning coal's reliability. The state's Supreme Court handed down a decision which revoked several longstanding effective safety standards in the state and imposed no-more-effective, but substantially more costly requirements. President Carter appointed a Coal Commission, chaired by Governor Rockefeller, to determine ways to increase coal production and use.

1979 — Production 112.4 million tons: It seemed almost like a "boom" year after the experience of the preceding five, even though it was marked by massive mine closings and workforce reductions produced by an inability to be competitive in the marketplace. Nevertheless, two of the brightest signs were the relative absence of wildcat work stoppages as compared to the previous few years and the first increase in miner productivity statistics in more than 10 years. The signs of a world recession were eroding metallurgical coal demand, but there began an unprecedented foreign demand for U.S. coal for power generation.

1980 — Production 121.6 million tons: The highest production total in the state since 1973 but an alltime record U.S. high of 823 million tons. And, no less than 13 other coal-producing states — including neighboring Kentucky and Virginia — registered their maximum coal producing year in 1980. Much of the increase was attributable to an ever-increasing foreign demand for steam coal. West Virginia's coal exports rose to 44.1 million tons, a hefty 13 million ton hike over the 1979 total. On the other side, metallurgical coal requirements continued to drop . . . and were evidenced particularly in southern West Virginia. The first waves of what was to be continuing widespread layoffs and mine closings began.

1981 — Production down again to 112.8 million tons: Another pro-

tracted national contract strike heavily impacts West Virginia, even though there was only a 1% output decline nationally. Following the strike, more mines began closing and/or severely cutting back in their work force as West Virginia producers found it increasingly difficult to find customers. It should be more and more apparent to the state's miners, the union, elected officials and the public as a whole that coal in West Virginia is not cost-competitive in the overall and that producers in other states — as well as other countries — are able to furnish equal-quality coals at cheaper prices.

1982 — Production 128.7 million tons: Statistically, this year was called "enigma" — hard to explain or understand — as the 128.7 million tons of production was the state's highest annual production since 1971. However, it came in the face of continuing mine closings and cutbacks that, by years end, resulted in the state coal industry's highest unemployment since the early 1960's. In most respects, the year was represented by the tightening market for coal and sharp competitiveness for sales. Many companies started closing or cutting back as less efficient and higher cost operations and began the movement of more production from fewer mines and fewer full-time employees. Even with the recent year production high, the state's total still lagged far behind recent years' traditional leader Kentucky, which registered over 151 million tons. It was the 10th consecutive year Kentucky was the nation's coal production leader.

1983 — Production 115.1 million tons: Production decline by 10.6 in West Virginia, compared with the 6.5% drop nationally, as Wyoming nearly overtakes the state as the #2 producer in the country with 112.2 million tons. Continued tight market conditions resulted in a further restructuring of the state's leading industry, with employment down 25% from the previous year and the number of operating mines 11% less than during 1982. Companies strive for increased efficiency, as productivity improves by

21% overall. (A longwall mining system in Grant County set a twenty-four hour production record of 22,000 tons.) West Virginia records the fewest number of mining fatalities in its history with 13 and continues the trend of recent years of having a lower incidence of fatalities than the other major coal producing states and the nation as a whole. The effects of a stagnant world and recessionary U.S. economy cause export sales of West Virginia coal to decline by 35% and the sale of state coal to the all-important electric utility market to drop by 2 million tons.

1984 — Production 131.0 million tons: West Virginia barely holds onto its spot as the second largest coal producer in the nation, edging out Wyoming by only 200,000 tons. The Mountain State's production rebounds from 1983 by increasing sixteen million tons, with electric utility purchases up by eight million tons, industrial purchases by four million tons and exports to Canada up by three million tons. Fatalities in West Virginia's coal industry totalled sixteen in 1984, the second lowest total in history and the state's incidence of fatalities of .04 per 200,000 hours worked was significantly below the national average of .07. Productivity gains continued to be the main focus of companies operating in the fiercely competitive world coal markets, with overall mining productivity increasing by 9.1% over 1983. Increased usage of longwall mining methods greatly affected these increases in productivity, as longwalls accounted for nearly 30% of state coal production.

1985 — Production 127.9 million tons: West Virginia falls to third in national coal production rankings for the first time, trailing Kentucky and now Wyoming. State production falls 2.4% from the previous year's 131 million tons but underground productivity increases 4.7% to 15.04 tons per man day. Extremely soft market conditions result in sales of West Virginia coal to the important electric utility market being down by 4.5%, as industrial purchases fall by 4.6% and sales to coke plants drop by an alarming 25%. On the brighter side, West

Virginia reinforces its position as the nation's top exporter of coal, increasing export tonnage by 9.2% to 34.3 million tons. Responding to the initiatives of a new administration and to years of coal industry complaints, the Legislature creates a new Department of Energy completely restructuring, streamlining and making the state's energy regulatory bureaucracy more effective and responsive. The Legislature also dramatically changes the state's business tax system, generally lowering business taxes but delaying full implementation of the plan until 1987, while "reforming" coal industry taxes only to the extent that they are increased.

1986 — Production 130.8 million tons: In a year of dramatically declining coal prices, West Virginia's coal employment declines by 3,500 to reach an historic low level. An adapting and innovative West Virginia coal industry improves productivity by 14% over 1985 and by 64% since 1980. Contributing to the increase in productivity were longwall mining units, which recorded 28.0 million tons of production during the year. The export market suffered during the year and, as the nation's leading coal exporter, West Virginia's export shipments fell to a 30% share of the market—a share that stood at 49% in 1980. On the brighter side, Eastern Associated Coal Corporation and Wheeling-Pittsburgh Steel relocated their headquarters to West Virginia. The West Virginia Legislature enacted a "trackage rights" bill granting the state Public Service Commission authority to impose tracking agreements on intra-state rail shipments.

1987 — Production 137.7 million tons: West Virginia's coal industry attains an unprecedented level of accomplishment by achieving an historic low fatality total of eleven, while reaching another all time record in productivity, as well as producing the most coal since 1970. Longwall mining provided the bulk of the seven million ton production increase over 1986 and was also largely responsible for the record 19.82 tons per man day registered by the underground industry. West Virginia augmented its posi-

tion as the top coal exporting state by increasing its exports by 4.2 million tons, despite an overall 4.4 million ton decline in U.S. exports. However, longer term trends of declining prices and employment, along with decreased levels of tax revenue loomed, to the insightful observer, as factors on the negative side of future projections. Activist governmental environmental policy also moved ever closer on both the state and federal levels. Short term statistical achievements clouded an accurate reading of future uncertainties.

Data Section I:



**Production
Coal Reserves
Safety Records
Biggest Mines
Major Companies**

U.S. Coal Production — 1988, by State

State	Underground	% of Total	Surface	% of Total	1988 Total	1987 Total
Alabama.....	14,833,000	55.9%	11,685,000	44.1%	26,518,000	25,540,000
Alaska.....	—0—	—0—	1,745,000	100%	1,745,000	1,492,000
Arizona.....	—0—	—0—	12,398,000	100%	12,398,000	11,379,000
Arkansas.....	—0—	—0—	276,000	100%	276,000	84,000
California.....	—0—	—0—	54,000	100%	54,000	46,000
Colorado.....	6,870,000	43.2%	9,042,000	56.8%	15,913,000	14,420,000
Illinois.....	38,522,000	65.7%	20,072,000	34.3%	58,594,000	59,155,000
Indiana.....	2,409,000	7.8%	28,862,000	92.2%	31,271,000	34,208,000
Iowa.....	8,000	2.3%	333,000	97.7%	341,000	468,000
Kansas.....	—0—	—0—	737,000	100%	737,000	2,021,000
Kentucky.....	94,720,000	60.0%	63,131,000	40.0%	157,852,000	165,192,000
East.....	68,930,000	58.7%	48,595,000	41.3%	117,524,000	119,906,000
West.....	25,791,000	64.0%	14,537,000	36.0%	40,328,000	45,285,000
Louisiana.....	—0—	—0—	2,889,000	100%	2,889,000	2,751,000
Maryland.....	2,024,000	62.4%	1,218,000	37.6%	3,242,000	3,962,000
Missouri.....	—0—	—0—	4,169,000	100%	4,169,000	4,292,000
Montana.....	—0—	—0—	38,881,000	100%	38,881,000	34,399,000
New Mexico.....	224,000	1.0%	21,579,000	99.0%	21,803,000	19,131,000
North Dakota.....	—0—	—0—	29,731,000	100%	29,731,000	25,142,000
Ohio.....	11,264,000	33.1%	22,779,000	66.9%	34,043,000	35,788,000
Oklahoma.....	—0—	—0—	2,136,000	100%	2,136,000	2,870,000
Pennsylvania.....	38,797,000	57.8%	28,294,000	42.2%	67,091,000	66,863,000
Tennessee.....	4,689,000	72.0%	1,821,000	28.0%	6,510,000	6,422,000
Texas.....	—0—	—0—	52,281,000	100%	52,281,000	50,529,000
Utah.....	18,163,000	100%	—0—	—0—	18,163,000	16,508,000
Virginia.....	37,809,000	82.4%	8,076,000	17.6%	45,886,000	44,543,000
Washington.....	—0—	—0—	5,170,000	100%	5,170,000	4,449,000
West Virginia*.....	109,540,880	75.6%	35,376,908	24.4%	144,917,788	137,672,276
Wyoming.....	1,138,000	1.0%	162,876,000	99.0%	164,014,000	146,850,000
Total U.S.....	381,546,000	40.3%	565,164,000	59.7%	946,710,000	915,202,000

(Note: Excludes Anthracite)

*WV Department of Energy Totals

Source: Energy Information Administration

Maximum Coal Production Years

State	Maximum Production	Year	State	Maximum Production	Year
Alabama.....	27,087,761	1984	Montana.....	38,881,000	1988
Alaska.....	1,745,000	1988	New Mexico.....	21,803,000	1988
Arizona.....	12,398,000	1988	North Dakota.....	29,731,000	1988
Arkansas.....	2,670,000	1907	Ohio.....	55,351,000	1970
California.....	237,000	1880	Oklahoma.....	5,358,000	1980
Colorado.....	19,531,000	1981	Pennsylvania.....	178,551,000	1918
Illinois.....	89,291,000	1918	Tennessee.....	10,600,000	1981
Indiana.....	37,554,000	1984	Texas.....	52,281,000	1988
Iowa.....	8,966,000	1917	Utah.....	18,163,000	1988
Kansas.....	7,562,000	1918	Virginia.....	45,886,000	1988
Kentucky.....	165,192,000	1987	Washington.....	5,170,000	1988
Louisiana.....	2,889,000	1988	West Virginia.....	173,653,000	1947
Maryland.....	5,553,000	1907	Wyoming.....	164,014,000	1988
Missouri.....	6,625,000	1977	United States.....	946,710,000	1988

Source: Energy Information Administration

Miscellaneous U.S. Coal Statistics

	1988	1987	1986
Total Value of Production	\$20,827,620,000	\$21,049,623,000	\$21,180,586,784
Value Per Ton F.O.B. Mine	\$22.00	\$23.00	\$23.70
U.S. Coal Exported	95,023,014	79,607,261	85,517,880
Number of Producing Mines	3,860	4,094	4,424
U.S. Underground Production	381,546,000	372,238,000	359,800,000
U.S. Surface Production	565,164,000	542,963,000	526,223,000
Major Coal Consumers			
Electric Utilities	756,793,000	717,984,000	685,056,000
Coke Plants	41,910,000	36,957,000	36,006,000
Other Industrial	76,252,000	75,175,000	75,583,000
Residential & Commercial	7,130,000	6,914,000	7,667,000

Note: Production and value totals exclude anthracite. Value per ton F.O.B. Mine excludes mines producing less than 10,000 tons.

Source: Energy Information Administration

Coal Production, By Region, Type of Mine 1979-1988 (Millions of Tons)

Year	Total Pro- duction	Eastern Pro- duction	% of Total	Western Pro- duction	% of Total	Under- ground	% of Total	Surface	% of Total
1979	776.3	554.9	71.5%	221.4	28.5%	320.3	41.3%	456.0	58.7%
1980	823.6	572.6	69.5%	251.0	30.5%	336.9	40.9%	486.7	59.1%
*1981	818.4	548.5	67.0%	269.9	33.0%	315.9	38.6%	502.5	61.4%
1982	833.5	559.7	67.1%	273.9	32.9%	338.6	40.6%	495.0	59.4%
1983	778.0	503.3	64.7%	274.7	35.3%	299.8	38.5%	478.1	61.5%
1984	891.8	583.4	65.4%	308.3	34.6%	351.5	39.4%	540.3	60.6%
1985	878.9	554.0	63.0%	324.9	36.5%	350.1	39.8%	528.9	60.2%
1986	886.0	560.1	63.2%	325.9	36.8%	359.8	40.6%	526.2	59.4%
1987	915.2	578.4	63.2%	336.8	36.8%	372.2	40.7%	543.0	59.3%
1988	946.7	576.0	61.8%	370.7	39.2%	381.5	40.1%	565.2	59.9%

(Note: Excludes Anthracite)

*UMWA Contract Strike Year

Source: Energy Information Administration

U.S. Coal Production Trends, East vs. West — 1979-1988 (Millions of Tons)

Year	East of the Mississippi	West of the Mississippi
1979	554.9	221.4
1980	572.6	251.0
1981	548.5	269.9
1982	559.7	273.9
1983	503.3	274.7
1984	583.4	308.3
1985	554.0	324.9
1986	560.1	325.9
1987	578.4	336.8
1988	576.0	370.7

(Note: Excludes Anthracite)

Source: Energy Information Administration

U.S. Coal Production—Employment—Fatalities

	Production	Employment	Fatalities
1960	415,512,000	169,400	290
61	402,977,000	150,474	275
62	422,149,000	143,822	263
63	485,928,000	141,646	252
64	486,998,000	128,698	218
<hr/>			
1965	512,008,000	133,732	251
66	533,881,000	131,752	227
67	552,626,000	131,532	220
68	545,245,000	127,894	311
69	560,505,000	124,532	203
<hr/>			
1970	602,932,000	140,140	206
71	552,192,000	145,664	181
72	595,386,000	149,265	156
73	591,738,000	148,121	132
74	603,406,000	166,701	130
<hr/>			
1975	648,438,000	189,880	155
76	678,685,000	202,280	140
77	691,344,000	221,428	139
78	665,127,000	242,295	106
79	776,299,000	224,203	144
<hr/>			
1980	823,644,000	224,938	129
81	818,352,000	226,250	143
82	833,523,000	214,400	122
83	778,000,000	173,543	66
84	890,644,000	177,848	124
<hr/>			
1985	879,031,000	173,816	67
86	887,202,000	163,331	84
87	915,202,000	142,667	63
88	946,710,000	135,366	52

Sources: Energy Information Administration; Mine Safety and Health Administration

Fatal Injuries—Incident Rates, by State—1988

State	Fatals	Incident Rate*	State	Fatals	Incident Rate*
Alabama	1	.02	Montana	—0—	—0—
Alaska	—0—	—0—	New Mexico	—0—	—0—
Arizona	1	.10	North Dakota	—0—	—0—
Arkansas	—0—	—0—	Ohio	3	.04
Colorado	1	.06	Oklahoma	1	.20
Illinois	1	.008	Pennsylvania	3	.02
Indiana	1	.02	Tennessee	2	.10
Iowa	—0—	—0—	Texas	1	.02
Kansas	—0—	—0—	Utah	3	.14
Kentucky	15	.06	Virginia	5	.06
Louisiana	—0—	—0—	Washington	—0—	—0—
Maryland	—0—	—0—	West Virginia	13	.04
Missouri	—0—	—0—	Wyoming	1	.02
			United States	52	.04

*Computed on basis of 200,000 manhours of exposure and includes processing plants.

Source: Mine Safety and Health Administration Data.

Fatal Injuries/Incident Rates: Major Underground Coal States

Year State	Under- Ground Fatalities	IR*	Total Fatalities	Com- Bined IR**
1988				
Illinois	—0—	—0—	1	.008
Kentucky	9	.06	15	.06
Pennsylvania	2	.02	3	.02
Virginia	4	.06	5	.06
West Virginia	8	.06	13	.04
United States	29	.04	52	.04

Year State	Under- Ground Fatalities	IR*	Total Fatalities	Com- Bined IR**
1986				
Illinois	6	.06	8	.04
Kentucky	13	.06	16	.04
Pennsylvania	3	.02	6	.02
Virginia	10	.10	11	.08
West Virginia	14	.06	18	.04
United States	56	.07	84	.06

Year State	Under- Ground Fatalities	IR*	Total Fatalities	Com- Bined IR**
1987				
Illinois	1	.01	1	.01
Kentucky	22	.12	30	.08
Pennsylvania	4	.04	6	.02
Virginia	3	.02	3	.02
West Virginia	7	.08	11	.04
United States	42	.06	63	.04

Year State	Under- Ground Fatalities	IR*	Total Fatalities	Com- Bined IR**
1985				
Illinois	2	.005	2	.005
Kentucky	16	.08	17	.04
Pennsylvania	8	.06	13	.06
Virginia	8	.06	9	.06
West Virginia	13	.04	16	.05
United States	53	.06	67	.04

*Computed on Basis of 200,000 manhours of exposure.

**Includes Processing Plants.

Source: Calculations Made from Mine Safety and Health Administration Data.

Estimated Holders of Coal Reserves Over One Billion Tons

Holder	Estimated Reserves
U.S. Government.....	155.9*
Burlington Resources.....	14.6
Rocky Mountain Energy Co.	10.0
Peabody Holding Co., Inc.	8.7
Exxon Coal and Minerals Co.	7.1
Phillips Coal Co.	6.8
Consolidation Coal Co.	6.0
El Paso Natural Gas.....	5.2
Amax Coal Industries, Inc.	2.9
The North American Coal Corp.	2.8
Island Creek Corp.	2.8
Shell Mining Co.	2.2
USX.....	2.0
Kerr-McGee Coal Corp.	1.7
Tenneco.....	1.7
Texaco.....	1.7
Pittston Co.	1.7
Mobil Corp.	1.6

Holder	Estimated Reserves
Norfolk Southern Corp.	1.4
Drummond Co., Inc.	1.4
American Electric Power Service Corp.	1.3
United Coal Co.	1.3
BHP-UTAH Minerals Int'l.	1.3
The Pittsburg & Midway Coal Mining Co.	1.2
Cyprus Coal Co.	1.2
Texas Utilities Mining Co.	1.2
Arco Coal Co.	1.2
Arch Mineral Corp.	1.1
Westmoreland Coal Co.	1.1
Bethlehem Steel Corp.	1.1
Zeigler Coal Co.	1.0
Western Energy Corp.	1.0
Sun Coal Co.	1.0
Nerco, Inc.	1.0
The Coastal Coal Group	1.0

*National Coal Association estimate based on federal ownership of 60% of total western reserves, which constitute the majority of federal coal holdings.

Source: National Coal Association.

U.S. Coal Reserve Base (Millions of Tons)

Rank	State	Potential Mining Method		Total
		Underground	Surface	
1	Montana.....	70,958.7	49,102.0	120,060.7
2	Illinois.....	62,979.7	15,455.2	78,434.9
3	Wyoming.....	42,550.0	25,403.6	67,953.6
4	West Virginia.....	32,761.4	4,904.7	37,666.1
5	Kentucky.....	24,311.2	5,615.3	29,926.5
6	Pennsylvania.....	27,993.9	1,357.5	29,351.4
7	Ohio.....	12,841.6	5,724.0	18,565.6
8	Colorado.....	12,185.4	4,859.8	17,045.2
9	Texas.....	—0—	13,469.0	13,469.0
10	Indiana.....	8,906.7	1,336.4	10,243.1
11	North Dakota.....	—0—	9,700.4	9,700.4
12	Utah.....	5,850.1	267.9	6,218.0
13	Alaska.....	5,423.0	718.7	6,141.7
14	Missouri.....	1,479.1	4,532.4	6,011.5
15	Alabama.....	1,555.7	3,349.4	4,905.0
16	New Mexico.....	2,121.9	2,395.0	4,516.9
17	Virginia.....	2,034.2	758.5	2,792.6
18	Iowa.....	1,732.6	459.0	2,191.6
19	Oklahoma.....	1,238.3	355.0	1,593.3
20	Washington.....	1,332.3	98.7	1,431.0
21	Kansas.....	—0—	979.3	979.3
22	Tennessee.....	568.9	298.6	867.5
23	Maryland.....	677.3	90.7	768.0
24	Louisiana.....	—0—	495.3	495.3
25	Arkansas.....	272.5	144.6	417.1
26	South Dakota.....	—0—	366.1	366.1
27	Arizona.....	101.6	180.0	281.6
28	Michigan.....	123.1	4.6	127.7
29	Oregon.....	14.5	2.9	17.5
30	North Carolina.....	10.7	—0—	10.7
31	Idaho.....	4.4	—0—	4.4
32	Georgia.....	1.9	1.3	3.2
	U.S. Total.....	320,130.5	152,925.8	473,056.3

Source: Energy Information Administration

West Virginia Coal Reserves (Millions of Tons)

County	Estimated Recoverable Reserves	County	Estimated Recoverable Reserves
Barbour	1,594.1	Mingo	3,385.4
Boone	4,365.6	Monongalia	1,213.1
Braxton	1,133.8	Nicholas	3,458.0
Clay	77.2	Ohio	337.2
Doddridge	671.6	Pocahontas	299.8
Fayette	1,917.4	Preston	1,434.1
Gilmer	495.9	Putnam	238.2
Grant	515.9	Raleigh	1,800.7
Greenbrier	646.6	Randolph	2,425.7
Hancock	246.7	Summers	10.8
Harrison	580.5	Taylor	614.2
Kanawha	2,876.4	Tucker	229.5
Lewis	1,366.0	Tyler	474.1
Lincoln	1,057.1	Upshur	1,706.4
Logan	3,756.1	Wayne	870.0
Marion	1,486.9	Webster	3,728.1
Marshall	2,483.5	Wetzel	1,660.9
Mason	151.6	Wirt	11.1
McDowell	1,748.7	Wyoming	2,559.3
Mercer	100.2	Total	55,938.8
Mineral	363.8		

Source: WV Department of Energy.

International Coal Reserves (Billions of Tons)

Country	Recoverable Reserves	% of World Total	Country	Recoverable Reserves	% of World Total
United States	225.7	35.1%	East Germany	27.3	4.3%
U.S.S.R.	172.3	26.8%	Yugoslavia	8.7	1.4%
South Africa	58.4	9.1%	Canada	5.4	0.8%
Australia	39.9	6.2%	United Kingdom	4.6	0.7%
West Germany	34.5	5.4%	Other Countries	54.4	5.5%
Poland	32.6	5.1%	World Total	642.1	

Source: National Coal Association.

International Coal Production 1984-1988 (Millions of Tons)

Country	1984	1985	1986	1987	1988	% of World Total
China	870	937	959	1,014	1,054	20.1%
United States	896	884	890	917	950	18.2%
U.S.S.R.	785	798	825	830	865	16.5%
East Germany	327	344	343	342	349	6.7%
Poland	267	275	286	293	313	6.0%
India	168	173	188	203	216	4.1%
West Germany	233	231	222	211	207	4.0%
Australia	153	186	187	206	194	3.7%
South Africa	179	192	195	194	194	3.7%
Czechoslovakia	143	140	139	139	140	2.7%
United Kingdom	55	104	119	115	114	2.2%
World Total	4,623	4,844	4,944	5,071	5,231	

Source: Energy Information Administration

West Virginia Coal Production, by County—1988

County (Rank: 88-87)	Underground	Surface	1988 Total	1987 Total
Barbour (17-19)	1,294,726	623,896	1,918,622	1,259,330
Boone (1-1)	16,842,617	5,198,200	22,040,817	23,500,731
Braxton (15-15)	2,906,841	6,783	2,913,624	2,690,214
Brooke (22-20)	826,158	116,707	942,865	1,237,043
Clay (23-24)	596,419	95,557	691,976	453,118
Fayette (19-21)	459,417	1,231,563	1,690,980	1,169,007
Gilmer (31-30)	45,136	—0—	45,136	42,822
Grant (13-14)	2,996,632	856,994	3,853,626	3,221,760
Greenbrier (21-22)	653,992	374,437	1,028,429	1,077,853
Harrison (14-13)	2,709,096	807,340	3,516,436	3,716,104
Kanawha (11-10)	2,797,730	2,664,553	5,462,283	5,501,940
Lewis (26-25)	95,237	223,980	319,217	275,234
Logan (4-3)	8,428,342	4,721,740	13,150,082	12,176,096
McDowell (8-11)	6,325,671	54,994	6,380,665	4,865,952
Marion (10-8)	5,352,347	281,231	5,633,578	5,669,830
Marshall (9-9)	6,053,531	—0—	6,053,531	5,584,136
Mason (29-27)	—0—	97,119	97,119	133,565
Mineral (25-23)	183,310	241,866	425,176	474,611
Mingo (3-4)	9,116,944	5,648,635	14,765,579	11,895,636
Monongalia (2-2)	16,495,011	613,026	17,108,037	18,016,032
Nicholas (5-5)	3,761,673	5,507,068	9,268,741	9,204,359
Ohio (28-28)	—0—	135,875	135,875	115,508
Preston (12-12)	2,579,722	2,056,194	4,635,916	4,290,511
Putnam (—31)	—0—	—0—	—0—	2,268
Raleigh (7-7)	7,386,942	221,911	7,608,853	7,263,068
Randolph (18-16)	1,587,729	151,672	1,739,401	1,799,167
Taylor (30-29)	—0—	46,575	46,575	57,964
Tucker (27-26)	—0—	166,428	166,428	141,507
Upshur (20-18)	1,344,271	133,904	1,478,175	1,760,577
Wayne (24-25)	—0—	650,849	650,849	156,161
Webster (16-17)	491,285	1,605,420	2,096,705	1,768,525
Wyoming (6-6)	8,210,101	842,291	9,052,492	8,151,647
Totals	109,540,880	35,376,908	144,917,788	137,672,276

Source: WV Department of Energy.

Top Ten Coal Producing Counties

1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1. Boone	1	1	1	2	1	1	1	1	2
2. Monongalia	2	2	2	1	2	2	2	2	1
3. Mingo	4	4	5	7	9	7	8	8	11
4. Logan	3	3	4	3	3	3	3	3	6
5. Nicholas	5	6	8	10	11	11	9	9	10
6. Wyoming	6	5	3	4	4	4	4	5	4
7. Raleigh	7	7	6	5	7	9	7	7	7
8. McDowell	11	8	7	8	8	6	5	4	3
9. Marshall	9	11	11	11	10	10	10	11	8
10. Marion	8	10	9	6	5	8	11	10	9

Largest Underground Producing County: Boone—16,842,617.

Largest Surface Producing County: Mingo—5,648,635.

Source: WV Department of Energy.

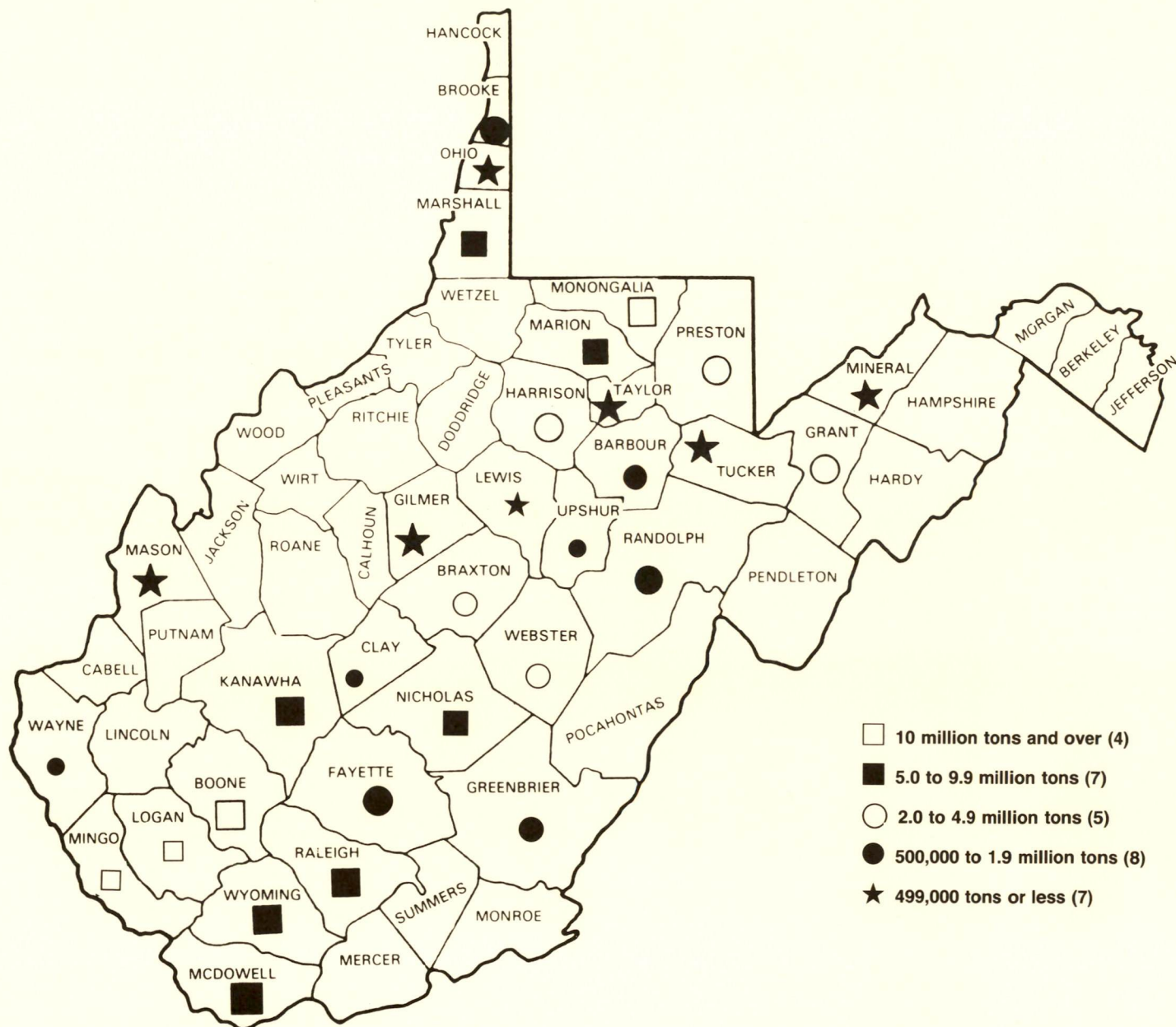
Productivity, by County—1988 (Tons Per Man Day)

County	Underground Productivity	Surface Productivity
Barbour	19.60	18.63
Boone	22.86	37.70
Braxton	24.71	14.22
Brooke	9.65	21.67
Clay	34.30	16.53
Fayette	12.29	23.19
Gilmer	21.11	—0—
Grant	15.63	36.86
Greenbrier	23.74	17.27
Harrison	19.20	21.65
Kanawha	19.84	28.18
Lewis	15.88	28.70
Logan	23.01	24.69
McDowell	20.31	19.27
Marion	18.74	19.83
Marshall	22.15	—0—
Mason	—0—	10.51
Mineral	16.54	12.39
Mingo	30.59	33.43
Monongalia	23.57	24.03
Nicholas	15.62	33.29
Ohio	—0—	37.95
Preston	28.39	26.56
Raleigh	15.61	23.64
Randolph	18.84	23.79
Taylor	—0—	22.98
Tucker	—0—	28.46
Upshur	25.13	13.57
Wayne	—0—	31.02
Webster	17.92	41.06
Wyoming	17.48	46.00

Source: Raw Data from WV Department of Energy.

(Note: Man Days calculated on basis of 8 hour day for Underground and 7.25 for Surface. $\text{Production} \div \text{Man Days} = \text{Productivity}$).

West Virginia Coal Producing Counties



West Virginia Coal Production—Employment—Fatalities

Year	Production	Employees	Fatal Injuries	Year	Production	Employees	Fatal Injuries
1910	59,274,353	68,135	320	1950	145,563,295	119,568	185
11	60,517,167	70,644	332	51	163,448,001	111,562	191
12	66,731,587	69,611	409	52	142,181,271	100,862	163
13	69,182,791	70,321	308	53	131,872,563	84,093	113
14	73,666,981	76,041	541	54	113,029,046	64,849	129
1915	71,812,917	81,326	455	1955	137,073,372	64,321	125
16	89,165,772	80,058	399	56	150,401,233	68,318	147
17	89,383,449	88,665	394	57	150,220,548	66,792	184
18	90,766,636	92,132	404	58	115,245,791	55,065	148
19	84,980,551	91,566	378	59	117,770,002	52,352	86
1920	89,590,271	97,426	320	1960	120,107,994	48,696	115
21	90,452,996	116,726	346	61	111,370,863	42,557	84
22	79,394,786	107,709	330	62	117,018,419	43,456	77
23	97,475,177	121,280	385	63	128,924,165	44,854	126
24	103,325,960	115,964	551	64	139,361,204	44,205	85
1925	176,306,656	111,708	686	1965	149,236,013	44,885	93
26	144,603,574	120,638	574	66	148,826,592	43,344	81
27	146,088,121	119,618	590	67	152,461,567	42,742	60
28	133,866,587	112,751	475	68	145,113,550	41,100	152
29	139,297,146	107,393	489	69	139,315,720	41,941	69
1930	122,429,767	107,832	412	1970	143,132,284	45,261	63
31	102,698,420	97,953	348	71	118,317,785	48,878	41
32	86,114,506	86,829	263	72	122,856,378	48,190	48
33	94,130,508	95,367	249	73	115,239,146	47,800	41
34	98,441,233	106,590	278	74	101,713,580	50,100	36
1935	99,810,908	109,779	311	1975	109,484,457	57,300	35
36	118,134,202	111,625	337	76	108,793,594	63,875	33
37	118,965,066	115,052	367	77	95,405,977	61,815	29
38	93,511,099	103,735	239	78	84,697,048	56,548	29
39	108,515,665	104,022	266	79	112,380,883	51,716	36
1940	126,619,825	103,457	376	1980	121,583,762	43,609	33
41	140,944,744	112,875	290	81	112,813,972	55,411	27
42	156,752,598	114,003	380	82	128,778,076	45,461	22
43	160,429,576	105,858	325	83	115,135,454	34,557	13
44	164,954,218	103,146	313	84	131,040,566	39,950	16
1945	151,909,714	97,380	269	1985	127,867,375	32,289	16
46	143,977,874	102,393	243	86	130,787,233	28,841	18
47	173,653,816	116,421	254	87	137,672,276	25,488	11
48	168,589,033	125,669	277	88	144,917,788	24,609	12
49	122,913,540	121,121	151				

(Note: Statistics not maintained on calendar year basis until 1926)

Source: WV Department of Energy.

West Virginia Coal Production, by Method

Year	Underground	% Total	Surface	% Total	Total
1950	132,742,135	91.2%	12,821,160	8.8%	145,563,295
1951	151,839,847	92.9%	11,608,154	7.1%	163,448,001
1952	131,721,681	92.6%	10,459,590	7.4%	142,181,271
1953	122,290,331	92.7%	9,582,232	7.3%	131,872,563
1954	104,875,399	92.8%	8,163,647	7.2%	113,039,046
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1955	126,343,859	92.2%	10,729,513	7.8%	137,073,372
1956	137,309,607	91.3%	13,091,626	8.7%	150,401,233
1957	138,594,129	92.3%	11,626,419	7.7%	150,220,548
1958	107,327,926	93.1%	7,917,865	6.9%	115,245,791
1959	109,656,303	93.1%	8,113,699	6.9%	117,770,002
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1960	111,936,330	93.2%	8,171,664	6.8%	120,107,994
1961	104,007,754	93.4%	7,363,109	6.6%	111,370,863
1962	108,548,050	92.8%	8,470,369	7.2%	117,018,419
1963	119,472,502	92.7%	9,451,663	7.3%	128,924,165
1964	127,316,324	91.4%	12,044,880	8.6%	139,361,204
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1965	134,252,344	90.0%	14,983,669	10.0%	149,236,013
1966	132,852,405	89.3%	15,974,187	10.7%	148,826,592
1967	135,449,336	88.8%	17,012,231	11.2%	152,461,567
1968	128,410,089	88.5%	16,703,461	11.5%	145,113,550
1969	120,448,220	86.5%	18,867,500	13.5%	139,315,720
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1970	115,983,233	81.0%	27,149,051	19.0%	143,132,284
1971	92,403,043	78.1%	25,914,742	21.9%	118,317,785
1972	101,041,695	82.2%	21,814,683	17.8%	122,856,378
1973	95,447,890	82.8%	19,791,256	17.2%	115,239,146
1974	82,186,189	80.8%	19,527,391	19.2%	101,713,580
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1975	88,850,519	81.2%	20,634,078	18.8%	109,484,597
1976	87,811,278	80.7%	20,982,316	19.3%	108,793,594
1977	74,030,165	77.6%	21,375,812	22.4%	95,405,977
1978	65,356,587	77.1%	19,340,461	22.9%	84,697,048
1979	91,239,618	81.4%	21,141,265	18.6%	112,380,883
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1980	96,508,980	79.3%	25,174,782	20.7%	121,583,762
1981	89,585,532	79.4%	23,228,440	20.6%	112,813,972
1982	104,216,916	80.9%	24,561,160	19.1%	128,778,076
1983	92,291,209	80.2%	22,844,245	19.8%	115,135,454
1984	106,400,251	81.2%	24,460,315	18.8%	131,040,566
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1985	104,541,119	81.8%	23,326,256	18.2%	127,867,375
1986	104,106,661	79.6%	26,680,572	20.4%	130,787,233
1987	107,956,434	78.4%	29,715,842	21.6%	137,672,276
1988	109,540,880	75.6%	35,376,908	24.4%	144,917,788

Source: WV Department of Energy.

Method of Production Summary

	1988	% of Category Total	1987	1986	1985	1984
Underground Production	109,540,880		107,956,434	104,106,661	104,541,119	106,400,251
Continuous Miner	64,115,766	58.5%	62,644,183	65,374,785	65,581,282	66,070,853
Longwall	32,647,780	29.8%	32,623,695	28,071,768	28,299,983	30,169,434
Mechanically Loaded	12,769,059	11.7%	12,376,949	10,506,341	10,589,391	10,069,681
Hand Loaded	8,275		291,607	153,767	70,463	90,283
Surface Production	35,376,908		29,715,842	26,680,572	23,326,256	24,640,315

Source: WV Department of Energy.

West Virginia Coal Production—Monthly Summary

1988

	Underground	Surface	Total
January	9,466,327	2,927,815	12,394,142
February	8,843,495	2,604,244	11,447,739
March	10,178,255	2,917,656	13,095,911
April	8,548,029	2,575,382	11,123,411
May	8,726,861	2,767,732	11,494,593
June	8,269,218	2,748,464	11,017,682
July	6,873,618	2,327,492	9,201,110
August	10,332,107	3,357,224	13,689,337
September	9,956,767	3,118,866	13,075,633
October	9,852,114	3,407,964	13,260,078
November	8,809,780	3,191,242	12,001,022
December	9,684,309	3,432,827	13,117,136
Totals	109,540,880	35,376,908	144,917,788

Source: WV Department of Energy.

United States Coal Productivity (Tons Per Man Day)

	Underground	Surface	Combined
1979	7.90	24.80	13.50
1980	9.00	27.75	15.09
1981	10.00	28.75	17.10
1982	11.16	30.60	18.13
1983	11.25	30.75	18.16
1984	13.87	34.49	21.65
1985	14.55	36.82	23.05
1986	16.28	40.08	25.31
1987	16.43	39.87	25.40
1988	19.67	46.75	30.30
% Change			
1987-1988	+ 19.7%	+ 17.3%	+ 19.3%
% Change			
1979-1988	+ 149.0%	+ 88.5%	+ 124.4%

(Note: Excludes Mines Producing Less Than 10,000 Tons)

Source: Energy Information Administration

West Virginia Coal Production—Monthly Summary

1987

	Underground	Surface	Total
January	8,847,518	2,298,862	11,146,380
February	8,717,238	2,102,638	10,819,876
March	9,590,199	2,330,299	11,920,498
April	8,821,909	2,100,718	10,922,627
May	8,976,126	2,110,247	11,086,373
June	9,043,317	2,364,125	11,407,442
July	7,063,408	2,086,704	9,150,112
August	9,448,375	2,779,673	12,228,048
September	9,599,907	2,910,305	12,510,212
October	10,166,345	3,157,126	13,323,471
November	8,286,055	2,622,857	10,908,912
December	9,396,037	2,852,288	12,248,325
Totals	107,956,434	29,715,842	137,672,276

Source: WV Department of Energy.

West Virginia Coal Productivity (Tons Per Man Day Produced)

	Underground	Surface	Combined
1979	10.2	19.4	11.2
1980	9.76	20.92	10.97
1981	9.71	16.33	10.59
1982	10.78	16.48	11.55
1983	13.05	19.02	13.92
1984	14.37	20.14	15.19
1985	15.04	20.27	15.78
1986	17.12	22.85	18.03
1987	19.52	21.01	19.82
1988	20.58	29.10	22.16
% Change			
1979-1988	+ 101.8%	+ 50.0%	+ 97.9%
% Change			
1987-1988	+ 5.4%	+ 38.5%	+ 11.8%

Source: Raw Data from WV Department of Energy.

(Note: Man Days calculated on basis of 8 hour day for Underground and 7.25 for Surface.
Production ÷ Man Days = Productivity)

Largest West Virginia Mines—1988

Company	Name of Mine	Location (County)	1988 Production
1. Consolidation	Blacksville #2	Wana (Monongalia)	3,589,902
2. Eastern Associated	Federal #2	Miracle Run (Monongalia)	3,452,848
3. Consolidation	Humphrey #7	Maidsville (Monongalia)	3,379,795
4. U.S. Steel	No. 50	Pineville (Wyoming)	3,062,777
5. Southern Ohio	Martinka #1	Powell (Marion)	2,690,832
6. Consolidation	Loveridge	Fairview (Marion)	2,549,393
7. Hobet Mining	#21	Morrisvale (Boone)	2,386,513
8. Consolidation	Robinson Run #95	Shinnston (Harrison)	2,363,868
9. Consolidation	Shoemaker	Benwood (Marshall)	2,347,850
10. Consolidation	Arkwright #1	Indian Creek (Monongalia)	1,704,856
11. Western Mingo	#1	Naugatuck (Mingo)	1,561,252
12. Hobet Mining	Hobet #7	Holden (Logan)	1,556,679
13. Island Creek	Dobbin	Wilson (Grant)	1,550,695
14. McElroy Coal	McElroy	Moundsville (Marshall)	1,492,358
15. Eastern Associated	Harris #1	Pond Fork (Boone)	1,474,115
16. Consolidation	Osage #3	Mooreville (Monongalia)	1,411,468
17. Dal-Tex Coal	Rockhouse Mine	Sharples (Logan)	1,315,974
18. Peabody	#7	Montcoal (Raleigh)	1,258,969
19. Triad Mining	Blackbird	Naugatuck (Mingo)	1,247,655
20. Arch of WV	Ruffner/Fanco	Fanco (Logan)	1,224,943
21. BethEnergy	Mine 108	Century (Upshur)	1,220,264
22. Eastern Mingo	#1	Naugatuck (Mingo)	1,205,741
23. Old Ben	#20	Thacker (Mingo)	1,168,000
24. Island Creek	North Branch #1	Bayard (Grant)	1,149,370
25. Consolidation	Blacksville #1	Blacksville (Monongalia)	1,146,318

Source: WV Department of Energy.

Largest West Virginia Coal Producers—1988

Rank	Company	Counties of Operation	1988 Production
1.	Consolidation Coal Co.	Harrison, McDowell, Marion Marshall, Monongalia, Raleigh	24,136,181
2.	Eastern Associated Coal Corp.	Boone, McDowell, Monongalia, Wyoming	8,983,199
3.	Island Creek Coal Co.	Grant, Logan, Nicholas	4,042,638
4.	U.S. Steel Mining Co.	Kanawha, McDowell, Mingo, Wyoming	4,030,859
5.	Peabody Coal Co.	Boone, Raleigh	3,849,454
6.	Southern Ohio Coal Co.	Marion	2,690,832
7.	Bethlehem Mines Corp.	Boone, Nicholas, Upshur	2,676,787
8.	Cannelton Industries, Inc.	Boone, Fayette, Kanawha, McDowell	2,586,023
9.	Hobet Mining & Construction, Inc.	Boone	2,386,513
10.	Elk Run Coal Co., Inc.	Boone	2,283,681
11.	High Power Energy	Nicholas	2,150,321
12.	Arch of WV	Logan	2,117,215
13.	Dal-Tex Coal Corp.	Logan	1,997,738
14.	Hobet Mining, Inc.	Boone, Logan, Mingo	1,931,882
15.	Stoney Coal Co.	Raleigh	1,770,744
16.	Western Mingo Coal Co.	Mingo	1,631,240
17.	Oneida Coal Co., Inc.	Braxton	1,584,896
18.	McElroy Coal Co.	Marshall	1,492,358
19.	The Valley Camp Coal Co.	Kanawha	1,438,510
20.	W-P Coal Co.	Logan	1,343,966

Source: WV Department of Energy.

74
145 total

Top U.S. Coal Producers—1988 (Millions of Tons)

Group/Company	1988 Tonnage	Group/Company	1988 Tonnage
1. Peabody Holding Group	81.5	16. A. T. Massey Coal Group	17.0
2. Consolidation Coal Co.	54.9	17. Pittston Coal Group	13.6
3. Amax Coal Industries, Inc.	36.9	18. Old Ben Coal Co.	13.5
4. Texas Utilities Mining Co.	29.1	19. BHP-UTAH Minerals	13.4
5. Exxon Coal and Minerals Co.	28.3	20. Cyprus Coal Co.	13.2
6. Arco Coal Co.	26.9	21. Pittsburg & Midway Coal Co.	12.9
7. Shell Mining Co.	24.8	22. American Electric Power	11.9
8. Western Energy Co.	23.9	23. Coastal Corp.	11.9
9. Nerco, Inc.	23.8	24. United Coal Co.	10.2
10. Sun Coal Co.	23.3	25. BethEnergy Mines, Inc.	10.1
11. North American Coal Corp.	22.5	26. Westmoreland Coal Co.	10.0
12. Island Creek Corp.	20.2	27. Mapco, Inc.	9.7
13. Arch Mineral Corp.	18.5	28. Jim Walter Resources	9.6
14. Kiewit Mining Group	18.0	29. U.S. Steel Mining Co.	9.2
15. Kerr-McGee Mining Corp.	17.4	30. Drummond Co.	8.9

Source: National Coal Association.

Data Section II:



**Transportation
Consumption
Exports
Other Fuels Production**

Distribution of U.S. Coal—1988 (Thousands of Tons)

Region/State	Electric Utilities	Coke Plants	Other Industrial	Residential/ Commercial	1988 Totals	1987 Totals
New England	6,160	—0—	402	134	6,696	5,793
Connecticut	991	—0—	15	11	1,018	881
Maine	—0—	—0—	71	38	109	172
Massachusetts	3,737	—0—	139	63	3,939	3,600
New Hampshire	1,432	—0—	2	11	1,444	1,124
Rhode Island	—0—	—0—	172	3	175	5
Vermont	—0—	—0—	3	8	10	2
Middle Atlantic	51,841	11,018	5,677	1,717	70,253	70,278
New Jersey	2,122	—0—	252	24	2,398	2,498
New York	8,177	1,643	1,744	309	11,873	11,633
Pennsylvania	41,542	9,375	3,681	1,385	55,982	56,117
East/North Central	155,503	16,535	19,484	1,867	193,389	201,747
Illinois	26,908	1,406	4,311	256	32,882	35,362
Indiana	35,785	8,387	3,922	631	48,724	50,999
Michigan	27,463	1,459	3,826	175	32,923	32,255
Ohio	47,682	5,283	5,721	726	59,412	62,163
Wisconsin	17,666	—0—	1,704	78	19,448	20,969
West/North Central	100,527	306	10,503	1,030	112,365	101,421
Iowa	14,174	—0—	1,651	385	16,210	15,231
Kansas	14,204	—0—	138	1	14,343	15,352
Minnesota	16,114	—0—	684	234	17,031	14,522
Missouri	24,450	306	1,444	223	26,423	23,953
Nebraska	7,464	—0—	215	45	7,724	6,623
North Dakota	21,630	—0—	6,201	139	27,970	24,752
South Dakota	2,492	—0—	168	4	2,664	988
South Atlantic	120,944	5,182	14,560	920	141,606	151,420
Delaware	2,144	—0—	232	18	2,395	2,494
District of Columbia	—0—	—0—	—0—	31	31	54
Florida	22,582	—0—	1,064	3	23,649	17,584
Georgia	24,987	—0—	1,844	27	26,858	24,993
Maryland	8,979	1,990	578	123	11,669	10,436
North Carolina	18,507	—0—	2,391	204	21,101	22,666
South Carolina	8,785	—0—	2,343	126	11,255	9,436
Virginia	7,627	925	3,588	291	12,431	12,243
West Virginia	27,332	2,268	2,519	98	32,216	35,771
East/South Central	72,223	4,939	7,895	680	85,737	88,620
Alabama	20,031	3,637	2,804	137	26,610	26,482
Kentucky	27,597	1,211	1,646	350	30,804	32,613
Mississippi	4,692	—0—	175	13	4,880	4,540
Tennessee	19,903	91	3,270	180	23,444	24,984
West/South Central	121,982	—0—	4,505	56	126,542	119,715
Arkansas	12,424	—0—	212	—0—	12,636	10,752
Louisiana	12,292	—0—	587	—0—	12,879	13,118
Oklahoma	13,632	—0—	549	8	14,189	12,587
Texas	83,633	—0—	3,157	47	86,838	83,258
Mountain	98,391	1,270	4,091	519	104,271	92,090
Arizona	14,125	—0—	576	—0—	14,701	13,332
Colorado	15,077	—0—	638	94	15,809	14,312
Idaho	—0—	—0—	444	76	520	474
Montana	10,556	—0—	230	9	10,795	7,791
Nevada	7,727	—0—	122	2	7,851	7,167
New Mexico	14,665	—0—	48	3	14,715	14,154
Utah	12,279	1,270	632	196	14,377	12,685
Wyoming	23,963	—0—	1,401	139	25,504	22,176
Pacific	5,381	—0—	2,425	128	8,661	7,859
Alaska	W	—0—	W	W	727	707
California	—0—	—0—	2,084	6	2,091	1,935
Oregon	215	—0—	161	5	381	566
Washington	5,166	—0—	180	116	5,462	4,652
Unknown	—0—	—0—	488	79	4,409	3,534
U.S. Total	732,951	39,250	70,030	7,130	853,930	842,478
Exports					95,023	79,607

W: Withheld due to disclosure of individual company data.

(Note: Totals may not correspond due to rounding)

Source: Energy Information Administration.

Distribution of West Virginia Coal — 1988 (Thousands of Tons)

Region/State	Electric Utilities	Coke Plants	Other Industrial	Residential/ Commercial	1988 Totals	1987 Totals
New England	3,160	—0—	181	36	3,377	2,818
Connecticut	311	—0—	2	—0—	313	242
Maine	—0—	—0—	20	19	39	91
Massachusetts	1,806	—0—	104	17	1,926	1,488
New Hampshire	1,043	—0—	1	—0—	1,043	997
Rhode Island	—0—	—0—	55	—0—	55	—0—
Vermont	—0—	—0—	—0—	—0—	—0—	—0—
Middle Atlantic	14,918	2,821	1,707	159	19,605	18,534
New Jersey	1,560	—0—	209	—0—	1,769	1,995
New York	2,665	413	942	52	4,072	4,619
Pennsylvania	10,692	2,408	556	107	13,764	11,920
East/North Central	16,440	5,748	2,938	172	25,298	25,108
Illinois	522	424	217	2	1,165	1,266
Indiana	463	2,771	63	7	3,304	3,120
Michigan	4,918	611	1,190	56	6,775	6,566
Ohio	10,020	1,942	1,241	85	13,288	13,509
Wisconsin	517	—0—	228	21	766	647
West/North Central	75	154	245	12	486	391
Iowa	16	—0—	85	4	105	69
Minnesota	24	—0—	39	8	71	93
Missouri	34	154	121	—0—	310	222
Nebraska	—0—	—0—	—0—	—0—	—0—	2
South Dakota	—0—	—0—	—0—	—0—	—0—	—0—
South Atlantic	44,628	1,983	4,806	346	51,763	53,075
Delaware	1,358	—0—	29	9	1,396	1,498
District of Columbia	—0—	—0—	—0—	15	15	26
Florida	5,302	—0—	350	—0—	5,652	3,842
Georgia	5,695	—0—	552	10	6,257	6,233
Maryland	4,301	496	63	45	4,905	3,991
North Carolina	5,910	—0—	764	66	6,740	6,341
South Carolina	2,815	—0—	741	40	3,596	3,545
Virginia	2,494	770	1,324	114	4,702	5,122
West Virginia	16,753	718	983	45	18,499	22,487
East/South Central	7,341	821	1,497	207	9,867	9,569
Alabama	165	416	183	82	846	722
Kentucky	3,187	376	468	80	4,112	3,918
Mississippi	983	—0—	13	—0—	997	869
Tennessee	3,006	29	833	44	3,912	4,060
West/South Central	148	—0—	39	6	193	355
Louisiana	148	—0—	39	—0—	187	348
Texas	—0—	—0—	—0—	6	6	8
Mountain	—0—	68	38	—0—	106	—0—
Colorado	—0—	—0—	—0—	—0—	1	—0—
Utah	—0—	68	38	—0—	106	—0—
Pacific	—0—	—0—	10	1	12	4
Oregon	—0—	—0—	—0—	1	1	2
Washington	—0—	—0—	10	—0—	10	3
Unknown	—0—	—0—	105	20	1,172	670
Exports	NA	NA	NA	NA	35,233	29,473
Canada	4,118	1,607	509	157	6,390	6,177
Overseas	NA	NA	NA	NA	28,843	23,296
Total Shipments 1988	90,828	13,203	12,074	1,117	147,112	
Total Shipments 1987	86,531	10,804	11,777	859		139,998

(Note: Distribution reported for 1988 includes coal produced in late 1987. Consequently, total shipments reported for West Virginia and the United States will not correspond to production totals. Totals may not correspond due to rounding.)

Source: Energy Information Administration Statistical Estimate

Coal Exports — U.S., West Virginia — 1979-1988

Year	U.S. Coal Exports	WV Coal Exports	WV % Share
1979	66,041,775	30,600,000	46.3%
1980	91,741,902	44,125,000	48.1%
1981	112,540,880	44,534,000	39.6%
1982	106,276,974	44,807,000	42.2%
1983	77,771,916	29,222,000	37.6%
1984	81,482,702	31,446,000	38.6%
1985	92,679,860	34,332,613	37.0%
1986	85,517,880	25,287,260	29.6%
1987	79,607,261	29,472,648	37.0%
1988	95,023,014	35,233,000	37.1%

(Note: WV export total is Energy Information Administration Statistical Estimate; U.S. total includes Anthracite.)

Source: Energy Information Administration

U.S. Coal Exports, by Type—1979-1988 (Millions of Tons)

Year	Total Exports	Metallurgical	%	Steam	%
1979	66.0	50.7	76.8%	15.3	23.2%
1980	91.7	63.1	68.8%	28.6	31.2%
1981	112.5	65.2	58.0%	47.3	42.0%
1982	106.3	64.6	60.8%	41.7	39.1%
1983	77.8	50.0	64.3%	27.8	35.7%
1984	81.5	57.0	69.9%	24.5	30.1%
1985	92.7	60.3	65.0%	32.4	35.0%
1986	85.5	55.0	64.3%	30.5	35.7%
1987	79.6	51.7	64.9%	27.9	35.1%
1988	95.0	61.9	65.2%	33.1	34.8%

(Note: Includes Anthracite)

Source: Energy Information Administration.

Distribution of U.S. Coal Exports

	1988	1987	1986	1985	1984
North and Central America	19,672,320	16,464,461	14,774,234	16,839,261	20,641,387
(Canada)	(19,231,950)	(16,226,641)	(14,477,712)	(16,393,374)	(20,444,205)
South America	5,958,557	6,719,791	6,636,043	6,808,883	5,406,582
(Brazil)	(5,252,100)	(5,830,034)	(5,719,594)	(5,861,701)	(4,705,853)
Europe	45,137,209	34,159,356	42,552,404	45,106,169	32,810,600
(European Econ. Comm.)	(39,018,782)	(30,244,711)	(36,604,714)	(35,316,977)	(27,679,087)
Asia, Africa	24,252,888	22,261,887	21,554,916	23,925,547	22,624,133
(Japan)	(14,122,057)	(11,082,422)	(11,369,835)	(15,371,659)	(16,325,370)

Source: Energy Information Administration.

Major Importers of U.S. Coal—1988 (One Million Tons or More)

Rank	Country	1988	% of U.S. Exports	1987
1	Canada	19,231,950	20.2%	16,226,641
2	Japan	14,122,057	14.9%	11,082,422
3	Italy	11,069,756	11.6%	9,537,152
4	Belgium-Luxembourg	6,490,382	6.8%	4,577,953
5	Brazil	5,252,100	5.5%	5,830,034
6	Netherlands	5,085,560	5.4%	4,093,387
7	Taiwan	4,674,364	4.9%	4,768,704
8	France	4,301,915	4.5%	2,886,128
9	South Korea	3,939,200	4.1%	4,024,923
10	United Kingdom	3,670,636	3.9%	2,588,662
11	Denmark	2,804,211	3.0%	733,662
12	Spain	2,541,850	2.7%	2,454,490
13	Turkey	2,023,463	2.1%	771,778
14	Romania	1,512,335	1.6%	1,098,397
15	Ireland	1,469,337	1.5%	1,409,747
16	Yugoslavia	1,295,147	1.4%	589,028

Source: Energy Information Administration.

U.S. Imports of Coal (Tons)

Country of Origin	1988	% of Total Imports	1987
Columbia	1,225,167	57.4%	956,899
Canada	552,238	25.9%	506,760
Venezuela	202,812	9.5%	—0—
Australia	66,190	3.1%	210,639
Mexico	44,297	2.1%	—0—
Japan	42,189	2.0%	—0—
Others	1,137	0.05%	72,840
Total	2,134,030		1,747,138

Source: Energy Information Administration.

U.S. Imports of Coke (Tons)

Country of Origin	1988	% of Total Imports	1987
Japan	1,048,156	39.0%	540,842
Australia	607,072	22.8%	124,901
Canada	484,328	18.0%	187,325
Italy	125,205	4.7%	—0—
Belgium & Luxembourg	108,484	4.0%	—0—
Yugoslavia	94,862	3.5%	68,215
France	56,385	2.1%	—0—
West Germany	48,414	1.8%	505
United Kingdom	26,621	1.0%	—0—
Netherlands	24,809	0.9%	—0—
Switzerland	24,234	0.9%	—0—
China	22,087	0.8%	—0—
Argentina	16,717	0.6%	—0—
Mexico	633	0.02%	—0—
Total	2,688,007		922,288

Source: Energy Information Administration.

West Virginia Coal—Method of Shipment

Method	1988						1987	1986	1985	1984
	From Underground Mines	% of Deep Production	From Surface Mines	% of Surface Production	Total	% of Total Production				
Railroad	61,731,234	56.4%	16,949,380	47.9%	78,680,614	54.3%	77,293,478	77,159,120	82,298,991	83,244,449
Truck	24,427,286	22.3%	14,732,742	41.6%	39,160,028	27.0%	34,627,272	29,762,320	24,898,588	23,627,277
River	15,767,102	14.4%	3,553,003	10.0%	19,320,105	13.3%	19,190,450	17,923,193	14,025,191	18,300,857
Local Trade or Stocked	1,822,380	1.7%	127,002	0.4%	1,949,382	1.3%	2,416,975	2,436,826	3,237,179	2,919,228

Source: WV Department of Energy.

Railroad Coal Traffic — 1979-1988 (Thousands of Tons)

Year	Coal Tons Originated	% of Total Production	RR Coal Freight Revenue	% of Total RR Freight Revenue
1979	510,179	65.7%	\$3.89 Billion	14.0%
1980	522,071	63.4%	\$4.96	18.4%
1981	527,649	64.5%	\$5.98	20.2%
1982	523,823	62.8%	\$6.31	23.8%
1983	493,610	63.4%	\$5.97	22.4%
1984	566,647	63.9%	\$6.97	23.3%
1985	538,030	61.0%	\$6.56	23.2%
1986	517,502	60.6%	\$6.09	22.4%
1987	523,254	57.2%	\$6.10	22.0%
1988	542,827	57.3%	\$6.43	21.8%

Source: Association of American Railroads

Electricity Production, by Fuel Type—1987-1988 (Gigawatt Hours)

Fuel Type	1988	% of Total	1987
Coal	1,538,203	56.9%	1,463,781
Nuclear	526,901	19.5%	455,270
Natural Gas	252,779	9.4%	272,621
Hydro	222,938	8.3%	249,695
Petroleum	148,819	5.5%	118,493
Other	11,984	0.4%	12,267
Total	2,701,624		2,572,127

Source: Energy Information Administration.

U.S. Coal Consumption—1984-1988

	1988	1987	1986	1985	1984
Electric Utilities	756,793,000	717,894,000	685,056,000	693,841,000	664,399,000
Coke Plants	41,910,000	36,957,000	36,006,000	41,056,000	44,022,000
Other Industrial	76,252,000	75,175,000	75,583,000	75,372,000	73,745,000
Residential/Commercial	7,130,000	6,914,000	7,667,000	7,779,000	9,130,000
	882,086,000	836,941,000	804,312,000	818,049,000	791,296,000

Source: Energy Information Administration.

West Virginia Coal Consumption—1984-1988

	1988	1987	1986	1985	1984
Electric Utilities.	31,704,000	30,605,000	30,790,000	31,367,000	31,058,000
Coke Plants	W	W	W	W	W
Other Industrial	2,598,000	2,326,000	2,234,000	2,086,000	2,905,000
Residential/Commercial	W	W	W	W	W
Total	36,435,000	34,815,000	35,009,000	34,907,000	36,141,000

W: Withheld due to disclosure of individual company data.

(Note: Coal sold in West Virginia during 1988 totalled 32,216,000 Tons. Consumption and distribution totals may differ due to inventory carryovers and stockpiling.)

Source: Energy Information Administration.

Other Fossil Fuel Production in West Virginia—1984-1988

			Equivalent Coal Tons
—1988—			
Natural Gas	157,400	Million Cubic Feet	7,165,293
Oil	2,600	Thousand Barrels	607,335
—1987—			
Natural Gas	198,000	Million Cubic Feet	9,013,520
Oil	2,900	Thousand Barrels	677,412
—1986—			
Natural Gas	179,000	Million Cubic Feet	8,148,587
Oil	2,991	Thousand Barrels	698,669
—1985—			
Natural Gas	145,405	Million Cubic Feet	6,623,799
Oil	3,349	Thousand Barrels	782,294
—1984—			
Natural Gas	143,443	Million Cubic Feet	6,529,921
Oil	3,305	Thousand Barrels	772,051

Source: Independent Oil & Gas Association of WV.

Conversion Factors:

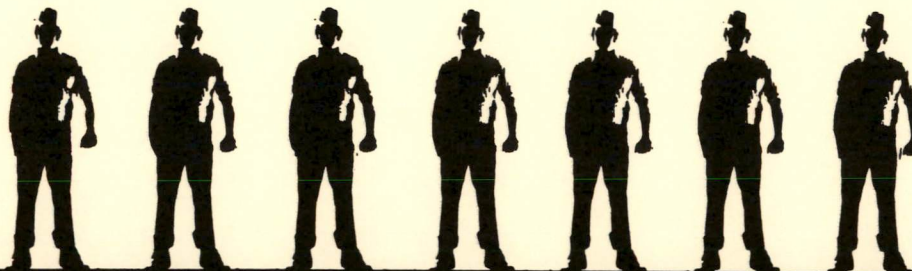
Fuel and Power

One Ton of Bituminous Coal Production Equals: BTU Per Unit:

Bituminous Coal	1 ton	24,010,000/ton
Pennsylvania Anthracite	0.945 tons	25,400,000/ton
Crude Petroleum	4.281 bls.	5,608,300 bl.
Natural Gas Liquids	5.986 bls.	4,011,000 bl.
Natural Gas	21,967 cu. ft. ^a	1,093 cu. ft. ^a
*Natural Gas	23,516 cu. ft. ^b	1,021 cu. ft. ^b
Coke	0.968 tons ^c	24,800,000/ton ^c
Coke Breeze	1.143 tons ^d	21,000,000/ton ^d
Blast Furnace Gas	240,100 cu. ft.	100 cu. ft.
Coke Oven Gas	43,655 cu. ft.	550 cu. ft.
*Manufactured Gas	44,463 cu. ft. ^e	540 cu. ft. ^e
Tar and Pitch	3,575 bls.	6,720,000 bl.
Kerosene	4.235 bls.	5,670,000 bl.
Gasoline		
(including aviation)	4.575 bls.	5,248,000 bl.
Distillate Fuel Oil	4.122 bls. ^f	5,825,000 bl. ^f
Residual Fuel Oil	3.819 bls. ^g	6,287,000 bl. ^g
Acid Sludge	5.336 bls.	4,500,000 bl.
Refinery (still) Gas	4.022 bls.	6,000,000 bl.
Petroleum Coke	3.986 bls.	6,024,000 bl.
Wood	1.146 cords	20,960,000/cord
Hydro Power	2.311 kwh ^h	10,389 kwh ^h
Nuclear Power	2.252 kwh ^h	10,660 kwh ^h
Electricity (variable)	kilowatt-hours ⁱ	3412.193 kwh ⁱ
Mechanical Energy	9,436.112 HP-Hr	2544.48 HP-Hr

^aAt wellhead-containing liquids. ^bAs delivered to consumer-most liquids removed. ^cAssuming 4 percent moisture as consumed. ^dAssuming 12 percent moisture as consumed. ^eSold by Utilities. ^fWeighted average of grades 1 to 4. ^gWeighted average of grades 5 and 6. ^hHydro Power is converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants obtained from the Federal Power Commission. Energy input for nuclear power is converted at an average heat rate of 10,660 Btu. per net kilowatt hour based on information from the Atomic Energy Commission. ⁱInherent thermal value at bus bar, which gives 7,036.530 kilowatt-hours as the equivalent of one ton of bituminous coal at 24,010,000 Btu. *Gas is sometimes billed to the consumer by the therm, which is 100,000 Btu. 240 therms are the equivalent of one ton of bituminous coal.

Data Section III:



Employment
Wages
Coal Prices

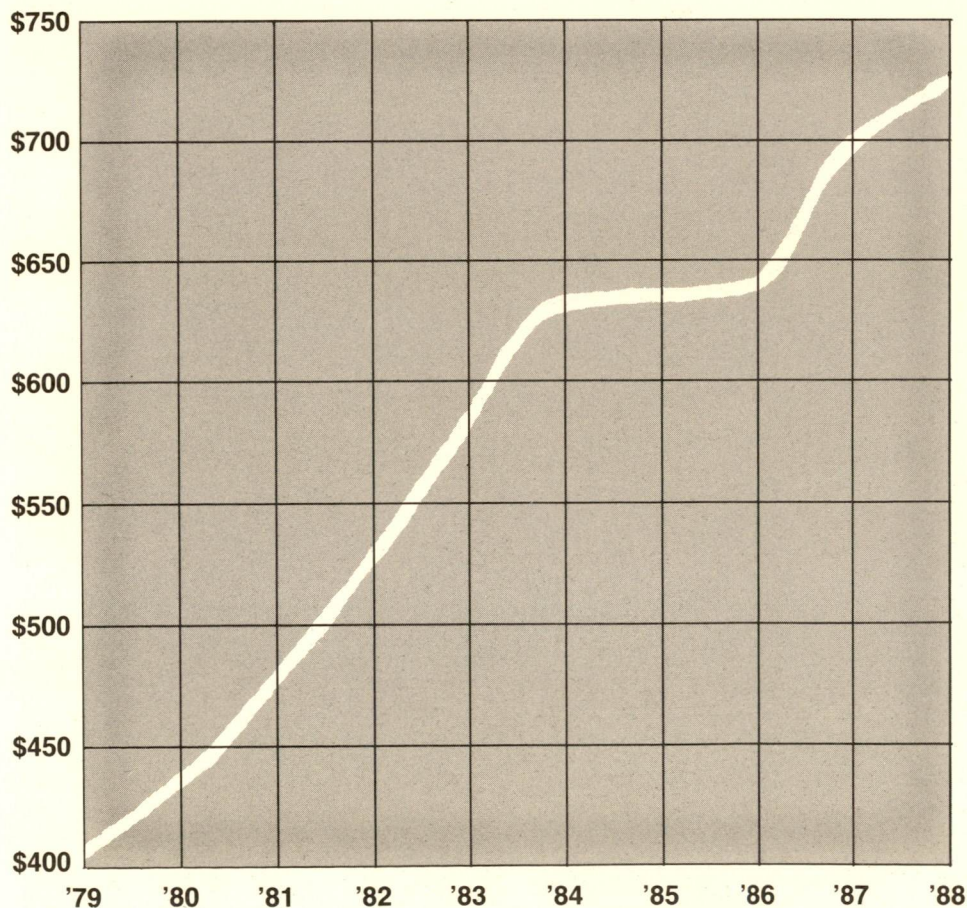
West Virginia Coal Employment—Wages

	1988		1987	
	Employment Avg. Monthly	Wages Avg. Weekly	Employment Avg. Monthly	Wages Avg. Weekly
January	24,754	\$739.34	25,710	\$701.30
February	24,380	\$723.98	25,552	\$711.15
March	24,720	\$746.93	25,472	\$732.90
April	23,720	\$709.37	25,277	\$661.60
May	24,573	\$675.51	25,364	\$684.91
June	24,342	\$728.83	25,192	\$745.47
July	24,539	\$632.71	25,401	\$588.59
August	24,761	\$683.20	25,320	\$714.71
September	24,902	\$767.12	25,531	\$701.79
October	24,976	\$734.86	25,981	\$713.00
November	24,806	\$723.91	25,751	\$730.44
December	24,833	\$725.84	25,306	\$738.28
Annual Average	24,609	\$715.10	25,488	\$700.91

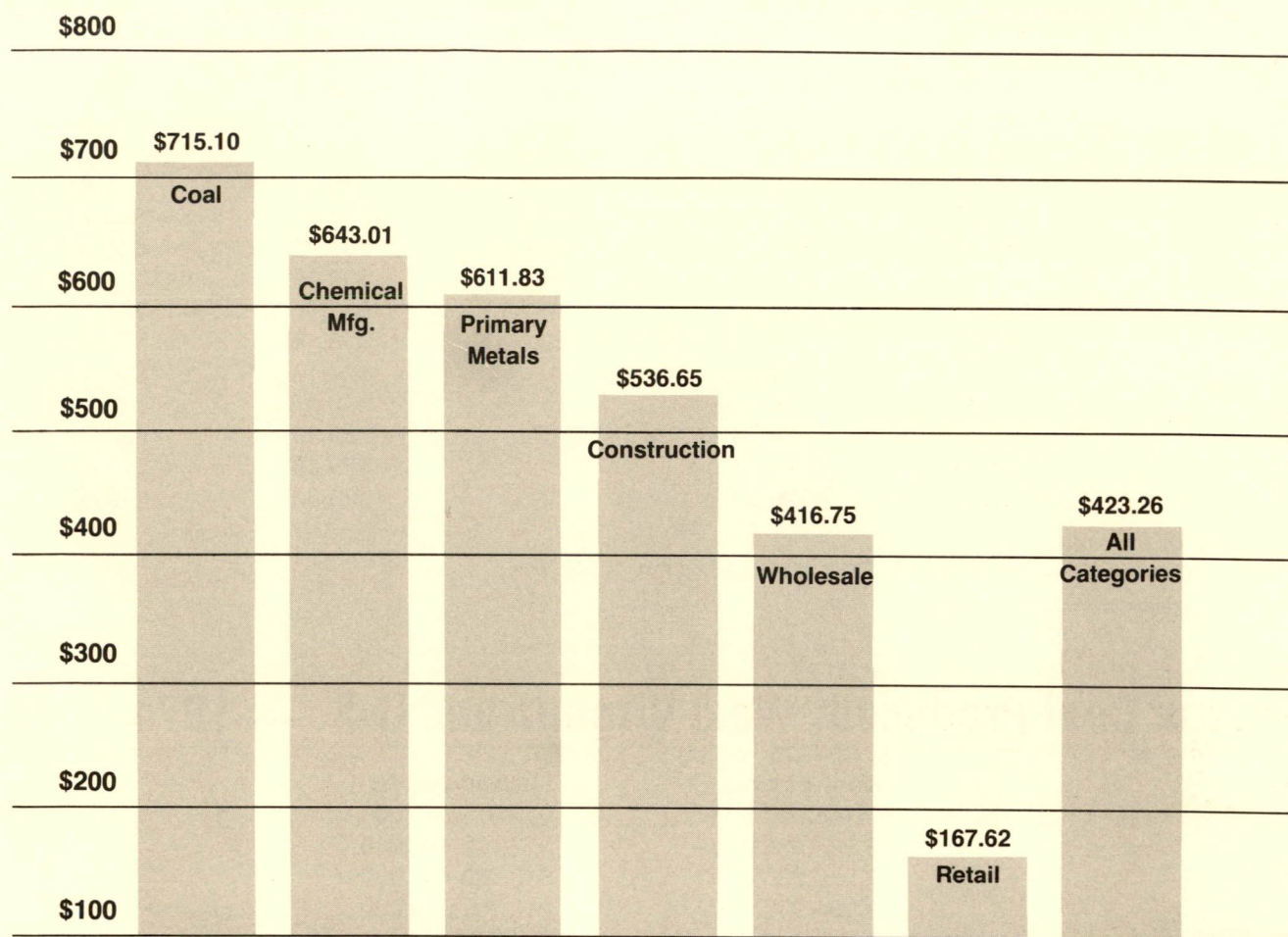
Source: Employment data from WV Department of Energy; Wage data from WV Department of Employment Security.

(Note: All data reflective of production workers only)

West Virginia Coal Mining Average Weekly Wage Trends



Average Weekly Wages, West Virginia Industries — 1988



Weekly Wage Growth (Statewide Averages) 1979-1988

	Coal	Chemical Mfg.	Primary Metals	Construction	Wholesale	Retail	All Categories
1979	\$412.89	\$362.85	\$420.16	\$393.31	\$254.72	\$119.29	\$267.94
1980	\$430.95	\$399.11	\$452.78	\$424.40	\$303.33	\$126.87	\$293.57
1981	\$474.01	\$462.25	\$498.58	\$466.12	\$321.85	\$137.25	\$319.52
1982	\$525.63	\$488.68	\$529.69	\$487.01	\$336.16	\$142.52	\$338.09
1983	\$585.69	\$532.90	\$541.88	\$491.95	\$339.01	\$150.16	\$353.54
1984	\$627.19	\$582.99	\$530.80	\$494.94	\$387.86	\$152.20	\$380.41
1985	\$628.00	\$600.48	\$539.78	\$519.67	\$388.82	\$166.24	\$393.49
1986	\$626.84	\$619.63	\$550.51	\$492.02	\$391.20	\$176.90	\$403.57
1987	\$700.91	\$642.06	\$551.34	\$506.25	\$400.16	\$170.51	\$417.62
1988	\$715.10	\$643.01	\$611.83	\$536.65	\$416.75	\$167.62	\$423.26
% Increase 1979-1988	+73.2%	+77.2%	+45.6%	+36.4%	+63.6%	+40.5%	+58.0%
% Increase 1987-1988	+2.0%	+0.1%	+11.0%	+6.0%	+4.1%	-1.7%	+1.4%

Source: WV Department of Employment Security.

Average Coal Prices, West Virginia and U.S. — 1974-1988

	West Virginia				Avg. All U.S. Coal
	Underground Mined Coal	Surface Mined Coal	Auger Mined Coal	Avg. All WV Coal	
1974	\$21.76	\$21.20	\$ 8.66	\$21.65	\$15.75
1975	\$20.60	\$25.52	\$21.74	\$29.35	\$19.23
1976	\$31.64	\$23.86	\$34.29	\$30.12	\$19.43
1977	\$33.25	\$23.58	1/	\$31.03	\$19.82
1978	\$34.45	\$25.70	1/	\$33.15	\$21.78
1979	\$36.27	\$28.04	1/	\$34.74	\$23.65
1980	\$36.46	\$28.72	1/	\$34.88	\$24.52
1981	\$39.38	\$32.94	1/	\$38.05	\$26.29
1982	\$38.53	\$34.31	1/	\$37.72	\$27.14
1983	\$36.45	\$31.36	1/	\$35.45	\$25.85
1984	\$34.85	\$31.28	1/	\$34.18	\$25.51
1985	\$34.31	\$29.78	1/	\$33.47	\$25.10
1986	\$31.46	\$28.70	1/	\$30.90	\$23.70
1987	\$29.86	\$26.51	1/	\$29.15	\$23.00
1988	\$29.03	\$25.63	1/	\$28.22	\$22.00

1/ Auger included with surface

(Note: U.S. coal price excludes Anthracite and mines producing less than 10,000 tons.)

Source: Energy Information Administration

Value of Coal Produced, West Virginia and U.S. — 1974-1988

Year	West Virginia	United States
1974	\$2,156,327,896	\$ 9,015,000,000
1975	\$3,207,456,050	\$12,472,486,000
1976	\$3,278,080,000	\$13,189,481,000
1977	\$2,961,286,000	\$13,705,219,000
1978	\$2,828,154,000	\$14,486,256,000
1979	\$3,904,115,940	\$17,893,692,000
1980	\$4,498,599,194	\$19,858,057,000
1981	\$4,442,615,000	\$21,514,474,000
1982	\$4,848,529,000	\$22,621,814,000
1983	\$4,077,946,000	\$20,315,292,000
1984	\$4,477,853,440	\$22,935,577,600
1985	\$4,276,270,284	\$22,676,680,321
1986	\$4,014,126,300	\$21,180,586,784
1987	\$3,962,446,950	\$21,049,623,000
1988	\$4,092,041,100	\$20,827,620,000

(Note: U.S. coal value excludes Anthracite and mines producing less than 10,000 tons.)

Source: Energy Information Administration

Delivered Price Of Coal To West Virginia Utilities — 1988

Month	Contract Purchases			Spot Purchases		
	Tons	Avg. Price Per Ton	Total	Tons	Avg. Price Per Ton	Total
January	2,235,980	\$37.62	\$ 84,117,567	564,180	\$25.40	\$ 14,330,172
February	1,914,220	\$37.78	\$ 72,319,231	399,090	\$24.50	\$ 9,777,705
March	2,114,260	\$37.66	\$ 79,623,031	331,580	\$25.07	\$ 8,312,711
April	1,783,980	\$38.03	\$ 66,164,594	282,210	\$25.63	\$ 7,233,042
May	1,838,980	\$38.05	\$ 69,973,189	241,860	\$25.47	\$ 6,160,174
June	1,819,160	\$37.61	\$ 68,418,607	259,750	\$27.34	\$ 7,101,565
July	1,337,330	\$38.58	\$ 51,594,191	147,870	\$26.52	\$ 3,921,512
August	2,232,860	\$38.07	\$ 85,004,980	395,540	\$24.63	\$ 9,742,150
September	1,987,860	\$37.64	\$ 74,823,050	343,790	\$24.35	\$ 8,371,287
October	2,159,650	\$38.22	\$ 82,541,823	349,820	\$24.59	\$ 8,602,074
November	1,798,340	\$37.86	\$ 68,085,152	364,640	\$25.44	\$ 9,276,442
December	2,019,720	\$37.56	\$ 75,860,683	490,010	\$24.81	\$ 12,157,148
Totals & Averages	23,242,400	\$37.87	\$880,189,688	4,170,370	\$25.17	\$104,968,213

Source: National Coal Association

Earnings for Various Coal Industry Occupations

(Provided by National Bituminous Coal Wage Agreement of 1988—expires February 1, 1993)

Underground Occupation 1/Continuous Mining Machine Operator, Electrician, Mechanic, Fireboss, Longwall Machine Operator, Welder First Class, Roof Bolter.	Daily Wage Rate*		
	2/88	2/89	2/90
	\$126.52	\$129.32	\$132.92
<hr/>			
Cutting Machine Operator, Dispatcher, Loading Machine Operator, Machine Operator Helper, General Inside Repairman and Welder, Rock Driller, Continuous Miner Helper-Trainee, Roof Bolter Helper-Trainee, Maintenance Trainee, Electrician Trainee.	2/88	2/89	2/90
	\$123.28	\$126.08	\$129.68
<hr/>			
Driller-Coal, Shooter, Precision Mason-Construction, Faceman, Dumper, Shuttle Car Operator.	2/88	2/89	2/90
	\$120.34	\$123.14	\$126.74
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Motorman, Maintenance Trainee, Electrician Trainee, Electrician Helper, Mechanic Helper.	2/88	2/89	2/90
	\$118.56	\$121.36	\$124.96
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Beltman, Bonder, Brakeman, Bratticeman, General Inside Labor, Mason, Pumper, Timberman, Wireman, Unskilled Laborer.	2/88	2/89	2/90
	\$117.98	\$120.78	\$124.38
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Training Rate	2/88	2/89	2/90
	\$113.39	\$116.19	\$119.79

Earnings for Various Coal Industry Occupations

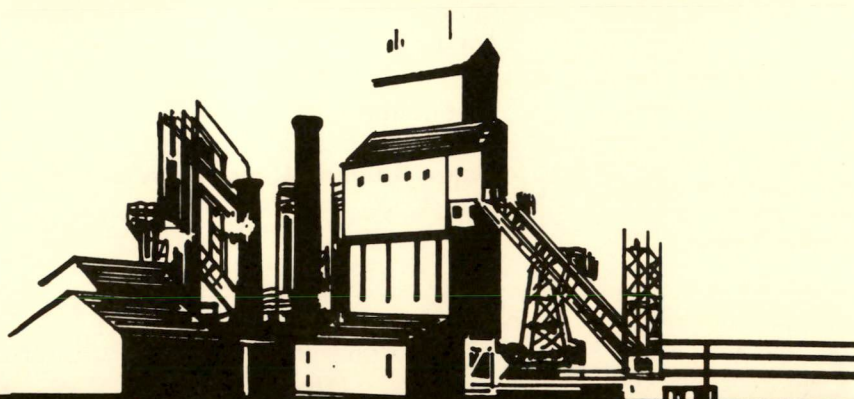
Surface Mine Occupation ² /Coal Loading Shovel Operator, Overburden Stripping Machine Operator, Master Electrician.	2/88 \$120.19	2/89 \$122.73	2/90 \$125.99
Electrician, Machinist, Mechanic, Welder First Class, Shovel and Dragline Oiler, Groundman.	2/88 \$115.47	2/89 \$118.01	2/90 \$121.27
Mobile Equipment Operator, Repairman, Stationary Equipment Operator, Welder, Driller and Shooter, Maintenance Trainee, Electrician Trainee.	2/88 \$112.83	2/89 \$115.36	2/90 \$118.63
Tipple Attendant, Electrician Helper, Mechanic Helper, Machinist Helper, Repairman Helper, Boat Deck Hand, Dock Hand, Maintenance Trainee, Electrician Trainee.	2/88 \$110.76	2/89 \$113.30	2/90 \$116.56
Car Dropper, Car Dumper, Car Trimmer, Sampler, Service Truck Driver, Utility Man, Unskilled Laborer.	2/88 \$110.17	2/89 \$112.71	2/90 \$115.97
Occupations in Preparation Plants and Other Surface Facilities—Deep and Surface Operations ² /Electrician, Mechanist, Welder First Class, Preparation Plant Central Control Operator.	2/88 \$114.29	2/89 \$116.83	2/90 \$120.09
Mobile Equipment Operator, Repairman, Stationary Equipment Operator, Welder, Railroad Car Loader Operator, Maintenance Trainee, Electrician Trainee.	2/88 \$112.52	2/89 \$115.06	2/90 \$118.32
Tipple Attendant, Dock Man, Electrician Helper, Machinist Helper, Mechanic Helper, Repairman Helper, Maintenance Trainee, Electrician Trainee.	2/88 \$110.47	2/89 \$113.01	2/90 \$116.27
Car Dropper, Car Dumper, Car Trimmer, Sampler, Bit Sharpener, Service Truck Driver, Equipment Operator Service, Preparation Plant-Utility Man, Surface Utility Man, Unskilled Laborer.	2/88 \$109.89	2/89 \$112.43	2/90 \$115.69

*Subject to renegotiation after November 1, 1990

1/ Daily rate, based on 8-hour day. 2/ Daily rate based on 7¼-hour day.

General Pay Provisions: Time and one-half pay for overtime beyond (1) eight hours per day and 40 hours per week or (2) seven and one quarter hours per day and 36¼ hours per week. All Saturday work at time and one-half pay, Sunday work at double time. Holidays (11 plus Birthday) worked at triple time. Fourteen days regular vacation, with four floating vacation days and graduated additional vacation days (up to 13) for between six and eighteen years service.

Data Section IV:



**County Summaries
Number of Mines
Coal Regions**

Barbour County



	Number of Mines	Coal Production	Coal Employment
Underground	19	1,294,726	282
Surface	25	623,896	214
Totals	44	1,918,622	496

Production Ranking: 17

Coal Wages: \$15,037,717

Major Seams Mined: Bakerstown, Kittaning, Pittsburgh, Redstone and Sewickley.

— 1988 Production —

Major Coal Companies:

	Underground	Surface	Total	Employment
Bentley Coal Co.	115,478	—0—	115,478	22
Black Diamond Energy	666,878	—0—	666,878	100
C & W Coal Co., Inc.	104,604	165,653	270,257	125
Roblee Coal Co.	279,169	—0—	279,169	42
Stanley Industries, Inc.	—0—	180,631	180,631	25

Boone County



	Number of Mines	Coal Production	Coal Employment
Underground	104	16,842,617	3,424
Surface	48	5,198,200	670
Totals	152	22,040,817	4,094

Production Ranking: 1

Coal Wages: \$137,237,068 33521

Major Seams Mined: Cedar Grove, Chilton, Coalburg, Dorothy, Eagle, Hershaw, Kittaning, No. 2 Gas, Peerless, Powellton, Stockton-Lewiston and Winifrede.

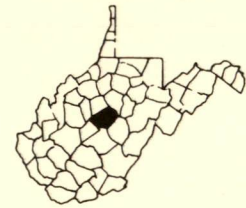
— 1988 Production —

Major Coal Companies:

	Underground	Surface	Total	Employment
Bethlehem Mines Corp.	851,274	—0—	851,274	275
Birchfield Mining Co.	743,076	—0—	743,076	90
Bull Creek Coal	465,788	—0—	465,788	73
Colony Bay Coal Co. (Peabody)	—0—	1,092,305	1,092,305	118
Davidson Mining, Inc.	951,689	—0—	951,689	164
Eastern Assoc. Coal Corp. (Peabody)	3,655,651	—0—	3,655,651	1,061
Elk Run Coal Co., Inc.	1,850,359	433,322	2,283,681	135
Harley Mining, Inc.	684,852	—0—	684,852	67
Hobet Mining & Construction Co., Inc.	—0—	2,386,513	2,386,513	226
Laurel Creek Mining Co., Inc.	665,146	—0—	665,146	87
Long Branch Energy	598,950	—0—	598,950	135
Peabody Coal Co.	1,120,351	117,827	1,238,178	251
Perry & Hylton, Inc.	—0—	508,051	508,051	58
Westmoreland Coal Co.	351,069	145,602	496,671	113
White Oak Coal	411,106	—0—	411,106	36

Braxton County

	Number of Mines	Coal Production	Coal Employment
Underground	12	2,906,841	440
Surface	3	6,783	12
Totals	15	2,913,624	452



Production Ranking: 15

Coal Wages: \$14,750,279

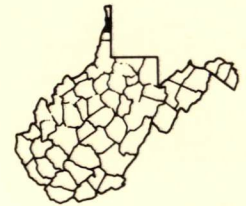
Major Seams Mined: Bakerstown, Lower Kittaning and Pittsburgh.

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
D & K Coal Co.	237,776	—0—	237,776	34
Lackey Coals, Inc.	241,669	—0—	241,669	40
Lexie Coal Corp.	356,755	—0—	356,755	36
Oneida Coal Co., Inc.	1,552,027	—0—	1,552,027	251
Pammlid Coal Co.	215,491	—0—	215,491	32
T & R Coal Co., Inc.	300,237	—0—	300,237	34

Brooke County

	Number of Mines	Coal Production	Coal Employment
Underground	2	826,158	318
Surface	7	116,707	24
Totals	9	942,865	342



Production Ranking: 22

Coal Wages: \$14,498,659

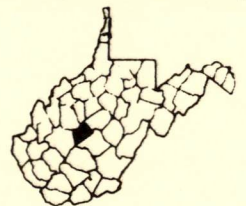
Major Seams Mined: Pittsburgh

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Windsor Coal Co.	826,158	—0—	826,158	317

Clay County

	Number of Mines	Coal Production	Coal Employment
Underground	7	596,419	86
Surface	6	95,557	29
Totals	13	691,976	115



Production Ranking: 23

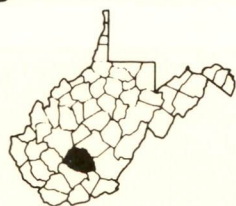
Coal Wages: \$1,971,505

Major Seams Mined: Coalburg, Lower Kittaning and Upper Kittaning.

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Double S. Mining, Inc.	432,511	—0—	432,511	47
Hill Enterprises, Inc.	159,527	—0—	159,527	33

Fayette County



	Number of Mines	Coal Production	Coal Employment
Underground	17	459,417	241
Surface	35	1,231,563	295
Totals	52	1,690,980	536

Production Ranking: 19

Coal Wages: \$28,615,025 53386

Major Seams Mined: Bradshaw, Coalburg, Eagle, Fire Creek, Gilbert, Kittaning, No. 2 Gas, Peerless, Powellton, Sewell and Stockton-Lewiston.

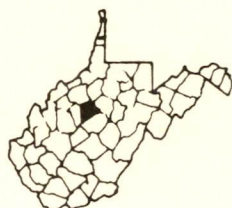
— 1988 Production —

Major Coal Companies

Appalachian Mining, Inc.
Harvey Energy Corp.
Hawks Nest Mining Co.
Meadow River Co. (Pittston)

	Underground	Surface	Total	Employment
	—0—	317,794	317,794	71
	—0—	106,975	106,975	39
	144,026	596,617	740,643	192
	111,894	—0—	111,894	60

Gilmer County



	Number of Mines	Coal Production	Coal Employment
Underground	1	45,136	9
Surface	—0—	—0—	—0—
Totals	1	45,136	9

Production Ranking: 31

Coal Wages: NA

Major Seams Mined: Pittsburgh.

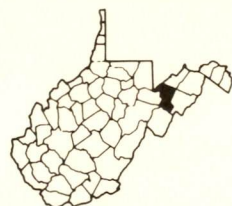
— 1988 Production —

Major Coal Companies

Baldwin Mining Co.

	Underground	Surface	Total	Employment
	45,136	—0—	45,136	9

Grant County



	Number of Mines	Coal Production	Coal Employment
Underground	7	2,996,632	699
Surface	21	856,994	109
Totals	28	3,853,626	808

Production Ranking: 13

Coal Wages: \$30,415,336

Major Seams Mined: Bradshaw, Elk Lick, Freeport.

— 1988 Production —

Major Coal Companies

Allegheny Mining Corp.
Buffalo Coal Co., Inc.
Island Creek Coal Co.
Laurel Run Mining Co. (Island Creek)

	Underground	Surface	Total	Employment
	—0—	104,411	104,411	33
	—0—	740,093	740,093	73
	2,700,065	—0—	2,700,065	523
	296,567	—0—	296,567	176

Greenbrier County

	Number of Mines	Coal Production	Coal Employment
Underground	20	653,992	180
Surface	29	374,437	140
Totals	49	1,028,429	320



Production Ranking: 21

Coal Wages: \$11,719,229

Major Seams Mined: Beckley, Eagle, Pocahontas and Sewell.

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
John Brown Harris, Inc.	150,934	165,903	316,837	43
Leckie Smokeless Coal Co.	274,906	145,729	420,635	83

Harrison County

	Number of Mines	Coal Production	Coal Employment
Underground	7	2,709,096	504
Surface	36	806,340	168
Totals	43	3,516,436	672



Production Ranking: 14

Coal Wages: \$29,031,094

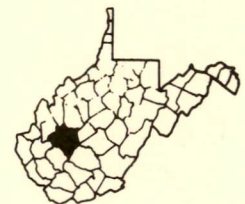
Major Seams Mined: Pittsburgh and Redstone.

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Consolidation Coal Co.	2,363,868	—0—	2,363,868	438
Grafton Mining Co.	—0—	161,848	161,848	13
Larosa Fuel Co., Inc.	—0—	153,485	153,485	21
Three Power Coal, Inc.	135,907	—0—	135,907	23
United Coals, Inc.	—0—	148,461	148,461	25

Kanawha County

	Number of Mines	Coal Production	Coal Employment
Underground	31	2,797,730	648
Surface	45	2,664,553	363
Totals	76	5,462,283	1,011



Production Ranking: 11

Coal Wages: \$42,548,453 42086

Major Seams Mined: Cedar Grove, Coalburg, Eagle, Hernshaw, Kittaning, No. 2 Gas, Powellton, Stockton-Lewiston and Winifrede.

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Bufflick, Inc.	176,344	—0—	176,344	32
Cannelton Industries, Inc.	949,921	1,247,270	2,197,191	340
Eastern Energy Investments, Inc.	—0—	157,212	157,212	19
First Big Mountain Mining Co.	124,552	—0—	124,252	48
Ford Coal Co.	—0—	170,020	170,020	7
Hansford Coal Co.	—0—	190,033	190,033	20
Notomine, Inc.	—0—	208,989	208,989	26
NuEast Mining Corp.	—0—	117,707	117,707	19
Princess Beverly Coal Co.	—0—	182,586	182,586	17
Princess Susan Coal Co.	—0—	255,681	255,681	44
The Valley Camp Coal Co.	1,312,784	125,726	1,438,510	339

Lewis County



	Number of Mines	Coal Production	Coal Employment
Underground	4	95,237	24
Surface	6	223,980	31
Totals	10	319,217	55

Production Ranking: 26

Coal Wages: \$1,307,522

Major Seams Mined: Elk Lick, Kittaning, Pittsburgh and Redstone.

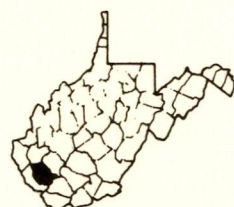
— 1988 Production —

Major Coal Companies

Use Coal Co., Inc.

Underground	Surface	Total	Employment
—0—	139,798	139,798	19

Logan County



	Number of Mines	Coal Production	Coal Employment
Underground	102	8,428,342	2,050
Surface	40	4,721,740	720
Totals	142	13,150,082	2,770

Production Ranking: 4

Coal Wages: \$98,063,832 35402

Major Seams Mined: Alma, Belmont, Buffalo Creek, Cedar Grove, Chilton, Coalburg, Dorothy, Eagle, Kittaning, Stockton-Lewiston and Winifrede.

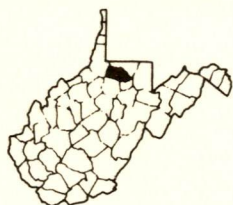
— 1988 Production —

Major Coal Companies

Arch of WV
Brandy Mining, Inc.
Buffalo Mining Co. (Pittston)
Dal-Tex Coal Corp.
Elkay Mining Co. (Pittston)
Elm Coal Corp.
Golden Eagle Coals, Inc.
Guyan Land Corp. of WV
Hobet Mining, Inc.
Island Creek Coal Co.
Logan Coals, Inc.
Pine Creek Mining, Inc.
Rocky Creek Mining, Inc.
W-P Coal Co.
War Eagle Construction, Inc.

Underground	Surface	Total	Employment
199,922	1,917,293	2,117,215	452
239,471	—0—	239,471	59
824,420	62,820	887,232	137
681,764	1,315,974	1,997,738	231
661,300	—0—	661,300	147
37,707	200,808	238,515	67
235,746	—0—	235,746	33
—0—	420,897	420,897	61
—0—	315,096	315,096	0
621,937	—0—	621,937	69
214,423	—0—	214,423	12
473,313	—0—	473,313	98
319,920	—0—	319,920	32
1,343,966	—0—	1,343,966	249
309,826	—0—	309,826	59

Marion County



	Number of Mines	Coal Production	Coal Employment
Underground	6	5,352,347	1,150
Surface	17	281,231	73
Totals	23	5,633,578	1,223

Production Ranking: 10

Coal Wages: \$56,970,240 45765

Major Seams Mined: Kittaning, Pittsburgh and Redstone.

— 1988 Production —

Major Coal Companies

Consolidation Coal Co.
Southern Ohio Coal Co.
W. C. Tonkery Coal

Underground	Surface	Total	Employment
2,549,393	—0—	2,549,393	387
2,690,832	—0—	2,690,832	727
—0—	122,762	122,762	28

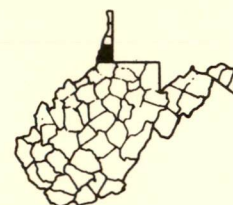
Marshall County

	Number of Mines	Coal Production	Coal Employment
Underground	4	6,053,531	1,189
Surface	—0—	—0—	—0—
Totals	4	6,053,531	1,189

Production Ranking: 9

Coal Wages: \$42,453,920 35705

Major Seams Mined: Pittsburgh



— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Consolidation Coal Co.	4,561,173	—0—	4,561,173	866
McElroy Coal Co.	1,492,358	—0—	1,492,358	323

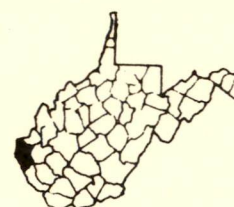
Mason County

	Number of Mines	Coal Production	Coal Employment
Underground	—0—	—0—	—0—
Surface	2	97,119	38
Totals	2	97,119	38

Production Ranking: 29

Coal Wages: \$1,254,833

Major Seams Mined: Pittsburgh.



— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Raven Hocking Coal Corp.	—0—	97,119	97,119	38

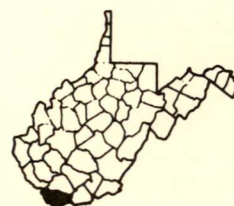
McDowell County

	Number of Mines	Coal Production	Coal Employment
Underground	129	6,325,671	1,659
Surface	14	54,994	21
Totals	143	6,380,665	1,680

Production Ranking: 8

Coal Wages: \$45,884,579 27312

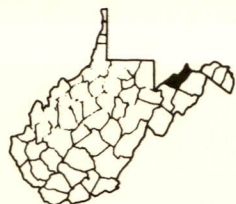
Major Seams Mined: Beckley, Ben's Creek, Bradshaw, Eagle, Fire Creek, Gilbert, Pocahontas, Powellton, Red Ash and Sewell.



— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Big Creek Mining, Inc.	135,127	—0—	135,127	29
Clinch Valley Coal Corp.	128,515	—0—	128,515	19
Consolidation Coal Co.	1,428,491	—0—	1,428,491	397
Doss Fork Coal Co., Inc.	128,143	—0—	128,143	9
Gary Enterprises	325,825	—0—	325,825	53
J. W. Coal, Inc.	142,982	—0—	142,982	28
Navaro Mining, Inc.	239,643	—0—	239,643	34
Omega Square	157,790	—0—	157,790	15
Panther Energy, Inc.	150,248	—0—	150,248	19
Pigeon Branch Coal Co., Inc.	130,539	—0—	130,539	19
Pride Coal Co., Inc.	150,145	—0—	150,145	18
Soho Coal Co., Inc.	156,513	—0—	156,513	92
Spring Hollow Mining, Inc.	151,670	—0—	151,670	8
Virginia Carbon, Inc.	151,667	—0—	151,667	31
Virginia Crews Coal Co.	443,813	—0—	443,813	74

Mineral County



	Number of Mines	Coal Production	Coal Employment
Underground	2	183,310	27
Surface	16	241,866	71
Totals	18	425,176	98

Production Ranking: 25

Coal Wages: \$4,353,592

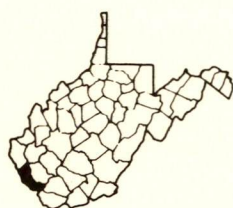
Major Seams Mined: Bakerstown, Elk Lick, Harlem, Kittaning and Mahoning.

Major Coal Companies

Masteller Coal Co.

	— 1988 Production —			Employment
	Underground	Surface	Total	
	183,310	152,264	335,574	72

Mingo County



	Number of Mines	Coal Production	Coal Employment
Underground	55	9,116,944	1,509
Surface	35	5,648,635	721
Totals	90	14,765,579	2,230

Production Ranking: 3

Coal Wages: \$102,378,058 45909

Major Seams Mined: Alma, Cedar Grove, Coalburg, Eagle, Freeport, No. 2 Gas, Williamson and Winifrede.

Major Coal Companies

Alma Developing, Inc.
Anchor Mining, Inc.
Big Hickory Mining Co., Inc.
Daniel's Branch Coal Co.
Eastern Mingo Coal Co.
Hobet Mining, Inc.
Jade Energy, Inc.
Lobata Coal Co., Inc.
Magnet Coal, Inc.
Old Ben Coal Co.
River Ridge Coals, Inc.
Rocky Hollow Coal Co.
Southern Mingo Coal Co.
Triad Mining Co.
Western Mingo Coal Co.

	— 1988 Production —			Employment
	Underground	Surface	Total	
	307,792	—0—	307,792	18
	313,800	303,676	617,476	46
	262,839	—0—	262,839	38
	450,149	—0—	450,149	35
	1,205,741	—0—	1,205,741	108
	—0—	1,616,786	1,616,786	212
	425,940	—0—	425,940	74
	—0—	299,894	299,894	22
	—0—	553,746	553,746	33
	1,168,000	—0—	1,168,000	179
	—0—	389,830	389,830	43
	594,866	—0—	594,866	92
	546,156	—0—	546,156	47
	—0—	1,247,655	1,247,655	129
	1,631,240	—0—	1,631,240	151

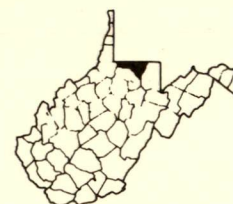
	Number of Mines	Coal Production	Coal Employment
Underground	23	16,495,011	2,581
Surface	60	613,026	175
Totals	83	17,108,037	2,756

Production Ranking: 2

Coal Wages: \$124,782,322 452⁷⁷

Major Seams Mined: Bakerstown, Kittaning, Redstone and Sewickley.

Monongalia County



— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Consolidation Coal Co.	12,227,488	—0—	12,227,488	1,880
Dippel & Dipple Coal Co.	—0—	125,932	125,932	24
Eastern Assoc. Coal Corp. (Peabody)	3,452,848	—0—	3,452,848	590
Larosa Fuel Co., Inc.	—0—	122,128	122,128	12
Laurita Electromet Fuel	163,574	—0—	163,574	15
Little Falls Mining Co., Inc.	218,962	—0—	218,962	25
Omega Mining Co.	111,138	—0—	111,138	13
Prime Coals	109,531	—0—	109,531	13
Stone King Coal Co., Inc.	100,085	—0—	100,085	18

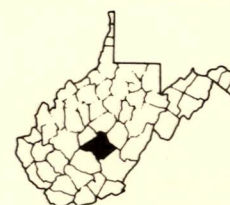
	Number of Mines	Coal Production	Coal Employment
Underground	43	3,761,673	960
Surface	66	5,507,068	680
Totals	109	9,268,741	1,640

Production Ranking: 5

Coal Wages: \$68,737,492 419¹³

Major Seams Mined: Campbell Creek, Dorothy, Eagle, Gilbert, Kittaning, McQueen, Peerless, Powellton and Sewell.

Nicholas County



— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Bethlehem Mines Corp.	467,179	138,070	605,249	156
Big Spruce Coal Co.	181,767	—0—	181,767	46
Bright Coal Corp.	—0—	378,806	378,806	70
Cherry River Coal & Coke Co.	—0—	849,437	849,437	117
Continental Mining Co., Inc.	189,797	—0—	189,797	46
G & W Equipment Leasing, Inc.	—0—	397,354	397,354	43
Grafton Coal Co.	—0—	206,342	206,342	17
High Power Energy	—0—	2,150,321	2,150,321	120
Industrial Energy, Inc.	186,163	—0—	186,163	25
Island Creek Coal Co.	604,751	115,885	720,636	166
Lady H Coal Co.	591,650	18,164	580,114	186
Land Use Corp.	—0—	283,684	283,684	60
New Land Leasing Co., Inc.	—0—	270,397	270,397	20
Peerless Eagle Coal Co.	376,483	—0—	376,483	50
Terry Eagle Coal Co.	648,875	229,474	878,349	177

	Number of Mines	Coal Production	Coal Employment
Underground	—0—	—0—	—0—
Surface	4	135,875	26
Totals	4	135,875	26

Production Ranking: 28

Coal Wages: NA

Major Seams Mined: Pittsburgh.

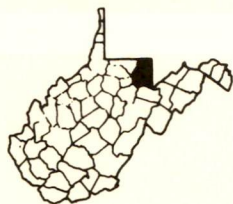
Ohio County



— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Rayle Coal Co.	—0—	113,853	113,853	18

Preston County



	Number of Mines	Coal Production	Coal Employment
Underground	19	2,579,722	395
Surface	87	2,056,194	496
Totals	106	4,635,916	891

Production Ranking: 12

Coal Wages: \$26,089,379 29281

Major Seams Mined: Bakerstown, Elk Lick, Freeport, Kittaning, Mahoning and Pittsburgh

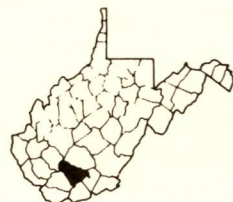
Major Coal Companies

Alexander Building & Development	—0—
Ambrec Corp.	110,981
F & M Coal Co.	—0—
Fairfax Fuel, Inc.	307,289
Mary Ruth Corp.	127,932
Preston Energy, Inc.	787,078
Rockville Mining Co., Inc.	—0—
Sharon Coal Co.	—0—
Statue Mining Co.	185,223
T & T Energy, Inc.	352,694
T & T Fuels, Inc.	446,471
Viking Coal Co., Inc.	198,535

— 1988 Production —

Underground	Surface	Total	Employment
—0—	155,197	155,197	12
110,981	257,214	368,195	34
—0—	417,476	417,476	107
307,289	—0—	307,289	42
127,932	—0—	127,932	23
787,078	—0—	787,078	125
—0—	193,614	193,614	40
—0—	138,397	138,397	10
185,223	—0—	185,223	25
352,694	—0—	352,694	50
446,471	—0—	446,471	54
198,535	—0—	198,535	30

Raleigh County



	Number of Mines	Coal Production	Coal Employment
Underground	40	7,386,942	2,025
Surface	13	221,911	72
Totals	53	7,608,853	2,097

Production Ranking: 7

Coal Wages: \$97,063,860 46287

Major Seams Mined: Beckley, Eagle, Fire Creek, Hernshaw, No. 2 Gas, Pocahontas, Powellton, Sewell and Stockton-Lewiston.

Major Coal Companies

Consolidation Coal Co.	1,005,768
E & A Coal Co., Inc.	162,161
Hansford Smokeless Collieries	528,633
Maple Meadow Mining Co.	1,073,697
New Beckley Mining Corp.	104,584
North Star Coal Co., Inc.	280,804
Peabody Coal Co.	2,611,276
Stoney Coal Co.	1,458,646

— 1988 Production —

Underground	Surface	Total	Employment
1,005,768	—0—	1,005,768	252
162,161	—0—	162,161	33
528,633	—0—	528,633	140
1,073,697	—0—	1,073,697	287
104,584	—0—	104,584	144
280,804	—0—	280,804	88
2,611,276	—0—	2,611,276	714
1,458,646	—0—	1,458,646	216

	Number of Mines	Coal Production	Coal Employment
Underground	23	1,587,729	401
Surface	9	151,672	45
Totals	32	1,739,401	446

Randolph County



Production Ranking: 18

Coal Wages: \$12,273,226

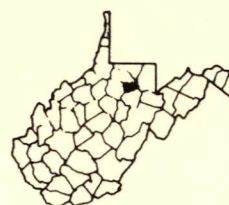
Major Seams Mined: Bradshaw, Gilbert, laeger, Kittaning and Peerless.

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Bentley Coal Co.	2,973	146,288	149,261	33
Carter-Roag Coal Co., Inc.	529,690	—0—	529,690	71
Marson Coal Co., Inc.	117,609	2,123	119,732	51
Phoenix Resources, Inc.	778,726	—0—	778,726	192

	Number of Mines	Coal Production	Coal Employment
Underground	—0—	—0—	—0—
Surface	4	46,575	14
Totals	4	46,575	14

Taylor County



Production Ranking: 30

Coal Wages: NA

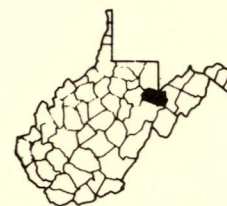
Major Seams Mined:

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Coaltrain Corp.	—0—	40,844	40,844	10

	Number of Mines	Coal Production	Coal Employment
Underground	—0—	—0—	—0—
Surface	11	166,428	39
Totals	11	166,428	39

Tucker County



Production Ranking: 27

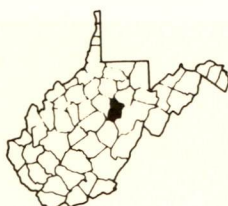
Coal Wages: NA

Major Seams Mined: Freeport

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Buffalo Coal Co., Inc.	—0—	166,428	166,428	39

Upshur County



	Number of Mines	Coal Production	Coal Employment
Underground	7	1,344,271	229
Surface	11	133,904	82
Totals	18	1,478,175	311

Production Ranking: 20

Coal Wages: \$20,946,092

Major Seams Mined: Alma, Elk Lick, Kittaning, Peerless, Pittsburgh and Redstone.

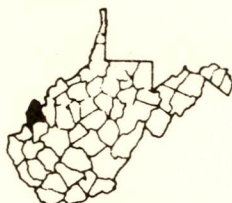
— 1988 Production —

Major Coal Companies

Bethlehem Mines Corp.
Roblee Coal Co.

	Underground	Surface	Total	Employment
	1,220,264	—0—	1,220,264	208
	124,007	—0—	124,007	17

Wayne County



	Number of Mines	Coal Production	Coal Employment
Underground	2	—0—	4
Surface	4	650,849	78
Totals	6	650,849	82

Production Ranking: 24

Coal Wages: \$2,090,892

Major Seams Mined:

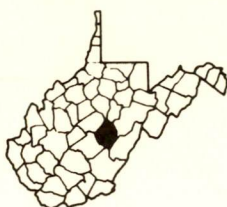
— 1988 Production —

Major Coal Companies

P & C Bituminous Coal, Inc.

	Underground	Surface	Total	Employment
	—0—	650,849	650,849	78

Webster County



	Number of Mines	Coal Production	Coal Employment
Underground	13	491,285	181
Surface	30	1,605,420	266
Totals	43	2,096,705	447

Production Ranking: 16

Coal Wages: \$5,893,962

Major Seams Mined: Eagle, Kittaning, Peerless, Pocahontas, Sewell and Stockton.

— 1988 Production —

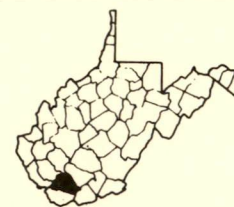
Major Coal Companies

Elk River Sewell Coal Co.
Juliana Mining Co., Inc.
New Land Leasing Co., Inc.
Smoot Coal Co., Inc.
Spring Ridge Coal Co.

	Underground	Surface	Total	Employment
	190,430	56,249	246,679	117
	—0—	871,492	871,492	100
	—0—	272,864	272,864	14
	299,981	—0—	299,981	85
	—0—	194,789	194,789	0

	Number of Mines	Coal Production	Coal Employment
Underground	84	8,210,101	2,226
Surface	12	842,391	59
Totals	96	9,052,492	2,285

Wyoming County



Production Ranking: 6

Coal Wages: \$71,254,273

Major Seams Mined: Alma, Beckley, Ben's Creek, Cedar Grove, Douglas, Eagle, Gilbert, Kittaning, Matewan, Pocahontas, Powellton, No. 2 Gas, Red Ash, Sewell and Stockton-Lewiston.

— 1988 Production —

Major Coal Companies	Underground	Surface	Total	Employment
Benafuels, Inc.	635,778	—0—	635,778	211
Candice Coal Co., Inc.	298,860	—0—	298,860	57
Eastern Assoc. Coal Corp. (Peabody)	1,455,502	419,198	1,874,700	447
Little Bear Mining Co., Inc.	119,420	—0—	119,420	33
Paybra Mining Co., Inc.	47,276	248,026	295,302	52
Spencer Resources, Inc.	—0—	148,671	148,671	11
Stoney Coal Co.	312,098	—0—	312,098	72
Tri Star Construction, Inc.	109,917	—0—	109,917	21
U.S. Steel Mining Co., Inc.	4,030,859	—0—	4,030,859	781
Virginia Crews Coal Co.	174,353	—0—	174,353	41
Vision Coal Co., Inc.	101,766	—0—	101,766	35

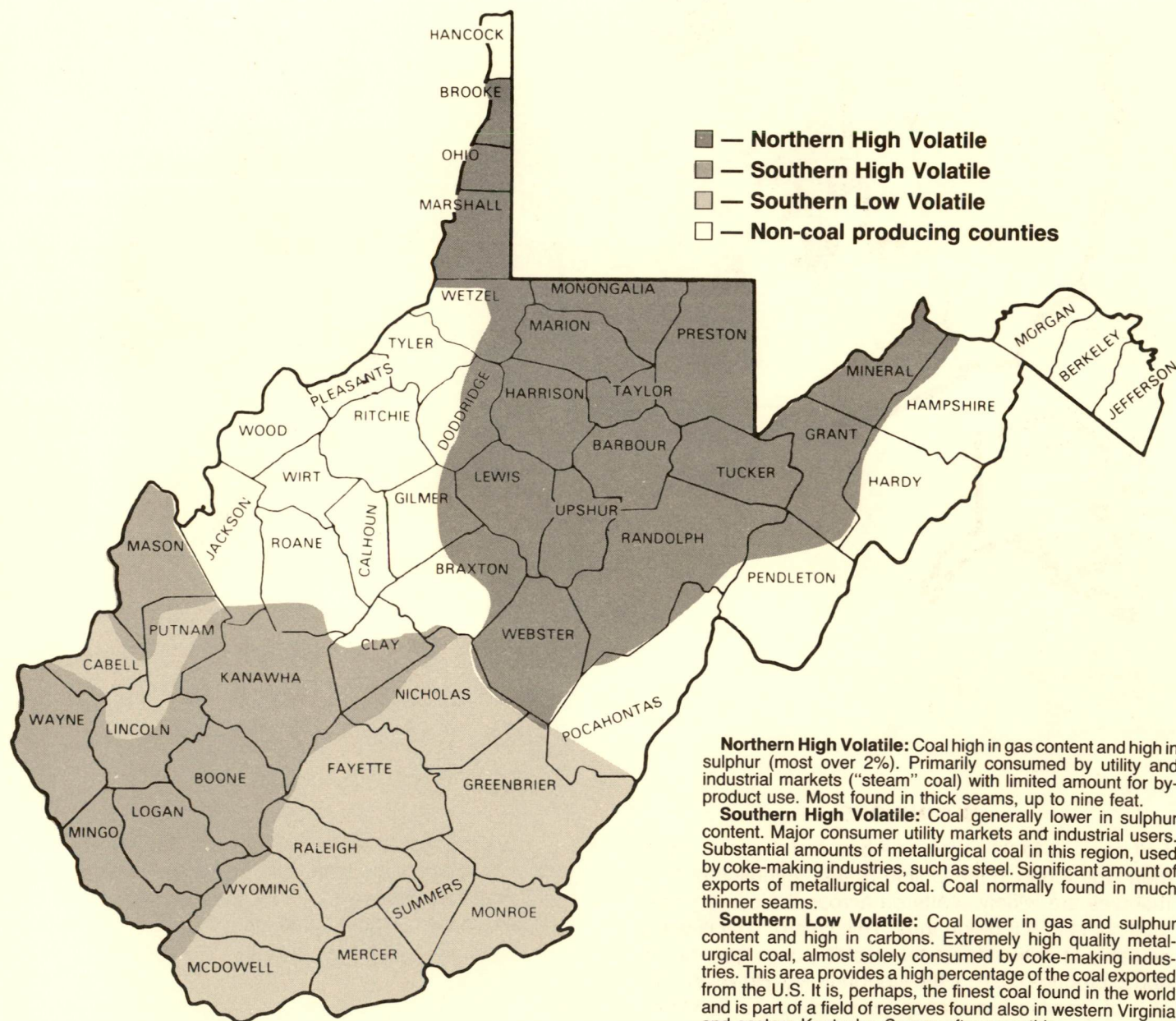
Number of Coal Mines in West Virginia

	1988			1987			1986		
	Under-Ground	Surface	Total	Under-Ground	Surface	Total	Under-Ground	Surface	Total
Barbour	19	25	44	18	35	53	18	43	61
Boone	104	48	152	115	88	203	107	103	210
Braxton	12	3	15	14	3	17	12	3	15
Brooke	2	7	9	3	14	17	2	16	18
Clay	7	6	13	7	20	27	5	17	22
Fayette	17	35	52	22	79	101	29	64	93
Gilmer	1	—0—	1	1	1	2	2	1	3
Grant	7	21	28	7	22	29	7	23	30
Greenbrier	20	29	49	20	50	70	19	47	66
Harrison	7	36	43	9	61	70	9	83	92
Kanawha	31	45	76	38	64	102	40	63	103
Lewis	4	6	10	5	12	17	5	15	20
Lincoln	1	—0—	1	1	1	2	1	—0—	1
Logan	102	40	142	105	58	163	119	70	189
McDowell	129	14	143	125	35	160	119	40	159
Marion	6	17	23	5	14	19	7	17	24
Marshall	4	—0—	4	3	—0—	3	3	—0—	3
Mason	—0—	2	2	—0—	3	3	1	6	7
Mercer	5	2	7	5	2	7	5	2	7
Mineral	2	16	18	2	18	20	2	16	18
Mingo	55	35	90	50	33	83	55	41	96
Monongalia	23	60	83	22	75	97	23	68	91
Nicholas	43	66	109	53	103	156	56	95	151
Ohio	—0—	4	4	—0—	5	5	1	4	5
Pocahontas	—0—	—0—	—0—	1	—0—	1	1	—0—	1
Preston	19	87	106	21	100	121	23	101	124
Putnam	—0—	1	1	—0—	1	1	—0—	—0—	—0—
Raleigh	40	13	53	57	19	76	54	23	77
Randolph	23	9	32	26	18	44	27	20	47
Summers	—0—	—0—	—0—	1	—0—	1	1	1	2
Taylor	—0—	4	4	—0—	4	4	—0—	8	8
Tucker	—0—	11	11	—0—	9	9	—0—	10	10
Upshur	7	11	18	8	25	33	8	27	35
Wayne	2	4	6	2	15	17	2	12	14
Webster	13	30	43	18	35	53	17	36	53
Wyoming	84	12	96	97	25	122	92	26	118
Totals	789	699	1,488	861	1,047	1,908	872	1,098	1,970

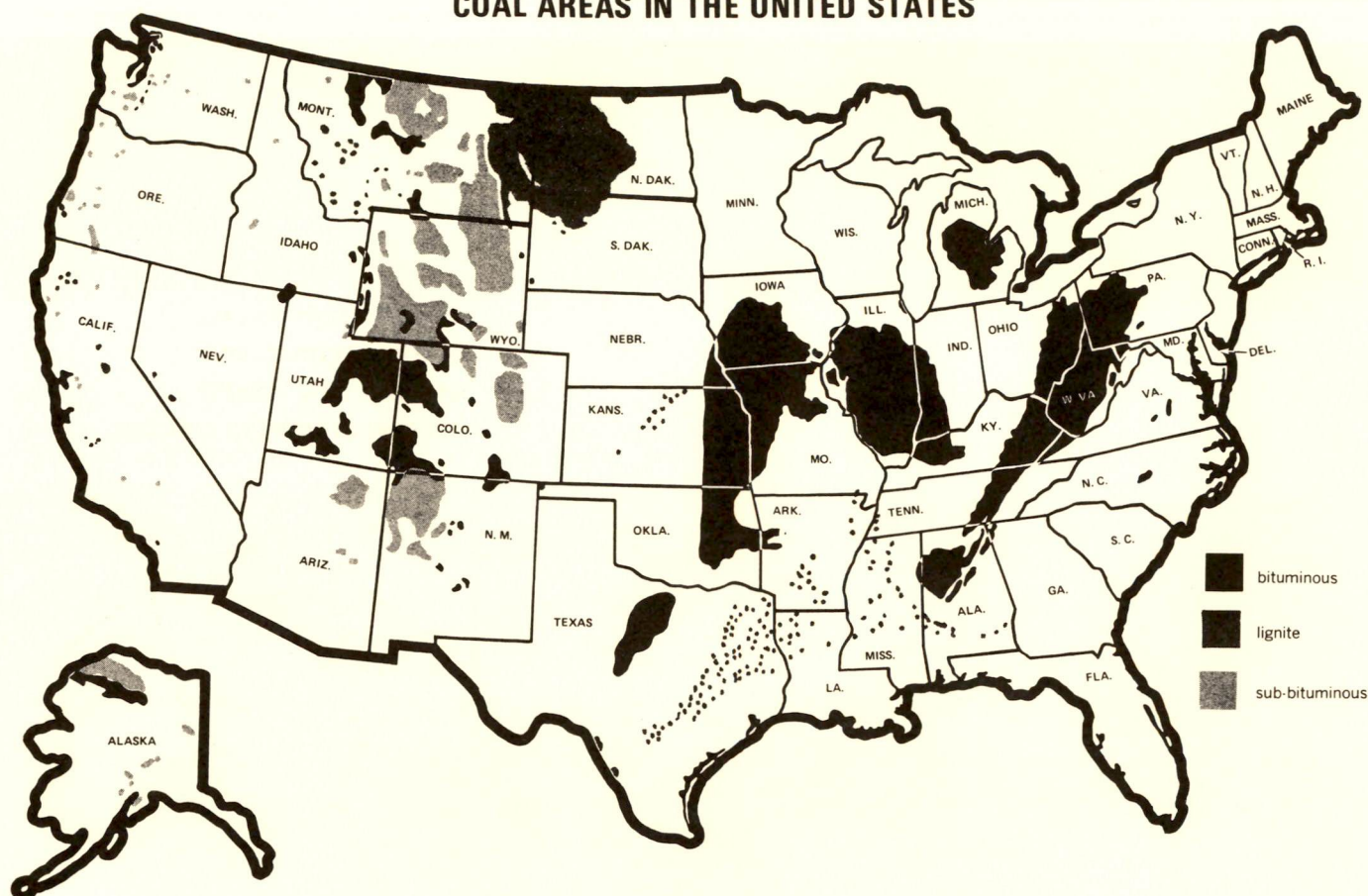
Note: Totals reflect mines under permit and not necessarily those actually recording production.

Source: WV Department of Energy.

West Virginia Coal-Producing Regions, By Coal Type and Characteristic



COAL AREAS IN THE UNITED STATES



BITUMINOUS

Soft coal, 85 to 90 percent carbon and the most common type found in the United States. Bituminous coal reserves are widely scattered across the country and total some 255.6 billion tons. This type of coal is used primarily to make steam for electric power generation and to produce coke for the steel industry. However, it is also of growing importance for meeting the needs of some other industries, such as cement. Generally has a heat content of between 10,500 and 14,000 Btu per pound.

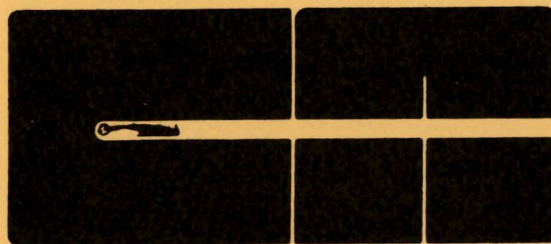
SUBBITUMINOUS

A lower rank of coal (75 to 85 percent carbon) with a heating value between that of bituminous and lignite

(usually 8,300 to 11,500 Btu per pound). Contains a high percentage of volatile matter and moisture. Demonstrated reserves of subbituminous coal total 181.5 billion tons and are found mainly in Montana, Wyoming, Utah, Colorado, New Mexico, Washington and Alaska.

LIGNITE

Geologically the lowest ranked coal, with a heating value of 4,000 to 8,300 Btu per pound. Lignite reserves total 45.1 billion tons and are located mostly in the Gulf Coast and Northern Plains regions. Lignite, which is between 50 and 75 percent carbon, is used principally to produce electricity at power plants.



WEST VIRGINIA COAL ASSOCIATION

BOOK REVIEWS

Two Reviews of:

The Mining Industry and the Developing Countries

By Rex Bosson and Bension Varon

New York: Oxford University Press, 1977. 292 pp. Cloth \$13.95, paper \$5.95

This book is published for the World Bank. Of the two authors, Mr. Bosson, formerly mining engineer on the staff of the World Bank, is now on the managerial staff of the Chase NBA-New Zealand Group. Mr. Varon, formerly senior economist with the World Bank, is now assistant director for policies and projections of the United Nations Center for Natural Resources, Energy, and Transport. The authors have drawn freely on their own experience and a wealth of data available from the World Bank and agencies of the United Nations.

The book is deliberately restricted to a discussion of non-fuel minerals, and more particularly, to certain minerals that figure significantly in international trade—the major ferrous and non-ferrous metals plus phosphate rock and fluorspar. The restriction has certain advantages. First, in focusing on energy resources problems, the world today tends to neglect the equally important problems presented by the non-fuel minerals. Second, the choice enables the authors to reduce the examination of world mining industry and the developing nations to more manageable proportions. Finally, the minerals covered are a

group of particular concern to both developed and developing countries.

An "Introduction and Summary" is followed by seven chapters on "The Nature and Structure of the Industry"; "Mineral Reserves and Resources"; "Production, Processing, Consumption, and Trade"; "Mineral Price Behavior"; "Problems of Mineral Development in Developing Countries"; "Objectives and Policies of Mineral Sector Development"; and "Performance, Prospects, and Problems of the Industry." Supporting documentation is provided through ninety pages of appendices that conclude the book.

The "Introduction and Summary" provides an extended statement of the findings and conclusions and is a framework to which the reader can relate the detailed discussions given in the individual chapters. These discussions are informative and well documented. The special characteristics of the mineral industry and the special risks of mineral exploration and discovery are defined. The growing role of multinational corporations in world mineral development, its consequences in terms of increasing concentration and scale of world mining operations, its impact on

development of resources, and its consequences in terms of capital and other financial requirements are analyzed.

Chapter 3 examines trends in mineral production, consumption, and trade in developed market economies, in developing market economies, and in centrally planned economies. The authors show that, whereas the greatest growth in production has been in the latter two groups of nations, the developing market economies have lagged in mineral consumption. The rise of Japan as a mineral importer is shown to have resulted in an increase in world competition for minerals and a broadening of world resource development. The chapter contains a brief but interesting discussion of the effects, both negative and positive, of mineral development on the economies of host countries. The authors conclude that substantial benefits to the host countries can accrue but that whether negative effects outweigh the positive depends on the specific circumstances of individual mineral projects.

The authors are committed to the goal of more even global income distribution, and mineral prices, commodity agreements, and stabilization of mineral markets are evaluated relative to that goal. They feel that radical changes in world marketing of minerals are needed for the future.

In chapter 4, factors determining mineral prices are cited, and the impact of changes in the rationale of pricing, exemplified in the actions of OPEC, is assessed. The discussion of cartels is timely, but this reviewer would comment that the long history of cartels in minerals indicates that over any significant period of time supply outside the members of a cartel is never inelastic. A

price policy perceived as reasonable by the consumers is therefore a prime requisite for long-term success of a cartel. The presently popular phrase "inherent value of minerals in the ground" (in discussions of mineral prices) is a euphemism for "whatever the traffic will bear."

Chapter 5 is a perceptive analysis of problems of mineral development in the developing countries. The problems arise fundamentally because objectives and requirements of foreign investors are different from those of the host countries. Means of resolving this dilemma, through joint ventures, management contracts, and other mechanisms, are evaluated, and the possible role of government in mineral exploration and development is examined. The limitations of foreign aid in resolving problems of lack of capital and technology in most of the developing countries are depicted.

Chapter 6 is directed toward defining the proper objectives of mineral exploitation in developing countries and policies that would achieve these objectives. From a philosophical standpoint it is difficult to fault the authors' proposals, but given the present state of affairs in many of the developing countries, which is clearly brought out in this and other chapters, the proposals seem utopian. Only a few of the larger developing countries are capable of supporting the kind of governmental structure that is called for by the proposals. In addition, in many of the developing countries, the combination of integrity, political stability, and technical and managerial capability required for implementing the proposals does not exist.

The final chapter is an evaluation of the past performance of the world min-

ing industry in developing countries and its future problems. The authors conclude "that the record of world mining industry in responding to the needs of the developing countries is dismal," being too much oriented toward obtaining sufficient supplies for the consuming countries. Those, and they will be many, who disagree with this conclusion will find it tempered by clear recognition of the difficulties and problems faced by industry in its activities in the developing countries and of its achievements in providing the consumers of the world with a steady supply of minerals.

As problems for the future, the authors identify, among others, the instability of mineral markets, changing rules governing mineral development, nationalism, technology transfer, proper balance between private and government effort, availability of capital, and the lack of clearly defined and stable policies governing mineral development. All of these are important problems. This reviewer would add the problem of time. Since World War II, there has been too much impatience in the world, expressed in a compelling urge to solve the problems of the developing countries overnight. It can't be done. The developed countries have required two

hundred years to reach their present economic condition, out of a cultural and technological background that had its roots much farther back in time. Given the cultural and other barriers to economic development that exist in many of the developing countries, the problems treated in this book can only be resolved over many generations.

This is an important and valuable book. The authors could hardly be expected to offer clearcut solutions to all the complex and difficult problems of mining and mineral resources in the developing countries. They have, however, clearly portrayed the relations between the mining industry and those countries and have defined the problems of non-fuel minerals that confront the world today. In the appendices they have brought together a wealth of relevant data. The book should be required reading in university courses relating to the developing countries and should be of interest to a wide range of institutions and individuals concerned with Third World problems.

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Mining is not popular in developing countries; some critics say arrogant expatriate engineers abuse the legitimate national interests of the developing countries, operating in "enclaves" and neglecting "linkages" promoting national development. Mining produces urgently needed foreign exchange, but sometimes it also destroys farmland and

pollutes air and water. Mining also uses vast quantities of capital and energy, providing far fewer jobs than the same amount of each would generate in other sectors. Yet mining is also indispensable as a source of raw materials for manufacturing, fertilizer for agriculture, and foreign exchange for the Finance Minister. Some developing countries could

hardly live without mining; this book suggests ways to make it easier to live with it.

The developing countries should be attractive to mining companies, since the industrialized countries have been explored so thoroughly that the cost of finding a new ore body in the United States or Canada is several times the cost of finding one in the Third World. There was massive mining investment in developing countries in the 1950s, as the industry sought new sources of ores at lower cost. However, for at least twenty years, many developing countries have been "changing the rules of the game," forcing mining companies to renegotiate existing contracts.

In typical changes, taxes have been raised, environmental and worker protection have been increased, and host governments have demanded a share in equity and a voice in marketing. Worse, opposition politicians vie with each other to promise even more drastic measures whenever they get into power. Two years ago, the General Assembly of the United Nations even endorsed the right of developing countries to expropriate foreign investment "according to their own laws," which everyone recognized as a euphemism for whatever degree of confiscation the government then in power wished to enact, regardless of previous promises by previous governments.

Under such treatment, the industry hasn't put much new capital into developing countries in recent years, leading to still more criticism that it takes profits out but doesn't reinvest. The standoff is not healthy for either the industry or the developing countries, and this book seeks to straighten out both parties for

the benefit of all. It is an effort at consciousness raising, aimed at both politicians and mining company executives. The authors hope to help each understand and respond to the needs of the other, through some modest changes in expectations and the manner in which both companies and governments work to develop this sector.

The organization of the book is straightforward enough: early chapters analyze the industry, estimate world mineral reserves (land and sea), review trends in world production, processing, consumption and trade in mineral products, and then explore the determinants of mineral prices. The second half of the book analyzes policies from three viewpoints: first, the divergence between the objectives of investors and of host governments; second, suggestions for a national mineral development policy for developing countries; third, a study of the mining industry itself, and of needed changes in the policies it pursues in developing countries. The book opens with a summary chapter that in effect presents an overview of these three policy chapters, along with the authors' recommendations. Appendices present further detail on various points, mainly on investment, output and trade, plus a case study of the Quebec Mining Exploration Company, a successful government-owned venture said to coexist successfully with private industry.

In its style, the book is both novel and a reflection of the authors' long-term employment at the World Bank. Almost every statement of belief or ideology is sooner or later offset by a statement from an opposite viewpoint. For example, industry executives will nod agreement as they read that all public poli-

cies affecting the sector must be "clearly defined, unambiguous and stable." They will then wince to read that the industry is overly secretive as to reserves and resources, and guilty of exaggerating its complexity with the intent to discourage citizens and functionaries from thinking of intervening. At the same time, most Ministers of Mines will agree that the host government has primary responsibility for carrying out national mineral policy, but some will not appreciate reading that "the Ministry of Mines is often a large, bureaucratic and ineffective institution."

Perhaps this "plague on both your houses" approach is unintentional; the criticisms are in my own opinion richly deserved by both parties. Perhaps one of the authors is an ardent Third World partisan, and the other a "gung-ho" mine developer? Or is this simply an unexpurgated example of the kind of writing international agencies generate in drafts, before careful editors remove every phrase that might offend any member government (except, perhaps, South Africa, which is always fair game).

For intelligent laymen, the book will constitute a good introduction to issues and policy alternatives. Yet the result is disappointing in spots—it may "heighten awareness" that new policies are needed, but in various key policy areas it is a far from adequate "how to" guide. The reader is told repeatedly that more enlightened policies are needed in taxation, joint ventures, etc., but practical details of successful models are lacking. In the vital area of taxation, Canadian policies are actually misrepresented. Fortunately, other books are

readily available on this subject. Let us look first, then, at areas in which Bosson and Varon are especially helpful.

Exploration

Mining exploration requires the investment of several millions of dollars with no guarantee that a profitable mine will be found. When one is found, detailed testing, planning and the seeking of permits and capital take longer than the preparatory stages of most other investment projects. Yet the risk element need not be exaggerated either. The outlays for exploration and planning stages generally run from 5% to 10% of the total cost of a mining project, and the remainder is more or less like any complex manufacturing plant—basically an engineering and marketing task sharing the risks found in any competitive industry.

Exploration is not a game for the free-lance or small operator. With modern technology, a "minimum" program in the United States or Canada probably requires that a company spend more than \$3 million per year for five years to be reasonably sure of coming up with one or more economically viable mines. That kind of risk capital is hard to find; as a result, much exploration is now done by the larger oil and mining companies, who can finance it easily with profits from their present production. In the United States, the larger companies also enjoy tax incentives for exploration and development that are not as useful to independents seeking their first mine.

Technological change in mining has gone heavily toward capital-intensive methods, with great success in making it economically possible to mine lower-

grade deposits. This has postponed by decades the prospect of exhaustion of the ores in developed countries. Helicopters, airborne sensing, mobile labs, and other innovations in exploring have also cut the cost per "target" explored, although methods are still needed for exploring in tropical areas with dense vegetation and deep overburden; there is relatively little mining in these areas now for lack of such techniques.

In the total capital costs of mining, a substantial share goes into social overhead capital, or infrastructure, such as roads, power plants, housing, etc. Historically, the companies built all of this—and were then accused of controlling the mine area as a foreign enclave. Now the host country usually provides these elements, for which international credit is often available, and thus ensures the integration of the mine and the surrounding area.

Mining Companies

The authors describe the dominant firms in the industry very well: "Very large mining companies, international in outlook and sophisticated in financial and technical analysis and operations, control the mining cycle from exploration to final marketing of the refined mineral, even to fabrication and production of consumer goods." The trend is toward still larger firms, through merger and especially through acquisition by petroleum companies seeking diversification. The authors also explain how mining groups tend to be tied to specific large banks for raising loans to finance new mines—Kennecott and Asarco to the Guggenheim-Morgan Bank Group, for instance.

The authors do not question the role

of multinational companies as suppliers of capital, technology and marketing know-how, nor their performance in making decisions on rational micro-economic grounds. However, they say, the pattern of project selection, investment, location of processing facilities, and division of profits with host countries is sometimes inconsistent with the "legitimate interests, aspirations, and sensitivities of the developing countries."

Alas, as diplomatic veterans of years in an international agency, the authors then neglect to give concrete examples, though they must know of many. Let me supply one. About 20 years ago the Chilean government urged the large U.S.-based copper companies to build more refinery capacity in Chile. Perhaps overly alarmed by opposition candidates' slogans concerning the industry, one of the companies instead built a refinery in New Jersey, to process Chilean semi-refined copper. That may have seemed a rational decision to the firm at the time, to reduce what it perceived as the risk of eventual confiscation. However, to Chileans of all parties this action appeared insensitive, arbitrary, and even hostile. It was frequently cited in the litany of Chilean complaints about the mining companies, helping create the climate that eventually *did* lead to confiscation. It is at least conceivable that a decision to build the refinery in Chile in the 1950s would have prevented the creation of a sentiment very widely shared in Chile in the 1970s, even among professionals and many middle class voters otherwise far from radical in outlook, that the multinational mining companies were insolent, arrogant, and had "earned" confiscation.

Why don't developing countries invest their own capital in mines, then? Basically, because they are poor, and the capital costs are enormous—often over \$250 million, and \$500 million is increasingly “average” for a major new metallic mine and refinery complex. Worse, the capital-output ratio is higher than many other investments—around 4:1, say the authors. Even in northern Wisconsin, with good infrastructure and close to the producers of mining equipment, mining companies said in 1978 they plan to invest more than \$250,000 per job created. If developing countries can get their hands on these sums of capital, they usually have other projects for it that yield far more product and employment than does mining—and that come into production much sooner.

We thus have a near standoff—multinational companies reluctant to put large investments into countries where the political and legal system could change suddenly and lead to much lower profits or even outright confiscation. And developing countries unable to raise the required capital, or if they can, unwilling to put it into mining. Jumping ahead to chapter 8, the authors offer only hints toward solutions. Developing countries should quit changing the rules, and should trust mining companies, which should reciprocate by showing more sensitivity to developing country needs and aspirations. Beautiful, but an unlikely scenario, especially when one arbitrary, unpredictable Idi Amin suffices to frighten off nervous company managements contemplating investments in many other developing countries.

When President Allende confiscated several existing copper mines in Chile in 1971, it became nearly impossible for all

other Latin American governments to attract new capital to open new mines in their territory. This kind of externality, though not intended by Allende, probably slowed Latin development more than any specific misconduct attributable to the multinational firms themselves. There is no international compensation scheme whereby a “radical” country must indemnify the “traditional” nations for the harm thus done the development plans of the latter. Of course, “true radicals” would say that the traditional development scheme is bad, and therefore they have done the “people” a favor by causing the multinationals to back out. Such “elitism” came easily in Chile, where large mines were already in operation, with per capita income at least double that of Peru and other nearby countries that just wanted to get new mines opened, but had no resources with which to do this.

World Mining Statistics

The tables on world reserves, production and trade in minerals are a significant contribution of this book to the literature on mining. If the reader is looking for a source of fairly reliable data on output and trade in nonfuel minerals, by regional groups of countries, here it is. The authors have done battle with problems of aggregation and valuation of different mineral products, at different stages of processing, in different markets all over the world, in order to emerge with impressive tables on the world minerals industry as of 1950, 1960 and 1970. For example, thanks to this volume, one can state with some confidence that Japan largely exhausted its own copper reserves, mov-

ing from being a net exporter in 1950 to importing 83% of its requirements by 1970; the United States opened new mines and moved in the opposite direction—importing 23% of the copper needed in 1950 and only 4% by 1970. For zinc, on the other hand, in 1970, the United States, Japan and Western Europe all imported about 60% of their requirements.

After so many dire predictions of resource exhaustion, the section on ocean resources is reassuring—especially when the authors report that new manganese and cobalt nodules are being formed at a rate greater than present world consumption of either. The authors also see a vast potential in the 1,500 million tons of mine wastes, or tailings, accumulated in the United States alone between 1942 and 1965, often with a lot of metal still in them. (For that matter, Kennecott's proposed new mines near Ladysmith, Wisconsin, project a tailings pile that will still contain 0.7% copper which the concentrator plant will fail to recover. Some opponents have suggested postponing that project until the technology has been improved and a higher recovery rate attained.)

There are minor errors, alas. On page 81, the authors say that mineral production in developing and developed market countries is likely to be about equal by 1980, yet table 9, on page 84, shows that the developing country share of world output only rose from 32% in 1950 to 33% in 1970. It is the centrally planned economies (i.e., Communist nations) that show rapid gains on a much smaller base, rising from 14% in 1950 to 26% in 1970; this is obviously the reason the share of developed market economies fell from 54% to 41%. At a few points,

too (e.g., page 61), the authors appear to erect statistical strawmen in order to demolish them.¹

Prices and Profits

Prices and profits get (and deserve) a chapter apart; there is no single, uniform market-clearing price for many mineral products. Developing country spokesmen demand "higher prices" without, at times, any clear understanding as to how prices are determined now. Some producers sell some minerals on a "spot" market for what they can get. Others—especially in iron ore—sell under long-term contracts at fixed prices. In copper, much Third World output is sold under a long-term contract with a specific buyer, but the price is determined separately for each shipment by references to the London Metal Exchange quotations. Still other metals are sold at "producer prices" apparently set arbitrarily by the largest companies, but even these are subject to discounts when supply exceeds demand at the "producer prices." And internal transactions between subsidiaries of large companies may be reported at transfer prices determined by the home offices for tax evading or similar purposes, with almost no reference at all to world supply and demand.

Past studies of demand and supply elasticity are of doubtful usefulness at present price levels, generally outside the range of pre-1973 econometric research.

¹ On page 61, they refute unnamed persons who would say that relatively lower reserves in developing countries show that the developed countries "squander" the resources of the poorer nations. The authors argue that the differences in reserves merely reflect the lower expenditures on exploration in developing countries.

However, the authors note wide agreement that elasticity of both supply and demand is much higher in the long-run than in the short-run. The demand for mineral products is derived from the demand for final products, so in theory a large price increase in this one input need not affect final production prices, and hence demand, by very much. However, in practice the existence of potential substitutes for most minerals prevents a dramatic increase in mineral prices even if producers form a cartel. The authors then note long-standing producer cartels in Europe in iron and steel, and record the thus far ineffectual efforts by Third World copper producers (CIPEC) and iron ore exporters (AIEC). After noting the theoretical and practical problems of producer alliances to raise prices, the authors conclude that such attempts will continue, but will have less influence than developments in costs, investment, technology and the world economy. Nonetheless, they would welcome commodity agreements as a measure to obtain stable prices and facilitate more investment in mining, which would be in the long-term interest of developing and developed countries alike.

As to profits, again the authors respond to an unidentified critic who supposedly believes that profits are "high or excessive." Examining *Fortune* data for the largest 1,000 United States corporations and the largest 200 from other countries, the authors admit that mining company profits on equity, on average, exceeded the average level for all United States industries—for 1973, typical returns were 14–15% on equity in mining and 12–13% for all other United States companies. However, they say, tobacco and pharmaceutical companies did bet-

ter yet. The authors do not explain how these numbers show that mining profits are either higher or lower than they "ought" to be in the late 1970s, but they correctly note that mining is a cyclical industry with heavy fixed costs, so profits are higher than average in a boom, and below average in a recession. They cite even older data (1954–67) showing that earnings by United States companies on direct foreign investment in Latin America were "up to 25%," whatever "that" means.

Since *Fortune* publishes its corporate survey every year, and since data from 1973 and before is of doubtful relevance to post-OPEC economics, Bosson and Varon seem to have told us very little about mining profits, and one wonders why they failed to update this section before publishing.

Policies, Including Taxes

Following the analytical section, the book moves on to policy. The authors are not reluctant to issue *dicta* as to what policies should be followed, by developing country governments and by mining companies. The companies should be open to new forms of operation, such as management contracts and participation in marketing, and should be sensitive to the wishes and needs of developing countries. While they cannot reasonably be asked to solve all the problems of underdevelopment, it is reasonable to ask that they not worsen them.

Governments, however, have a lot further to go in most cases. They need to set up and staff a group of institutions, from geological surveys to a ministry of mining and a mining bank. They need to enact a comprehensive mining code, and then respect it. They need to work out

reasonable tax laws and other forms of sharing in profits, and then leave them alone instead of raising them frequently. And so forth.

One can hardly quarrel with these generalities, but the main problem for the reader who is persuaded is that the book gives few examples as guides in pursuing convictions to an actual draft mining code or tax law. It is not enough to say, "On the one hand, investors must be allowed a normal return on their capital—too heavy taxation will discourage investment and may jeopardize existing mines. On the other hand, governments are entitled to revenue from the exploration of their nonrenewable resources." This kind of advice exasperates finance ministers, who sometimes ask for a "one-handed advisor." In designing tax policy one needs to know, for example, that countries A, B and C have adopted tax laws that amount to giving the host country 42%, 55% and 71%, respectively, of profits in excess of an assumed arbitrary cost per pound of copper of, say, 60¢, 62¢ and 81¢ per pound, with the price to be determined by the closing quotation on the London Metals Exchange on the date of shipment from host country port. Or at least one should be told where to find "typical" tax or joint venture arrangements that meet with the approval of the authors, if indeed any do. The authors admit having dealt inadequately with taxes, and a note refers the reader to a U.N. publication from 1973 and a French article published in 1971. Neither will be readily available to many readers.

For such a reader, then, let me suggest Gillis, et al., *Taxation and Mining: Nonfuel Minerals in Bolivia and Other*

Countries (Ballinger 1978, \$25.00), and Smith and Wells, *Negotiating Third World Mineral Agreements* (Ballinger 1975, \$17.50). These are specific, concrete and useful as Bosson and Varon are general, normative, and diplomatic. Tax policy, after all, is perceived by most companies as a zero-sum game. They will protest any increase as catastrophic, perhaps because taxes are the only cost that can sometimes be lowered by merely complaining. By exaggerating, however, the companies tend to reduce their credibility. In Wisconsin's recent experience, some companies even resisted changes in tax structure that favor the industry when prices are low, because they would also pay more taxes if prices went up—precisely when one would suppose they would be most able to pay.² Once tax policy is set, however, companies and governments can work together in reasonable harmony to solve environmental and administrative problems.

The apparent anti-tax bias of the authors is most apparent in the treatment of the only actual tax they describe: the short-lived British Columbia provincial taxes of a few years back. In combination with Canada's federal taxes, under certain circumstances it was possible for total taxes to exceed 100% of net pretax income. Again, an otherwise solid piece of scholarship is sullied by the use of a straw man as a target. The authors admit that these taxes have been relaxed and in part reversed, but give no details to compare with the pro-

² Wisconsin moved in 1977 from a 1.5% gross severance tax to a progressive net proceeds tax exempting the first \$100,000 and using from 6% to 20% (the latter on net proceeds over \$30 million per year).

vincial tax they described. Yet they go on to reproduce portions of a mining journal article attacking the short-lived British Columbia tax. A pity, because the two pages so used could have been employed to expand on the authors' own interesting proposal, to which they give but one paragraph. They would allow all investment to be treated as an expense, carried forward until fully written off from pretax profits, including interest imputed each year to the unamortized portion. Subsequent profits would be taxed at much higher rates.

The authors do not suggest a suitable rate for taxes once investment is fully recovered, with interest. Would 50% be too high, too low, or about right? They suggest setting the interest at "the minimum return management required a project to show before it decided to invest." Yet this decision criterion varies among companies—and given the chance to get tax-free returns as high as they wanted, few companies would admit to criteria governments could afford.

How to Finance New Mines

Mining investment comes in great lumps, nowadays. Unlike manufacturing, you can't open a small plant and expand out of cash flow. Many new mines are financed 50% or more with long-term borrowing, but this merely raises the question of how to persuade potential lenders that their security won't be confiscated before the debt is repaid. They often demand guarantees by host governments—leading some of the latter to respond, intelligently, "If we must guarantee repayment, as if it were government debt, then we ought to go into

the venture as full partners in the first place." And in fact, this is the direction almost all new mining investment in the Third World is taking.

The biggest single source of capital for opening new mines in the last decade has been the advance sale of products, especially to Japan. This model has various advantages, politically as well as economically. It ensures a market for the product of the mine—if the Japanese buyer won't take delivery, at least he also puts off the repayment of the loan. It also means that the host government already owns the mine *per se*, and thus there is nothing to tempt political demagogues to flights of expropriation fancy. While repudiation of the debt could be attempted, it would probably destroy the country's external credit in general, and the creditor could probably embargo metal shipped to other countries by the defaulter, alleging that the metal was the property of the Japanese creditor, which had already bought and paid for it years earlier. It is therefore a shame that the authors give only scant passing mention to large, long-term loans from metals buyers as a likely source of funds with which either corporations or Third World countries themselves can open new mines. To their credit, the authors do mention, in that passing remark, that the consumer firms generally want ore and concentrates to feed their own refineries, so this source of funds is sometimes not available to countries that really want to process the metals themselves and sell finished metals, let alone fabricated goods.

Funds to open and operate a mine? Supplier credits will take care of most equipment needs, and large commercial banks in developed countries will lend

working capital on short-term notes. The problem is the long-term, massive investment required to open the mine and put up the processing facilities. For this, given understandable company reluctance to put in enormous amounts of equity capital which historically has increased pressures to confiscate, the only sources are the host governments, international financial aid institutions, and would-be future customers for the minerals to be obtained. A few host governments, OPEC members such as Nigeria or Iran, will be able to come up with the resources. Most developing countries, however, don't have liquid resources available in the quantities required to open a new mine—typically, \$500 million—and if they do, there are many more pressing uses for them, with shorter-term payoff and much more employment generated per million invested. Of the multilateral aid institutions, the World Bank has changed its earlier stance and is now a significant lender for state-owned mining enterprises, but through 1973, the authors report, it was lending less than \$75 million a year for this purpose, or under 5% of mining investment in developing countries. By default, then, the remaining source is long-term loans obtained from the future buyers of the mineral product—usually, for developing coun-

tries, Japanese refineries or trading companies and their associated banks.

Finally, high metal prices would obviously help finance new mines, and here the authors go through some curious reasoning. After suggesting that the market-clearing function of prices is inadequate, and that the availability and cost of substitutes would be a better landmark, the authors admit that there is no theory of optimizing prices by this method. Also, it isn't obvious that commodity agreements will be readied anytime soon to guarantee supplies to buyers, and markets to sellers. The authors' solution? Prices should be *allowed* to rise. Since the authors have already made it clear that nothing is holding them down, except supplies more than adequate at present prices, one wonders just how this is going to come about.

Nitpicking aside, this book is a good source for fairly recent information on a major industry. It should be seen in that light. Any developing country officials who want to go on to specific action, however, will need more concrete examples. Perhaps a second volume is in order!

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From Sein Lin, 7 Dec. 97

Table 4 -1 Total Tax Revenues by year

Item \ Year	1983	1984	1985	1986	1987
Total	100.0	100.0	100.0	100.0	100.0
Taxes	89.0	89.4	89.1	88.9	90.9
National Taxes	50.4	51.4	50.3	49.6	49.7
Customs Duties	17.4	17.8	16.0	17.2	15.2
Salt Tax	-	-	-	-	-
Mining Lot Tax	0.0	0.0	0.0	0.0	0.0
Income Tax	17.8	18.4	20.0	20.1	20.4
Business Income Tax	8.3	9.4	9.7	9.6	10.4
Individual Income Tax	9.5	9.0	10.3	10.5	10.0
Estate and Gift Tax	0.6	0.8	0.7	0.8	1.0
Commodity Tax	14.3	14.0	13.6	11.5	11.5
Security Transactions Tax	0.3	0.2	0.0	0.0	1.6
Provincial & City Taxes	17.2	17.7	17.5	20.5	18.7
Business Tax	7.4	7.7	7.9	12.9	13.2
Stamp Tax	4.1	4.3	4.2	2.0	0.6
License Tax	1.9	1.9	2.1	2.2	2.0
Harbour Construction Dues	3.8	3.8	3.3	3.4	2.9
Prefectural & Municipal Taxes	18.5	17.6	18.3	17.1	21.7
Land Taxes	12.1	13.3	11.8	10.5	16.1
Farmland Tax	0.3	0.3	0.2	0.2	0.2
Land Value Tax	3.0	4.0	2.8	0.5	1.9
Land Value Increment Tax	8.8	9.0	8.8	9.8	14.0
House Tax	4.2	2.2	4.3	4.5	3.8
Slaughter Tax	0.7	0.7	0.7	0.5	0.1
Amusement Tax	0.3	0.2	0.2	0.2	0.2
Feast Tax	-	-	-	-	-
Deeds Tax	1.2	1.2	1.3	1.4	1.5
Education Surtax and other	2.9	2.7	3.0	1.7	0.8
Monopoly Revenues	11.0	10.6	10.9	11.1	9.1

+ 9.1 Monopoly

LVT 16.1

19.7 out 21.7

Table 3 Revenue Collected from Land Value Increment Tax (unit: \$NT 1000)

Fiscal Year	total	taiwan P.	Taipei M.	Kaohsiung M.
1956	<u>8,283</u>	<u>8,283</u>		
1957	30,072	30,072		
1958	36,470	36,470		
1960	92,475	92,475		
1961	153,723	153,723		
1962	111,911	111,911		
1963	104,363	104,363		
1964	81,994	81,994		
1965	25,085	25,085		
1966	25,868	25,868		
1967	85,418	85,418		
1968	499,221	284,161	215,060	
1969	833,477	502,222	311,225	
1970	790,348	453,452	336,896	
1971	966,805	544,252	422,553	
1972	1,041,237	626,413	414,824	
1973	1,856,443	1,279,843	576,600	
1974	2,428,899	1,714,548	714,351	
1975	2,616,505	1,772,591	843,914	
1976	5,694,512	3,864,176	1,830,336	
1977	6,697,745	3,893,643	2,804,102	
1978	9,577,757	5,683,811	3,893,946	
1979	13,961,060	9,970,891	3,990,169	
1980	16,436,290	9,303,872	5,373,034	1,759,384
1981	26,169,348	15,159,948	8,172,171	2,837,229
1982	29,472,954	17,900,423	9,150,230	2,422,301
1983	29,069,361	16,177,140	10,156,737	2,735,484
1984	35,324,900	19,098,137	12,599,535	3,627,228
1985	34,088,751	18,239,642	12,184,452	3,664,657
1986	35,274,657	18,776,232	12,447,196	4,051,229
1987	<u>55,016,866</u>	31,089,574	17,598,931	6,328,361

- Notes: Taipei was a provincial city before it was promoted in 1968; and so was kaohsiung in 1980.
- Source: Chern. S. J. (1983)., The Implementation of the Equalisation of Land Rights in Taiwan ROC, Land Department of Taiwan provincial Government, and Yearbook of Tax Statistic (1988) , Department of Statistic, Ministry of Finance, Republic of China

Table 5 Local Tax revenue in Recent Years

Unit: \$NT 1000

Finaical Year	Total		Land Taxation					
			subtotal	Farmland		Land value		Land Value
				Tax		Tax		Increment Tax
	Amount	%	Amount	%	Amount	%	Amount	%
1982	65,795,129	100.0	41,142,872	62.5	1,160,422	1.7	10,509,496	16.0
1983	66,805,400	100.0	41,050,733	61.4	1,317,736	2.0	10,663,636	15.9
1984	75,200,355	100.0	47,196,123	62.8	1,114,836	1.5	10,756,387	14.3
1985	75,460,417	100.0	46,093,937	61.1	1,106,641	1.5	10,898,545	14.4
1986	78,352,729	100.0	47,067,564	60.1	973,254	1.2	10,819,653	13.8
1987	98,320,029	100.0	65,416,499	66.5	952,338	1.0	9,447,295	9.6
							55,016,866	55.9

	Building		Slaughter		Amusement		Feast		Deeds		Household	
	Tax		Tax		Tax		Tax		Tax		Tax	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1982	14,267,147	21.7	3,505,860	5.3	1,431,813	2.2	-	-	5,447,444	8.3	1	0.0
1983	16,075,256	24.1	3,236,309	4.8	1,453,387	2.2	-	-	4,989,715	7.5	-	-
1984	17,558,989	23.3	3,498,371	4.7	1,341,447	1.8	-	-	5,605,425	7.4	-	-
1985	18,848,118	25.0	3,410,441	4.5	1,207,409	1.6	-	-	5,900,512	7.8	-	-
1986	20,435,989	26.1	3,233,625	4.1	1,234,580	1.6	-	-	6,380,971	8.1	-	-
1987	21,893,763	22.3	2,071,660	2.1	1,087,525	1.1	-	-	7,850,582	8.0	-	-

Notes: Since FY 1982 land taxation has belonged to local tax.
Source: Same as Table 4. p.12

"I'm f. Burger. ^{I'm the boss,} My friends call me Burger King."

Coal, gas + timber

In Summary

1. "It's The surplus in ~~ex~~ ^{n.w. Mo.} that attracts ~~foreign~~ ^{absentee owners} investors."

Hence Ill + Ia, ^{n.w. Mo.} hi share of land is ~~land~~ ^{owned} by them, or hired mgs, vs. very little in W. Va.

Same reason Ed Dodson gave why W. Va. has hi rate of 0-occ. homes, Affordable land.

2. By same token, is not much taxable surplus there. Can't squeeze blood from stone - except the stone that burns.

3. Look for taxable surplus where there is ^{absentee} ~~tax~~ ownership.

They wouldn't bother to own it otherwise - yields react.

4. \$40/ton. On high side? On other hand, might sell to Pentagon for \$400 - shd. be worth as much as a coffee pot.

*150 m T/y @ \$40 = \$6 b/yr. of revenue. Not a flow, a flood, a Mississippi R. ~~\$6 b~~ \$6 b/2m = \$3000/cap.

5. How much stays in W. Va.?

a) Sev. Tax, \$155m. gets 2.5% (rate is 5%).

(Getting facts is like pulling teeth w/o anesthetic - is why Mtrs. needs Dr. Art Rybeck.)

b) A good deal gets to s. Calif. via N.Y.C. L.A. is hq of Occ. Petr., owns Consol. Coal (from last energy crisis - integrated energy cos.)

Occ. Petr. concern for env. shown at Love Canal

" labor " " L.B.P.

6. How get more?

a) Used to use make-work, of UMW, John L.
Now mechanize. So now, get hi cash flow w.
small work force. Couple that with higher price,
black stream turns to gold.

b) One way is raise sev. tax.

Now 5% in theory, apparently less in applic.
N.D. takes 30%. ~~They have a~~ You
think you have a terrain problem? N.D. is about as far
from anywhere as anyplace

c) In W. Va., that wd. raise \$1,000 / cap.
or \$2b.

7. Are problems w. sev. tax. (a) ^{about} ~~Destroys~~ input. prodn.
— in case of coal, delays it. (Some prefer it for that
reason)

(b.) Takes no rev. from coal reserves while they
silently appreciate.

They appreciate w. higher price, advance of techn.,
extension of xptn.; exhaustion of other deposits.

8. 2 other methods.

a) Net proceeds tax.

Byzantine

b.) Prop. tax

50% cut in jobs. Mechanize
subsidized by secret
slush fund.

9. I greatly favor } said he knows we can't tax coal indy. out of bus.
prop. tax.
per Powell cited Cal. landholding that was taxed
into bus.

Land tax taxes you into bus., not out of it.
No other tax can make that statement.

Don't pit states vs. states, Powell said. LVT says don't worry about that.

10. Not just coal.

Shortage of flat land a problem? Must be highly
valuable. Tax it; you'll like the results.

11. Agree w. Smoulder: sleeping giant
"smouldering ember" ~ Cole Porter
Tax hell out of land, ...

12. Land of euphemisms:
Managed timber = abandoned land
Super tax = no tax.
Rational ec. analysis based on realism = MCP

Don Shufert, Ed Paulson

Next yr. there will be a forthcoming election.

1. Ak. taxed reserves.
2. Ore. taxes large holdings of timber less.
3. Unproduced minrals. are apprais faster than i.r., so can bear a tax.

4. 1972, Pipestem.

George Handman, Ron Pearson

5. Coal is giving less empl., ~ but can yield more taxes.

6. 3 ways to tax coal

- a. Sev. tax. Destroys unqual. produc
- b. Net proceeds. Byzantine.
- c. Prop. tax

7. Heavy debt

Need more people to pay debt.
One good result of debt.

Roberta Folke

Telecomm.

Tax r.o.w.

.. spectrum (poss. int.)

Joe Powell

Labor

Shortage of flat land, e.g. for
glass indy. L: it must be valuable

✓ Tension is a problem. (Is "commun-
age" the answer?)

Look at taxes, but "I know we can't tax
coal indy. out of bus."

~~8. Dxy owns W. Va,~~

~~9. Absentee ownership shows value
of res. If no rent, wd. give it
up.~~

Powell - don't pit states vs. states
 Folk - W. Va. has commun. ctors.
 for whole region.

Rev. Homer Davis. Absentee own-
 ship, + unemployment.

10. Everyone shares the burden of
 disaster, but only a few hog
 the benefits of success.

~~11.~~ 50% cut in empl. in mining
 due to mechanizn.

People leaving state. S. cities
 most affected.

Hardwood timber, oil & gas,
 25% of coal prodn. of U.S.
 Joe Powell thinks we shld

attract energy-satellite indus.
Oil is ungl. - gas is
very good.

Waybright
~~Waybright~~ - Forestry

80% forested. Mostly locally
owned. Needs intensive mgmt.
New law for managed forest
land (probly tax classifn.)

200 custom sawmills

279 communal "

1 veneer plant

54 dry kiln ops. This
makes 2 dry indy. possible.

53 pressure treat. plants

25 rustic rail fence plants

186 2ndy plants - furniture
& millwork (or dimension)

742 "logging camps" 5-10
men crews.

W. Va. forest is classified,
~~but~~ "Class III." Higher
than resid., lower than other
indy.

New law for "Managed
Timber", > 10 ac.

500,000 ac. is indy - owned
13 m. total.

Nat. Forests, env. movement
has locked it up.

Kanawha State Forest is
not "managed", too near

\$60 - \$200 / ac. is value of timberland. But value is boosted by resid. demand

Roger Sherman, Wenaco,
now worldwide, HQ in NY

2000 bf/w = 50 yr trees
takes 3,000 acs.

60-80 yrs rot, App. hardwoods.
\$1 in trees yields < 6%

Cty. taxes more acres than there are, bcs. of divided ownership.

\$300 - 400 / ac. is price of timberland. - bcs. inaccessible.

Visitors use Wenaco land

Marc Polen, Local Assn.

23% of prod inc. is xfr. pmt

~~12.~~ Emphnt. in mining is low cfd.
to output

Export coal, electric power.
chemicals.

Wait defend past.

Sen. Bird is ec. dev. tool -
pub. sector shd. be stronger.

No solutions to ~~dis~~ describ.

bus.

Cindy Rank. Highland Conservancy

Need more tax money.

Env. Most comes from sales +
inc. tax.

13. Ecs. vs. emotion, false

Steve Hanna W. Va Farm Bus.

Pt. time farmers who also
work in indy.

Livestock.

New Fed hiway being extended
from e. to W.

Preferential assmt.

\$1.55 in coal taxes, severance
& inc. Prop. tax? unknown.

Sev. tax 5%, valued at amount of
of mine. (cf. N.D., 30%)
value of a ton.

Polem (Gets very defensive)

14. How value coal when vertically int.

15. Dormant^{coal} prop. esp. in s-n states.

Polen. Env. regts. are excessive.
 This drives out small owners, by
 Δg "K regts."
 (Love Canal?)

16. Will higher prop. taxes drive
 anyone out of ownership.

Rank. Acid mine drainage.
 1,000 mine sites. Taxes shd.
 be hi enough to pay for cleanup.

16. The surplus in eg. invites
 absentee invt.

Rank. Coal + surface are

separated. She has 42 ac. of surface, taxes = \$24/yr.
 Fears being mined out.

Lobbyist says beech.. not emotional - then appeals to emotion, e.g. farmer retires & wants to sell out.. Land in the family for generations. "Sr. citizens" $\frac{1}{2}$ pop. is urban. Rural half lives at low density, homesteads of 10 - 100 acs. - says Sherman who earlier said rural resid. values based on 1-acre sales!

Jack MacDonald

170,000 pop. lfr, last 10 yrs,
 Prop. tax delinquency is growing.

11
Sheriff's sale grows.

Wants cap on prop. tax.
3% change?

~~Henry~~

Poten. Prop. taxes go for
schools, and are largely restricted
to that.

All coal in W. Va. is
under lease. Why not being
mined? All that is left is
inaccessible.

Price of coal in W Va will rise,
bes. of clean air act.

N. W. Va is hi sulfur coal.
Clean air Act will hurt it.

Cliff ...

are many houses for sale.

$\therefore$ is no tax capacity.
Put people to work.

Rose

$$\$40/\text{ton} \times 150 \text{ mt/y} = \$60/\text{yr.}$$

$$\text{Pop} = 2 \text{ m.} \quad \frac{\$6,000 \text{ m}}{2 \text{ m}} = \$3,000/\text{cap.}$$

Util. Reg. — taxes automatic.
shifted fwd.

~~Burger King~~

Friday

"The previous speakers before me."

"We all agree we want to do the right thing, + pay our fair share of taxes."

Hoff } Supertax ^{credit} ~~exemption~~ cuts out some surcharge tax revs.
Sago } Is done in secret. Cty. gets 79% of sev. tax.
Smoulden } W. Va. is a sleeping giant. "Smouldering ember."
Sattles } 1932. 4 classes } "Tax the hell out of land..."
 I Resul?
 II Resid + farms. Move away, + become III
Lower rate } III Other outside munic. E.g. managed timberland
 IV " inside "

Fixed rates at max. so assrs. took heat for raising taxes.
Underassess. is common.

Early 80s, reappraisal, never used.

Now, valuation separated from setting t. r.

3 yr revaluation cycle now mandated.

Huffman
MacDonald
Gibson

Citizens for Tax Justice.

Euphemisms: Managed timberland = abandoned land
Supertax = no tax

\$500m over 10 yrs - Bryant - to mechanize.

Cty. gets sev. tax credit at mine-mouth, not where coal lay.

Almy
Behrens

Prop. tax rate limits are in Constn.

State prop. tax possible.

Bryant
Curry

Good guy. Supertax credit used to subsidize mechanize.

PARTICIPANTS

"PROSPECTS FOR APPALACHIA" CONFERENCE - Charleston, W.Va., Dec. 6-8, 1990

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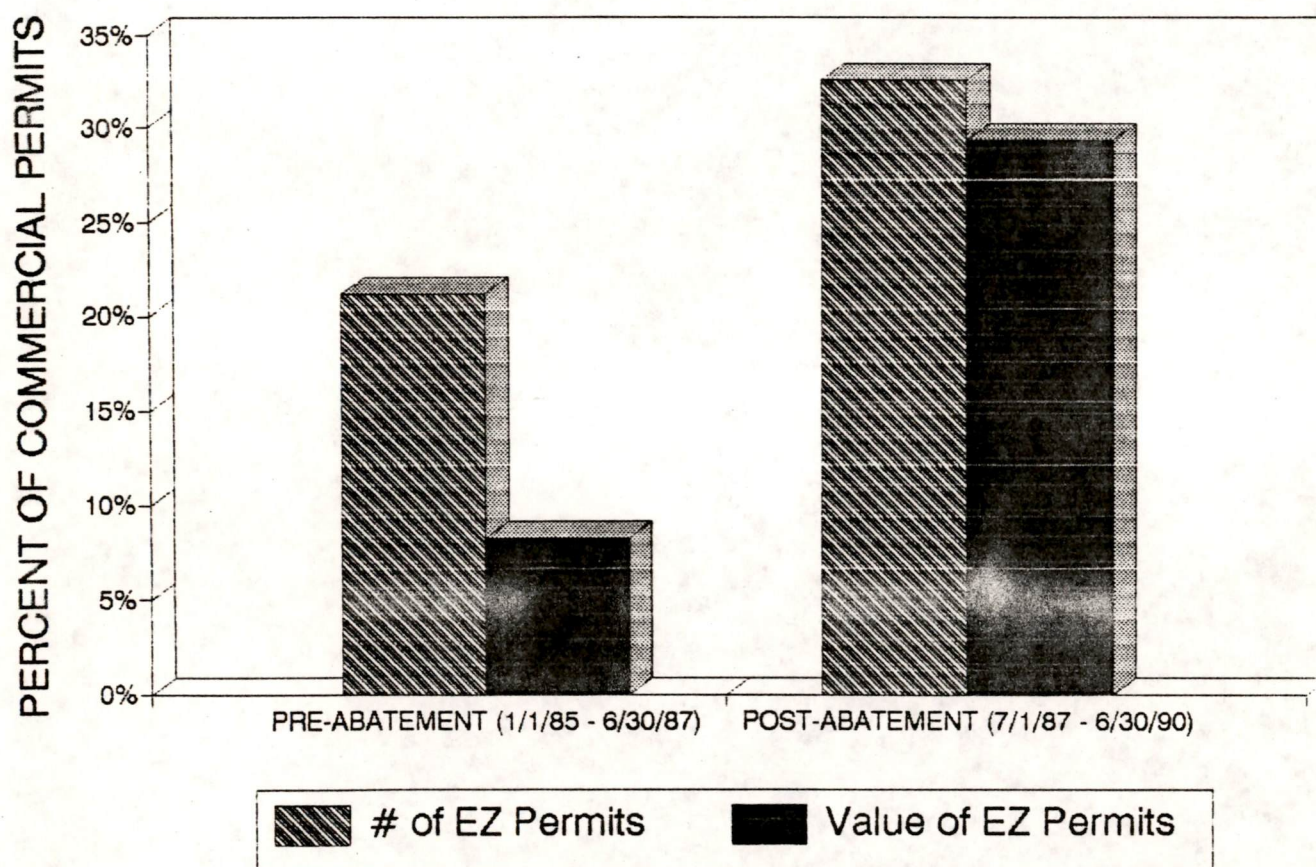
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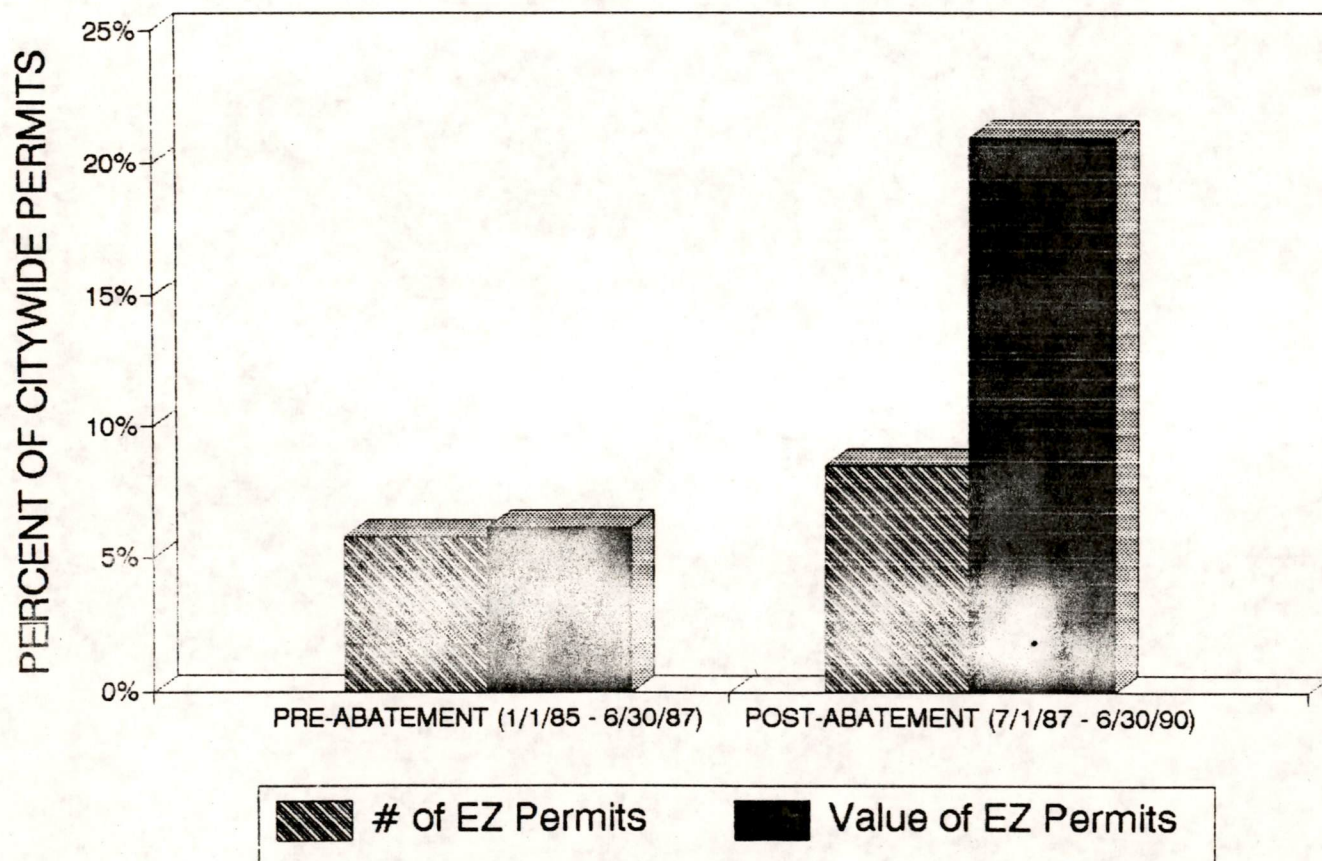
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PEORIA ENTERPRISE ZONE BUILDING PERMITS AS PERCENT OF TOTAL COMMERCIAL PERMITS

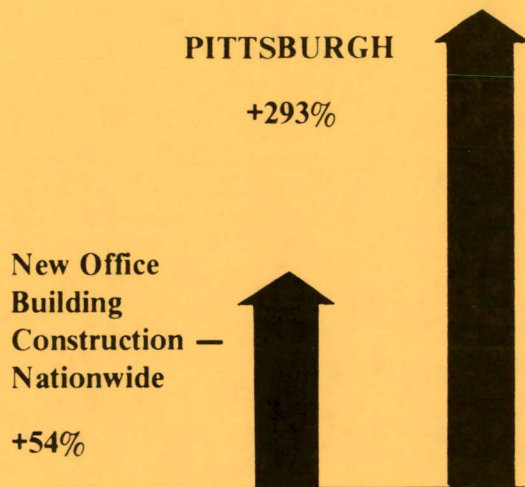


PEORIA ENTERPRISE ZONE BUILDING PERMITS AS PERCENT OF TOTAL CITYWIDE PERMITS



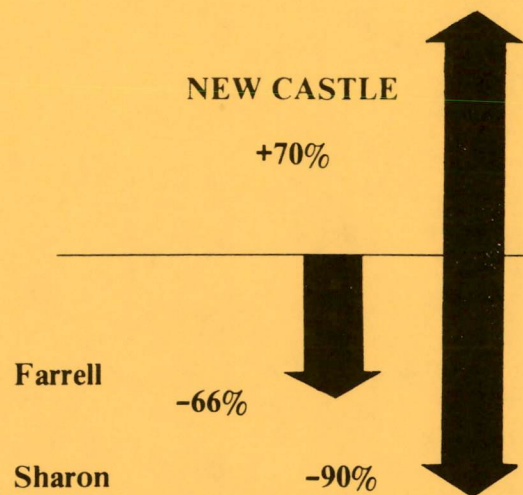
LAND VALUE TAXATION WORKS

% CHANGE IN BUILDING PERMITS ISSUED



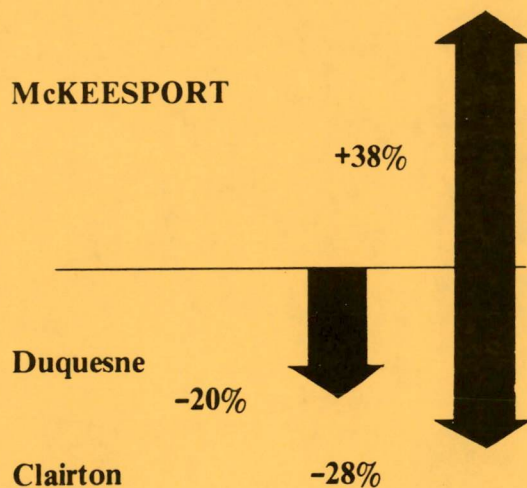
In 1979, Pittsburgh, PA increased its tax rate on land by 48 mills and another 28 mills in 1980. The above chart compares building permits issued in 1976-78 to 1979-81 for Pittsburgh and for new office building construction nationwide.

% CHANGE IN BUILDING PERMITS ISSUED



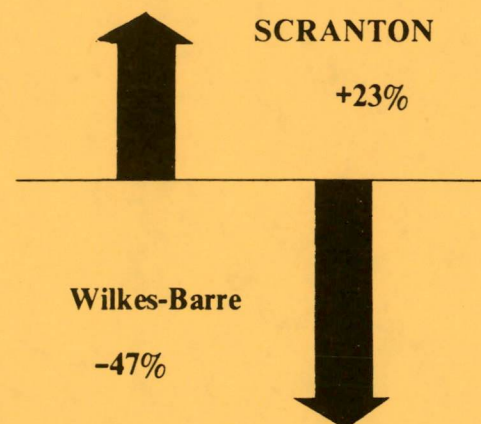
In 1982, New Castle, PA adopted a higher tax rate on land than on buildings. The other two cities did not. The above chart compares building permits issued in 1979-81 to 1982-1985.

% CHANGE IN BUILDING PERMITS ISSUED



In 1980 McKeesport, PA adopted a higher tax rate on land than on buildings. The other two cities did not. The above chart compares buildings permits issued in 1977-1979 to 1980-82.

% CHANGE IN BUILDING PERMITS ISSUED



In 1980, Scranton, PA adopted a higher tax rate on land than on buildings. Wilkes-Barre did not. The above chart compares building permits issued in 1977-79 to 1980-82.

WEST VIRGINIA FACTS AND STATISTICS

[With thanks to the West Virginia Research League, Inc., from whose statistical handbooks much of the following data was abstracted for the PROSPECTS FOR APPLACHIA conference by the Center for Public Dialogue.]

West Virginia became a State in 1863 during the Civil War, having chosen not to secede from the Union as did Virginia, of which it was previously a part.

Because of its "panhandles," West Virginia's geographic location is not easily classified. The northern tip is north of Pittsburgh. The eastern tip is east of Rochester. Its southern tip is south of Richmond. Its western tip almost on a line with Columbus. As youngsters in the Mountain State say, whether West Virginia is northern, eastern, southern or midwestern, "it's a helluva state for the shape it's in."

AREA IN SQUARE MILES: 24,181

West Virginia is thus about two and one-half times the size of New Hampshire or Maryland; and about half the size of Alabama, North Carolina or New York.

1. POPULATION AND PER CAPITA INCOME

Year	Resident Population	Per Capita Personal Income (in millions of dollars)	
		<u>West Virginia</u>	<u>United States</u>
1900	958,800		
1950	2,006,000		
1960	1,860,000		
1980	1,950,186	\$7,693	\$8,655
1981	1,961,000	8,395	10,544
1982	1,962,000	8,943	11,113
1983	1,965,000	9,225	12,093
1984	1,952,000	9,803	13,114
1985	1,936,000	10,193	13,867
1986	1,917,600	10,539	14,596
1987	1,898,129	11,013	15,472
1988	1,876,752	11,735	16,489
1989		11,835 (rank: 49th)	17,567

2. RECREATION AND TOURISM--STATE PARKS AND FORESTS

Attendance for Selected Fiscal Years

	<u>1978-79</u>	<u>1987-88</u>
33 State Parks	6,761,200	7,566,800
8 State Forests	7,912,100	8,466,700

WEST VIRGINIA FACT SHEET
Prospects for Appalachia Conference

3. CASELOAD FOR HUMAN WELFARE SERVICES
(monthly average for fiscal year, by type of assistance)

	<u>1979-80</u>	<u>1984-85</u>	<u>1988-89</u>
AFDC ^a	23,750	23,414	27,123
AFDCU ^b	2,422	9,711	8,595
Food Stamps (non-asst.)	44,372	63,252	60,352
Medicaid	8,167	9,508	16,859
Emergency Assist.	3,421	4,131	1,491
TRIP ^c	11,903	6,357	4,303
SSI ^d	41,640	41,342	44,796
Children's Social Services	16,620	12,889	12,645
Adult Social Services	22,180	21,634	21,281
Child Advocate Office	6,717	11,129	13,069
W&T Registrations ^e	10,388	12,810	11,347
Burials	1,028	924	870
Staff, as of July 1st	3,251	2,598	2,196

-
- a. Aid to Families with Dependent Children, based on absence, death, disability.
 - b. AFDC, based on parental unemployment.
 - c. Transportation Remuneration Incentive Program for elderly and disabled.
 - d. Supplemental Security Income.
 - e. Departmental Work & Training programs.

4. WORKERS' COMPENSATION BENEFITS
(in thousands, for fiscal years)

	<u>1978-79</u>	<u>1982-83</u>	<u>1987-88</u>
Benefits paid	\$103,509	\$142,356	\$249,657
Administrative Expenses	6,126	9,389	16,231
Investment Discount	1,358	--	--
TOTAL DISBURSEMENTS	110,993	151,745	265,887

WEST VIRGINIA FACT SHEET

Prospects for Appalachia Conference

5. GROSS WEST VIRGINIA STATE PRODUCT, 1986 (in millions of current dollars)

<u>Total Gross State Product</u>	24,096	
Private Industries	21,330	
Agriculture		225
Mining, Coal		3,177
Oil and Gas Extraction		2,710
Nonmetallic Minerals, except fuels		27
Construction		1,153
Manufacturing		3,485
Lumber and Wood Products		152
Stone, Clay and Glass Products		316
Primary Metal Industries		496
Fabricated Metal Products		322
Machinery and Electronic Equipment		176
Instruments and Related Products		123
Food and Kindred Products		118
Printing and Publishing		123
Chemicals and Allied Products		1,135
[classes with less than \$100M not listed]		
Transportation		940
Communication		558
Electric, Gas and Sanitary Services		1,788
Wholesale Trade		1,232
Retail Trade		2,253
Finance		870
Insurance		298
Real Estate		2,341
Services		3,008
Hotels and Other Lodging		157
Personal Services		185
Business Services		314
Auto Repair and Garages		131
Health Services		1,342
Legal Services		195
Social Services and Membership Organizations		208
Miscellaneous Professional Services		178
[classes with less than \$100M not listed]		
Federal Government	490	
State and Local Government	2,276	

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6. COAL PRODUCTION--1979 THROUGH 1988
(thousands of tons)

<u>Year</u>	<u>Underground Production</u>	<u>Surface Production</u>
1979	91,240	21,141
1980	96,407	25,175
1981	89,585	23,228
1982	104,217	24,561
1983	92,291	22,844
1984	106,400	24,640
1985	104,541	23,326
1986	104,107	26,679
1987	107,956	29,716
1988	109,540	35,377

7. CRUDE PETROLEUM AND NATURAL GAS PRODUCTION

<u>Calendar Year</u>	<u>Crude Petroleum</u> (thousands of barrels)	<u>Natural Gas</u> (millions of cubic feet)
1979	2,492	151,787
1982	3,241	152,369
1985	3,349	145,505
1988	2,991	N/A

8. SELECTED COMMERCIAL DATA
(in millions of dollars)

Total Retail Sales, 1988	\$10,753
Financial Institutions, 1988	
Deposits	15,586
Loans	9,863

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9. EMPLOYMENT AND UNEMPLOYMENT
(in thousands)

	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>1986</u>	<u>1988</u>
Total labor force	759	766	745	710	709
Unemployed					
Number	43	71	106	65	49
Percent	6%	9%	14%	9%	7%
Employed	716	694	639	645	660
Employment Categories					
Manufacturing	126	112	90	87	87
Mining	68	60	49	41	34
Contract Construction	39	30	22	23	25
Transportation, Communication and Public Utilities	44	42	39	37	37
Trade--Wholesale and Retail	132	132	127	137	143
Finance, Insurance and Real Estate	22	22	22	24	24
Services	98	102	106	121	131
Government--Federal, State, Local	130	130	128	129	130

10. SOURCE AND AMOUNT OF PERSONAL INCOME
(1988, in millions of dollars)

Type of Income	
Wage and Salary Disbursements	\$11,901
Other Labor Income	1,268
Proprietors Income	1,418
By Industry	
Farm	65
Non-farm	14,522
Private	11,987
Agric. Service, Forestry, Fish, etc.	47
Mining	1,541
Construction	769
Manufacturing	2,717
Transportation and Public Utilities	1,277
Wholesale Trade	733
Retail Trade	1,432
Finance, Insurance and Real Estate	552
Services	2,919
Government and Government Enterprises	2,535
Net Labor of Proprietors Income	
by Place of Residence	13,430
Dividends, Interest and Rent	3,384
Transfer Payments	5,203
Personal Income by Place of Residence	22,018

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11. PRINCIPAL STATE TAXES AND FEES--WITH BASIS OF TAX AND RATES
(as of July 1989)

Business and Occupation Tax. On gross income. Generally 4% on public utilities.

✓ Severance Tax. On gross value of natural resource products. Varies from 2.92% to 5%.

Telecommunications. On gross income in W.Va. 4%.

Corporation Net Income Tax. On W.Va. taxable income. Approximately 9%, adjustments and credits allowed.

Business Franchise Tax. On equity of corporation or partnership. The greater of \$50 or 0.75% of capital.

Beer Tax and Licenses. On barrels sold; annual license. \$5.50 per barrel. License \$10 to \$100, retail; \$250 distributor; \$500 brewer.

Insurance Tax and Fees. On gross direct premiums; gross annuities; annual license. 3% on premiums; 1% on annuities. Licenses, \$1 to \$100.

Personal Income Tax. On W.Va. taxable income. Graduated rates from 3% to 6.5%.

Consumers Sales Tax. On purchase price. 6%, bracket system.

Cigaret Tax. Per package of 20. 17 cents.

Estate Tax. Market value of property. IRC Section 2011 state death tax credit.

Gasoline Tax. Per gallon. 15.5 cents, plus 5% wholesale.

Motor Vehicle Registration Fee. On class and gross weight. Varies.

Motor Vehicle Operator License. For license, renewal. Operator, \$10; chauffeur, \$15; both for four years.

Privilege Tax. On purchase price of vehicle less trade-in. 5%.

Racing Fees. On thoroughbred racing, contributions to pari-mutual pools: 3 or 4% plus \$250 a day.
On harness racing; first \$100,000 daily wagering; next \$150,000; excess over \$150,000: 3%, 4%, 5.75%, respectively, plus \$150 a day.
On dog racing; pari-mutual daily pools: 4 to 8%, bracket system, plus \$150 a day.

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12. NET STATE REVENUES, BY MAJOR SOURCE, FISCAL YEAR 1987-88
(in millions of dollars)

<u>GENERAL REVENUE FUND, TOTAL</u>	1,416	
Business and Occupation Tax	182	✓
Carrier Income Tax	14	
Corporation Net Income Tax	113	✓
Personal Income Tax	394	✓
Consumers Sales Tax	331	✓
Use Tax	16	
Cigaret Tax	34	
Inheritance Tax	7	
Beer Tax and Licenses	8	
Insurance Tax and Fees	47	
Racing Fees	14	
Liquor Profits	9	
Charter Tax	2	
Property Tax	2	
Property Transfer Tax	4	
Miscellaneous	8	
Departmental Collections	7	
Interest on Investments	15	
Business Franchise Registration Fee	2	
Lottery Transfers	16	
Severance Tax	129	✓
Business Franchise Tax	50	
Telecommunications Tax	18	
 <u>STATE ROAD FUND, TOTAL</u>	 339	
Gasoline and Motor Carrier Road Taxes	110	
License Tax	56	
Privilege Tax	88	
Sale of Bonds	--	
Other Income	70	
Toll Bridge Receipts	--	
Flood Disaster	16	
 <u>TOTAL, BOTH FUNDS</u>	 1,755	

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13. STATE EXPENDITURES BY FUNCTION
 (in millions of dollars)

	<u>FISCAL YEAR 1979</u>	<u>FISCAL YEAR 1988</u>
Education - Total	626	1,353
State Aid to Counties	336	706
Universities and Colleges	151	470
Other	139	177
Highways	575	620
Health and Welfare	407	757
Legislative and Judicial	19	33
Executive and Fiscal	100	222
Business and Industrial Relations	90	97
Conservation and Development	61	89
Protection	26	34
Employment Security (administration)	16	22
Bonded Debt	13	14
Capital Outlay	80	--
Other	90	96
TOTAL NET EXPENDITURES	2,103	3,337

14. STATE AND LOCAL GOVERNMENT REVENUE AND EXPENDITURE COMPARISONS
 (Fiscal Year 1986-87)

	<u>West Virginia</u>				<u>U.S. Average</u>			
	<u>Tax</u>	<u>Total*</u>	<u>Federal</u>	<u>Total</u>	<u>Tax</u>	<u>Total*</u>	<u>Federal</u>	<u>Total</u>
	<u>Revenue</u>	<u>Own Sources</u>	<u>Revenue</u>	<u>Revenue</u>	<u>Revenue</u>	<u>Own Sources</u>	<u>Revenue</u>	<u>Revenue</u>
GENERAL REVENUES								
Per Capita	\$1,217	\$1,740	\$515	\$2,255	\$1,665	\$2,347	\$472	\$2,819
Per \$1,000 Personal Income	115	165	49	213	115	162	33	194

a. Includes taxes in preceding column plus other fees/charges.

	<u>Educa-</u>	<u>High-</u>	<u>Human</u>	<u>All</u>		<u>Educa-</u>	<u>High-</u>	<u>Human</u>	<u>All</u>	
	<u>tion</u>	<u>ways</u>	<u>Services</u>	<u>Other</u>	<u>Total</u>	<u>tion</u>	<u>ways</u>	<u>Services</u>	<u>Other</u>	<u>Total</u>
GENERAL EXPENDITURES										
Per Capita	840	264	266	878	2,248	931	214	329	1,211	2,685
Per \$1,000 Personal Income	79	25	25	83	213	64	15	23	83	185

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15. GENERAL REVENUE OF WEST VIRGINIA LOCAL GOVERNMENTS, BY SOURCE
 (in millions of dollars)

Fiscal Year:	<u>Property Taxes</u>	<u>Other Taxes</u>	<u>Total Taxes</u>	<u>Charges & Misc. Revenue</u>	<u>ALL OWN SOURCE REVENUE</u>	<u>From Federal Govt.</u>	<u>From State Govt.</u>	<u>Total Intergovt. Revenue</u>	<u>TOTAL GENERAL REVENUE</u>
1977-78	223	52	275	169	445	89	465	555	999
1986-87	407	97	505	523	1,028	73	885	958	1,986

16. STATE OF WEST VIRGINIA BONDED INDEBTEDNESS
 (in millions of dollars, as of July 2 of each year)

	<u>1979</u>	<u>1983</u>	<u>1988</u>
General Obligation Bonds	924	824	571
State Road Bonds	746	678	465
School Building Bonds	178	146	106
Special Revenue Bonds	220	182	334
Toll Bridges	15	13	11
State Office Buildings	27	22	13
State Parks and Cass Scenic R'way	18	15	11
State Armory Board	5	3	1
Educational Institutions--Board of Regents	154	129	175
Department of Highways	--	--	124
TOTAL BONDS OUTSTANDING	1,144	1,007	905

17. ASSESSED VALUATION OF PROPERTY IN WEST VIRGINIA—BY CLASSIFICATION

(Millions of dollars)

Assessment Years 1980 to 1989

CLASSIFICATION	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
CLASS I										
Personal Property	1,080.0	1,170.6	1,362.7	1,403.8	1,329.0	1,390.4	1,450.9	1,571.6	1,649.6	1,799.1
Public Utility Property	62.8	79.6	101.2	102.1	101.6	113.8	128.9	144.1	148.4	134.5
TOTAL CLASS I	1,142.8	1,250.2	1,463.9	1,505.9	1,430.6	1,504.2	1,579.7	1,715.7	1,798.0	1,933.6
CLASS II										
Real Estate	2,760.3	2,987.7	3,365.7	3,376.8	3,425.3	3,483.7	3,603.5	3,931.9	4,185.8	4,486.9
Personal Property	92.8	97.6	104.6	114.9	112.5	106.9	103.3	113.7	123.2	124.3
TOTAL CLASS II	2,853.1	3,085.3	3,470.3	3,491.7	3,537.8	3,590.6	3,706.8	4,045.6	4,309.0	4,611.2
CLASS III										
Real Estate	1,502.1	1,640.9	1,976.4	2,073.8	2,153.2	2,198.9	2,325.5	2,395.1	2,434.3	2,489.4
Personal Property	2,910.0	3,177.2	3,871.2	4,208.3	4,252.0	4,487.5	4,835.1	5,014.9	4,931.0	5,069.8
Public Utility Property	1,567.8	1,689.8	1,937.3	1,992.2	2,029.7	2,045.8	2,063.1	2,002.1	2,052.0	2,149.2
TOTAL CLASS III	5,979.9	6,507.9	7,784.9	8,274.3	8,434.9	8,732.2	9,223.7	9,412.1	9,417.3	9,708.4
CLASS IV										
Real Estate	1,171.3	1,232.7	1,463.4	1,506.3	1,560.8	1,593.9	1,674.1	1,776.7	1,827.5	1,893.9
Personal Property	1,300.4	1,369.2	1,570.9	1,561.8	1,609.7	1,701.3	1,807.3	1,973.5	2,167.9	2,341.0
Public Utility Property	489.4	529.9	591.4	609.6	597.0	606.2	610.7	624.6	619.3	647.6
TOTAL CLASS IV	2,961.1	3,131.8	3,625.7	3,677.7	3,767.5	3,901.4	4,092.1	4,374.8	4,614.7	4,882.5
TOTALS										
Real Estate	5,433.7	5,861.3	6,805.5	6,956.9	7,139.3	7,276.4	7,603.1	8,103.8	8,447.7	8,770.2
Personal Property	5,383.2	5,814.5	6,909.4	7,288.8	7,303.2	7,686.3	8,196.6	8,673.7	8,871.7	9,334.2
Public Utility Property	2,120.0	2,299.3	2,629.9	2,703.9	2,728.3	2,765.8	2,802.7	2,770.9	2,819.8	2,931.4
TOTAL ALL CLASSES	12,936.9	13,975.2	16,344.8	16,949.6	17,170.8	17,728.5	18,602.4	19,548.4	20,139.2	21,135.8

Source: State Tax Department, Classified Assessed Valuations, Taxes Levied, annually.

18. PROPERTY TAXES LEVIED IN WEST VIRGINIA BY CLASSIFICATION AND DESCRIPTION

(Thousands of dollars)

Assessment Years 1980 to 1989

CLASSIFICATION	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
CLASS I										
Personal Property	\$ 8,241.1	\$ 8,903.0	\$ 10,189.2	\$ 10,655.1	\$ 10,095.8	\$ 10,458.6	\$ 10,888.1	\$ 11,811.0	\$ 12,493.7	\$13,721.8
Public Utility Property	451.4	572.4	709.7	726.8	920.4	815.4	912.7	1,009.8	1,058.6	892.5
Total Class I	\$ 8,692.5	\$ 9,475.4	\$ 10,898.9	\$ 11,381.9	\$ 10,816.2	\$ 11,274.0	\$ 11,800.8	\$ 12,820.8	\$ 13,552.3	\$14,614.3
CLASS II										
Real Estate	\$ 38,739.5	\$ 41,567.2	\$ 46,175.7	\$ 46,681.8	\$ 47,209.1	\$ 47,980.9	\$ 49,272.3	\$ 53,687.7	57,413.9	\$ 62,004.5
Personal Property	1,216.4	1,245.2	1,373.9	1,492.6	1,457.5	1,399.8	1,335.1	1,467.5	1,591.3	1,608.7
Total Class II	\$ 39,955.9	\$ 42,812.4	\$ 47,549.7	\$ 48,174.4	\$ 48,666.6	\$ 49,380.7	\$ 50,607.4	\$ 55,155.2	59,005.2	\$ 63,613.2
CLASS III										
Real Estate	\$ 37,681.1	\$ 40,877.6	\$ 48,561.4	\$ 51,053.5	\$ 52,758.4	\$ 53,605.6	\$ 56,349.5	\$ 58,536.5	59,676.8	\$ 61,165.1
Personal Property	73,578.6	79,671.9	95,445.2	104,259.5	105,188.9	110,932.0	118,116.3	123,354.6	122,028.8	126,809.0
Public Utility Property	38,913.7	41,745.8	47,477.8	48,876.3	49,848.0	49,567.1	49,560.7	48,114.7	49,468.6	51,897.9
Total Class III	\$150,173.4	\$162,295.3	\$191,484.4	\$204,189.3	\$207,795.3	\$214,104.7	\$ 224,026.5	\$ 230,005.8	231,174.2	\$239,872.0
CLASS IV										
Real Estate	\$ 37,990.0	\$ 40,044.7	\$ 46,650.6	\$ 48,861.9	\$ 50,658.5	\$ 51,810.6	\$ 54,177.3	\$ 57,109.6	58,757.9	\$ 61,312.7
Personal Property	41,675.9	44,194.9	51,103.8	50,922.7	52,471.1	55,584.3	58,582.4	63,542.8	69,938.3	76,170.0
Public Utility Property	15,803.7	17,091.9	18,793.1	19,514.9	19,139.2	19,486.6	19,533.3	19,973.8	19,799.7	20,847.3
Total Class IV	\$ 95,451.6	\$ 101,331.5	\$ 116,547.5	\$119,299.5	\$122,268.8	\$126,881.5	\$132,293.0	\$140,626.2	148,495.9	\$158,330.0
TOTAL ALL CLASSES	\$294,273.4	\$315,914.6	\$366,480.5	\$383,045.1	\$389,546.9	\$401,640.9	\$418,727.7	\$438,608.0	452,227.6	\$476,429.5
DESCRIPTION										
Real Estate	\$114,410.6	\$122,574.9	\$141,387.7	\$146,597.2	\$150,626.0	\$153,397.1	\$ 159,799.1	\$ 169,333.8	175,848.6	\$184,482.3
Personal Property	124,694.0	133,947.8	158,112.1	167,329.9	169,213.3	178,374.7	188,921.9	200,175.9	206,052.1	218,309.5
Public Utility Property	55,168.8	59,391.9	66,980.6	69,118.0	69,707.6	69,869.1	70,006.7	69,098.3	70,326.9	73,637.7
Total by Description	\$294,273.4	\$315,914.6	\$366,480.4	\$383,045.1	\$389,546.9	\$401,640.9	\$418,727.7	\$438,608.0	452,227.6	\$476,429.5

Source: State Tax Department, Classified Assessed Valuations, Taxes Levied, annually.

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19. TOTAL ASSESSED VALUATIONS AND PROPERTY TAXES LEVIED
 (Assessment years 1985 to 1989, in millions of dollars)

	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Total Assessed Valuations	18,818	19,763	20,857	21,547	22,655
Property Taxes Levied	401	419	438	452	476

20. PROPERTY TAX LEVY RATES AND REVENUE DISTRIBUTION, Assessment Year 1989

	<u>Class I</u>	<u>Class II</u>	<u>Class III</u>	<u>Class IV</u>	<u>All Property</u>
Average Levy Rates					
Rates per \$100 of Assessed Value	.76	1.38	2.47	3.25	2.26
Distribution of Property Taxes Levied	<u>State</u>	<u>County</u>	<u>School</u>	<u>Municipal</u>	<u>TOTAL</u>
(in thousands of dollars)	1,738	116,967	320,691	37,033	476,429

21. SELECTED PUBLIC SCHOOL AND HIGHER EDUCATION DATA

	<u>1978-79</u>	<u>1982-83</u>	<u>1987-88</u>
Number of School Buildings	2,098	2,093	2,034
Net Enrollment	387,688	370,551	339,040
Per Pupil Cost (in dollars)	1,419	2,176	3,156
Number of Teachers	21,529	22,355	22,874
Pupil/Teacher Ratio	18	17	15
Local Receipts (in \$000s)	170,316	249,203	322,134
State Funds (in \$000s)	376,996	550,172	740,350
Federal Funds (in \$000s)	43,640	46,106	103,357

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21.(continued) SELECTED PUBLIC SCHOOL AND HIGHER EDUCATION DATA

Average Public School Teacher Salaries, 1989-90 (estimated):

U.S. Average	\$31,304
West Virginia	22,842 (rank: 48th)

State and Local Government Expenditures for Elementary/Secondary Education, per capita, 1987-88:

U.S. Average	\$690
West Virginia	632 (rank: 33rd)

State/Local Expenditures for Public Schools as Percent of Total State/Local General Expenditures, 1987-88:

U.S. Average	24.16%
West Virginia	27.70% (rank: 6th)

State/Local Expenditures for Higher Education, per capita, 1987-88:

U.S. Average	\$255
West Virginia	190 (rank: 44th)

State/Local Expenditures for Higher Education as Percent of Total State/Local General Expenditures, 1987-88:

U.S. Average	8.9%
West Virginia	8.3% (rank: 37th)

22. HIGHER EDUCATION OPERATING EXPENDITURES

(public institutions, for fiscal years, in thousands of dollars)

	<u>1978-79</u>	<u>1982-83</u>	<u>1987-88</u>
<u>Universities:</u>			
Marshall University	30,001	42,477	60,797
West Virginia University	152,749	209,791	210,180
W.Va.College of Graduate Studies	3,826	4,746	6,760
W.Va.School of Osteopathic Medicine	3,135	4,040	5,801
<u>Four-Year Colleges:</u>			
Bluefield State	4,346	5,946	8,867
Concord	6,394	9,400	12,739
Fairmont State	9,387	12,790	18,677
Glenville State	5,075	7,141	9,117
Shepherd	6,203	9,387	13,649
West Liberty State	8,355	11,884	13,698
W.Va. Institute of Technology	9,379	13,339	16,166
W.Va. State	8,634	11,381	13,761

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22.(continued) HIGHER EDUCATION OPERATING EXPENDITURES

<u>Community Colleges:</u>			
Parkersburg	4,185	5,063	6,419
Southern W.Va.	3,085	5,476	6,618
W.Va. Northern	3,624	4,420	6,290
Potomac State (Branch)	3,110	3,557	4,753
TOTAL, ALL INSTITUTIONS	261,488	358,838	414,292

23. ENROLLMENT AND DEGREES CONFERRED IN HIGHER EDUCATION
(for fiscal year 1987-88)

	<u>Enrollment, First Semester</u>	<u>Total Degrees Conferred</u>
ALL PUBLIC INSTITUTIONS	70,383	10,162
Bluefield State	2,487	416
Concord	2,450	371
Fairmont State	5,758	700
Glenville State	2,205	299
Marshall University	12,350	1,607
Parkersburg Community	3,219	216
Potomac State	1,081	102
Shepherd	4,010	395
Southern W.Va.	2,688	216
West Liberty State	2,435	407
W.Va. Coll. of Grad. Studies	2,597	293
W.Va. School of Osteopathic Medicine	232	54
W.Va. Institute of Technology	2,955	489
W.Va. Northern	2,661	251
W.Va. State	4,509	533
W.Va. University	18,746	3,813
ALL PRIVATE INSTITUTIONS	9,338	1,565
Alderson-Broadus College	727	148
Appalachian Bible Institute	182	23
Beckley College	1,605	125
Bethany College	844	147
Davis and Elkins College	811	155
University of Charleston	1,529	260
Ohio Valley College	220	36
Salem College	730	181
W.Va. Wesleyan College	1,484	246
Wheeling College	1,206	244
TOTAL, ALL INSTITUTIONS	79,721	11,727

Incentive Taxation

Just Published — CATALYST! — A New Book

Incentive Taxation Editor Reviews Own Book and Finds It Meritorious!

It isn't often that an author gets the chance to review his own book in public print, but being the editor of this bulletin, I am making the most of my prerogatives, so

To begin with, the title of the book — "Catalyst!" — can stand explanation. A catalyst, says the dictionary, is something which stimulates change and the proposal put forth in this book purports to be an economic catalyst of great potency.

Nearly half of the book contains articles which have already appeared in this bulletin. Maybe you missed some of them and in any case they are arranged into ten chapters designed to tell the whole land value tax story; because of limited space an issue of "Incentive Taxation" can only tell part of the whole story. The rest of the book contains previously unpublished articles and specially written material. The whole collection comes replete with headlines, subheads and sidebars, giving a somewhat jazzy appearance to this 130-page book.

A difference in emphasis should also be noted between "Catalyst!" and "Incentive Taxation". The latter focuses primarily on the replacement of the property tax on buildings with a property tax on land, but "Catalyst!" goes beyond that to ask, "if this type of property tax reform is good, what would happen if we replaced not only the building tax but as many other taxes as possible with a tax on land?"

Here are some of the many themes explored in

the book's 101 articles and miscellania:

- * how to separate the land value assessment from the building value;
- * why the land value tax cannot be passed on to tenants in the form of higher rents;
- * how the land value tax would benefit homeowner-voters, politicians, downtown retailers, factory owners, and even farmers;
- * how to accomplish a significant redistribution of wealth to poor people without penalizing the wealth producers one iota;
- * extensive evidence conclusively proving that the tax on land values is more based on the ability-to-pay "principle" than even the income tax is and much more so than all the other taxes we have);
- * land rent is now exceeding one-fifth of the national income;
- * what the Bible says about taxing land values;
- * how New Zealand, South Africa, Canada and Denmark tax land values more than buildings with successful results, plus new success stories from Australia;
- * a brief recounting of the long history of land value taxation plus a description of the lead-

ing organizations currently promoting the idea.

Readers wishing to extend their knowledge of the Incentive Land Tax can prevail upon the publisher of "Catalyst!" to send them a copy at the cost of five dollars. Write to Henry George Foundation of America, 580 N. Sixth St., Indiana, Pa. 15701.

Steven Cord

Study by Congressional Committee Endorses LVT

Yet another study by a congressional committee endorses the idea of taxing buildings at a lower property tax rate than land (LVT). This time the report emanates from the Subcommittee on the City of the Committee on Banking, Finance and Urban Affairs of the House of Representatives in the current 95th session. Reports of other congressional committees have been reviewed in previous issues of this bulletin.

This study points out that property tax relief can be granted to buildings in two ways:

- * by decreasing the property tax rate on buildings and making up the lost revenue by increasing the tax rate on land assessments;
- * by granting property tax exemptions to building assessments; in this way, each year less and less of the building will be subject to the property tax. The lost revenue should be made up by raising the property tax rate, but the consequence will be that more and more of the property tax will fall on land assessments.

From this point on, let us quote extensively from the congressional report itself:

Property Tax Reform

"Downtaxing buildings and uptaxing land can unleash potent forces for wholesome development. Beginnings are visible in scatter American juris-

dictions. The Pennsylvania cities of Pittsburgh and Scranton in 1913 launched a "graded tax", gradually decreasing the tax rate on building while simultaneously increasing it on land values, until they achieved a tax rate twice as high on land as on buildings. Harrisburg, Pa., starting in 1974, also began to tax building less and land more. By 1977 its differential rates were \$1.60 per \$100 of assessed value on buildings and \$2.90 on land.

"Federal legislation in 1974 gave the District of Columbia permission to tax land and building at different rates, but the City Council has not yet taken advantage of this enabling act. Proponents of uptaxing land and downtaxing buildings point to the following likely impacts:

Freeing Housing From Tax Penalties

"Under the current operation of the property tax, the more one invests in a home, the higher the property tax. No matter that this investment puts people to work and improves the neighborhood. No matter that just about everybody wrestling with urban problems decries the loss of city jobs and decay of neighborhoods. Those who act to improve their properties receive a stiff financial punishment for their good behavior. Commercial and industrial property improvements similarly are burdened with taxes in direct proportion to the social benefits they sow. In short, the better one uses property—the more people it houses or puts to work—the higher it is taxed. Abusing or wasting property are the occasion for lowering one's tax.

"The amount of tax relief that would accrue to residences by untaxing building and shifting the tax to land values alone was analyzed for the District of Columbia during a 1972 computer simulation. Assuming that this form of tax would continue to produce the same total revenue, the researches of the District of Columbia Department of Finance and Revenue found that for single-family homes, annual taxes would drop an average of 18 percent. Similar conclusions about the relief to residential properties from exempting the tax on housing have been reached in studies in Omaha, Milwaukee, and many other localities.

Taking the Profit Out of Speculation and Sprawl

"Howard Jarvis and his followers cite tax penal-

ties on housing to discredit the entire property tax. They neglect the fact that the other part of the tax — the tax on land value — is one of the best in the arsenal of weapons for improving land use patterns. A high tax on buildings creates a bias against land use, as already pointed out. But a low land tax is the clincher. If land values are rising rapidly, or if landholders expect that they will, the low land tax encourages the waiting game. The owner figures the tax as a holding cost, one that is readily affordable if there is evidence that annual increases in land value substantially exceed the annual taxes on it. Some speculators cover the holding cost by what are known in the real estate fraternity as "taxpayers"—old stores leased to porno shops, ramshackle apartments, and most notoriously, surface parking lots.

"A high land tax, geared to the market potential of sites, would have the contrary effect, according to Philip Finkelstein of the Center for Local Tax

Conserving Energy and Tax Resources

"A tax strategy that induces compact land use has important energy-saving implications. People will use existing infrastructure instead of duplicating existing school, streets, utilities, firehouses and other public facilities.

"More compact cities, as many planners have stressed, does not necessarily mean endless canyons of high-rise buildings. Most cities can accommodate extensive additions of low-rise buildings — if that is what people desire. And once speculative pricing is deflated by higher land taxes, public bodies can more easily afford the parks that should accompany the infilling process.

"Sprawl is among the major impediments to good public transportation. Reasonable population density is needed to support transit lines between homes and workplaces and to offer service frequent, convenient, and economical enough to compete with

From the Editor

* This issue and others following will have a different appearance because our long-time printer, Harry Pollard, is now taking on the job of type-setting as well.

* Harper's Magazine (1/79 issue) reports that the value of farmland per acre in the U.S. increased at the rate of 12% per year, from \$388 to \$490, from February 1976 to February 1978 (source: USDA). Pennsylvania's prices increased somewhat faster, California's somewhat slower.

* One lady to another: "I've heard you moved to the suburbs." Reply: "Nobody lives in the suburbs anymore. It's too crowded ..."

* The Honda car company needs to expand its capacity, but construction of a new plant in Japan "has been virtually ruled out by Japanese land prices," according to Fortune magazine (7/30/79). High land prices really do inhibit economic growth. Remedy: LVT. (information provided by reader Robert Goodier)

* The Steelers have won the professional football title, and look what has happened to the Pittsburgh Pirates, but we make no claim that it's all the result of the town's recent 48-mill land tax increase. That just goes to show how objective we are.

Research. It would make it costly to hold valuable land in cold storage. Owners would be inclined to put their sites into use or to sell out to others in the market. As intensive commercial and industrial users find access to central city land, areas less suited to these purposes will accommodate various types of housing, or the kinds of convenience village shops that too often are missing from residential neighborhoods.

private cars. Compact land use will help wean Americans from their autos — with attendant savings in fuel and reductions in pollution. The transit-land use relationship works both ways, so public transit is often cited as a device for achieving compact growth. But this goal is often frustrated when land speculation is allowed to occur in areas served by the transit lines.

(cont'd overleaf)

Endorsements 131-133

Albert Fondy (President, Pbg. Federation of Teachers, AFL-CIO): "I am in basic agreement, and have been for some time, with the arguments for the advantage of land taxes which you cite."

Intl. Union of Local Authorities & Intl. Federation for Hsg. & Planning (1974 Vienna Conference Report) — "To achieve the desired effect of taxation on the land market, the taxing of buildings should be abolished as quickly as possible.

The basis for the determination of the amount payable is in principle the market value of the land. The annual land-value tax is intended to bring about the best possible use of the land consonant with planning, to make the speculative hoarding of land uneconomic and by increasing the supply, to render a better spread of private landowning possible.

The land-value tax permanently restores to the

community a part of the value of the land that has been created by the community without the owner doing anything toward this."

Professor Donald C. Stone (Urban Affairs, Carnegie-Mellon Univ.): "I have never understood why cities do not give more attention to the merit of a differential tax rate between real estate and improvements but not on real estate. A number of cities in the U.S. and elsewhere in the world apply graded tax rates. Pittsburgh is one of them. It has had a very salutary effect on encouraging real estate to be put to better uses and to reduce speculation in it. It also encourages property owners to build new structures and improve present ones. It is thus a patent rehabilitation incentive." (in a letter to Alan Beals, Executive Director of the National League of Cities, 10/5/78)

(Congressional Study — cont'd)

Opening Up City Jobs

"The employment impacts of property tax reform need to be explored. The combined untaxing of buildings and uptaxing of land might generate new homes, businesses, and factories, and the repair of existing structures. Labor economists have devoted so little attention to the land-jobs equation that it is difficult to predict how big a dent property tax reform would make in jobless rates.

Taking Responsibility for Property Tax Reform

"Because the property tax has been largely a State and local responsibility, these levels of government should take the initiative in its modernization. But if they need encouragement, the Federal Government has legitimate reasons for offering a helping hand. It has been suggested that incentives, via revenue sharing or other Federal grant programs, be given to localities that modernize their property taxes in specified ways."

Incentive Taxation

Box 655

Tujunga CA 91042

PROSPECTS FOR APPALACHIA -- FROM POVERTY TO PROSPERITY BY 2000
TENTATIVE PROGRAM

Chesterfield House, Charleston, West Virginia
December 6, 7, 8, 1990

THURSDAY, DECEMBER 6, 1990

10 am to 12 noon	Registration Movies, and informal orientation about West Virginia
12 noon	Lunch WEST VIRGINIA "ALMOST HEAVEN" -- CAN WE GENERATE AN ECONOMY TO MATCH ?
1 pm to 5pm	Afternoon session I IS APPALACHIA DOOMED TO CHRONIC POVERTY? A business view A labor view Are Business and Labor natural enemies? Afternoon session II WEST VIRGINIA'S ECONOMY Timber, natural gas, mining, retailing, farming, manufacturing, tourism
6 pm	Informal reception
6:30 pm	Dinner THE GAP BETWEEN THE STATE'S NEEDS AND FISCAL CAPACITY
8:00 pm to 8:45 pm	Evening session APPALACHIA UPLIFT STRATEGIES What is the Plight? Past efforts to ameliorate the problems Current plans

FRIDAY, DECEMBER 7, 1990

8:30 am to noon	Morning session I SCHOOL FINANCE Why teachers went on strike Remedies to date Statewide school funding option FINANCIALLY STRAPPED LOCAL GOVERNMENTS Current property tax status Residential, farms, commercial Constitutional framework and restrictions Assessments: Study Commission and new laws Challenge of meeting new requirements
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SPONSORS AS OF NOV. 11, 1990

AARP (Area 3, including W.Va.)
CATHOLIC COMMUNITY SERVICES OF THE WHEELING/CHARLESTON DIOCESE
CENTER FOR THE STUDY OF ECONOMICS
COMMISSION ON RELIGION IN APPALACHIA (CORA)
COMMON CAUSE OF WEST VIRGINIA
FEDERAL NATIONAL MORTGAGE ASSOCIATION (FANNIE MAE)
HENRY GEORGE SCHOOL OF SOCIAL SCIENCE
MOUNTAINEERS UNITED FOR SANE TAXATION (MUST)
PUBLIC REVENUE EDUCATION COUNCIL
ROBERT SCHALKENBACH FOUNDATION
WEST VIRGINIA LABOR FEDERATION, AFL-CIO
WEST LIBERTY STATE COLLEGE
WEST VIRGINIA STATE DEPARTMENT OF AGRICULTURE
WEST VIRGINIA STATE DEPARTMENT OF EDUCATION

OUT-OF-STATE PARTICIPANTS -- CONFIRMED AS OF NOV. 11, 1990

C. LOWELL HARRISS, Conference Chair, Economics Professor Emeritus of
Columbia Univ.; former Executive Dir., Academy of Political Science.
RICHARD ALMY, former Executive Director of the International
Association of Assessing Officers; Consulting, Technical Assistance
and Research Services in Property Taxation
JOHN BEHRENS, Chief, Taxation Branch, Governments Division, US Census
Bureau.
HON. JOHN BURGER, Minnesota State Representative; GOP Candidate for
State Treasurer; former Manager of Community Relations, General Mills
Corp.
GEORGE L. COLLINS, Director, Henry George School of Social Science
STEVEN CORD, Director, Center for the Study of Economics
ROBERT DETJEN, Investment Officer, Federal National Mortgage
Association (Fannie Mae)
EDWARD DODSON, Housing Mortgage Underwriting Specialist, Federation
National Mortgage Association, Philadelphia office.
M. MASON GAFFNEY, Economist, Univ. of California -Riverside; editor/co-
author of Extractive Resources and Taxation.
TED QWARTNEY, former Chief Executive Officer, British Columbia
Assessment Authority; was assessor in Michigan and California;
currently private appraiser.
ALANNA HARTZOK, psychologist, environmentalist, educator (in West
Virginia).
JOHN KELLEY, V. Pres. Shearson Lehman Bros., Peoria, IL; Enterprise
Zone expert
SEIN LIN, Lincoln Institute of Land Policy; a prime mover in the Land
Reform Institute of Taiwan
HON. WALT MUELLER, Missouri State Senator; former Manager, Kroger
stores in Kansas City area.
RICHARD NOYES, Publisher, Salem (NH) Observer
ROBERT PASCHALL, specialist in mineral assessments, recently designed
system for state of Texas
JOHN RACKHAM, Chief Realty Officer, US Postal Service; former District
of Columbia Assessment Director; former Utah State Property Tax
Director.
WALTER RYBECK, Director, Center for Public Dialogue
JIM SESSIONS, Coalition On Religion in Appalachia (CORA)
ROBERT SHEEHAN, Housing consultant, formerly Assistant Research

(OUT-OF-STATE PARTICIPANTS, CONTINUED)

Director, National Association of Home Builders
PROF. JOHN STRASMA, Economist, Univ. of Wisconsin; advisor to World
Bank and Third World Countries on tax structure and public finance
RON WELCH, retired head of California Board of Tax Equalization, one of
the nation's leading property tax and assessments specialist
PROF. ROBERT WOOD, Political Scientist, Wellsely University; former
Secretary of HUD
GENE WUNDERLICH, Senior Economist, US Department of Agriculture

WEST VIRGINIA PARTICIPANTS AS OF NOV. 11, 1990

CAROLYN ARRINGTON, ASSISTANT SUPERINTENDENT OF FINANCE FOR STATE
DEPARTMENT OF EDUCATION
HELEN BARDALL, CH. LEGISLATION COMMITTEE, W.VA. AARP
CLEVE BENEDICT, COMMISSIONER OF AGRICULTURE
SHARON G. BIAS, DEPUTY COMMISSIONER OF BANKING
PERRY BRYANT, WEST VIRGINIA EDUCATION ASSOCIATION
SOO BOCK CHOI, PROF. OF POLITICAL SCIENCE, MARSHALL UNIV.
EUGENE CLAYPOLE, UNITED MINE WORKERS, DIST. #31 PRESIDENT
DALE COLYER, ECONOMIC RESEARCH
DAVID COPENHAVER, PRES., BUSINESS ROUNDTABLE
TOM CURRIE, DIRECTOR OF GENERAL EDUCATION, STATE DEPARTMENT OF
EDUCATION
JOHN DAVID, PROF. ECONOMICS, W.VA. INSTITUTE OF TECHNOLOGY
REV. HOMER DAVIS, COMMISSION ON RELIGION IN APPALACHIA
GUS DINIACO, CERTIFIED APPRAISAL SPECIALIST; W.VA. PROFESSIONAL ADVISOR
FOR THE INTERNATIONAL ASSOCIATION OF ASSESSING OFFICERS.
REV. CHARLES ELLWOOD, CH. BOARD OF CHURCH & SOCIETY, UNITED METHODIST
CHURCH
MICHAEL FARBER, ATTY., PROPERTY TAX SPECIALIST
JAMES FORRESTER, PROF. OF PUBLIC ADMINISTRATION AND POLITICAL SCIENCE,
WEST LIBERTY COLLEGE
STEVE HANNAH, EXECUTIVE DIRECTOR FARM BUREAU OF W.VA.
GENE HARNER, PRES. COALITION ON LEGISLATION FOR THE ELDERLY (COLE);
JOE HATFIELD, DIR. WEST VIRGINIA HOUSING DEVELOPMENT FUND
ROBERT HALL, PROFESSOR OF SOCIOLOGY & PHILOSOPHY, W.VA. STATE COLLEGE
DR. K. DUANE HURLEY, PRES. EMERITUS SALEM COLLEGE; VICE CH.
LEGISLATION COMMITTEE, W.VA. AARP
WALTER LAPINSKY, BUSINESS DEVELOPMENT MANAGER, C & P TELEPHONE CO.
JACK MacDONALD, PROPERTY TAX STUDY COMMISSION
BOB McDONALD, SENIOR ANALYST, PUBLIC SERVICE COMMISSION
FR. JAMES O'BRIEN, ASSOCIATE PROF. OF PHILOSOPHY, WHEELING JESUIT
COLLEGE
JAMES H. PAIGE, III, COMMISSIONER OF BANKING
MARK POLEN (OR REP) WV COAL ASSOCIATION
JOSEPH W. POWELL, PRES. WEST VIRGINIA LABOR FEDERATION, AFL-CIO
CINDY RANK, HIGHLAND CONSERVANCY
ARTHUR RYBECK, D.D.S., CHAIRPERSON, MUST
LYLE SATTES, CH EDUCATION COMMITTEE, HOUSE OF DELEGATES
ROGER SHERMAN, PUBLIC AFFAIRS OFFICER, WESTVACO CORP.
GEORGE SMOULDER, DIRECTOR, CATHOLIC COMMUNITY SERVICES
DICK WAYBRIGHT, EXEC. DIRECTOR, WEST VIRGINIA FORESTRY ASSOCIATION
DAVID WHITE, ECONOMIST, FORESTRY DEPARTMENT, WEST VIRGINIA UNIVERSITY

PROSPECTS FOR APPALACHIA -- FROM POVERTY TO PROSPERITY BY 2000

TRAVEL & ACCOMODATIONS INFORMATION

Charleston's Airport is served by the following airlines:
USAIR, UNITED and DELTA (connecting, of course, with other airlines).
If schedules from your location require overnight stays Wednesday or
Saturday night, that can be arranged.

The conference will be held at CHESTERFIELD HOUSE, which is a short
block from the KANAWHA CITY MOTOR LODGE where guests will be staying.
Both are a short taxi ride from the airport. Taxi price is
approximately \$8.

Kanawha City Motor Lodge
3103 MacCorkle Ave., S.E.
Charleston, WV 25304
Phone: 304-344-2461

Chesterfield House
3112 Chesterfield Ave., S.E.
Charleston, WV 25304
Phone: 304-345-5071 [If expecting calls, have them ask at this
number for the "Appalachia Conference"]

For people driving to the conference:

MacCorkle Avenue is State Route 61 (going east and west). The
Chesterfield House is one block further south (away from river). The
Lodge and Chesterfield House are located in a southeast section of
Charleston called Kanawha City, across the Kanawha River from downtown.
Both locations are approximately five minutes from U.S. Route 60 and
the 35th Street Exit of I-64 and I-77.

MEALS

Conference meals will be at Chesterfield House and will be:

Thursday, December 6 - lunch and dinner
Friday, December 7 - lunch and dinner
Saturday, December 8 - lunch

Attendees will be on their own for breakfast. Close to the Lodge
are Shoneys and Wendys.

W. Va. Conf.

Dec. 6-8. Thurs. Sat.

1. Assmt. reform. 8-10 yrs. reassmt. (Pascall)
2. Underfunding, schools.
State land tax
Formula for distribn.
Relieve local bldg. tax, + publ.

My job:

Resource Taxn. Coal

Timber

O & G

CENTER FOR PUBLIC DIALOGUE

10615 Brunswick Avenue, Kensington, Maryland 20895
(301) 933-3535 or (301) 933-0277

WALTER RYBECK, Director

October 8, 1990

Mr. Mason Gaffney
3040 Tyler Street
Riverside CA 92503

Dear Mase:

I'm delighted you will participate in the West Virginia conference December 6-8. Your suggestions to call Welch (he's considering attending) and Paschall (happy to come!) were great.

If you can present the ideal way of taxing resources--to turn a poor state into a reasonably rich state--that would be invaluable.

West Virginians feel Appalachia's been "studied to death." So we'll let local people identify the problems. We'll listen carefully and frame our solutions in response to the points they raise. This may minimize the resistance that arises when people feel they're being preached at.

At the same time, I hope we can make a strong case for:

1. Assessment equity, with emphasis on correcting the underassessment of coal. (If we do nothing more, I believe this would be a major contribution to West Virginia.)

2. Designing a permanent solution to finance education. One option to explore is converting the small state property tax into a statewide site value tax, earmarked for schools; then gradually increasing it over 3 or 4 years until it replaces local property tax support of schools. Trial balloons on this idea were not shot down.

3. Consideration of the two-rate tax as a mandatory or optional method of administering the local property tax. (Could this be sold as a pro-enterprise measure in a state that desperately needs enterprise?)

This is to confirm that your expenses will be covered. I'll get back to you soon on other details. Thanks so much.

Cordially,



encs.

PROSPECTS FOR APPALACHIA--FROM POVERTY TO PROSPERITY BY 2000

A Conference to Examine the Anomaly of a Region that is Depressed
Despite Its Substantial Riches in Both Natural and Human Resources

Many development experts and economists consider Appalachia as almost a Third World country in the midst of the United States. They want to examine whether the insights of land economics could reverse the poverty of its people and the fiscal stress of its state and local governments.

Walter Rybeck of Kensington, Maryland, Director of the Center for Public Dialogue, and Dr. S. Arthur Rybeck, Jr., of Wheeling, West Virginia, Chairperson of Mountaineers United for Sane Taxation (MUST!) persuaded these experts to hold this conference in West Virginia.

The focus will be on the obstructions this particular Appalachian State faces in its efforts to get into the American economic mainstream as identified by local officials, business leaders and others. Outside and local experts will then join, through mostly informal discussions, in efforts to find practical steps for overcoming these obstructions.

Dr. C. Lowell Harriss, Economics Professor Emeritus of Columbia University, will be conference chairman. Lowell is a prolific author of articles on the enterprise system. He has advised many U.S. and foreign government agencies, is a past president of the National Tax Association, past director of the Academy of Political Science, president of the Robert Schalkenbach Foundation, and former consultant to the Tax Foundation.

Catholic Community Services of the Wheeling-Charleston Diocese is host sponsor. Other confirmed co-sponsors include MUST!; the Robert Schalkenbach Foundation; Common Cause of West Virginia; the Henry George School of Social Science and the Center for the Study of Economics.

Following is the general plan of the conference:

1. PURPOSES

To bring together people at the forefront of research in land economics and tax modernization, to explore strategies relevant to the Appalachian region, and to subject such strategies to local experts as a basis for testing their applicability in the State of West Virginia.

2. WHEN AND WHERE

Time: December 6-8, 1990.

Location: Kanawha City Motor Lodge, Charleston (10 minutes from airport).

3. PROGRAM ELEMENTS FOR CONFERENCE SESSIONS

Orientation:

Economic problems--of business, of governments, of the people.
Tax structure--including the property tax system.
Current "solutions" and how they are working.
Bus tour and films--showing assets as well as problems of West Virginia cities, towns, farms, mines, factories, scenery.

Energy Crunch and Recession?

Times of challenges and opportunities for the nation, and how these might affect West Virginia and the Appalachian region.

Success Stories in the Use of Land Economics:

Assessment reform....Enterprise zones....Natural resources options....
Property tax reform (Pennsylvania, Australia, New Zealand)....Rural tax approaches (Denmark, California irrigation districts, Fairhope)....Third-World Insights from Taiwan and Latin American.

School Finance:

Difficulties and Options.
Is a statewide tax on site values and resource values one way out of the dilemma?

Priorities for economic uplift

4. PARTICIPANTS AND FORMAT

A maximum of 50 or 60 persons are being invited, at least half from the State or region. [See attached list of invitees.]

All attendees will be participants with opportunities to speak. The emphasis will be on inquiry, discovery, discussion, not on formal papers. The goal will be formulation of practical proposals rather than theoretical concepts.

5. CONFERENCE MANAGEMENT

Lowell Harriss, Walter Rybeck, a native of Wheeling, and Arthur Rybeck of MUST! are in charge of inviting conference participants. MUST! and Catholic Community Services are coordinating arrangements in Charleston.

#

OUT-OF-STATE INVITEES -- Confirmed as of Oct 5 1990

C. LOWELL HARRISS, Conference Chair, Economics Professor Emeritus of Columbia University; former Executive Director, Academy of Political Science.

HON. JOHN BURGER, Minnesota State Representative; GOP candidate for State Treasurer; former Manager of Community Relations, General Mills Corp.

DR. STEVEN CORD, Director, Center for the Study of Economics; Editor, Incentive Taxation newsletter.

EDWARD DODSON, Housing Mortgage Underwriting Specialist, Federation National Mortgage Association, Philadelphia office.

PROF. M. MASON GAFFNEY, Economist, Univ of California-Riverside; editor/co-author of Extractive Resources and Taxation.

TED GHARTNEY, former Chief Executive Officer, British Columbia Assessment Authority; was assessor in Michigan and California; currently private appraiser.

ALANNA HARTZOK, psychologist, environmentalist, educator (in West Virginia).

HON. WALT MUELLER, Missouri State Senator; former Manager, Kroger stores in Kansas City area.

RICHARD NOYES, Publisher, Salem (NH) Observer.

ROBERT PASCHALL, specialist in mineral assessments, recently designed system for state of Texas.

JOHN RACKHAM, Chief Realty Officer, US Postal Service; former District of Columbia Assessment Director; former Utah State Property Tax Director.

PROF. JOHN STRASMA, Economist, University of Wisconsin; advisor to World Bank and Third World Countries on tax structure and public finance.

PROF. ROBERT WOOD, Political Scientist, Wellesley University; former Secretary of HUD.

not yet confirmed

JOHN BEHRENS, Chief, Taxation Branch, Governments Division, US Census Bureau.

GEORGE COLLINS, Director, Henry George School of Social Science.

DAN HOLLAND, Harvard Political Scientist, state-local finance specialist.

PHILIP M. KLUTZNICK, Senior Partner, Klutznick Investments, Chicago; former Secretary of Commerce; former Ambassador to UN.

SEIN LIN, Lincoln Institute of Land Policy; Land Reform Institute in Taiwan.

PROF. DICK NETZER, New York University; author, Economics of the Property Tax.

ROBERT SHEEHAN, Housing Consultant, formerly Assistant Research Director, National Association of Home Builders

RON WELCH, retired head of California Board of Tax Equalization, one of the nation's leading property tax and assessments specialist.

GENE WUNDERLICH, Senior Economist, US Department of Agriculture.

WEST VIRGINIA INVITEES

Governor and cabinet; legislators with leadership positions in taxation, economic development and education; tax officials; assessors; media specialists in fiscal and economic development; economists; business leaders, including mining, timber, banking, agriculture, development, housing and retail interests; educators; city and county officials; environmentalists, religious and civic leaders.