

State Energy Severance Taxes, 1985-1993

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This report analyzes changes in aggregate and State-level energy severance taxes for 1985 through 1993. Data are presented for crude oil, natural gas, and coal. The report highlights trends in severance tax receipts relative to energy prices and production, using severance tax data published by the Bureau of the Census of the U.S. Department of Commerce and production data published by the Energy Information Administration.

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1. State Energy Severance Taxes, 1985-1993

In the United States, State governments often tax a portion of the value of natural resources extracted, or "severed." The States generally levy energy severance taxes in the form of a percent of the value of the resources removed or sold (an ad valorem tax), but sometimes tax the volume of the resource removed (a dollar-per-unit tax). In addition to severance taxes, royalty payments, income taxes, and property taxes related to energy production also contribute to State receipts from energy production.

State governments frequently regard severance taxes as a revenue source with a minimal burden to the State's own residents, especially if the taxed resources are produced by out-of-State companies or are exported to customers in other States.¹ For example, North Dakota collects about 5 percent of its tax revenue through coal severance taxes. The coal is used for electricity generation within the State, with most of the electricity sold out of the State. Thus, a portion of the severance tax burden is transferred out of North Dakota.²

Although severance taxes can be an attractive source of revenue, they can inhibit development of a State's energy resources by increasing the cost of energy production. If the added cost of a State's severance tax cannot be passed along, the profitability of energy production deteriorates, making energy investment less attractive. An energy-producing State must balance the revenue effects and incentive effects of its severance taxes.

Despite the importance of severance taxes as a source of State funds and the effect of energy severance taxes on the cost of energy, published time series of effective tax rates (taxes relative to production) after 1987, have not been available. This report presents such a series on a consistent basis and provides a continuation of the series of State energy severance taxes presented in the earlier Energy Information Administration report, *Energy Severance Taxes, 1972-1987*.³ Consistent presentation of effective tax rates requires adjusting production data (available on a calendar year or monthly basis) for consistency with revenue data (available on a fiscal year basis). A description of these adjustments and computations, along with detailed State severance tax receipt data and energy production data are presented in the Appendix.

The next section of this report summarizes trends in energy severance taxes from 1985 (just before the 1986 oil price collapse) through 1993.⁴ Trends specific to severance taxes on oil, natural gas, and coal are separately reviewed in the rest of the report. The summary of trends by energy source, with the State-level tax receipt and production data available in the Appendix, will be of use to energy industry analysts and State fiscal and budget analysts, whose investigations and forecasts may depend on assumptions about severance tax rates.

Energy Markets Affect Severance Tax Receipts

Severance tax receipts generally depend on the price of energy, levels of hydrocarbon production, and the rate at which the States levy taxes. The oil price collapse of 1986 sharply reduced receipts from severance taxes (Figure 1). After 1987, low energy prices and the general lack of growth in energy production resulted in a flattening of

¹Robert Deacon et.al., *Taxing Energy: Oil Severance Taxation and the Economy*, Independent Studies in Political Economy (New York: Holmes and Meier, 1990), p. 49.

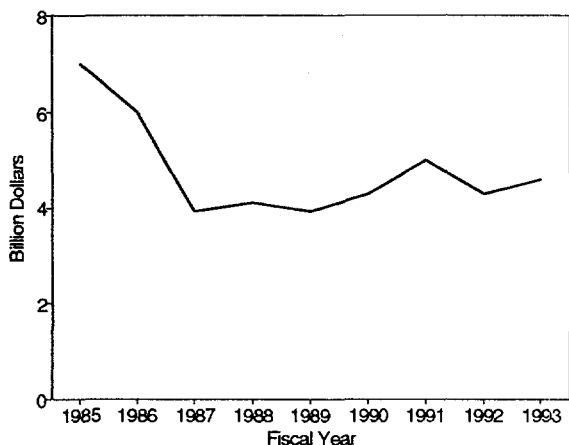
²U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data. Energy Information Administration, *State Coal Profiles*, DOE/EIA-0567 (Washington, DC, January 1994), p. 67; and Energy Information Administration, *State Energy Data Report 1993*, DOE/EIA-0214(93) (Washington, DC, May 1994), p. 233.

³Energy Information Administration, *Energy Severance Taxes, 1972-1987*, DOE/EIA-0519 (Washington, DC, August 1988).

⁴Historical severance tax data (from 1972-1984) can be found in Appendix Tables A7 and A8 of this report.

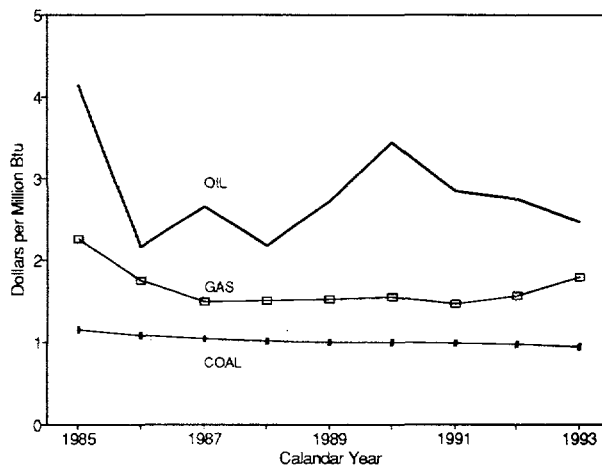
severance tax collections (Figures 1, 2 and 3). In 1985, for example, the States as a group collected \$7.0 billion in energy severance taxes, 3.3 percent of all State tax receipts (Table 1). By 1993, energy severance tax collections fell to \$4.6 billion, 1.3 percent of State tax receipts.

Figure 1. State Government Energy Severance Tax Receipts



Source: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data.

Figure 2. U.S. Energy Prices



Note: **Crude Oil Price** is domestic first purchase price. **Gas Price** is the domestic wellhead price. **Coal Price** is mine price.

Source: Energy Information Administration, *Annual Energy Review 1993*, DOE/EIA-0384(93) (Washington, DC, July 1994), Table 3.1.

Table 1. State Government Tax Receipts, Fiscal Years 1985-1993

Fiscal Year	Energy Severance Taxes (billion dollars)	Total State Taxes (billion dollars)	Percent of Total State Taxes
1985	7.0	215.9	3.3
1986	6.0	228.3	2.6
1987	4.0	246.5	1.6
1988	4.1	264.1	1.6
1989	3.9	284.4	1.4
1990	4.3	300.7	1.4
1991	5.0	311.1	1.6
1992	4.3	327.6	1.3
1993	4.6	353.3	1.3

Sources: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data; and *The Book of the States*, (Lexington, KY: Council of State Governments), 1994-95 and earlier issues.

As energy severance tax receipts have declined, most of the energy-producing States have come to rely less on severance taxes as a major source of revenue. The top eight energy-producing States collected \$5.8 billion in energy severance taxes in 1985, 10.6 percent of their total tax receipts (Table 2).⁵ By 1993, they collected only \$3.7 billion, 4.3 percent of their total tax receipts (Figure 4).

Figure 3. U.S. Production of Oil, Natural Gas, and Coal

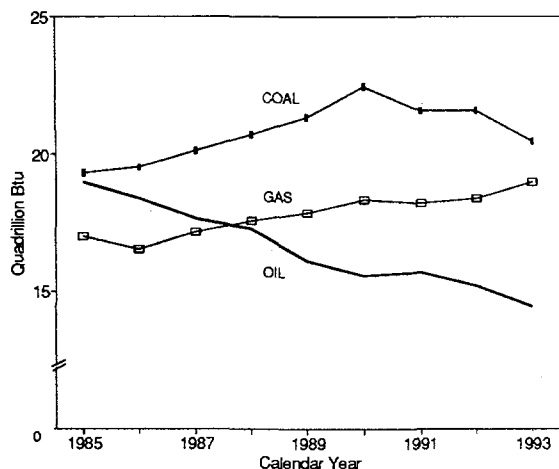
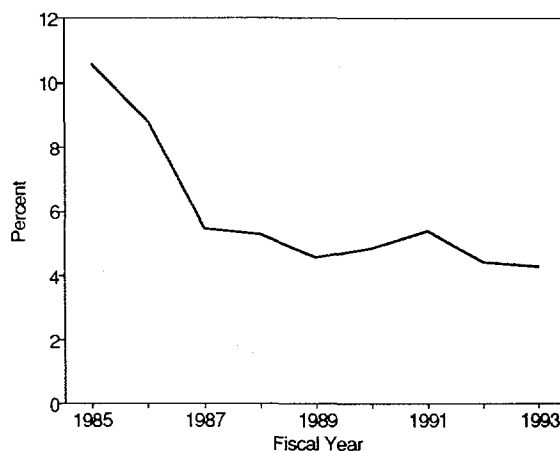


Figure 4. Energy Severance Tax Share of Taxes, Top 8 Energy-Producing States



Source: Energy Information Administration, *Annual Energy Review, 1993*, DOE/EIA-0384(93) (Washington, DC, July 1994), Table 1.2.

Note: The top eight energy producing states in rank order, are: Texas, Louisiana, Wyoming, Alaska, Kentucky, West Virginia, Oklahoma, and California.

Sources: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data.

Table 2. State Government Severance Tax Receipts For Top 8 Energy-Producing States, Fiscal Years 1985-1993

Fiscal Year	Energy Severance Taxes (billion dollars)	Total State Taxes (billion dollars)	Share of Total State Taxes (percent)
1985	5.8	54.9	10.6
1986	5.0	56.5	8.8
1987	3.3	60.3	5.4
1988	3.3	62.4	5.3
1989	3.2	70.4	4.5
1990	3.6	74.3	4.8
1991	4.2	79.0	5.4
1992	3.6	80.9	4.4
1993	3.7	86.2	4.3

Note: The top eight states in production of oil, gas, and coal (on a Btu basis) are in rank order: Texas, Louisiana, Wyoming, Alaska, Kentucky, West Virginia, Oklahoma, and California.

Sources: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data; and *The Book of the States*, (Lexington, KY: Council of State Governments), 1994-95 and earlier issues.

⁵The top eight states in production of oil and gas (including production from Federal Outer Continental Shelf [OCS] areas) and coal on an energy-equivalent basis are (in rank order): Texas, Louisiana, Wyoming, Alaska, Kentucky, West Virginia, Oklahoma, and California.

Reliance on Oil and Gas Severance Taxes Decreases in 1990's

Some oil and gas produced in the United States is not subject to State severance tax, because it is produced from Federal areas. State severance taxes apply only to energy production from areas under State jurisdiction. Thus, oil and gas production from Federal Outer Continental Shelf (OCS) waters off Alabama, California, Louisiana, and Texas are exempt from State severance taxes.⁶ However, these States also produce oil and gas from State offshore areas, and production from State offshore is subject to State severance tax.

Collections of oil and gas severance taxes on production under State jurisdiction decreased 38 percent from 1985 to 1993, from \$6.4 billion to \$4.0 billion (Table 3). Over the same period, the effective rate of severance taxation (on a crude oil equivalent basis) decreased 31 percent, from \$1.17 to \$0.81 per barrel.⁷ The decline in oil and gas severance tax collections reflects the market prices and volumes of production, as the tax per barrel as a percent of price per barrel varied little, ranging from 5.9 percent in 1988, to 6.5 percent in 1986, 1991 and 1992.

Reliance on oil and gas severance taxes varies widely across the States. Of the top eight oil- and gas-producing States, California collects relatively minor amounts of oil and gas severance taxes, while Alaska depended on severance taxes for nearly 50 percent of State tax receipts in 1993 (Figure 5). Nationwide reliance on oil and gas severance taxes has decreased since the oil price collapse of 1986, when the decline in prices and production eroded the severance tax base (Figure 5). Severance tax receipts collected by the State of Texas, for example, fell by 46 percent from 1985 to 1993. The top eight States (except for Wyoming) were also successful in increasing the absolute level of tax receipts from sources other than oil and gas severance taxes.⁸

Table 3. State Government Severance Taxes for Oil and Natural Gas, Fiscal Years 1985-1993

Year	Total Taxes (billion dollars)	Effective Tax per Barrel (dollars per barrel)	Price per Barrel (dollars per barrel)	Effective Tax per Barrel as a Percent of Price
1985	6.4	1.17	19.19	6.1
1986	5.4	1.00	15.48	6.5
1987	3.4	0.66	10.84	6.1
1988	3.6	0.68	11.55	5.9
1989	3.4	0.66	11.03	6.0
1990	3.8	0.76	11.88	6.4
1991	4.5	0.89	13.72	6.5
1992	3.7	0.75	11.05	6.5
1993	4.0	0.81	12.77	6.3

Note: Natural gas is converted to barrels of crude oil equivalent on the basis of 0.178 barrels of oil per thousand cubic feet of gas.

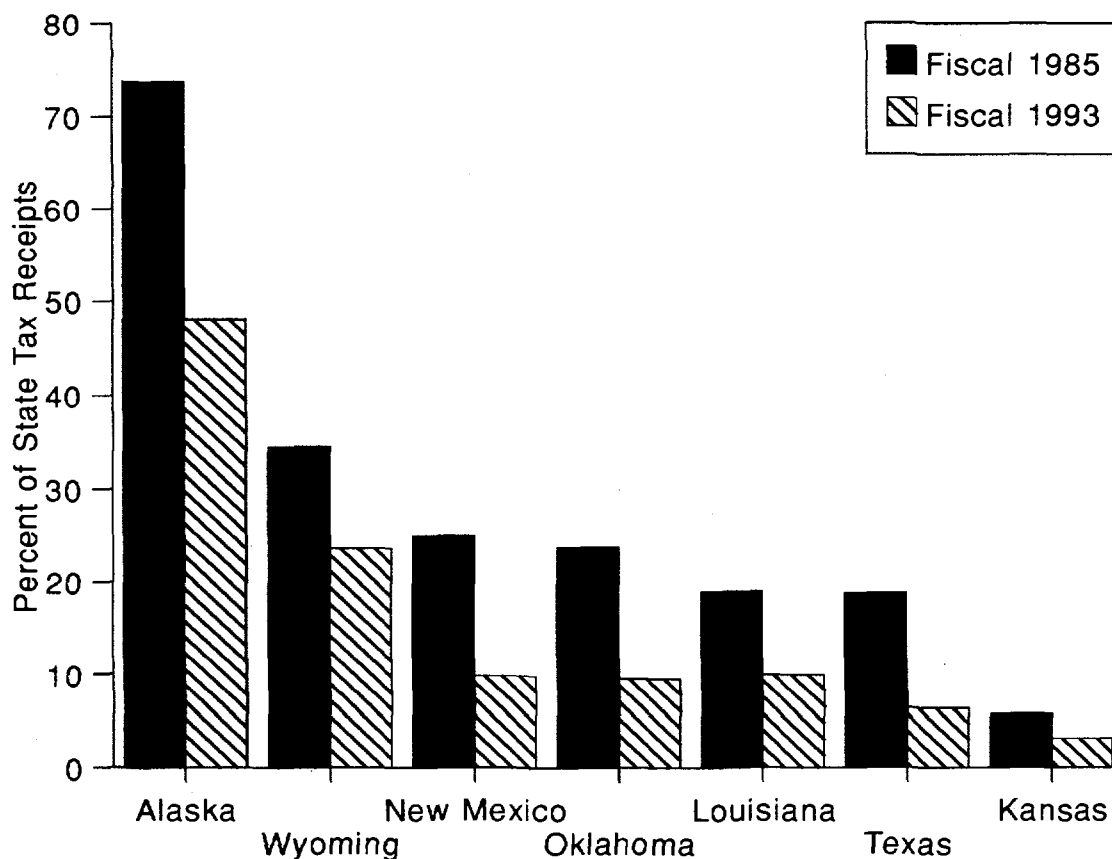
Sources: Severance Taxes: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data; *The Book of the States*, (Lexington, KY: Council of State Governments), 1994-95 and earlier issues. **Energy Prices:** Energy Information Administration, *Historical Monthly Energy Review*, 1973-1992, DOE/EIA-0035 (73-92) (Washington, DC, August 1994), Tables 9.1 and 9.11. **Production:** See notes to Table A3 and A4 in Appendix.

⁶In 1993, production of oil and gas (on a crude oil equivalent basis) from the Federal Outer Continental Shelf was about 22 percent of U.S. total oil and gas production. Source: Table A5 of this report, and Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1993*, DOE/EIA-0216(93) (Washington, DC, October 1994), p. 8.

⁷Production from the Federal Outer Continental Shelf (OCS) is excluded from fiscal year estimates of State oil and gas production.

⁸U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data.

Figure 5. Reliance on Oil and Gas Severance Taxes, Selected States



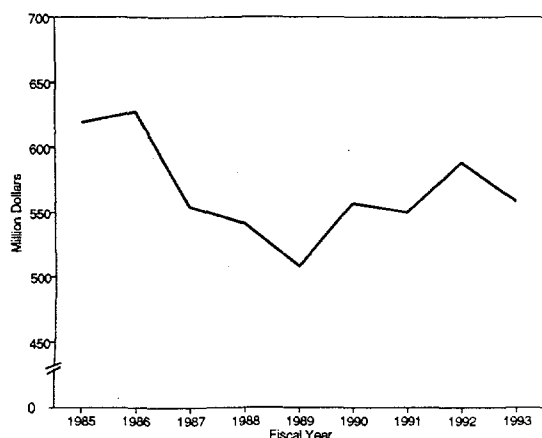
Source: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data; *The Book of the States*, (Lexington, KY: Council of State Governments), 1994-1995 and earlier issues.

Coal Severance Tax Receipts Decline in the 1980's, Recover in the 1990's

State receipts of coal severance taxes declined by 18 percent during the late 1980's, from \$619 million in fiscal 1985 to \$507 million in fiscal 1989 (Table 4 and Figure 6). Coal production increased steadily during this period (Figure 3) and coal prices declined only slightly (Figure 2), indicating that the decline in receipts came from policy changes made by the coal-producing States. The top three coal-producing States (Wyoming, West Virginia, and Kentucky) all reduced their coal severance tax rates from 1985 to 1989 (Figure 7).⁹ Wyoming, the largest and fastest-growing coal producer, reduced its effective tax rate most dramatically, by 45 percent, from \$0.92 to \$0.50 per short ton.

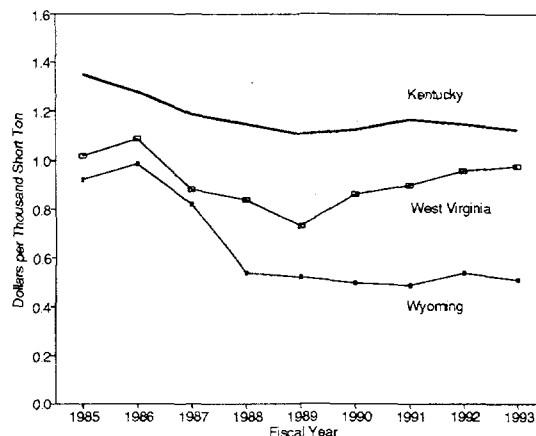
⁹Wyoming (at 210 million short tons), Kentucky (at 156 million short tons), and West Virginia (at 131 million short tons) mined over one-half of the 945 million short tons produced in the United States in calendar year 1993. The fourth-largest producer, Pennsylvania, produced 60 million short tons in 1993, less than half of West Virginia's production level. The remaining top 10 coal producers in 1993 were Texas, Illinois, Virginia, Montana, North Dakota, and Indiana. Source: Energy Information Administration, *Coal Industry Annual 1993*, DOE/EIA-0584(93) (Washington, DC, December 1994), p. 4.

Figure 6. Coal Severance Tax Receipts



Source: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data.

Figure 7. Effective Coal Severance Tax Rates, Top Three Coal-Producing States



Sources: **Coal Severance Taxes:** U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data. **Coal Production:** Energy Information Administration, Form EIA-74, "Coal Production Report."

Table 4. State Government Severance Taxes for Coal, Fiscal Years 1985-1993

Fiscal Year	Total Coal Severance Taxes (million dollars)	Effective Tax per Ton (dollars per short ton)	Price per Short Ton (dollars per ton)	Effective Tax per Ton as Percent of Price
1985	619	0.68	25.41	2.7
1986	627	0.71	24.58	2.9
1987	555	0.63	23.25	2.7
1988	541	0.57	22.40	2.6
1989	507	0.52	21.78	2.4
1990	557	0.55	21.64	2.5
1991	550	0.55	21.31	2.6
1992	589	0.59	21.07	2.8
1993	559	0.57	20.33	2.8

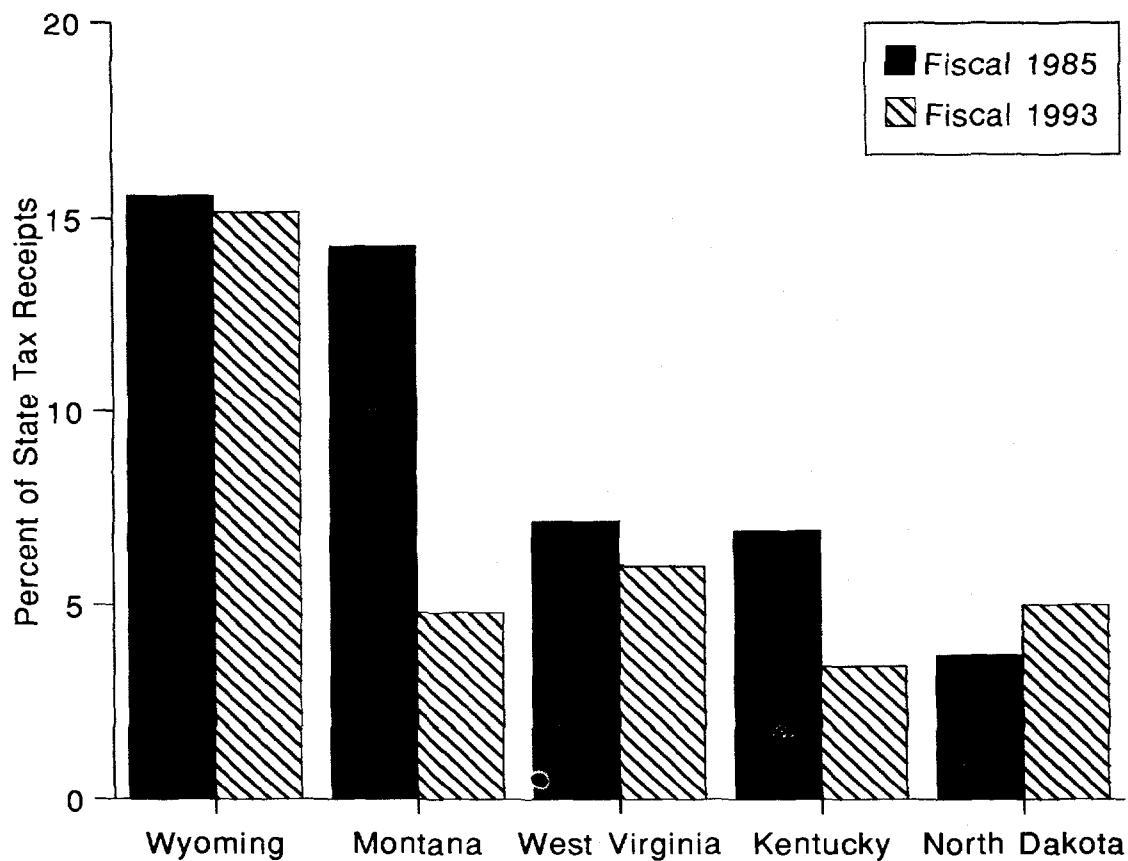
Sources: **Coal Severance Taxes:** U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data; **Coal Production:** Energy Information Administration, Form EIA-74, "Coal Production Report"; **Coal Prices:** Energy Information Administration, *Coal Industry Annual*, DOE/EIA-0584(93) (Washington, DC, December 1994), p. 147, and Energy Information Administration, *Coal Production*, DOE/EIA-0118, 1992 and earlier years.

Beginning in 1990, the major coal-producing States either increased (West Virginia) or stabilized (Kentucky and Wyoming) their severance tax rates (Figure 7). Combined with the steady decline in coal prices, this policy has resulted in a slight increase in the share of severance taxes in the price of coal, from 2.4 percent in 1989 to 2.8 percent in 1993 (Table 4).

Coal severance taxes accounted for an average of 0.2 percent of all State tax receipts in the United States in 1993, but reliance on coal severance taxes varied widely across the producing States. Of the top 10 coal-producing States in 1993, Texas, Pennsylvania, Illinois, Virginia, and Indiana levied zero or negligible coal severance taxes at the State level. However, the top three producing States still rely on coal severance taxes for a portion of State funds, as do North Dakota and Montana (Figure 8).

Although still substantial for some States, this reliance on coal tax receipts has generally declined since 1985 (Figure 8), due mainly to growth in other sources of revenue. For example, West Virginia and Kentucky have increased State funds from taxes other than coal severance taxes by 26 and 45 percent, respectively, between 1985 and 1993.

Figure 8. Reliance on Coal Severance Taxes, Selected States



Source: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data.

Appendix: Methodology and Data Sources

Energy Production under State Jurisdiction

State severance taxes apply only to energy production from areas under State jurisdiction. Thus, oil and gas production from Federal Outer Continental Shelf (OCS) waters off Alabama, California, Louisiana, and Texas are exempt from State severance tax. In this report, production from the OCS is excluded from fiscal year estimates of State energy production.

Evaluating and Adjusting State Tax Receipt Data

The primary source of data on severance tax receipts used in this study was the U.S. Bureau of the Census.¹⁰ Taxes on energy collected by county or city governments are not included. Reporting and classification of severance taxes is at the discretion of each State. Information from the Council of State Governments, *The Book of the States*, 1994-1995 and earlier editions, was used for detailed definitions of categories of severance taxes, helping to identify oil and gas severance taxes as well as coal severance taxes. For example, an adjustment was made for West Virginia, which transformed its "Business and Occupation" taxes on oil, gas, and coal producers into a severance tax in fiscal 1988. The West Virginia Department of Tax and Revenue provided a series of de facto severance taxes for 1985-1987. Similarly, coal severance tax receipts data for New Mexico were supplied by the New Mexico Taxation and Revenue Department. Consistency of the adjustments was confirmed by comparing results in overlapping years (1985-1987) to data reported in Energy Information Administration, *Energy Severance Taxes, 1972-1987*, DOE/EIA-0519 (Washington, DC, August 1988).

Establishing Consistent Yearly Data

State tax revenues are reported by fiscal year, rather than by calendar year. Further, there are four different fiscal year start dates that States employ, with the majority of States beginning their fiscal years on July 1st of the previous calendar year (see below). For example, fiscal 1985 began on July 1, 1984, and ended on June 30, 1985, for 46 States.¹¹ Data for the United States as a whole presented in this report as fiscal year totals reflect the mix in fiscal years across the States.

State Fiscal Years

April 1 - March 31	New York
September 1 - August 31	Texas
October 1 - September 30	Alabama, Michigan
July 1 - June 30	All Others

¹⁰U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data. Unpublished data from the Bureau of the Census is available on the Internet, World Wide Web, <http://www.census.gov/ftp/pub/govs/www/state.html>.

¹¹*The Book of the States*, (Lexington, KY: Council of State Governments), 1994-1995 and earlier issues.

The information on receipts of energy severance taxes is available on a fiscal year basis.¹² To analyze severance taxes relative to the production of energy, production data (available on a calendar year or monthly basis), must be adjusted to correspond to each State's fiscal year. In cases where monthly data were unavailable, fiscal years were approximated by averaging the annual values for two consecutive calendar years. All data on production of oil, gas, and coal are from the Energy Information Administration, and sources are referenced in the Appendix Tables.

Calculating Effective Tax Rates

The effective rate of severance taxation was arrived at by dividing fiscal year tax receipts by fiscal year energy production. The effective rates of taxation for petroleum and coal do not necessarily equal the legislated rates of taxation, because legislation often specifies exceptions and exemptions. However, effective tax rates are useful in comparing the overall results of tax policy across States and over time, which is the intent of this report.

¹²U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data.

Appendix Tables

Table A1. State Government Crude Oil and Natural Gas Severance Tax Receipts, Fiscal Years 1985-1993
(Thousand Dollars)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993
Alabama	83,984	62,858	41,312	47,561	48,423	44,827	62,550	47,776	59,249
Alaska	1,389,262	1,432,911	666,870	818,655	698,850	1,076,880	1,256,781	1,113,080	1,072,079
Arkansas	23,025	19,042	11,787	12,711	11,048	12,015	13,321	11,389	11,578
California	6,384	7,238	7,399	6,938	8,272	8,266	9,361	9,170	8,643
Colorado	19,105	12,546	5,564	7,272	7,377	8,522	15,600	10,400	22,813
Florida	21,364	17,436	14,070	9,067	8,834	9,467	9,335	6,878	18,454
Indiana	1,518	1,253	556	675	987	756	803	762	692
Kansas	111,373	101,342	62,516	80,777	79,723	86,620	99,590	88,789	102,685
Kentucky	14,790	24,418	9,727	14,960	10,675	11,764	13,755	10,913	12,263
Louisiana	731,757	608,818	439,236	462,704	397,375	414,888	564,597	474,614	433,994
Michigan	75,729	52,821	48,344	43,581	40,541	45,570	48,895	41,331	40,069
Mississippi	90,056	70,104	45,942	49,721	41,462	41,898	47,487	38,136	36,304
Montana	51,736	37,620	18,636	17,976	14,960	15,609	20,163	21,823	51,736
Nebraska	4,607	4,037	2,396	2,571	2,284	2,729	3,201	2,631	2,344
New Mexico	360,659	336,408	206,951	260,620	218,672	253,282	220,974	203,041	270,907
North Dakota	150,921	120,162	69,475	72,507	56,491	58,939	85,777	121,140	86,998
Ohio	5,115	5,437	4,858	4,680	4,325	4,207	3,913	3,883	3,845
Oklahoma	708,816	571,375	370,178	386,680	367,145	395,292	415,528	354,988	394,134
South Dakota	865	NA	0	1,243	1,023	1,284	1,634	1,322	1,253
Tennessee	1,092	784	351	400	327	352	404	380	356
Texas	2,171,330	1,547,926	1,178,051	1,055,564	1,168,019	1,084,227	1,351,773	1,009,878	1,175,185
Utah	48,592	42,881	20,793	25,513	25,637	24,707	23,764	11,747	13,246
West Virginia	50,778	55,252	40,133	29,553	24,967	23,206	20,823	17,464	18,674
Wyoming	278,348	255,555	144,259	146,197	142,617	164,916	173,121	145,622	156,902
U.S. Total	6,401,206	5,388,224	3,409,404	3,558,126	3,380,034	3,790,223	4,463,150	3,747,157	3,994,403

Sources: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data; *The Book of the States* (Lexington, KY: Council of State Governments), 1994-95 and earlier issues.

Table A2. State Government Coal Severance Tax Receipts, Fiscal Years 1985-1993
(Thousand Dollars)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993
Alabama	3,544	8,426	7,991	8,731	8,542	9,004	8,855	8,331	8,056
Colorado	8,869	9,068	3,784	7,814	6,043	5,360	5,890	5,300	8,261
Kansas	427	679	1,004	1,025	0	0	29	0	0
Kentucky	207,363	198,526	186,347	189,244	180,604	195,496	191,037	185,467	180,118
Montana	91,749	84,217	76,547	84,638	58,566	67,871	50,458	54,114	38,182
New Mexico	21,426	21,892	20,980	23,087	24,754	27,617	24,193	26,287	28,914
North Dakota	25,357	26,809	26,323	20,750	23,008	20,637	22,238	41,626	44,037
Ohio	1,584	1,873	2,086	3,081	2,864	2,967	2,931	2,623	2,602
Tennessee	1,727	1,537	1,230	1,420	1,261	1,185	1,043	819	659
West Virginia	131,910	142,722	113,388	117,062	111,988	137,444	150,103	160,922	148,066
Wyoming	125,683	131,737	115,476	84,075	89,124	89,108	93,419	103,815	100,349
U.S. Total	619,639	627,486	555,156	540,927	506,754	556,689	550,196	589,304	559,244

Sources: U.S. Bureau of the Census, Series GF/92-1, *State Government Tax Collections: 1992*, U.S. Government Printing Office, Washington, DC, 1994, and earlier issues, and U.S. Bureau of the Census, unpublished data; *The Book of the States* (Lexington, KY: Council of State Governments), 1994-95 and earlier issues.

Table A3. Production of Oil Under State Jurisdiction, Including Lease Condensate, Fiscal Years 1985-1993
(Thousand Barrels)^a

State	1985	1986	1987	1988	1989	1990	1991	1992	1993
Alabama	20,878	21,927	20,391	20,587	20,614	19,030	18,473	19,179	18,515
Alaska	648,802	677,077	695,273	731,058	710,191	665,066	655,338	644,346	598,119
Arizona	185	179	137	123	122	138	117	99	85
Arkansas	18,746	18,011	14,733	14,243	12,109	11,069	11,076	10,639	10,250
California	386,570	394,981	365,151	363,875	342,073	325,270	320,305	313,959	296,871
Colorado	29,530	30,049	28,626	31,170	32,390	30,746	31,126	31,170	30,135
Florida	12,957	10,607	8,273	8,241	7,366	6,813	4,644	5,291	5,412
Illinois	29,585	30,406	24,524	23,595	21,268	20,106	19,265	19,352	18,252
Indiana	5,363	4,978	4,367	3,881	3,442	3,130	2,970	3,017	2,876
Kansas	75,472	73,869	61,413	60,497	56,892	54,599	57,542	55,373	50,779
Kentucky	7,732	7,498	5,879	5,624	5,588	5,161	5,451	5,505	5,275
Louisiana	186,269	183,770	178,128	171,350	158,759	148,372	148,493	146,061	140,176
Michigan	28,373	26,881	25,630	24,843	22,313	20,489	18,921	16,373	14,484
Mississippi	31,584	30,586	29,118	27,864	28,246	27,903	27,414	26,242	24,062
Missouri	258	223	96	162	142	144	142	155	134
Montana	29,903	28,862	25,705	24,415	22,052	20,260	19,774	19,060	17,842
Nebraska	6,709	7,165	6,536	5,890	6,285	5,975	5,842	5,767	5,130
Nevada	2,686	3,140	2,923	3,139	3,228	3,602	3,982	3,130	3,194
New Mexico	79,557	77,966	72,534	72,512	70,041	67,785	69,685	70,734	69,032
New York	959	959	796	641	530	438	420	413	380
North Dakota	52,256	48,918	43,009	40,251	37,628	36,796	36,776	34,294	31,777
Ohio	15,174	14,220	12,957	12,055	11,014	9,962	9,469	9,229	8,658
Oklahoma	164,951	160,206	138,410	132,847	122,840	114,345	110,894	104,668	99,059
Pennsylvania	4,560	4,322	3,582	3,080	2,738	2,647	2,511	2,310	2,162
South Dakota	1,504	1,582	1,613	1,680	1,606	1,633	1,665	1,620	1,516
Tennessee	864	703	612	616	577	516	482	521	441
Texas	873,577	857,447	781,401	751,333	710,771	676,663	689,733	665,698	635,919
Utah	38,654	41,625	36,786	34,900	30,102	28,291	26,463	23,866	22,955
Virginia	29	21	17	23	23	18	12	12	13
West Virginia	3,623	3,406	2,934	2,770	2,427	2,163	2,055	1,984	2,080
Wyoming	127,411	126,879	116,310	116,524	111,192	106,131	101,882	98,755	91,880
Total Under State Jurisdiction	2,884,721	2,888,463	2,707,865	2,689,788	2,554,570	2,415,260	2,402,922	2,338,823	2,207,466

^aProduction excludes Federal Outer Continental Shelf (OCS).

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, *Petroleum Supply Annual*, Vol.1, DOE/EIA-0340 (Washington, DC), various issues.

Table A4. Marketed Production of Natural Gas (Wet) Under State Jurisdiction, Fiscal Years 1985-1993
(Million Cubic Feet)^a

State	1985	1986	1987	1988	1989	1990	1991	1992	1993
Alabama	109,107	105,818	114,825	125,532	133,235	129,482	154,500	312,769	366,835
Alaska	313,291	310,696	330,643	369,569	386,899	395,432	421,367	447,240	434,730
California	437,206	435,373	394,315	366,154	342,110	316,680	326,215	338,916	286,961
Colorado	175,634	171,370	156,052	187,020	196,872	229,023	261,904	303,564	362,155
Florida	11,806	9,853	8,105	8,225	7,176	7,442	4,690	6,354	6,984
Kansas	458,102	539,385	491,426	555,495	590,177	579,981	599,385	623,849	690,141
Louisiana	2,027,151	1,765,442	1,844,841	1,884,239	1,832,440	1,612,823	1,715,707	1,683,553	1,539,334
Michigan	136,367	126,106	143,118	147,573	152,300	169,381	190,081	191,423	212,431
Mississippi	151,023	139,988	144,493	131,350	113,424	94,846	101,851	100,365	87,872
Montana	51,118	49,088	46,426	47,539	53,405	49,993	53,435	52,552	54,416
New Mexico	970,198	804,352	709,096	867,921	785,380	914,848	1,009,998	1,108,269	1,370,311
North Dakota	71,583	61,939	62,531	59,147	53,714	51,876	52,585	54,202	57,206
Oklahoma	2,054,144	1,949,273	2,022,506	2,113,997	2,190,965	2,273,463	2,212,985	2,076,326	2,020,215
Texas	5,143,133	5,257,259	4,972,542	5,035,650	4,977,488	4,923,595	4,829,803	4,892,835	4,992,523
Utah	78,327	87,777	84,311	100,916	106,991	134,268	143,483	147,595	213,536
Wyoming	463,796	396,362	486,687	480,005	583,249	685,867	769,659	772,643	855,705
Other States	796,676	749,741	782,636	727,068	815,456	808,581	810,459	722,063	763,165
Total Under State Jurisdiction	13,448,662	12,959,822	12,794,554	13,207,400	13,321,280	13,377,581	13,658,107	13,834,517	14,314,521

^aProduction excludes Federal Outer Continental Shelf (OCS).

Notes: Totals may not equal sum of components due to independent rounding. Federal OCS production on a fiscal year basis was estimated on the basis of the arithmetic average of production in each appropriate calendar year. Federal OCS production is subtracted from total State production in Texas, Louisiana, and California to arrive at production under State jurisdiction. A small amount of Federal OCS production from Federal offshore Alabama is included in Federal offshore Louisiana.

Sources: **Marketed Production by State:** Energy Information Administration, Form EIA-627, and Energy Information Administration, Natural Gas Monthly, DOE/EIA-0130, (Washington, DC), various issues. **Federal OCS Wet Natural Gas Production:** Energy Information Administration, *U.S. Crude Oil Natural Gas and Natural Gas Liquids Reserves 1993*, DOE/EIA-0216 (Washington DC), 1986-1993; Estimate for Federal OCS production in 1985 and 1986 are based on Energy Information Administration, *Natural Gas Annual 1988*, DOE/EIA-0131(88) (Washington, DC, October 1989), Table 4.

Table A5. Production of Oil and Gas Under State Jurisdiction, Fiscal Years 1985-1993
(Thousand COE Barrels)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993
Alabama	41,768	42,197	42,386	44,622	46,067	43,720	47,948	78,983	88,594
Alaska	708,786	736,591	758,608	801,817	784,102	740,471	735,725	729,861	681,168
Arizona	185	179	137	123	122	138	117	99	85
Arkansas	18,746	18,011	14,733	14,243	12,109	11,069	11,076	10,639	10,250
California	470,280	478,377	440,683	433,981	407,428	385,657	382,539	378,762	351,691
Colorado	63,158	62,875	58,518	66,978	70,000	74,419	81,091	89,213	99,319
Florida	15,217	12,494	9,826	9,816	8,737	8,232	5,539	6,506	6,746
Illinois	29,585	30,406	24,524	23,595	21,268	20,106	19,265	19,352	18,252
Indiana	5,363	4,978	4,367	3,881	3,442	3,130	2,970	3,017	2,876
Kansas	163,183	177,189	155,547	166,856	169,636	165,196	171,891	174,657	182,620
Kentucky	7,732	7,498	5,879	5,624	5,588	5,161	5,451	5,505	5,275
Louisiana	574,399	521,944	531,511	532,117	508,818	455,920	475,808	467,968	434,242
Michigan	54,483	51,037	53,044	53,098	51,408	52,788	55,183	52,974	55,066
Mississippi	60,500	57,401	56,796	53,013	49,914	45,989	46,844	45,433	40,849
Missouri	258	223	96	162	142	144	142	155	134
Montana	39,690	38,265	34,598	33,517	32,254	29,793	29,968	29,109	28,237
Nebraska	6,709	7,165	6,536	5,890	6,285	5,975	5,842	5,767	5,130
Nevada	2,686	3,140	2,923	3,139	3,228	3,602	3,982	3,130	3,194
New Mexico	265,316	232,041	208,362	238,689	220,075	242,237	262,368	282,643	330,809
New York	959	959	796	641	530	438	420	413	380
North Dakota	65,962	60,782	54,987	51,576	47,890	46,688	46,808	44,658	42,705
Ohio	15,174	14,220	12,957	12,055	11,014	9,962	9,469	9,229	8,658
Oklahoma	558,249	533,593	525,825	537,604	541,390	547,871	533,078	501,676	484,990
Pennsylvania	4,560	4,322	3,582	3,080	2,738	2,647	2,511	2,310	2,162
South Dakota	1,504	1,582	1,613	1,680	1,606	1,633	1,665	1,620	1,516
Tennessee	864	703	612	616	577	516	482	521	441
Texas	1,858,310	1,864,484	1,733,900	1,715,486	1,661,643	1,615,542	1,611,143	1,601,242	1,589,663
Utah	53,651	58,439	52,936	54,221	50,541	53,895	53,836	52,087	63,748
Virginia	29	21	17	23	23	18	12	12	13
West Virginia	3,623	3,406	2,934	2,770	2,427	2,163	2,055	1,984	2,080
Wyoming	216,212	202,803	209,536	208,428	222,613	236,919	248,714	246,489	255,349
Other States (gas only)	152,536	143,614	149,915	139,208	155,780	154,188	154,616	138,063	145,791
Total Under State Jurisdiction	5,459,676	5,370,939	5,158,684	5,218,549	5,099,393	4,966,226	5,008,559	4,984,078	4,942,033

COE = Crude oil equivalent barrels.

Notes: Production excludes Federal Outer Continental Shelf (OCS). Totals may not equal sum of components due to independent rounding. Wet natural gas is converted to crude oil equivalent barrels (COE), on the basis of an approximate heat content ranging from 1,112 Btu per cubic foot in 1985 to 1,106 Btu per cubic foot in 1993.

Source: See footnotes to Appendix Tables A3, A4.

Table A6. Coal Production, Fiscal Years 1985-1993
(Thousand Short Tons)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993
Alabama	28,285	25,841	25,264	26,159	27,388	29,648	27,493	25,785	25,253
Alaska	1,161	1,465	1,466	1,682	1,629	1,589	1,647	1,528	1,578
Arizona	11,173	9,885	11,072	11,762	12,565	11,371	12,733	12,981	11,595
Arkansas	105	63	161	107	238	67	64	49	49
Colorado	17,762	16,852	13,932	14,778	16,780	18,505	18,650	17,590	20,078
Illinois	60,473	63,276	58,499	58,533	59,866	60,938	58,414	61,946	52,903
Indiana	35,292	33,482	32,532	32,749	32,268	35,650	33,528	32,394	28,682
Iowa	577	537	485	390	403	371	369	323	227
Kansas	1,180	1,358	1,598	1,526	522	975	572	337	382
Kentucky	153,425	154,739	156,944	164,106	162,486	172,716	162,828	161,632	158,704
Louisiana	0	1,398	2,432	2,886	2,728	3,142	2,964	3,372	3,228
Maryland	3,829	3,158	3,725	3,947	3,402	3,261	3,412	3,910	3,102
Missouri	6,183	5,139	4,425	4,168	3,867	3,103	2,268	2,750	1,726
Montana	33,301	31,799	32,857	39,367	37,790	38,086	37,259	37,917	37,868
New Mexico	22,031	21,542	19,419	20,870	23,488	24,300	22,404	21,959	26,890
North Dakota	25,055	25,349	25,306	27,057	30,578	29,498	28,905	30,580	31,800
Ohio	37,622	36,652	35,496	34,777	33,770	34,752	33,246	30,099	29,633
Oklahoma	4,167	3,312	2,567	2,707	1,795	1,842	1,592	1,869	1,698
Pennsylvania	75,053	72,232	69,592	71,095	70,831	72,596	64,871	68,647	65,461
Tennessee	7,242	7,776	6,089	6,459	6,458	6,767	5,216	3,609	3,223
Texas	44,643	46,391	49,713	53,162	52,133	55,676	54,259	54,550	54,519
Utah	12,113	14,281	15,249	17,320	18,683	21,771	21,739	21,953	20,950
Virginia	40,618	42,334	40,326	46,474	45,347	44,582	44,251	42,563	41,769
Washington	4,118	4,720	4,367	4,986	5,027	4,927	4,787	5,527	4,812
West Virginia	129,409	131,372	129,508	139,944	153,158	160,330	167,166	166,776	151,273
Wyoming	137,131	133,575	140,659	154,992	169,790	177,352	191,911	191,112	198,208
U.S. Total	891,948	888,526	883,682	942,003	972,989	1,013,815	1,002,545	1,001,760	975,612

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, form EIA-7A, "Coal Production Report;" State Mining Agency Coal Production Reports; and/or US Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table A7. State Government Crude Oil and Natural Gas Severance Tax Receipts, Fiscal Years 1972-1984
(Thousand Dollars)

State	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	2,098	2,884	5,426	8,090	9,229	11,529	15,482	17,310	30,019	55,757	57,873	72,275	114,085
Alaska	12,124	11,469	14,763	26,619	27,978	23,758	107,715	173,685	506,469	1,170,180	1,571,553	1,494,034	1,393,039
Arkansas	3,871	3,840	5,396	6,287	7,798	9,248	10,632	10,727	16,248	24,711	26,816	25,490	24,072
California	1,554	1,407	1,661	2,331	2,334	1,530	2,313	4,188	3,535	4,395	5,303	5,339	4,667
Colorado	524	795	1,063	2,315	4,313	2,244	4,726	7,863	8,742	17,854	34,393	24,040	18,827
Florida	2,250	4,910	12,177	20,214	26,371	26,439	42,768	49,307	57,318	95,240	79,388	78,245	71,599
Indiana	221	203	315	475	508	580	649	673	1,582	1,811	1,780	1,616	1,521
Kansas	687	711	704	700	785	816	841	1,097	1,100	1,007	1,013	2,339	116,585
Kentucky	174	159	243	349	418	408	395	404	876	12,342	13,696	14,270	13,377
Louisiana	236,485	259,455	380,768	539,571	507,140	485,339	466,346	458,009	513,151	803,147	971,678	859,930	803,183
Michigan	967	1,076	2,286	4,502	6,986	9,459	11,575	13,570	43,312	82,622	81,496	81,478	73,313
Mississippi . . .	13,143	12,643	16,871	20,615	21,709	23,417	25,547	30,713	50,220	85,670	114,599	112,243	100,179
Montana	483	2,693	4,256	6,180	5,564	6,884	7,732	8,208	12,659	21,694	53,733	47,879	51,827
Nebraska	631	525	722	958	1,113	1,131	1,242	1,516	2,948	4,196	6,010	5,217	4,539
New Mexico . . .	34,877	35,916	42,737	69,641	86,150	100,615	128,678	138,511	191,281	290,288	352,415	327,445	338,476
North Dakota . .	3,306	3,140	4,358	6,880	8,283	9,288	10,730	13,533	29,687	87,560	169,225	166,781	176,793
Ohio	176	1,042	1,063	1,068	1,064	1,146	1,111	1,436	1,609	1,712	1,750	1,680	3,964
Oklahoma	73,342	71,456	96,980	128,096	151,316	191,351	230,368	280,982	436,098	601,486	742,701	777,687	703,738
South Dakota . .	0	0	0	0	0	0	346	320	437	1,270	859	853	791
Tennessee	0	0	0	0	0	0	38	26	250	504	521	1446	1236
Texas	307,368	334,798	518,229	662,089	795,903	902,801	955,050	1021017	1519937	2,192,886	2,373,847	2,251,314	2215350
Utah	1,432	1,530	2,421	5,896	6,992	6,441	6,643	6,175	6975	11,661	18,040	17,354	34763
West Virginia . .	0	0	0	0	0	0	0	0	0	0	0	0	0
Wyoming	5,075	5,307	5,086	18,543	40,691	45,972	48,305	57,141	62757	78,387	287,763	271,131	267167
U. S. Total . .	700,788	755,959	1,117,525	1,531,419	1,712,645	1,860,396	2,079,232	2,296,411	3,497,210	5,646,380	6,966,452	6,640,086	6,533,091

Sources: U.S. Bureau of the Census, Series, GF/84-1, *State Government Tax Collections: 1984*, U.S. Government Printing Office, Washington, DC, 1986, and earlier issues.

Table A8. State Government Coal Severance Tax Receipts, Fiscal Years 1972-1984
(Thousand Dollars)

State	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	2,040	2635	1,771	1,507	843	672	0	3,240	570	3,108	3,847	3,106	3,454
Colorado	37	38	45	46	58	76	801	8,274	11,132	10,595	11,736	11,297	16,379
Kansas	0	0	0	0	0	0	0	0	0	0	0	0	306
Kentucky	5,767	37226	53,495	98,740	91,078	112,597	127,765	153,613	176,368	178,759	237,882	201,815	191,845
Montana	2,668	2694	3,315	5,396	22,924	34,470	33,624	42,049	75,125	70,415	86,187	80,045	82,824
New Mexico . . .	30	32	70	183	270	1,308	3,565	5,479	8,046	13,288	17,052	17,833	19,434
North Dakota . .	0	0	0	0	4,311	6,130	7,889	11,970	14,240	15,830	17,460	17,746	22,760
Ohio	555	2136	2,012	1,928	2,070	1,997	1,937	2,124	2,075	1,718	1,648	1,334	1,404
Tennessee	NA	NA	810	1,595	1,818	2,052	2,098	2,129	1,954	2,048	1,991	1,973	2,099
Wyoming	NA	NA	NA	NA	283	997	17,716	30,278	42,943	59,938	101,598	117,765	121,133
U.S. Total . . .	11,097	44,761	61,518	109,395	123,655	160,299	195,395	259,156	332,453	355,699	479,401	452,914	461,638

Sources: U.S. Bureau of the Census, Series, GF/84-1, *State Government Tax Collections: 1984*, U.S. Government Printing Office, Washington, DC, 1986, and earlier issues.