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**WESTERN ENERGY PRODUCTION:
RELATED TAXES, SUBSIDIES, AND
THE IMPACT UPON THE NORTHEASTERN
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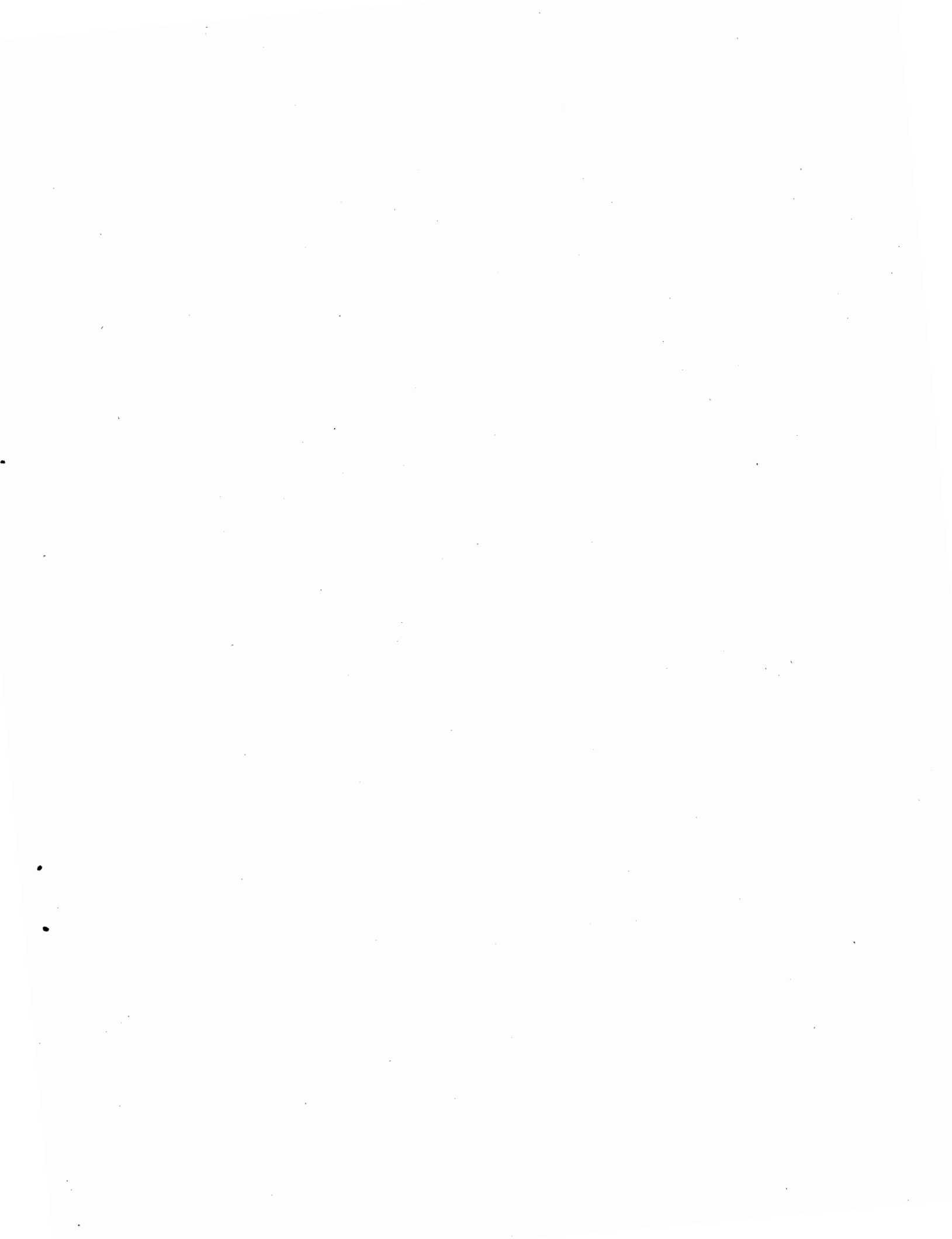
Governor

WESTERN ENERGY PRODUCTION:
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THE IMPACT UPON THE NORTHEASTERN
REGION

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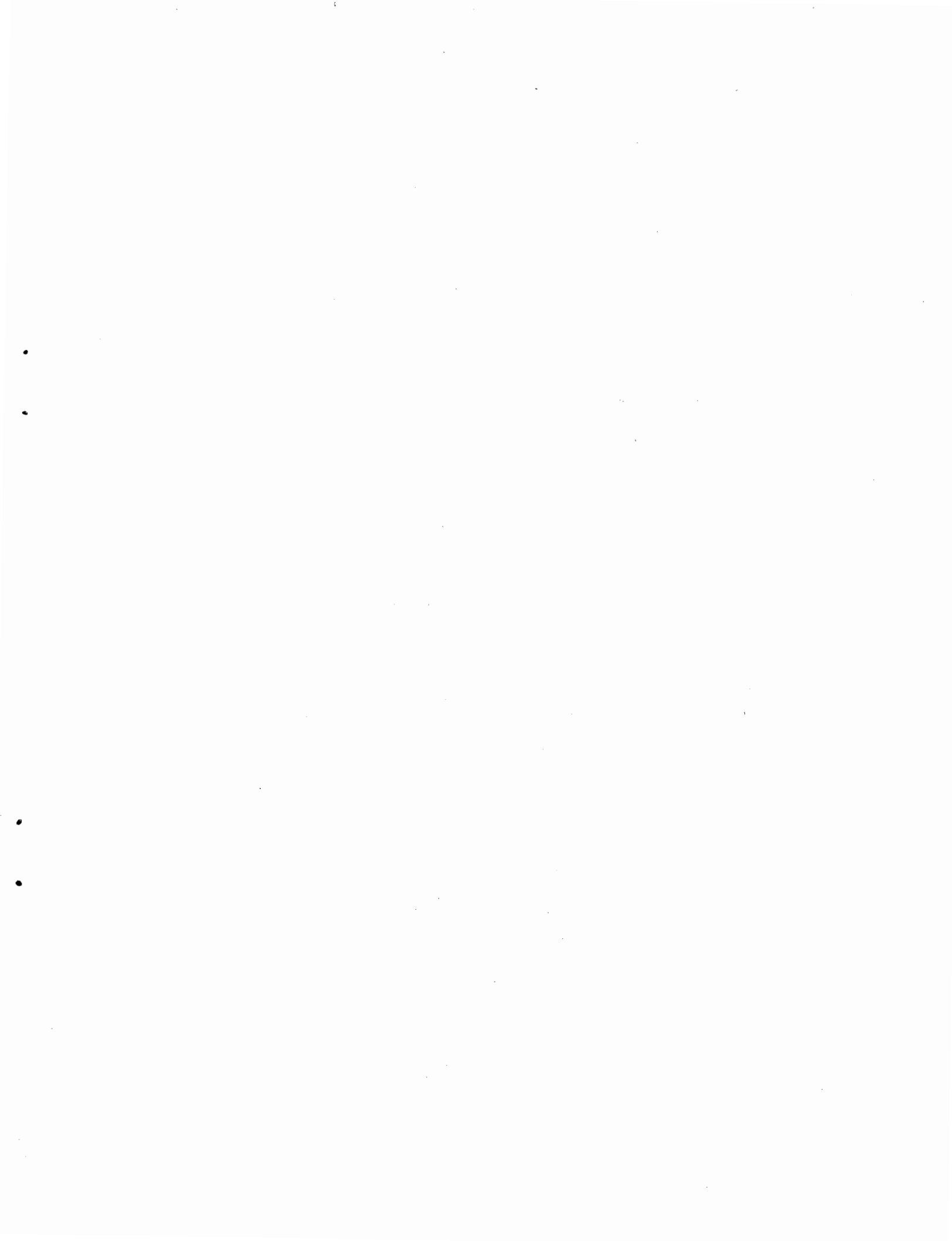
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GOVERNOR'S OFFICE OF POLICY AND PLANNING

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Donald Linky, Director
Governor's Office of Policy and
Planning



EXECUTIVE SUMMARY

Summary of Findings

This study reviews certain aspects of national energy policy as it affects the economies of primarily energy-producing and energy-consuming regions within the United States. It focuses on the impact of state severance taxes imposed on domestic energy production by producing states, and the effect of current federal policies providing certain energy-related subsidies to producing states on the economies of energy-producing and energy-consuming regions.¹

1. Energy-producing states which impose severance taxes tied to the increased value of energy resources have received substantial increases in severance tax revenues since the 1973 OPEC oil embargo. Federal mineral leasing revenues which energy-producing states currently receive under a 50% revenue-sharing program (37.5% prior to enactment of the Federal Land Policy and Management Act of 1976), have also increased significantly since 1973, although the magnitude of these revenues is much less than the magnitude of the severance tax revenues. The recent federal energy policies accelerating

¹ This report specifically examines the energy-producing Gulf Coast and Rocky Mountain regions, and the energy-consuming Northeast region. The following regional definitions are employed in this report: (1) Gulf Coast region - Texas, Louisiana, and Oklahoma; (2) Rocky Mountain region - Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming; (3) Northeast region - Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. It is based on assumptions relating to international and domestic energy prices as of August 1979.

decontrol of oil and gas prices and promoting the use of coal will further increase the severance tax and federal mineral leasing revenues received by energy-producing states.

2. Total annual severance tax and federal mineral leasing revenues received by energy-producing states rose from approximately \$905 million in 1973 to approximately \$2.7 billion in 1978, which represents an increase of approximately 200%. This study projects that the total annual severance tax and mineral leasing revenues in 1985 will be in excess of \$9.0 billion, a 235% increase over 1978 and 895% increase over 1973 levels. This will consist of an estimated \$8.2 billion in severance taxes and \$850 million in federal mineral leasing revenues. Energy producing states will receive an estimated total of \$44 billion in severance tax and federal mineral leasing revenues over the 1979-85 period.

3. The Gulf Coast and Rocky Mountain energy-producing states received approximately \$2.2 billion in severance tax revenues and federal mineral leasing revenues in 1978, which amounted to approximately 80% of total national revenues, and \$765 million in state mineral leasing revenues. These states will receive in excess of an estimated \$6.6 billion annually in severance tax revenues and federal mineral leasing revenues in 1985, which represents an increase in excess of 200% over the 1978 level and 745% over the 1973 level.

4. The Gulf Coast states of Texas and Louisiana received the highest amounts of annual severance tax revenues over the 1973-78 period, and will receive substantial increases in the future. Texas will receive an estimated \$3.0 billion annually in oil and gas severance tax revenues in 1985, which represents a 210% increase over its 1978 revenues, and a 790% increase over its 1973 revenues. Severance taxes accounted for approximately 18% of the total tax revenue collected by Texas in 1978, as opposed to a corresponding 12% share in 1973. Louisiana will receive an estimated \$1.3 billion in oil and gas severance tax revenues in 1985, which represents a 170% increase over its 1978 revenues and a 400% increase over its 1973 revenues. Louisiana's natural gas tax revenues may be augmented by its imposition of a first-use tax which is currently being challenged by the Federal Energy Regulatory Commission along with a group of Midwestern and Northeastern states. Texas and Louisiana will receive an estimated \$15.6 billion and \$7.0 billion, respectively, in severance tax revenues over the 1979-85 period.

5. The largest increases in the Rocky Mountain region have been, and will continue to be, experienced by its primary coal-producing states, Wyoming and Montana. Wyoming will receive an estimated \$875 million in coal and oil severance tax revenues and federal mineral leasing revenues in 1985, which represents a 535% increase over its 1978 revenues, and a thirty-fourfold increase over its 1973 revenues. Montana will receive an estimated \$535 million in coal and oil severance tax revenues and federal mineral leasing

revenues in 1985, which represents an approximate 1,000% increase over its corresponding 1978 revenues, and an eighty-ninefold increase over its 1973 revenues.²

6. The substantial increases in severance tax and federal mineral leasing revenues received by energy-producing states since 1973 may already have had direct and indirect adverse impacts upon energy-consuming regions, such as the Northeast, and further impacts may result from even greater increases expected to occur in the future.

7. Severance taxes increase the costs of crude oil, petroleum products, coal, and natural gas transported to other states from the energy-producing states. Severance tax revenues also allow some energy-producing states to export a significant portion of their tax burden to energy-consuming states. For example, Louisiana may have exported approximately 70% of its natural gas severance tax to

² The part of these estimated revenues attributable to coal severance tax and federal coal leasing receipts may be somewhat overstated because of: (a) the Department of Energy policy, which was issued after the coal conversion section of the National Energy Plan had already been approved by Congress, directing that the surplus of natural gas, rather than coal, be used as a substitute for oil in the short term; (b) the remaining economic and environmental constraints on coal production and consumption; and (c) the current legal challenge mounted by a group of Midwestern utilities and Montana coal producers on the 30% Montana coal severance tax, which is the highest severance tax in the nation. On the other hand, the part attributable to federal oil and gas leasing receipts is likely to be significantly understated because the actual receipts are likely to be greater than the inflation-adjusted 1977 receipts used for these projections.

out-of-state consumers in 1977,³ and severance taxes as a whole accounted for an estimated 24% of total 1978 tax revenues in Louisiana.

8. The Northeast subsidizes Gulf Coast taxpayers through the severance tax payments associated with its imports of natural gas and petroleum products. This subsidy is likely to increase in the future in both absolute and relative terms since:

- a) the Northeast's share of Gulf Coast natural gas severance tax payments is likely to increase as a result of the Natural Gas Policy Act of 1978, and
- b) the federally-mandated limitations on imports of foreign crude oil may increase the Northeast's dependence on domestic crude oil supplies and thus increase its oil severance tax payments to the Gulf Coast states.

9. Certain federal grant formulas, particularly those which allocate funds according to an evaluation of state tax effort and/or fiscal capacity, do not account for the ability of energy-producing states to export a significant portion of their tax burden to energy-consuming states, such as the Northeastern states. This leads to an inequitable allocation of federal grant funds since these formulas overstate the tax burden placed upon residents of energy-producing states, and understate the tax burden placed upon residents of energy-consuming states. This inequitable distribution

³ This assumes that the cost of the severance tax is fully passed along to consumers, and that the distribution of payments is directly proportional to the distribution of demand.

of funds from such federal grants programs as general revenue-sharing and Medicaid will be exacerbated by the substantial rise in severance tax payments which energy-consuming states are expected to make to energy-producing states in the future.

10. Increased revenues from severance taxes and federal energy-related subsidies received by energy-producing states may also impose indirect costs upon the Northeast by weakening the Northeast's competitive position with respect to energy-producing states in the attraction and retention of business activity. This may occur as energy-producing states utilize these revenues to fund public expenditures which create a favorable business climate, and to reduce their dependence upon other, less desirable revenue sources - such as income, sales, property, and corporate taxes - which are more likely to have an adverse impact upon their business climates. The extent to which the resulting improvement in the business climate of the energy-producing states will affect regional growth patterns is uncertain, but it is likely that some relative locational advantages will be gained by energy-producing states.

11. It is likely that indirect benefits from severance taxes and energy-related subsidies will be more pronounced, at least in the short term, in the Gulf Coast region than in the Rocky Mountain region. Additional energy-related revenues are likely to exceed any additional energy-related public expenditures in the Gulf Coast region where the major impact of energy development probably already

has occurred. In contrast, additional short-term energy development-related public expenditures in the Rocky Mountain region are likely to be substantial. These costs are likely to be met through the obligation of revenues derived from energy production, as well as through various mechanisms which are designed to achieve a balanced distribution of development costs between the public and private sectors.

Summary of Recommendations

1. Conservation of energy supplies must continue to be the major strategy of the State's energy policy in order to reduce the amount of capital committed to the purchase of energy. The State has only limited capability to influence increased energy supplies in the short-term, and conservation must remain as a dominant strategy for economic reasons even if the long-term supply problems are resolved.

2. The State should promote federal policies which reinvest massive amounts of capital in New Jersey and the region, particularly for projects which increase energy efficiency and self-dependence. The windfall profits tax proposed by the President would be an effective means to divert capital which would ordinarily add to the capital drain from New Jersey to necessary investment within the State. In the absence of governmental intervention, this capital would likely be directed to energy-producing regions in the nation or abroad. Specific examples of capital investment needs funded by the windfall profits tax and related programs include:

- a) public transit investment, such as the Northeast Railroad Corridor Improvement Project and new transit capital investment;
- b) alternative fuel projects compatible with the State's resources and environmental constraints, particularly solid waste energy generation and solar energy;

- c) urban redevelopment to maintain and encourage energy-efficient land-use patterns of high population density.

3. The State should act on a regional basis to stimulate new capital investment in major energy production and conservation projects. Proposals such as the Energy Corporation of the Northeast (ENCONO) would be part of an overall regional effort to reduce the amount of capital required for energy purchases and recycle capital into the region.

4. The State should seek federal action to reduce excess costs paid by New Jersey consumers for out-of-state energy supplies resulting from tax policies of energy-producing states, and to eliminate unnecessary federal aid given to energy-producing states. The State should review available political, legal and economic strategies to challenge policies of other states and the federal government which unnecessarily inflate energy costs, weaken New Jersey's competitive economic position and divert capital resources from investment in energy production and conservation.

5. The State should review its current tax policies to determine whether revisions could assist the State's competitive economic position. Tax measures which would allow the State to recapture energy-related revenues should be carefully explored.

6. The federal government should incorporate land-use implications of energy consumption and efficiency into the national energy strategy. Current federal and state tax policies which encourage capital investment and economic development in energy-producing areas with relatively inefficient energy consumption patterns will be counter-productive to the nation's long-term energy efficiency and effective utilization of limited capital resources.

7. The State should review current public and private capital investment decisions on the basis of energy efficiency. Public infrastructure investment for highways, sewers, housing and other facilities should be assessed in terms of impacts on direct energy consumption and indirect effects on land-use patterns. The State should encourage expansion of energy-efficient industries, particularly high technology, communications and electronics industries which build on New Jersey's already strong position in this area.

8. The State should promote its excellent access to consumer markets and existing transportation network to industries seeking to lower shipping costs.

9. The State should seek to attract investment from regions benefiting from energy capital transfers. Strategies should be initiated for investment for energy-producing nations and domestic regions.

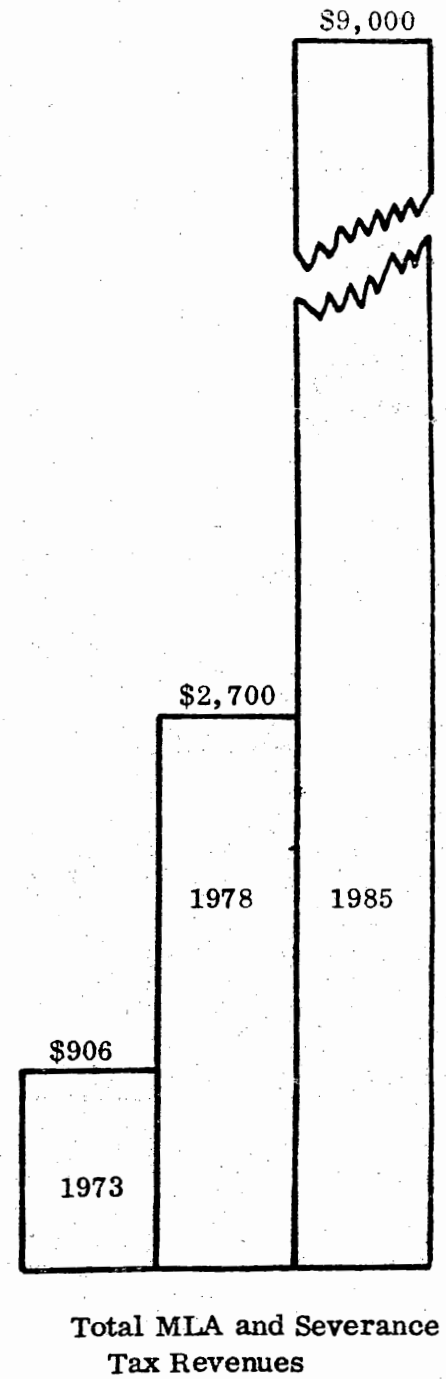
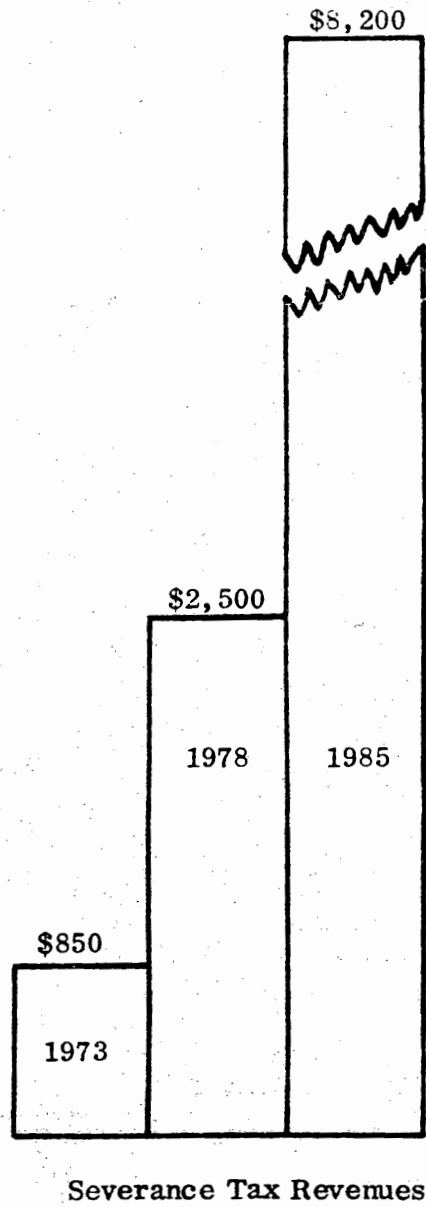
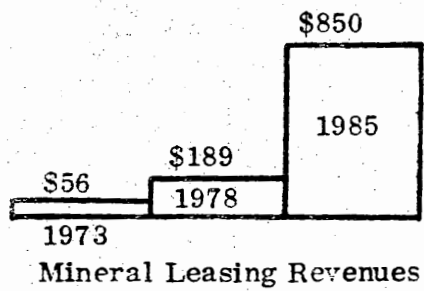
10. The State should seek review and reform of current federal funding formulas which provide inequitable amounts of aid to energy-producing regions. The ability of energy producing states to export a substantial portion of their tax burden to out-of-state consumers tends to overstate tax efforts. Simultaneously, this understates the State's fiscal capacity and results in a greater share of federal financial assistance. Existing federal funding formulas which include either state tax effort or fiscal capacity as a measure for allocating funds should be amended to adequately account for that portion of a State's tax effort which is derived from out-of-state consumers.

I. State Energy-Related Revenue Totals

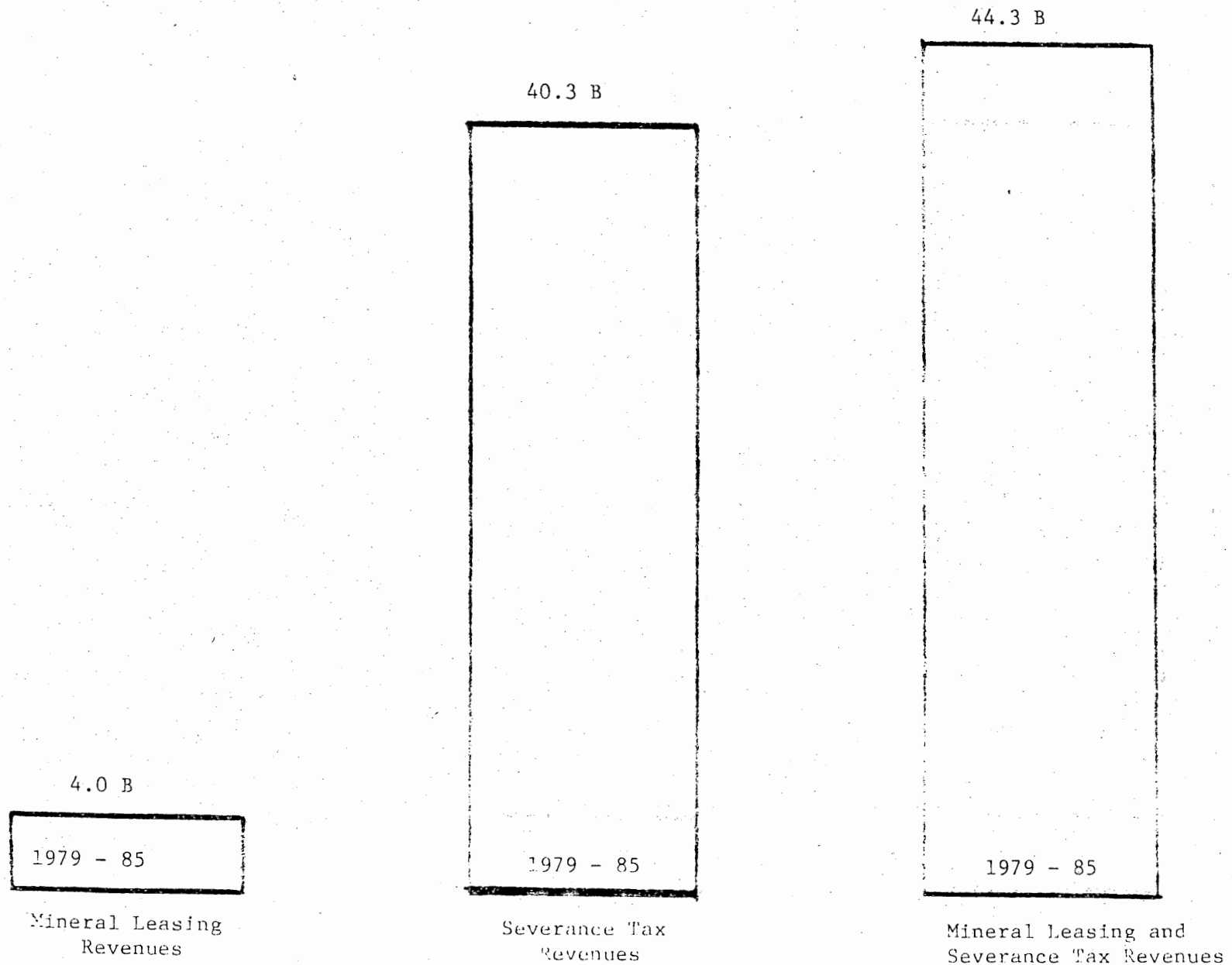
Severance taxes along with federal mineral leasing revenues represent the largest sources of state revenues derived from energy resource production. The following pages contain graphs depicting:

- (1) The growth in severance tax and federal mineral leasing revenues received nationally by energy-producing states between 1973 and 1978, and the growth expected to occur between 1978 and 1985,
- (2) The accumulated severance tax and federal mineral leasing revenues expected to be received nationally by energy-producing states over the 1979-85 period, and
- (3) Corresponding figures for the Gulf Coast states - Texas, Louisiana, and Oklahoma - which received the largest amounts of severance tax revenues in 1978.

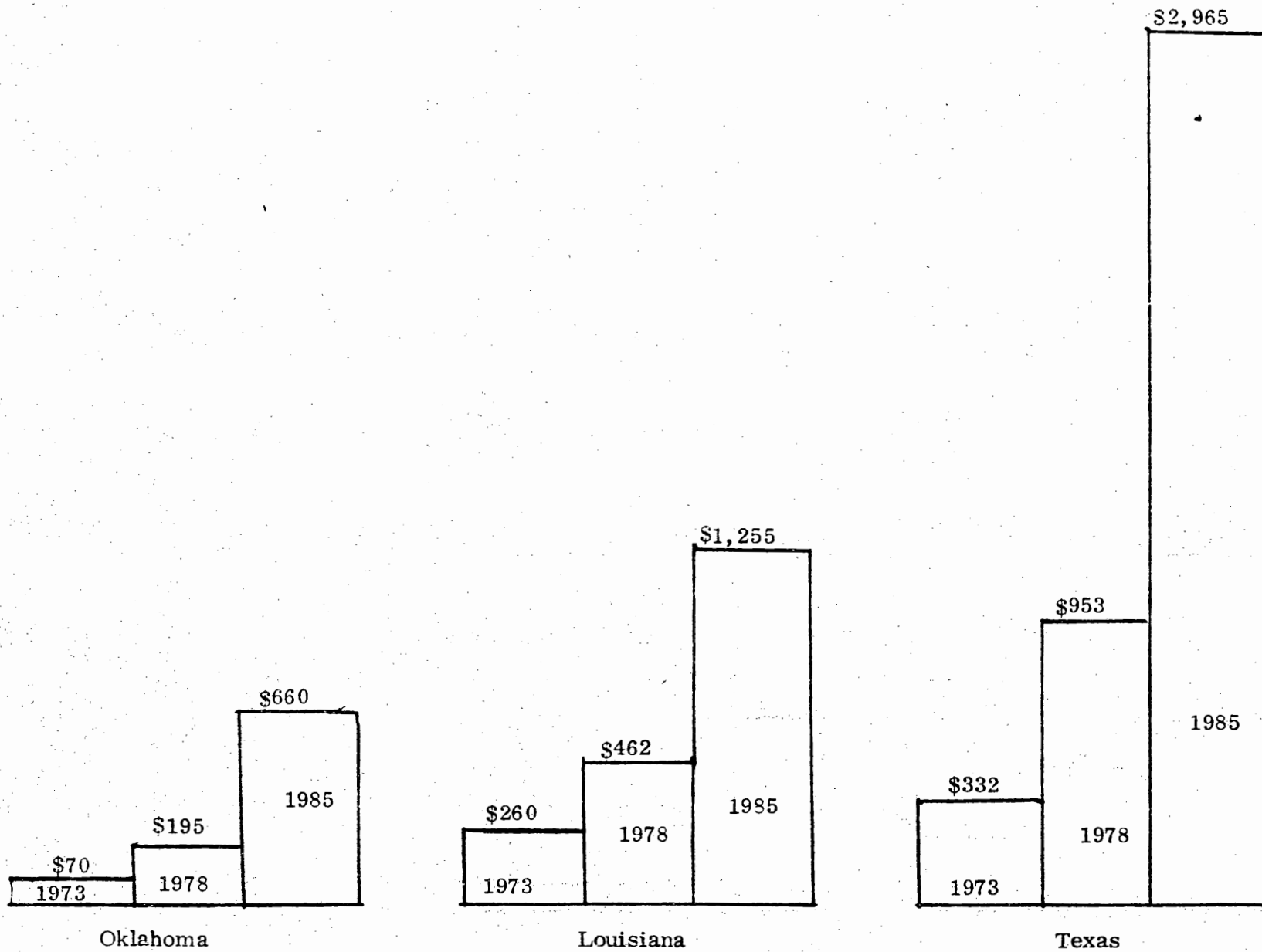
Total National MLA and Severance Tax Revenues:
1973, 1978 and Projected 1985 (Millions of Current Dollars)



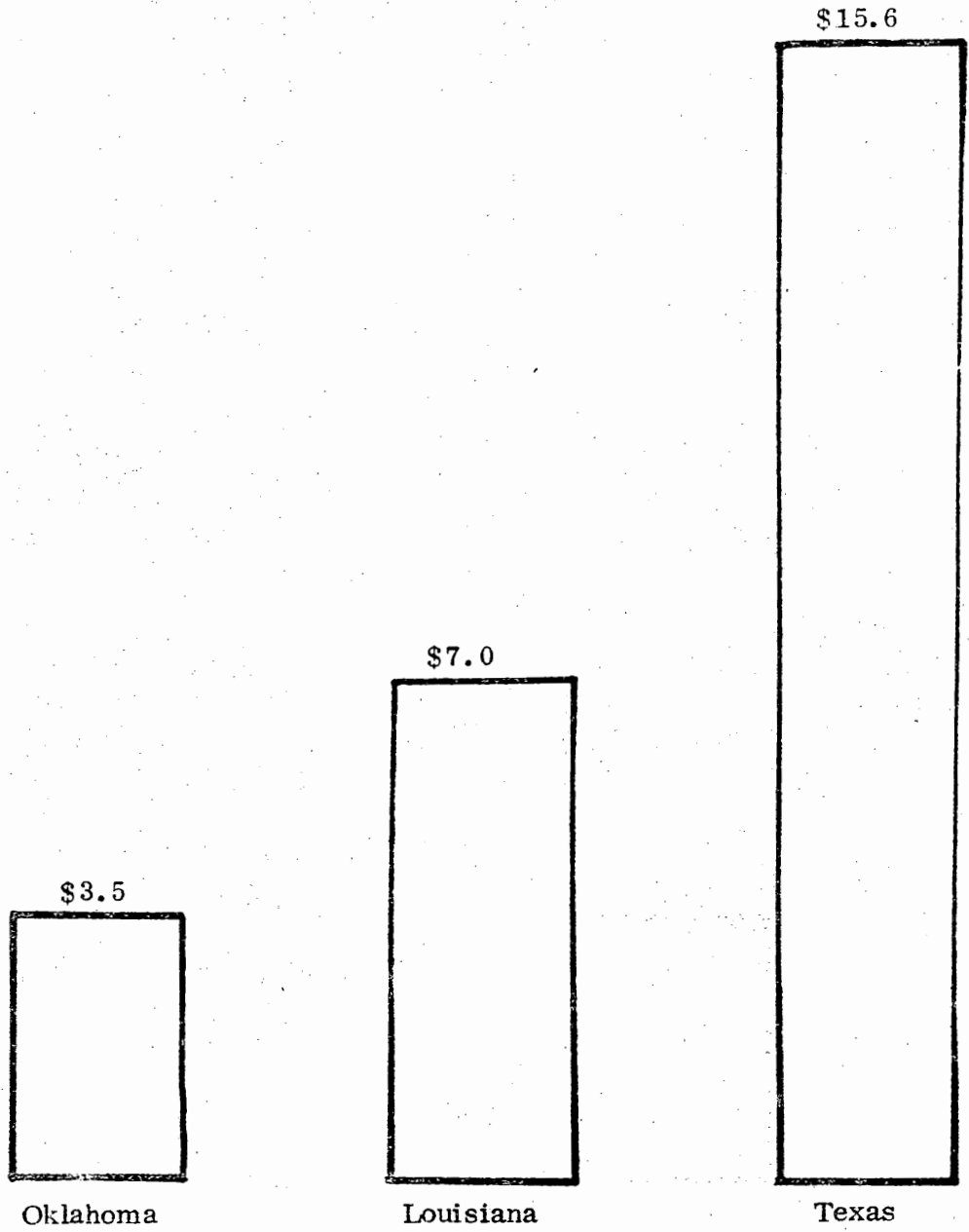
Total National MLA and Severance Tax Revenues: Accumulated 1979 - 85.



Oklahoma, Louisiana and Texas Severance Tax Revenues:
1973, 1978 and Projected 1985 (Millions of Current Dollars)



Oklahoma, Louisiana, and Texas
Severance Tax Revenues:
Accumulated 1979-85
(Billions of Current Dollars)



II. Description of State Energy-Related Revenue Mechanisms

A. Severance Taxes

The severance tax was levied by 32 states in 1978 upon energy production. Traditional justifications used for its imposition include compensating the states for the depletion of their non-renewable natural resources, and for public costs arising from energy development. Energy-producing states which impose severance taxes tied to the increased value of energy resources have received substantial increases in severance tax revenues since the 1973 OPEC oil embargo, and recent federal energy policies accelerating decontrol of oil and gas prices and promoting the use of coal will further increase severance tax revenues. This section will present estimates of future severance tax revenues.

Energy-producing states received a total of \$2.5 billion in severance tax revenues in 1978. Annual severance tax revenues will increase to an estimated \$8.2 billion in 1985, which represents an increase of 230% over 1978 revenues, and 865% over 1973 revenues.

These severance tax revenues comprise a significant portion of the total tax revenues received by major Western energy-producing states. In the states of Texas, Louisiana, Wyoming, and New Mexico, the severance tax is the second largest source of tax revenue next to the sales and gross receipts tax, while it is the third largest generator of tax revenue in the states of Montana and Oklahoma next to the sales and gross receipts tax and the personal income tax.

The Gulf Coast states have received, and will probably continue to receive, the largest amount of severance taxes. The Gulf Coast states of Texas, Louisiana, and Oklahoma ranked first, second, and third in the nation, respectively, in 1978 severance tax revenue. Texas and Louisiana, which are the nation's two largest producers of natural gas and oil, received severance tax revenues of \$959.7 million, or 38.5% of total 1978 severance tax revenues, and \$476.8 million, or 19.1% of the 1978 total, respectively.⁴ Oklahoma is the nation's fifth largest producer of crude oil and third largest producer of natural gas, and it derived \$230.4 million in 1978 severance tax revenues from its energy resources, or 9.2% of the national total. The Gulf Coast states as a whole received approximately \$1.7 billion in 1978 severance tax revenues or 67% of the national total (See Table 1, Columns 1 and 2).

Although Louisiana ranked second in the nation in severance tax revenue, it ranked first in the proportion of state tax revenue accounted for by the severance tax. Severance tax revenues comprised 24.1% of Louisiana's total tax revenues in 1978, while the corresponding shares in Texas and Oklahoma were 17.8% and 17.5%, respectively (See Table 1, Column 3).

Both the annual natural gas and crude oil severance tax revenues received by Texas and Oklahoma are expected to increase substantially over the 1979-85 period under current federal energy policies, while in Louisiana only the annual crude oil severance tax

⁴ Most of the 1978 state tax information presented in this report was obtained from: State Tax Collections in 1978, Bureau of the Census.

TABLE I

SEVERANCE TAX STATISTICS FOR SELECTED STATES, 1978

	<u>1978 Severance Tax (Millions)</u>	<u>Percent of National Total</u>	<u>Percent of State Tax Revenues</u>
<u>Gulf Coast Region</u>			
Texas	959.7	38.5	17.8
Louisiana	476.8	19.1	24.1
Oklahoma	230.4	9.2	17.5
<u>Regional Total</u>	1,700	66.9	19.2
 <u>Rocky Mountain Region</u>			
New Mexico	145.8	5.8	19.2
Wyoming	66.0	2.6	
Montana	44.7	1.8	13.2
<u>Subtotal</u>	256.5	10.3	18.5
Utah	8.9	.4	1.5
Colorado	1.8	.1	.2
North Dakota	18.6	.7	6.0
<u>Subtotal</u>	29.4	1.2	1.4
<u>Regional Total</u>	285.9	11.5	8.1

revenues are expected to rise. Table 2 presents the 1978 oil and gas severance tax revenues received by Gulf Coast states along with projected 1985 revenues.⁵ These projections assume that future state severance tax rates will not differ from current rates.

Texas and Oklahoma impose oil and gas severance taxes whose yield varies with production value. The federally-mandated decontrol of oil and gas prices is expected to augment the production value of these states' oil and gas resources, which will thus lead to a significant increase in their severance tax revenues (these estimated revenues are presented in Chart 2). Texas and Oklahoma levy natural gas severance taxes of 7.5% and 7%, respectively, of production value and oil severance taxes of 4.6% and 7%, respectively (see Table 3).⁶

Texas will receive an estimated \$3.0 billion in 1985 oil and gas severance tax revenues, which represents an increase of 210% over its 1978 revenues, and a 790% increase over its 1973 revenues. Oklahoma will receive an estimated \$660 million, which represents an increase of 240% over its 1978 collection.

⁵ All natural gas tax projections presented in this report are based upon state adjustments of national price and production projections presented in: Revenues to Natural Gas Producers, Analysis Memorandum 7801, Energy Information Administration, June 1978. All oil severance tax projections are based upon state adjustments of the Congressional Budget Office's (CBO) oil producer revenue projections for the scenario assuming an annual 1.5% real increase in the price of OPEC oil, and a current marker barrel price of \$20.12 in the Persian Gulf. Both the natural gas and oil severance tax projections are presented in current dollars which assume a 7% inflation rate.

⁶ 1978 State Tax Guide, Commerce Clearing House.

TABLE 2

GULF COAST OIL AND NATURAL GAS SEVERANCE TAXES
1978 AND 1985 PROJECTION
(MILLIONS OF CURRENT DOLLARS)

	1978 (\$)			1985 (\$)			% Increase or (Decrease)		
	Natural Gas	Oil	Total	Natural Gas	Oil ¹	Total	Natural Gas	Oil	Total
Texas	518	435	953	1,285	1,680	2,965	150	285	210
Louisiana	202	260	462	185	1,070	1,255	(10)	310	170
Oklahoma	88	107	195	315	345	660	260	220	240
Regional Total	808	802	1,610	1,785	3,095	4,880	50	285	205

¹ These estimates are based on the Congressional Budget Office's (CBO) oil producer revenue projections for the scenario based on the following assumptions: (1) a current marker barrel price of \$20.12 in the Persian Gulf, and (2) a 1.5% real annual increase along with a 7% annual inflation rate.

TABLE 3
CURRENT SEVERANCE TAX RATES¹

A. Selected Gulf Coast Rates²

	<u>Oil</u>	<u>Gas</u>
Texas	4.6%	7.5%
Louisiana	12.5%	\$.07/thousand cubic feet
Oklahoma	7%	7%

B. Selected Rocky Mountain Rates

	<u>Coal</u>	<u>Oil</u>
Wyoming	10.5%	4%
Montana	30%	2.9%
New Mexico	\$.435/ton	\$.515/barrel

¹ Most of the figures presented represent maximum rates.

² These figures represent the percentage of gross value at the wellhead, except where otherwise noted.

The annual natural gas severance tax revenues of Louisiana are expected to decline slightly over the 1979-85 period, while its crude oil severance tax revenues are expected to increase substantially. Louisiana imposes a flat \$.07 per thousand cubic feet (MCF) severance tax upon natural gas production which is expected to undergo a slight decline over this period, according to Energy Information Administration (EIA) projections. Louisiana will receive an estimated \$185 million in natural gas severance tax revenues in 1985, which is approximately 10% less than its 1978 collection of \$202 million. The annual crude oil severance tax revenues of Louisiana are expected to rise significantly above its 1978 collection of \$259.6 million as federal energy policies increase the production value base upon which Louisiana levies a 12.5% severance tax. Louisiana will receive an estimated \$1.1 billion in oil severance tax revenues in 1985, which represents an increase of 310% over its 1978 revenues, and 855% over its 1973 revenues.

Louisiana's natural gas tax revenues may be augmented by its imposition of a first-use tax. The legality of this tax is currently being challenged by the Federal Energy Regulatory Commission along with a group of Midwestern and Northeastern states. If the legality of the first-use tax is upheld, this \$.07 per MCF tax will be applied to the natural gas produced from Louisiana's Outer Continental Shelf, which is not subject to the severance tax. This tax would yield an estimated \$185 million in 1985 in first-use tax revenues, which would increase the total estimated 1985 natural gas tax revenues received by Louisiana to \$370 million, which represents an 85% increase over its 1978 revenues.

Texas, Louisiana, and Oklahoma will receive an estimated \$15.6, \$7.0 and \$3.5 billion, respectively, in oil and natural gas severance tax revenues over this period. In addition, if the legality of the first-use tax is upheld, Louisiana will receive an estimated \$1.3 billion in first-use tax revenues over this period.

The major severance tax collectors in the Rocky Mountain region in 1978 were the states of New Mexico, Wyoming, and Montana which collected \$145.8 million, \$66.0 million, and \$44.7 million, respectively (See Chart 1). They ranked fourth, eighth, and tenth in the nation, respectively, in 1978 severance tax revenue. These rankings understate, however, the relative dependence of these states on the severance tax as a generator of state tax revenue. Accordingly, Wyoming ranked second, New Mexico ranked third, and Montana ranked seventh in the nation in the share of total tax revenue generated by the severance tax (See Chart 1). These three Rocky Mountain states as a whole received \$256.5 million in severance tax revenue in 1978 or 10.2% of total national severance tax revenues and 15.1% of the Gulf Coast regional total. Severance taxes generated 18.5% of the total 1978 tax revenues of these three Rocky Mountain states, which was slightly lower than the corresponding 19.2% share in the Gulf Coast region.

The annual severance tax revenues of Wyoming and Montana are expected to rise substantially over the 1979-85 period, while the annual severance tax revenues of New Mexico over this period are not expected to differ significantly from 1978 revenues. Chart 4 presents 1978 and projected 1985 coal and oil severance tax revenues for Montana and Wyoming.

TABLE 4
MONTANA AND WYOMING COAL AND OIL SEVERANCE TAXES
1978 AND 1985 PROJECTION
(MILLIONS OF CURRENT DOLLARS)

	1978 (\$)			1985 (\$)			% Increase		
	Coal	Oil	Total	Coal	Oil ¹	Total	Coal	Oil	Total
Montana	34	7	41	347	30	377	920	330	820
Wyoming	30	39	69	393	160	553	1,210	310	700
Regional Total	64	46	110	740	190	930	1,055	315	745

¹ These estimates are based on the Congressional Budget Office's (CBO) oil producer revenue projections for the scenario based on the following assumptions: (1) a current marker barrel price of \$20.12 in the Persian Gulf, and (2) a 1.5% real annual increase along with a 7% annual inflation rate.

The bulk of the expected increase in severance tax revenues for Montana and Wyoming will be derived from the production of coal, which is their major resource. Wyoming will receive an estimated \$394 million in coal severance tax revenues in 1985, based upon U.S. Department of the Interior (DOI) projections,⁷ which represents a thirteenfold increase over its 1978 revenues. Montana will receive an estimated \$347 million in coal severance tax revenues in 1985, which represents a tenfold increase over its 1978 revenues.

These DOI-based estimates reflect: a) the dramatic rise in production which would occur in these states under the coal conversion section of the National Energy Plan, b) the increased price of coal expected to result from rising costs and heightened demand, and c) the substantial tax rates imposed by Montana and Wyoming of 30% and 10.5% of the gross value of coal, respectively, which are the two highest severance tax rates in the nation. However, the DOI-based estimates presented in this report may contain an upward bias as a result of:

- a) The Department of Energy policy, which was issued after the coal conversion section of the National Energy Plan had already been approved by Congress, directing that the surplus of natural gas, rather than coal, be used as a substitute for oil in the short term,

⁷ These figures reflect an adjustment of DOI figures in order to account for the exemption allowed for the leasing payments of producers in the determination of the amount of severance taxes owed. The DOI estimates are presented in: Draft Environmental Statement - Federal Coal Management Program, U.S. Department of the Interior, page 5-102.

- b) Remaining economic and environmental constraints on coal production and consumption, and
- c) The current legal challenge mounted by a group of Mid-western utilities and Montana coal producers on the Montana coal severance tax. This group is claiming that the 30% Montana tax is excessive.

Wyoming will also receive sizable severance tax revenues in 1985 from its oil resources. It will receive an estimated \$160 million in oil severance tax revenues in 1985, which represents an estimated increase of 310% over its 1978 revenues.

New Mexico's severance tax revenues are not expected to change significantly since it imposes fixed severance tax rates of 5.3¢ per MCF of natural gas and 47.9¢ per barrel of oil, and its production of oil and gas, which are its two major resources, will probably remain relatively constant over the 1979-85 period. New Mexico will receive an estimated \$900 million in severance tax revenues over the 1979-85 period.

B. Federal Subsidies

The purpose of this section is to outline the mechanics of specific federal programs and policies which, to varying degrees, benefit the Western energy producing states. This occurs through both direct subsidization based on energy resource production, and through shifts in federal policy which will indirectly increase the benefits to Western energy-producing regions.

1. Mineral Leasing Act of 1920 (MLA)

As amended by both the Federal Land Policy and Management Act of 1976 (P.L. 94-579) and the Federal Coal Leasing Amendments Act of 1975 (P.L. 94-377), the Mineral Lands Leasing Act of 1920 (MLA) requires the Department of the Interior (DOI) to collect a royalty of at least 12.5% of the value of all coal, oil and natural gas produced on federally administered public lands. In addition to the revenues raised by DOI based on the 12.5% royalty, the Department also receives payments from lease holders based on rentals and cash bonuses. Under the program, a state receives 50% of all revenues raised by DOI as a result of federal leasing activity within the State's boundaries (except Alaska which received 90% of the 12.5% royalty collected by DOI as a result of mineral production on federally administered public lands within that State).

Prior to the enactment of the Federal Land Policy and Management Act of 1976, mineral producing states were entitled to only 37.5% of the revenues generated by DOI as a result of coal, oil, natural gas, and other mineral leasing activity (including geothermal steam production) within that State. Prior to the enactment of the Federal Coal Leasing Amendments Act of 1975, coal producing states were entitled to only 37.5% of a federal coal royalty which, during the early 1970's, was usually set at 8% of the value of the coal. Before the early 1970's, the coal royalty was often only 5%, or a fixed amount per ton - 10¢ or 15¢, for example - regardless of the value of the coal.⁸ The Federal Coal

⁸ Mine Control, Western Coal Leasing and Development. Council on Economic Priorities, 1978.

Leasing Amendments Act (FCLA) imposed a statutory requirement that DOI collect a royalty of at least 12.5% of the value of coal produced from new leasing of federally administered public lands. Thus, amendments to the Mineral Leasing Act brought about by the Federal Land Policy and Management Act (FLPMA) and the FCLA have authorized both higher royalties (for coal) and a larger state share (50% for all minerals) from royalty, rental and cash bonus payments collected by DOI.

Despite the fact that these recent amendments to the 60 year old Mineral Leasing Act have significantly enhanced the potential state benefit from federal mineral leasing activity within their boundaries, the full impact of these policy changes have not yet materialized. In part, this is a result of the fact that out of the 35 coal leases which have come up for renewal since the enactment of the FCLA, none have had their terms adjusted to reflect the 12.5% coal royalty rate authorized by the Act. DOI is reportedly awaiting a final decision on the direction of their new leasing program before assessing the higher royalty rate.⁹ As a result, at the present time, virtually all federal coal lands are leased under terms which fail to reflect the full market value of coal. Moreover, since federal coal lands are usually leased for periods of 20 years, it could be some time before all federal coal leases stipulate the 12.5% royalty rate authorized by the FCLA.

⁹ Page 36, Mine Control, Western Coal Leasing and Development. Council on Economic Priorities, 1978.

Due to present federal coal leasing practices, MLA revenues derived from coal production are low. For example, only \$9.9 million, out of \$143 million allocated to the Rocky Mountain Region in 1977 MLA revenues was derived from coal royalties.¹⁰ The remaining \$133 million was derived primarily from oil and natural gas production in the six state region. Total mineral leasing allocations to the Rocky Mountain region are shown in Table 5.

TABLE 5
Mineral Leasing Revenues: Rocky Mountain Region
(Million \$)

State	1920- 1976	% of National Total	1977	% of National Total	1978	% of National Total
Wyoming	443.2	33.3%	58.9	36.6%	69.1	36.7%
New Mexico	277.7	20.8%	52.1	32.3%	59.7	31.6%
Montana	60.7	4.5%	6.9	4.3%	7.5	3.9%
Sub Total	781.6	58.8%	118.0	73.5%	136.3	72.4%
Colorado	183.9	13.8%	15.8	9.8%	15.2	8.0%
Utah	82.2	6.1%	8.6	5.3%	11.8	6.3%
N. Dakota	5.3	0.4%	0.9	0.6%	0.7	0.3%
Sub Total	271.5	20.4%	25.4	15.7%	27.8	14.7%
Regional Total	1,053.2	79.3%	143.4	89.2%	164.2	87.7%
National Total	1,332.3	100%	161.2	100%	188.7	100%

¹⁰ Page 35, Ibid.

In 1979, the total states allocation is expected to be \$202 million. The Rocky Mountain Region is expected to receive a share of the total which is roughly proportionate to their 1978 allocation (\$170 to \$180 million).

The level of future allocations to the mineral producing states from federal MLA receipts can be expected to increase at a rate far exceeding that which has historically been the case. This will be a result of:

Policy

- Increased states' share of federal MLA receipts authorized by the Federal Land Policy and Management Act (primarily affects the Rocky Mountain region and, to a lesser extent, the Gulf Coast region).
- Increased royalty required by the Federal Coal Leasing Amendments Act on all new coal leases, and the likelihood that leases renewed after the finalization of a new DOI coal leasing program will be adjusted to the 12.5% level (affects the Rocky Mountain region).

Production

- Significantly increased Western coal production. Western coal production is expected to triple by 1985,¹¹ with most of this increased production taking place on federally owned lands within the Rocky Mountain region (affects the Rocky Mountain region).

¹¹ Page 2-44, Draft Environmental Statement, Federal Coal Management Program. U.S. Department of the Interior, 1978.

Price

- Increased price of coal resulting from heightened demand will increase the production value upon which the 12.5% royalty (as well as the severance tax) is assessed (affects the Rocky Mountain region).
- Increased price of domestic oil and natural gas resulting from deregulation will increase the production value upon which the federal royalty (as well as the severance tax) is assessed (primarily affects the Gulf Coast region and, to a lesser extent, the Rocky Mountain region).

Using DOI projections for 1985 and 1990 MLA coal royalties, it has been determined that over \$2.3 billion will be allocated to the six Rocky Mountain States over the 1979-85 period, or \$4.3 billion over the 1979-90 period, in coal royalties alone.¹² Assuming a constant share of 1977 state revenues from federal MLA receipts other than coal royalties (\$133 million), it is estimated that the Rocky Mountain regional total for all federal mineral production will be more than \$3.5 billion over the 1979-85 period, or almost \$6.0 billion over the 1979-90 period. This represents an average federal MLA allocation of more than \$500 million annually over both the 1979-85 period and 1979-90 periods for the six states of the Rocky Mountain region. Table 6 shows the estimates for 1985 federal MLA revenues, the percentage increase over 1978 revenues, and the estimated 1979-85 accumulated revenues.

¹² Page 5-102, Draft Environmental Statement, Federal Coal Management Program. U.S. Department of the Interior, 1978.

TABLE 6

Mineral Leasing Revenues:
Rocky Mountain Region

(Millions of Current Dollars)

State	1978	Estimated 1985	Estimate % Increase	Accumulated Estimate 1979-85
Wyoming	69.2	322.4	+ 466	1,500
Montana	7.5	157.9	+2,105	708
New Mexico	59.7	120.0	+ 203	657
Colorado	15.2	57.9	+ 381	291
Utah	11.8	44.9	+ 381	218
N. Dakota	0.7	38.4	+5,486	170
Regional Total	164.2	742.5	+ 452	3,544

MLA receipts are the most significant direct source of federal subsidies received by the Rocky Mountain states as a result of energy resource production. Although rapid energy development carries the potential for adverse socio-economic impacts, not all of the states' share of MLA revenues are obligated to mitigating the adverse impacts of energy production. Many Rocky Mountain states take the position that funds from the previous 37.5% share are already allocated to state uses other than impact aid and, thus, that only the additional 12.5% is easily available for impact assistance. However, it would seem that, at a minimum, not only funds from the 12.5% increase, but also any increase in the level that had been produced at the 37.5% rate (as a result of increased coal, oil and natural gas production and prices) are essentially unallocated.

The original 37.5% has historically gone into the states' general funds and has been allocated for schools, roads and other purposes on a statewide basis. The implicit assumption has been, however, that priority will be given to the impacted areas which in effect generated the revenue. The language in the 1976 FLPMA directs that MLA revenues be targeted to assist impacted areas, although there is no requirement that a state legislature do so. The practical effect of this language appears to be that only the 12.5% increase has been specifically earmarked for assistance to impacted areas, although all of the funds are technically available for impact aid.

The FLPMA has also expanded the list of allowable uses for MLA revenues from schools and roads to include provision of public facilities and services, without any further limiting description. The law fails, however, to provide any method for monitoring or controlling uses of MLA revenues. Although it is not known if MLA funds have commonly been used by the states for economic development programs (e.g., building industrial parks, worker training, etc.), the language of the Act is such that no explicit restrictions are placed on the use of these funds. In fact, the original MLA (1920) was intended to provide an incentive to Western economic development.¹³ Closer scrutiny of the states' use of MLA revenues would be necessary to determine if these revenues, or energy production itself, have been significant factors leading to state-financed

¹³ Pages 3697-3703, Congressional Record-House, February 18, 1919.

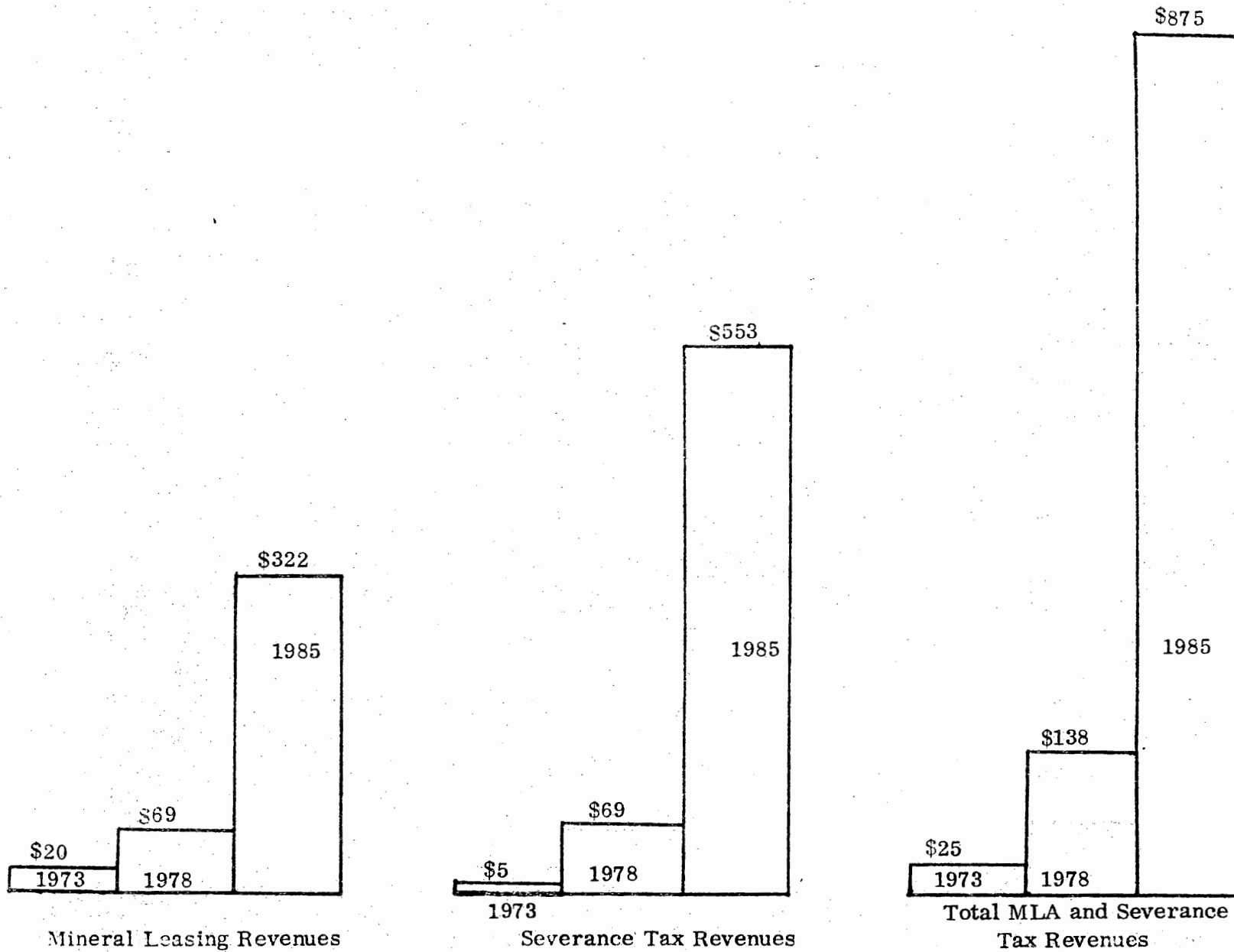
economic development programs in any Western states where they exist. However, OMB estimates that in the past, roughly one quarter of the Western states' MLA revenue has been allocated to general state purposes other than assistance to impacted communities.¹⁴

The following pages contain graphs depicting:

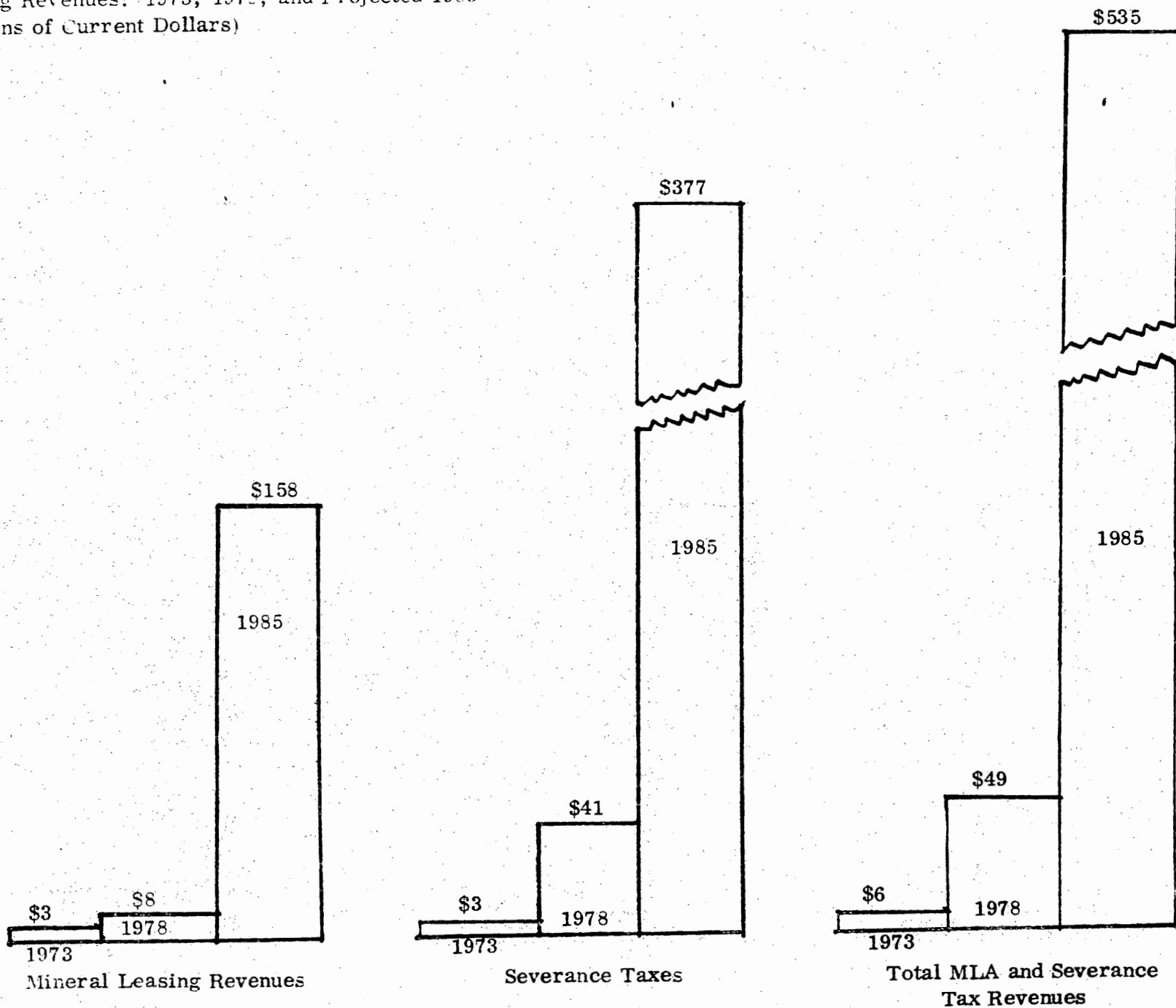
- (1) The growth in severance tax and federal mineral leasing revenues received by Rocky Mountain states between 1973 and 1978, and the growth expected to occur between 1978 and 1985, and
- (2) The accumulated severance tax and federal mineral leasing revenues expected to be received by Rocky Mountain states over the 1979-85 period.

¹⁴ Page A-4, Energy Impact Assistance Needs. Office of Management and Budget, March 1978.

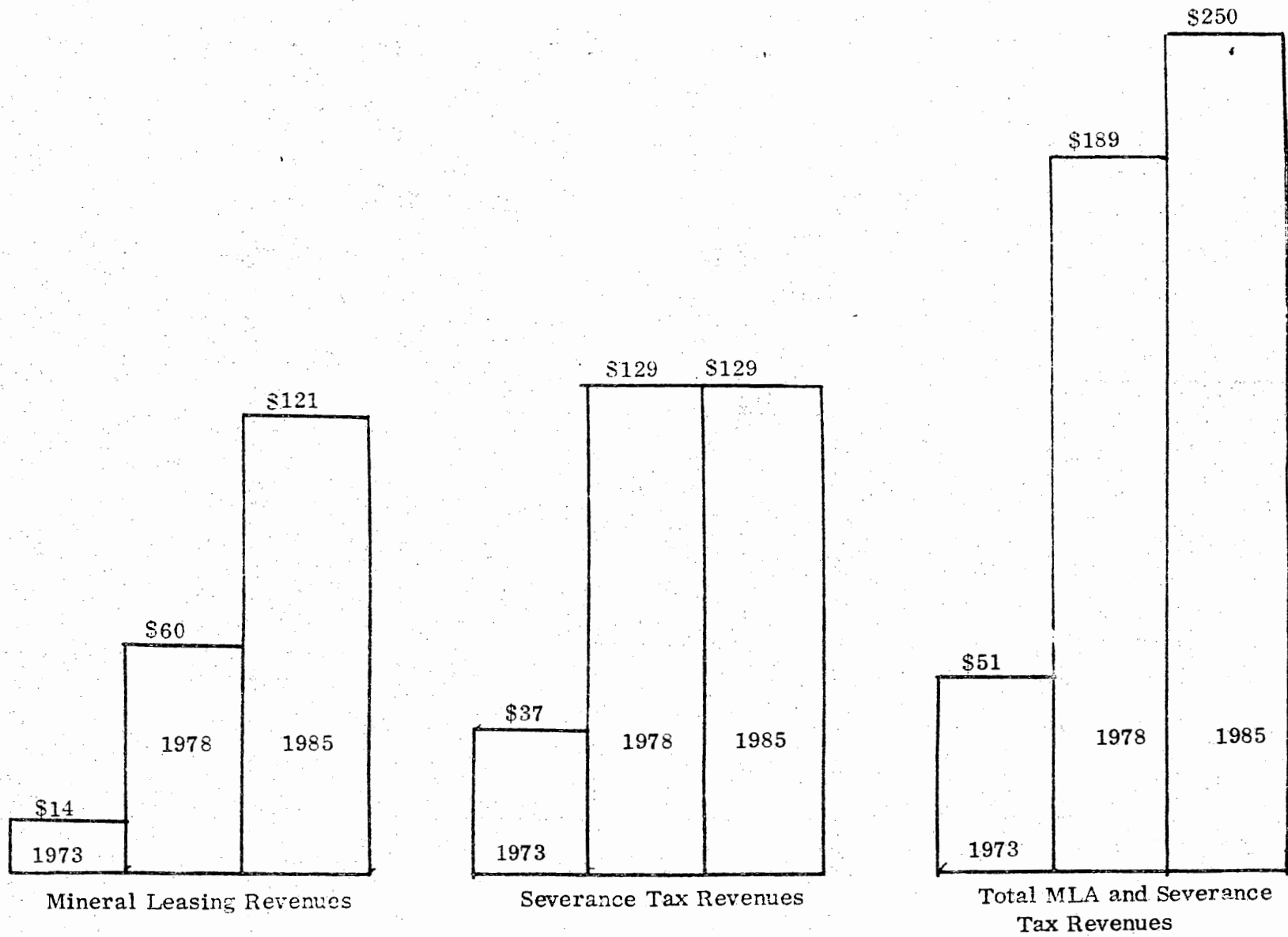
Wyoming Severance Tax and Mineral Leasing Revenues:
1973, 1978 and Projected 1985 (Millions of Current Dollars)



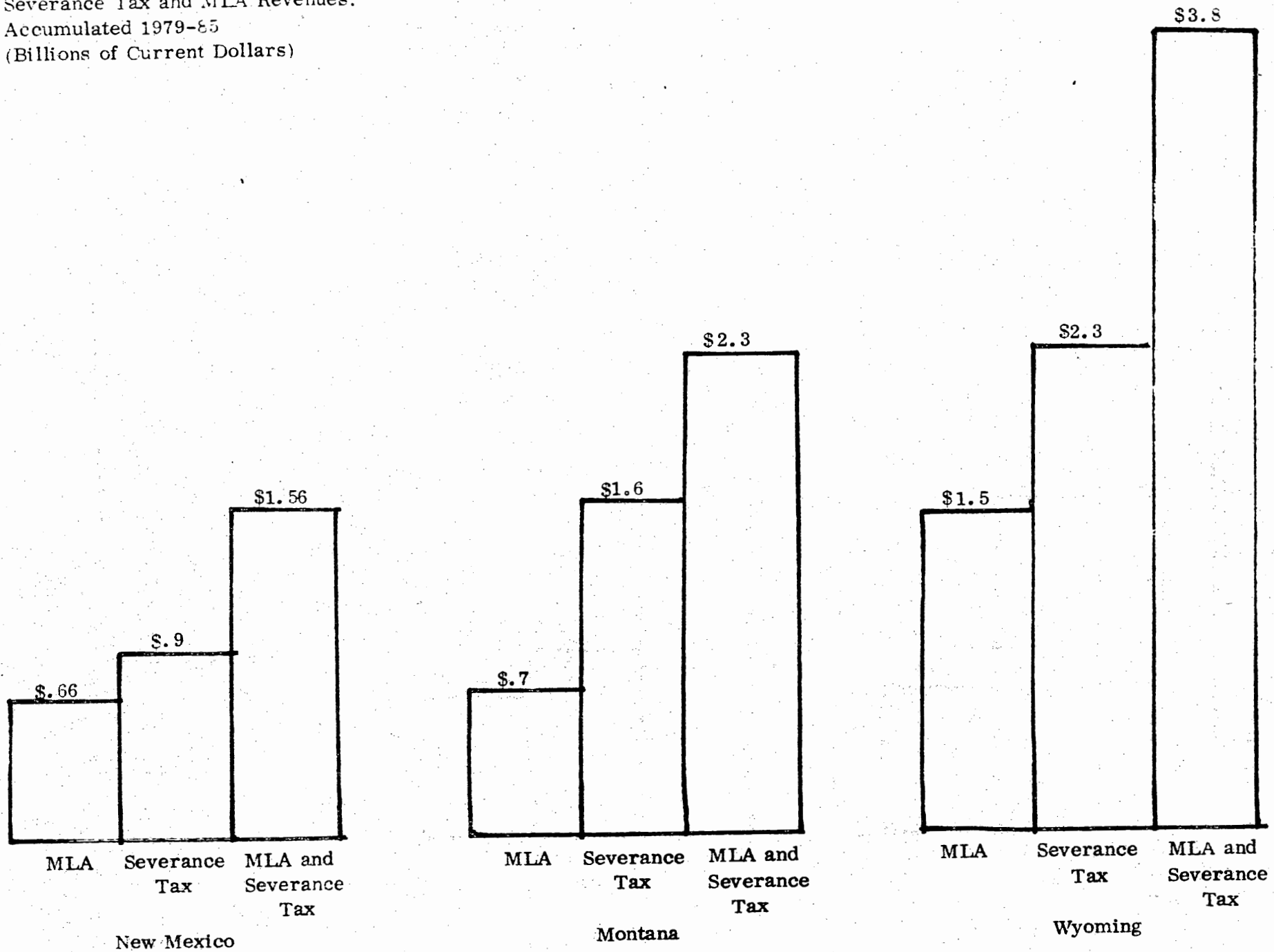
Montana Severance Tax and Mineral
 Leasing Revenues: 1973, 1978, and Projected 1985
 (Millions of Current Dollars)



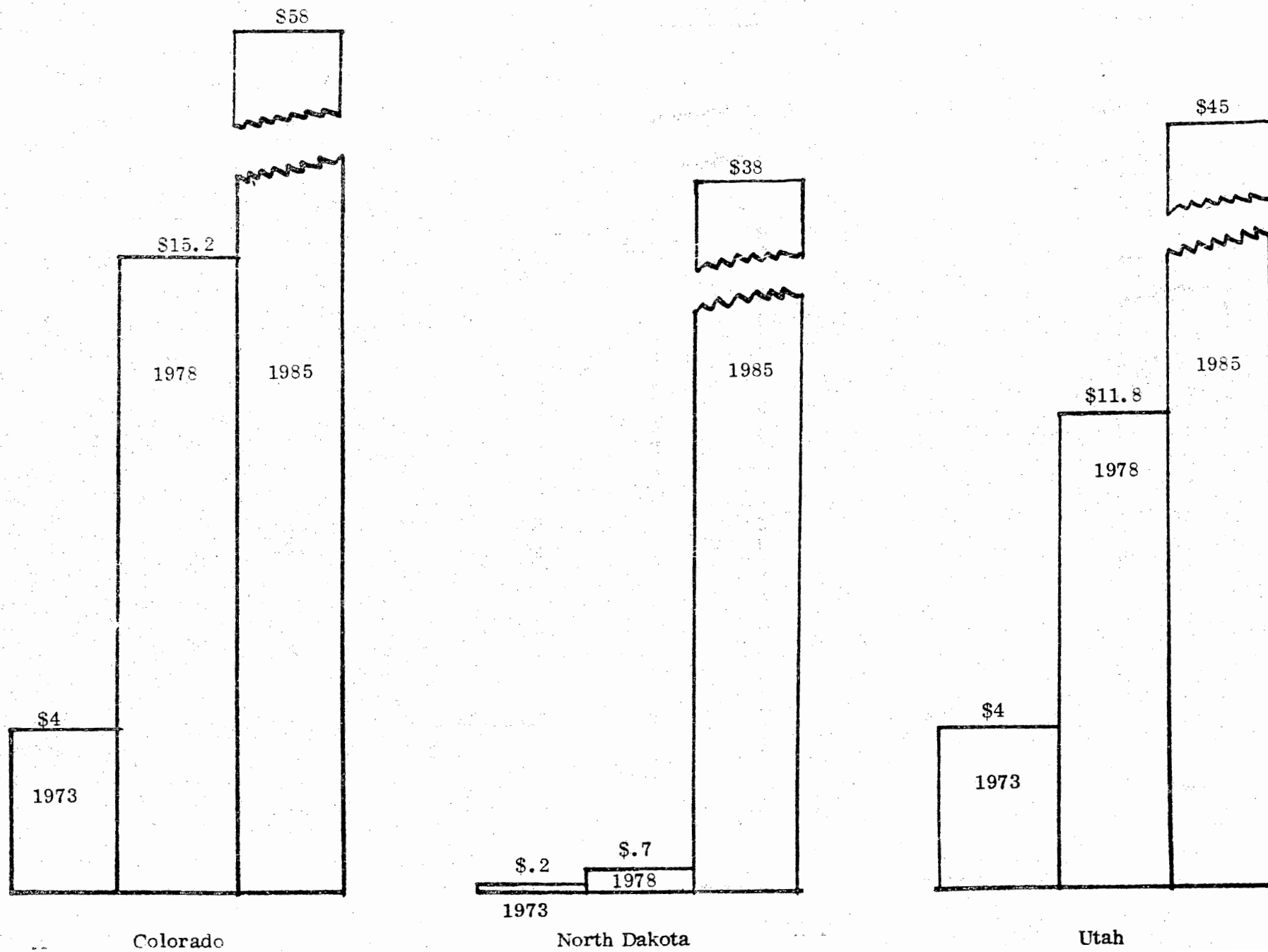
New Mexico Severance Tax and MLA Revenues:
1973, 1978 and Projected 1985 (Millions of Current Dollars)



Montana, Wyoming and New Mexico
Severance Tax and MLA Revenues:
Accumulated 1979-85
(Billions of Current Dollars)



Colorado, North Dakota, and Utah MLA Revenues:
 1973, 1978 and Projected 1985 (Millions of Current Dollars)



2. Bureau of Land Management Loan Program (BLM 317)

This program, authorized under the FLPMA, allows mineral producing states to borrow from the federal government in amounts up to that which would be their share of MLA receipts over the subsequent ten year period. OMB estimates that this represents a possible \$6.5 billion to \$19 billion loan authorization for inland energy-producing states over the next ten years.¹⁵ However, due to the OMB/Treasury position that the original 3% interest rate represented an unwarranted subsidy by taxpayers of communities which are eventually going to make money, the BLM 317 loan program is just now being implemented.

As a means of eliminating the initial objections expressed by the OMB and Treasury, the Administration was successful in having Congress pass as part of the FY 1979 DOI authorization, an amendment which raised the BLM 317 loan interest rate to the minimum rate paid by a State, or an agency of the State, on a \$1 million bond issue (exempt from federal taxes) during the preceding year. Therefore, while the interest rate has been raised in order to resolve the problems with OMB and Treasury, the interest rates on the BLM 317 loans will still, by definition, be low. Moreover, while the BLM 317 loan program will represent a most attractive option for financing needed energy impact programs inland, the comparable CEIP loan program with an interest rate of 8%, remains for many coastal states

¹⁵ Page A-4, Energy Impact Assistance Needs. Office of Management and Budget, March 1978.

an unattractive choice for use in mitigating the adverse impacts caused by production of OCS resources, since many coastal states can obtain loans at less than 8% by other means.

3. Surface Mining Control and Reclamation Act of 1977
(P.L. 95-87)

Under this program, a 35 cent fee is levied on each ton of strip-mined coal (in the case of lignite, only a 10¢ per ton fee is charged). 50% of this money is then channeled back to the states from which it originated for the purpose of reclaiming strip-mined land. An additional 20% of the fees collected may become available to the states through a USDA program, administered by the Soil Conservation Service, known as the Rural Abandoned Mine Program (RAMP).

During the first nine months (January 1, 1978 - September 30, 1978) in which the program was operating, total receipts came to about \$103 million. \$51.5 million was returned back to the states with strip-mining activities, and an additional \$20 million was turned over to USDA for possible allocation to the states. The same six Western states received \$12.9 million, or approximately 24% of the total states' allocation. This period of FY78 is the only period for which data are presently available. However, the Office of Surface Mine Control estimates that they will take in at least \$200 million annually over the next few years from this program.

Although no authoritative projections are available regarding the amount or significance of these revenues in the future, the fact that most of the expected levels of future Western coal

production will be surface mined suggests that state receipts from surface mining fees will rise significantly. In 1985, it has been estimated that some \$65 million should accrue to the six Western coal producing states, with \$56 million possibly going to Montana and Wyoming. In 1990, over \$128 million should go to the six Western coal producing states, more than \$112 million of which is expected go to Montana and Wyoming.

Although this program is restricted to reclamation, it replaces or supplements general state funds which might have otherwise been used for reclamation purposes. In addition, the law authorizes the states to allocate these funds for impact assistance purposes, once the threat to public health or safety posed by existing abandoned mines has been eliminated. That is, under this law, the States have the authority to target surplus reclamation funds to mitigating the adverse socio-economic impacts caused by rapid energy development. DOI has projected the average 1985 reclamation costs for the Powder River Basin (shared by Montana and Wyoming) to be \$0.05 per ton.¹⁶ With an anticipated \$56 million allocation in 1985, the States of Montana and Wyoming can be expected to have over \$40 million in surplus reclamation funds for that year alone.

It should also be noted that, although the bulk of the estimated \$25 billion required to eliminate the Nation's public health and safety hazards posed by abandoned mines is needed in the Appalachian Region, most of the money under this program is likely to go

¹⁶ Page I-5, Draft Environmental Statement, Federal Coal Management Program. U.S. Department of the Interior, 1978.

to the Western states where the need is reportedly not as great, but where production of strip-mined coal is expected to increase dramatically.

4. The National Energy Plan

The policies set forth under the five sections of this legislation, particularly the two sections dealing with deregulation and coal conversion, will increase the financial benefits to the Western energy producing states from severance taxes and federal subsidies which are based on the value and rate of production of energy resources.

a) Coal Conversion Section of National Energy Plan. The major thrust of this bill compels utilities to switch from oil to coal. Therefore, the increased rate of coal production stimulated by this legislation, particularly on federally owned Western lands, will lead to substantial increases in revenues under the programs discussed above.

Although the Administration has made no request for funding under this program, the President's budget does include a \$150 million request for funding of an alternate EDA program administered by the Department of Commerce. This move is in anticipation of the passage of an Energy Impact Assistance bill modeled after the Hart-Randolph proposal which failed to pass the last Congress.

In this Congress, however, a "skeleton" amendment to the Public Works and Economic Development Act authorization, offered by Senator Hart, has been approved by the Senate Environment and Public Works Committee. The Amendment authorizes \$150 million in energy impact assistance funds for Western coal producing states. The legislation, in its entirety, will be taken up later this session, but the amendment was reported out of Committee in its shortened form in order to meet the May 15 budget deadline. Come appropriations time, if the Energy Impact Assistance legislation does not seem assured of passage, the Administration will most likely shift the \$150 million request to Section 601 of the Coal Conversion section of the National Energy Plan, where an authorization already exists. One way or another, it appears that the Administration is committed to some form of direct impact assistance to inland energy producing states in FY80.

b) Deregulation of Domestic Oil and Natural Gas Prices.

The gradual deregulation of domestic oil and natural gas prices will lead to an increased production value for these resources, thus expanding the price base upon which variable federal subsidy and state severance tax rates are assessed. This will lead to increased revenues from these sources, even though some decrease is expected in production over the 1979-85 period.

5. Payments in Lieu of Taxes Law (P.L. 94-565).

Each year, the Secretary of Interior pays local governments up to 75 cents per acre of federally owned land inside the municipalities' limits. Under this program, the six states of the Rocky Mountain region received over \$40 million in FY77 and over \$37

million in FY78. In FY78, these six states received approximately 35% of the total payments in lieu of taxes allocation. These revenues included payments in lieu of taxes from federal mineral producing lands for which the states already receive MLA revenues.

ASSISTANCE TO COASTAL STATES BASED ON OIL AND GAS PRODUCTION ON THE OUTER CONTINENTAL SHELF (OCS)

6. Coastal Energy Impact Program (CEIP).

The CEIP is the primary source of direct federal assistance to coastal areas affected by the production of energy resources on the OCS. The CEIP provides capital financing assistance in the form of direct federal loans and grants to areas adversely impacted by OCS development activities. The two funding sources available under the CEIP are the Coastal Energy Impact Fund and formula grants.

a) Formula Grants. Formula grants can be used by states and local governments to assist in financing public facilities and services, to ameliorate adverse impacts associated with OCS activities, and to plan for OCS activities. The recently enacted OCS Lands Act Amendments change the original formula included under the Coastal Zone Management Act (CZMA) to determine how the formula grants are to be distributed among the states. The new formula is based on the following three criteria: new acreage leased adjacent to a coastal state (50%), oil and gas produced adjacent to a coastal state (25%), and oil and gas landed in the state (25%). The Amendments also include a 37.5% ceiling and 2% floor on the amount of the total appropriation which can be allocated to any one state.

While Congress had considered establishing a revenue sharing program based on 20% of the federal OCS receipts (a proposal which would have brought the CEIP more in line with the MLA), the Conferees agreed instead to a straight authorization and appropriation method of funding. As the program now stands, a state's share of formula grant money will be determined by a state's OCS-related activity and the total appropriation made by Congress for formula grants.

The OCS Amendments have authorized \$130 million annually for formula grants through FY89. The FY77 and FY78 formula grants appropriations were \$10 million and \$17.69 million, respectively. An appropriation of \$27 million has been approved for FY79, and the FY80 appropriation is not expected to exceed the \$27 million level. The Administration has made a request for only \$15.5 million under this program in their FY80 budget.

In FY77, \$1.01 million was appropriated to the Mid-Atlantic states based on Lease Sale #40. New Jersey received \$825,967 of the Mid-Atlantic appropriation, which represents an 8.25% share of the total FY77 appropriation. The remaining \$184,000 will be held back until settlement of the NJ/Delaware lateral seaward boundary. It should be noted, however, that due to previous CZMA regulations which specified how and when a source of assistance (either fund or formula grants) may be used, not all of New Jersey's share of formula grant money was actually available; this situation has improved (see below).

New Jersey was not eligible for formula grant money in FY78. However, applying the new OCS formula to the FY77 allocation, New Jersey will most likely be eligible for a minimum share of approximately \$555,000 in FY79.

The cumulative allotments to Texas and Louisiana for FY78 and FY79 amount to \$3.4 million and \$19.4 million, respectively. In FY79, Texas will be eligible for \$1.8 million, and Louisiana will be eligible to receive \$10.4 million.

b) Coastal Energy Impact Fund. The purpose of the fund is to provide states with money to handle the impacts from any new or expanded energy activity within the coastal zone. The energy activity, however, need not be OCS-related. Assistance under the fund comes from three sources: 1) credit assistance (loans), 2) planning grants, and 3) environmental and recreational grants.

The interest rate for Coastal Energy Impact Fund (CEIF) loans under the CEIP have been set at the Treasury rate for issues of comparable maturity (approximately 8%). This rate has generally proven unacceptable to the communities and states eligible for assistance. Moreover, prior to the amendments to the CZMA under the OCS Amendments, a state was required to exhaust all the loan and bond guarantee money appropriated to that state for financing public facilities and services before the state could receive formula grant money for this purpose. As a result, for states which have excellent credit ratings, the requirement to exhaust CEIF loans before being eligible to receive all the state's formula grant appropriation has meant that much of the potential assistance under the CEIP

would remain either unavailable or more expensive than other alternatives. Under the amended law, New Jersey will now be able to expend its allocation of formula grants money without touching the credit assistance.

In both FY77 and FY78, the appropriation for the fund was \$115 million. Out of this total of \$230 million appropriated in over the FY77 to FY78 period, \$220 million was allocated for credit assistance, \$7 million for planning, and \$3 million for environmental/recreational grants. Despite the fact that the fund has been authorized for up to \$400 million over the 8 years ending with FY84, no money has been appropriated for FY79, leaving only \$230 million of the \$400 million authorized appropriated. Table 7 shows the cumulative allocations to the MAGCRC states (New Jersey, New York, Delaware, Pennsylvania, Virginia, and Maryland), Texas and Louisiana.

TABLE 7

Coastal Energy Impact Fund:

Cumulative Allotments (FY77 and FY78)

<u>State/Region</u>	<u>Total</u>	<u>Planning</u>	<u>Env./Rec.</u>	<u>Credit</u>
MAGCRC	9,599,400	1,749,300	105,800	7,744,300
New Jersey	475,400	475,400	--	--
Texas	14,985,500	416,600	196,600	14,372,300
Louisiana	57,938,000	214,400	778,900	56,944,700
U.S. Total	230,083,800	6,989,100	3,094,700	220,000,000*

* \$13,235,000 has been held back pending resolution of Lease Sale #40, and for administrative expenses.

7. Outer Continental Shelf Lands Act Amendments of 1978
(OCS)

As indicated above, the OCS Amendments changed several aspects of the existing CZMA and CEIP programs. Additionally, the OCS Amendments have established a planning grants program which is separate and distinct from the planning money available under the CEIP. The authorization for these planning funds is \$5 million annually beginning in FY79 and ending in FY83. The Administration's FY80 budget did not include a request for funding under this program.

By way of comparison, the coastal states receive nowhere near the level of assistance (or revenues) based on OCS oil and gas production which inland energy producing states receive as a result of production of energy resources within their boundaries. The argument which seeks to explain the disparate level of financial benefit is that OCS resources are not now, nor have they ever been, considered as state land, or otherwise under state jurisdiction. The Supreme Court has decided that the OCS does not lie within state boundaries; and that no part of it was acquired or reserved from the states for federal use. For this reason, OCS revenues are earmarked to support the Land and Water Conservation Fund for both federal and state acquisition of parks and for recreation purposes in all the states and territories of the U.S. Table 8 indicates the cumulative appropriations made to all states and territories under the Land and Water Conservation Fund.

TABLE 8

Net Apportionment Sum for States as of September 30, 1978
(Cumulative)

Land and Water Conservation Fund

	<u>\$Million</u>		<u>\$Million</u>		<u>\$Million</u>
Alabama	\$ 35.9	Louisiana	\$ 42.2	Oklahoma	\$ 31.4
Alaska	19.9	Maine	23.0	Oregon	34.6
Arizona	31.5	Maryland	46.0	Pennsylvania	101.2
Arkansas	26.8	Massachusetts	58.2	Rhode Island	23.2
California	159.1	Michigan	76.6	S. Carolina	31.6
Colorado	34.1	Minnesota	41.6	S. Dakota	21.7
Connecticut	37.0	Mississippi	26.5	Tennessee	40.6
Delaware	20.9	Missouri	49.6	Texas	94.6
Dist. Columbia	10.2	Montana	22.4	Utah	26.6
Florida	64.6	Nebraska	26.2	Vermont	19.2
Georgia	44.5	Nevada	22.2	Virginia	46.9
Hawaii	22.5	New Hampshire	21.1	Washington	39.2
Idaho	20.6	New Jersey	70.2	W. Virginia	26.2
Illinois	94.4	New Mexico	23.1	Wisconsin	44.4
Indiana	47.6	New York	144.5	Wyoming	19.2
Iowa	30.8	N. Carolina	42.1	Amer. Samoa	.7
Kansas	29.3	N. Dakota	20.0	Guam	1.2
Kentucky	33.9	Ohio	88.4	Puerto Rico	21.1
				Virgin Islands	<u>1.4</u>
				Total	\$2,232.5

STATE MINERAL LEASING

More than 32 million acres, constituting 6% of the total land area of the Rocky Mountain region are controlled by the various state governments. Nearly 2.2 million acres of this land are presently under lease for coal production. While this figure represents only a fraction of the land held by the federal government in these six states, it is three times the amount of land presently leased by the federal government in that region.¹⁷

Nearly all of this state owned acreage occurs in scattered, non-contiguous 640-acre sections throughout the Western states. This "checkerboard" pattern is the result of initial congressional decisions which divided the territories into townships, each 36 square miles. Congress then subdivided these townships, and awarded the new states several of the subdivisions, each one square mile. Congress then mandated that revenue derived from activity on particular acres of state-owned land must be turned over to the institutions to which those acres had been assigned. For this reason, revenue derived from state leasing activities within the Rocky Mountain region is constitutionally obligated to certain state institutions and thus replaces state funds which might have otherwise gone to run these facilities.

It should be noted, however, that these revenues are not passed directly through to the assigned institutions; only the interest on accumulated revenues is presently allocated. As producing states

¹⁷ Page 53, Mine Control, Western Coal Leasing and Development.
Council on Economic Priorities, 1978.

initiate various actions to improve and revise state leasing programs, it is likely that this issue will be addressed. With coal production increasing on state lands within the Rocky Mountain region, and the potential for accumulated state leasing revenues to become excessive, pressure may be brought to bear on State and federal units of government to permit the use of future revenues for other purposes.

As the federal leasing moratorium of the 1970's made acquisition of federal coal lands more difficult, speculation on state coal leases became widespread, leaving Utah and Wyoming with virtually all of their state coal land under lease. In addition, most state leasing is carried out under terms which fail to reflect the fair market value, or promote diligent production, of state-owned coal. As a result, production on state coal land is very low: only 0.7% of all valid state leases have ever produced a single ton of coal.¹⁸

The checkerboard pattern of state-owned coal lands across the western states assures that most large coal regions are likely to include some state land. The acquisition of state-owned land then becomes crucial to the organization of private, federal or Indian lands into logical mining units. Thus the efficient and economical recovery of western coal is contingent upon the ability

¹⁸ Page 61, Mine Control, Western Coal Leasing and Development. Council on Economic Priorities, 1978.

of developers to mine through state land, rather than around it. For this reason, the development of state-owned coal lands bears critical importance to the development of Western coal in general.

Total royalties, rent and cash bonuses derived from state coal leasing in the Rocky Mountain states amounted to only \$3.5 million in 1977. Total coal production was only 6.6 million tons.¹⁹ However, initiatives on the part of each of the six states to revise their coal leasing procedures so as to maximize the return to the specific beneficiary institutions, as well as the projections for increases in state coal production, indicate that revenues derived from state coal leasing should increase dramatically over the next several years.

The total royalties, rent and cash bonuses derived from all state mineral leasing in the Rocky Mountain region and Gulf Coast regions have been indicated in Table 9.

Table 10 details the 1978 energy production-related revenues accruing to the Rocky Mountain and Gulf Coast states from federal mineral leasing and subsidy programs, and through state severance tax and mineral leasing programs.

¹⁹ Page 66, Mine Control, Western Coal Leasing and Development Council on Economic Priorities, 1978.

TABLE 9

State Mineral Leasing Revenues

<u>Rocky Mountain Region</u>	1977	1978
Wyoming	21,405,626	23,486,272
New Mexico	83,922,000	106,195,000
Montana	9,568,926	12,413,763
Sub Total	114,896,598	142,095,035
Colorado	6,115,000	7,573,000
Utah	7,736,109	21,891,553
N. Dakota	2,285,069	8,466,289
Sub Total	16,136,178	37,930,842
Regional Total	131,032,776	180,025,877
 <u>Gulf Coast Region</u>		
Texas	316,116,000	370,258,000
Louisiana	197,651,164	197,651,165 ¹
Oklahoma	16,438,000	16,600,000
Regional Total	530,205,164	584,509,165

¹ The 1977 figures for Louisiana state leasing revenues, the 1977 figures have been used instead of actual 1978 figures since they are presently unavailable.

TABLE 10

The following table details the 1978 energy production-related revenues of the Gulf Coast and Rocky Mountain states.

	1978 Severance Tax (\$)	1978 Federal Subsidies		1978 State Leasing Revs. (\$)	TOTAL
		MLA (\$)	Other ¹ (\$)		
Texas	959,686,000	0	3,491,463	370,258,000	1,363,435,463
Louisiana	476,829,000	396,847	14,140,591	197,651,165 ²	688,917,603
Oklahoma	230,368,000	3,586,456	676,526	16,600,000	251,230,982
<u>Regional Total</u>	1,666,883,000	3,883,303	18,303,580	584,509,165	2,273,584,048
<u>Rocky Mountain Region</u>					
New Mexico	145,826,000	59,709,426	12,158,314	106,195,000	323,888,740
Wyoming	66,021,000	69,179,426	21,173,304	23,486,272	179,859,644
Montana	44,667,000	7,507,936	12,793,133	12,413,763	77,381,832
<u>Subtotal</u>	256,514,000	136,936,430	46,124,751	142,095,035	581,670,216
Utah	8,926,000	11,890,635	7,177,508	21,891,553	49,885,696
Colorado	1,838,000	15,249,812	9,523,612	7,573,000	34,184,424
North Dakota	18,619,000	718,334	1,351,710	8,466,289	29,155,333
<u>Subtotal</u>	29,383,000	27,858,781	18,052,830	37,930,842	113,225,453
<u>Regional Total</u>	285,897,000	164,255,211	64,177,581	180,025,877	694,355,669

¹ For the Gulf Coast region, these figures consist of formula grant money under the CEIP and payments in lieu of taxes. For the Rocky Mountain region, those figures include surface mining receipts and payments in lieu of taxes.

² Figures for Louisiana state leasing 1978 are not readily available at this time, so we have used the 1977 revenues and assume that the 1978 figures will be roughly the same.

III. A. DIRECT IMPACT UPON NEW JERSEY AND THE NORTHEAST

The benefits that the Western energy-producing states derive from energy production tax and subsidy mechanisms must be weighed against the direct and indirect costs imposed upon energy-consuming states. This section will discuss the direct costs which Gulf Coast severance taxes will impose upon New Jersey and the Northeastern States as a whole, and the potential costs which the Louisiana first-use tax may impose.

New Jersey, and the Northeast as a whole, will incur direct costs from Western severance taxes through the natural gas and petroleum products imported from Western energy-producing states, and the states of Texas and Louisiana in particular. The severance taxes imposed by the Rocky Mountain states will not directly affect the Northeastern states, which use only Eastern coal because of transportation cost and logistic barriers to the importation of low-sulfur Western coal.

It is likely that the predominant share of the cost of Louisiana's natural gas taxes is borne by out-of-state consumers, and that a significant share of the cost of the Texas natural gas severance tax is exported. This conclusion is based on both the economically reasonable assumption that the bulk of the cost, if not the full cost, of the Louisiana and Texas natural gas taxes is shifted forward by energy producers to consumers, and the status of Texas and Louisiana as major exporters of natural gas.²⁰

²⁰ See last paragraph on page 47.

Louisiana exported an estimated 70% of its marketed natural gas production in 1977, while Texas exported an estimated 40% of its marketed production.²¹ The severance tax is directly exported through energy shipments, and indirectly exported through shipments of energy-based products. The share of Texas natural gas severance tax payments contributed by out-of-state consumers will probably increase in the future as average gas prices increasingly reflect the equating of the interstate and intrastate prices of new gas under the Natural Gas Policy Act of 1978. In addition, if the percentage of gas supplied to the interstate market increases under this Act, then the percentage of both Louisiana and Texas natural gas severance taxes which is exported to out-of-state consumers will probably increase.

New Jersey consumers, and Northeastern consumers as a whole, will contribute directly to this subsidization of Texas and Louisiana taxpayers by out-of-state consumers through severance tax and potential first-use tax payments.

New Jersey imported roughly 90% of its natural gas from Louisiana in 1975, which is the latest year for which statistics on trade flows are available, and roughly 10% from Texas.²² Northeastern consumers imported roughly 75% of their 1975 natural gas needs from Louisiana, and approximately 15% from Texas. Roughly

²¹ Mineral Industry Surveys - Natural Gas Production and Consumption: 1977, Department of the Interior.

²² 1975 Natural Gas Flow Patterns, Federal Energy Regulatory Commission.

70% of the natural gas which New Jersey imported from Louisiana in 1975 came from offshore sites. The bulk of the gas produced off of the Louisiana coast comes from the Outer Continental Shelf (OCS) and is not subject to the severance tax but may be subject to the first-use tax, if this tax survives the current legal challenge mounted by the Federal Energy Regulatory Commission along with a group of Northeastern and Midwestern states.

Table 11 presents estimates of 1979-85 natural gas tax payments by New Jersey consumers, and Northeastern consumers as a whole, to Texas and Louisiana.

TABLE 11

1979-85 New Jersey and Northeastern Natural Gas Tax Payments
(Millions of Current Dollars)

	Louisiana		Texas	Louis.&Texas
	Sev. Tax	First-Use Tax	Sev. Tax	Total
New Jersey	35	55	15	105
Northeast	230	370	170	770

New Jersey and Northeastern consumers will also incur direct severance tax costs through their imports of refined petroleum products from the Gulf Coast region. Adequate information was not available to derive reliable estimates of these oil costs.

Thus, the Gulf Coast states are, as a whole, probably able to export a significant portion of their natural gas severance taxes to out-of-state consumers (this may also apply to oil severance taxes),

and this share will probably increase in the future. The predominant share of the cost of Louisiana's natural gas severance tax, and potentially the first-use tax, will probably be exported to out-of-state consumers, and Northeastern consumers could bear an estimated 23% of Louisiana's projected 1979-85 natural gas tax revenues of \$2.6 billion.

B. INDIRECT IMPACT UPON NORTHEAST

This section will discuss the indirect impact of the energy production-related revenues of Gulf Coast and Rocky Mountain states upon the Northeastern region.

1. Gulf Coast Region

The competitive advantage of the Gulf Coast states over the Northeastern states in attracting business investment has been fostered by many factors. One of these factors may have been the severance tax. The severance tax provides benefits to the Gulf Coast states without, for the most part, generating the costs associated with other tax mechanisms.

It is likely that the severance tax has only minimal negative repercussions upon economic activity within the Gulf Coast region.

The negative impact upon the energy industry in the Gulf Coast region is probably minimal because of the economic likelihood that this tax is predominantly shifted forward to consumers. The ability of the Gulf Coast energy industry to shift this tax forward is based upon the large market share held by the Gulf Coast

states in the domestic production of oil and gas (they accounted for 62% of 1977 national crude oil production and 80% of natural gas production), and the probable inelastic response of energy consumers to the Gulf Coast severance taxes which, for the most part, contribute only marginally to the total cost of Gulf Coast energy. Louisiana imposed a natural gas severance tax rate of \$.07 per thousand cubic feet (MCF) which, in 1977, amounted to approximately 4.3% of production value, while Texas and Oklahoma imposed natural gas severance tax rates of 7.5% and 7% of production value, respectively. These rates overstate the effective tax rates paid by consumers, who must pay transportation and transmission costs in addition to production costs. In 1975, the wellhead value of Gulf Coast natural gas was roughly 1/4 of the price paid by Northeastern consumers for natural gas,²³ and thus effective natural gas severance tax rates paid by Northeastern consumers were roughly 1.07%, 1.85%, and 1.75% of the production value of Louisiana, Texas, and Oklahoma gas, respectively. The oil severance tax rates of Louisiana, Texas, and Oklahoma are 12.5%, 4.6% and 7%, respectively, which also overstate the effective tax rates paid by consumers.

In addition, Gulf Coast severance taxes probably do not alter the locational attractiveness of the Gulf Coast region to major energy-using industries. According to 1976 statistics, the average energy cost per million BTUs for Northeastern consumers was roughly 7.7 times the average price paid by Gulf Coast consumers. This

²³ 1975 Mineral Industry Survey, Department of the Interior.

regional energy cost differential is mainly a result of the greater availability of natural gas in the Gulf Coast region than in the Northeast region which is largely dependent upon petroleum resources that are more costly per BTU than natural gas resources. The severance tax does not alter the natural gas availability advantage associated with a Gulf Coast location relative to a Northeastern location, nor does it alter the Gulf Coast's natural gas cost advantage which also contributes to the regional energy cost differential. The average price paid for natural gas by Northeastern consumers in 1978 was roughly 2.4 times the average price paid by Gulf Coast consumers, and the Gulf Coast natural gas severance taxes do not alter this differential because these taxes are imposed upon both inter- and intrastate gas, and the Northeast should continue to import virtually all of its gas from the Gulf Coast states in the near future.

These factors, along with the ability of the Gulf Coast states, as previously described, to export a significant portion of the severance tax, make the severance tax a desirable source of tax revenue for these states relative to other tax mechanisms, such as the corporate income tax.

An emerging consensus can be obtained from the empirical literature supporting the conclusion that the federal corporate income tax is likely to be largely borne by industry.²⁴ It seems economically reasonable that this conclusion would be at least as

²⁴ Horst Claus Rectenwald, Tax Incidence and Income Redistribution.

strong in the case of the state corporate income tax. It is thus likely that the state corporate income tax, unlike the Gulf Coast severance taxes, affects the differential cost of doing business between the Gulf Coast and Northeast regions, and thereby affects their relative competitiveness in attracting business investment to the extent that interstate tax differentials affect location decisions. The literature indicates that interstate tax differentials are one of many factors which influence industrial location decisions, although they may not be a major factor.

The severance tax thus may have provided indirect benefits to the Gulf Coast states by contributing to their ability to reduce their reliance on other, less desirable, tax mechanisms, such as the corporate income tax, which are more likely to have an adverse impact upon their business climates. The Northeast, on the other hand, must rely on less desirable tax mechanisms to finance their public expenditures.

The average corporate income tax rate within the Northeastern region in 1978 was 8%, which generated 12% of total 1978 Northeastern tax revenues. New Jersey collected approximately 12% of its 1978 tax revenue from the corporate income tax based on a 7.5% tax rate. In contrast, Texas does not impose a corporate income tax, while the severance tax generated 17.8% of its total 1978 tax revenue. The Gulf Coast region as a whole imposed an approximate average corporate income tax rate of 3% in 1978, which generated 3.2% of its total 1978 tax revenue or approximately 9 percentage points less than the corresponding share in the Northeast. The

severance tax generated 19.2% of the Gulf Coast's total 1978 tax revenue. The severance tax has probably contributed to these regional corporate income tax differentials, although it is probably only one of many factors.

The mineral leasing revenues that the Gulf Coast states derive from energy production on state lands may also enhance their competitive advantage with respect to the Northeast to the extent that these revenues enable them to minimize their use of tax mechanisms which have a negative impact upon the business climate, and to fund public expenditures which create a favorable business climate. Texas collected approximately \$316.1 million in state leasing revenues in 1977, which was approximately 1/3 of its severance tax revenues, while Louisiana collected an estimated \$197.6 million, or approximately 40% of its 1978 severance tax revenues.²⁵

The ability of the Gulf Coast states to rely on the severance tax as a major source of tax revenue, and thus to further develop a favorable business climate relative to the business climate of the Northeastern states, should be enhanced by the substantial rise in tax revenues expected to ensue from federal energy policies. These increased revenues are unlikely to be offset, to any significant degree, by increased public costs associated with Gulf Coast energy production, and should increasingly subsidize other areas of public expenditure.

²⁵ 1977 State Mineral Profiles, Department of the Interior.

2. Rocky Mountain Region

The increased corporate and residential tax base generated by energy production and the secondary economic growth which occurs as a result of energy development, combined with the increases projected for state and federal mineral leasing revenues, will represent a dramatic increase in state, local and regional revenues. In the future, these increased revenues could enable the Rocky Mountain region to develop a more favorable business climate. Revenues generated by energy production could enable the Rocky Mountain region to lower their tax rates, for example, or provide more attractive services and facilities to industries interested in locating there. At the same time, however, the Rocky Mountain states face the real problem of front-end financing for needed community services and improvements to existing infrastructure.

Although prospective revenues (from royalties and severance taxes) resulting from increased production of western coal are probably more than sufficient to cover that portion of the costs of local government operations not met through regular tax revenue services, and to cover any additional debt service and capital repayments for necessary public sector development, such revenues may not be available when needed. This deficiency has been addressed in several ways:

1.) Company Provision of Necessary Facilities. Although "company towns" are no longer considered politically desirable by most states or by industry, the traditional assumption by the developing company of the responsibility for facilities during the

construction phase is still an accepted practice. Particularly with regard to housing facilities, this option has the advantage of providing facilities for the peak construction phase populations which exceed production phase population levels, and therefore will not later burden the community with excess capacity.

Additionally, local governments have sometimes required energy industries to build and maintain energy-related roads, while also requiring housing developers to provide streets, water and sewage distribution and collection systems, parks, etc. While these mechanisms work to effectively eliminate the need for large state expenditures in energy impacted areas, they could have a negative effect in attracting energy producers and supporting development.

2.) Prepayment of Taxes. This mechanism is attractive since it provides for front-end financing (where it is needed), assures an appropriate part of the public costs of rapid expansion are paid by the industry generating the growth, and also transfers the risks associated with these costs to the industry.

3.) Industry Loan Guarantees and Similar Mechanisms. The company loan guarantee and similar mechanisms represent an attractive approach to financing both public facilities and housing where normal mechanisms are inadequate. Such mechanisms make capital available on terms that are likely to be attractive. More importantly, such mechanisms transfer the ultimate risk of default to the developing company. Such risk distribution may often be desirable in itself; it may make the difference between having credit available and not having it at any cost. Alternative approaches which

achieve similar risk distributions -- for example, company provision of facilities and prepayment of taxes -- may cause capital budgeting or cash flow problems for the developing company; loan guarantees will not have this effect. This approach should work well in the Rocky Mountain region where the energy producers are usually large, profitable concerns, and the mining resources are generally more substantial and of longer duration than their eastern counterparts.

The mechanisms mentioned above could go a long way towards providing up-front capital financing of needed public facilities and services. In addition, and perhaps more importantly, they would assure that the revenues generated by Rocky Mountain energy production would not result in a subsidization of industry within that region. However, all public costs should not be borne by the energy projects which generate new growth. New secondary economic activities should pay their share in accordance with state and local tax structures, while new residents should be required to pay their share in the taxes which that structure requires of them. In this way, the revenues generated by energy production -- particularly those derived from the federal government -- would not be permitted to subsidize the tax structures (or industry itself) within the Rocky Mountain region, and thus place the Northeast at a competitive disadvantage in relation to the Rocky Mountain states.

In this respect, DOI has estimated the net 1985 impact on state and local expenditures in the six Rocky Mountain states to be between \$42 million and \$100 million,²⁶ while it is estimated that

²⁶ Page 5-97, Draft Environmental Statement, Federal Coal Management Program. U.S. Department of the Interior, 1978.

total federal MLA and state severance tax revenues for those six states will be at least \$1.8 billion in 1985. Such a surplus in state revenues may enable the Rocky Mountain Region to develop a future economic environment with which the Northeastern region would be unable to compete.

While programs such as the MLA seem to be the most significant source of direct federal subsidies to energy producing states, many other existing federal programs have a potential as sources of assistance to communities adversely impacted by energy development. Table 12 shows the specific programs and funding levels recommended for FY79 which, while not specifically based on energy production or the associated adverse socio-economic impacts, may be of increasing significance to these areas.

TABLE 12

Existing Federal Programs that are Potentially
Significant Sources of Impact Funds

	<u>FY 1979 Budget Program Levels (Millions of \$)</u>
BLM - Payments to States from mineral leasing receipts	202
BLM - Mineral impact loan assistance	40 <u>1/</u>
EDA program	627
Appalachian Regional Commission - Community development and housing grants	48
Farmers Home Administration	
Community facilities loans	250
Water and waste disposal system loans	800
Water and waste disposal system grants	265
Environmental Protection Agency - Waste treatment works construction grants	5,000 <u>2/</u>
General Revenue Sharing Payments	6,855
Housing and Urban Developmet - Community development block grants	
Non-metropolitan discretionary funds	570
Secretary's discretionary fund	101
SMSA discretionary balance <u>3/</u>	238
Department of Transportation - Federal Aid	
Highway program	
Primary program	1,502 <u>1/</u> <u>4/</u>
Small urban and rural	779 <u>1/</u>
Urban program (potentially available for transfer)	360 <u>1/</u>
Appalachian Regional Commission - Appalachian Development Highway System and Appalachian local access roads	221
Bureau of Outdoor Recreation - Grants to States	280
Soil Conservation Service - Resource conservation and development program and watershed protection and flood prevention program	154

TABLE 12 - Cont.

	<u>FY 1979 Budget Program Levels (Millions of \$)</u>
Farmers Home Administration - Low to moderate income housing loans and rural rental housing loans	3,612
Federal Housing Administration - FHA fund mortgage insurance written (units)	(574,566)
Veterans Administration - Loan guarantee revolving fund guaranteed or insured loans (number)	(375,000)
Government National Mortgage Association - Guarantees of mortgage-backed securities issued	15,500

1/ Proposed legislation.

2/ Amount of grants awarded.

3/ Limited applicability.

4/ Up to \$751 M could be transferred to small urban and rural programs.

Although these programs vary in their availability and applicability to energy producing areas, the possibility of priority funding status for energy impacted communities could put funding for similar Northeastern projects at a competitive disadvantage vis-a-vis projects in the Rocky Mountain region. It is not possible to project how much of the funds enumerated in Chart 11 might be spent on energy impact assistance, or otherwise go to the energy-producing states of the Rocky Mountain region as a result of energy production, but clearly the potential is large.

A current issue regarding the allocation of federal resources arises from the ability of energy-producing states to export a significant share of their taxes to out-of-state consumers. Many federal grant formulas include the average personal income of a state's residents as a fiscal equalization factor in order to compensate for variations in tax wealth among the states and localities. Resident personal income, as a proxy for tax wealth, however, tends to understate the actual tax wealth of those states which are capable of exporting a substantial share of their taxes to residents of other states. In the case of energy-rich states, this personal income measure tends to understate their real tax wealth while overstating the actual tax burden of residents of such states. Thus, for those federal aid programs which rely upon either resident personal income or tax effort as a basis for allocating funds - and especially for those, such as general revenue sharing, which use both - energy producing states will receive benefits which exceed actual need. At the same time, energy-consuming states will receive disproportionately less federal aid.

According to a 1975 Advisory Commission on Intergovernmental Relations Study,²⁷ 25 federal programs incorporated resident personal income as a method of equalizing fiscal capacity. These programs included such major federal grants programs as General Revenue Sharing, aid to families with dependent children, and medicaid. In a separate study, OMB listed 36 formula grants which employed the resident personal income factor. These 36 programs accounted for \$21.5 billion in federal aid in FY75, or 43% of total federal aid expenditures.²⁸

²⁷ Page 4, Federal Aid Bias Study, ACIR, Washington, D.C.

²⁸ Page 217, Categorical Grants: Their Roles and Design, ACIR, Washington, D.C., A-52 (1978).

V. CONCLUSION

The objectives of current federal energy policies designed to decrease U.S. dependence on foreign oil supplies through increased conservation of existing energy supplies and a more intensive development of conventional and alternative energy resources are clearly in the national interest. However, the preceding analysis of the regional impacts of national energy policies indicates that additional steps should be taken to increase the efficiency of federal energy policies in meeting the above objectives.

The energy-related drainage of capital from energy-consuming regions which will result from rising energy prices may hamper their ability to undertake the energy-related and general capital investment necessary to meet domestic energy production and conservation goals. Severance taxes contribute to this energy-related drainage of capital from energy-consuming regions, and, at least in the Gulf Coast region, are unlikely to generate additional energy development which would not have otherwise been undertaken. The energy-related drainage of capital may be most significant in the Northeast, where the need to reduce OPEC oil imports through increased conservation and production of regionally indigenous energy sources is the greatest.

A. ENERGY CONSERVATION

Federal energy policies must emphasize greater energy conservation in order to significantly reduce U.S. dependence on foreign energy supplies in the short term because:

- a) although the current rate of decline may be reduced by the increased production incentives resulting from decontrol, oil and gas supplies will probably continue to dwindle, and
- b) the ability to exploit our vast coal resources remains constrained by environmental and economic factors.

However, current federal energy policies do not adequately exploit the potential of energy conservation as a means of reducing the U.S. balance of payments deficit, but rather militate against the realization of this potential. In order to correct this deficiency, and to assure the efficient implementation of national energy strategies, a new emphasis should be placed on energy conservation.

The emphasis upon development of coal resources within the rural Rocky Mountain region will increase domestic energy production, but, at the same time, will promote the energy inefficiency associated with rural growth and development. In addition, although the rising energy prices which will result from federal decontrol of oil and natural gas prices will, to some extent, increase the economic incentive for residential and commercial growth within urban areas, there will be an opposing drainage of capital from the urban energy-consuming regions through the direct and indirect repercussions of energy import-related monetary outflows (including severance taxes). Without substantial new national policy and

resource commitments designed to promote the residential and commercial redevelopment of urban areas, federal energy policies will fail to exploit the full potential of energy conservation as a means of promoting both energy self-sufficiency and greater economic stability within the U.S. The following recommendations are intended to achieve this goal:

(1) Increased funding should be provided for mass transportation systems, which have the potential to generate significant energy savings. Mass transit aid, particularly in these times of fiscal austerity, should be allocated in such a way as to derive the greatest benefit from limited budgetary resources. This can be accomplished by:

(a) Promoting rail development in densely populated, urbanized sections of the country which have the greatest independent capacity to support this form of mass transit. One such area is the Northeast corridor region, where the deterioration of the mass transit system has contributed to a pattern of residential and commercial dispersal which not only exacerbates the decline of these systems, but also the urban centers which they serve. Thus, increased funding is recommended in order to reap the substantial energy efficiency benefits which would be associated with the redevelopment of this system and the consequent revitalization of the surrounding urban centers.

The Port Authority of New York and New Jersey has estimated that an additional \$15 billion in capital investment will be needed over the next 10-15 years to rebuild and maintain the New York - New Jersey region's mass transit facilities.²⁹ The improvement of the mass transit system will directly contribute to energy conservation, as well as contributing to the revitalization of the energy-efficient urban areas which are served by these facilities. In addition, at least \$25 billion in additional capital investment is needed to rebuild and maintain other parts of the region's public infrastructure system, such as roads, sewers, and water systems.³⁰ This will promote economic development in this highly urbanized area, and will thus generate increased energy efficiency.

- (b) Presently the allocation of federal mass transportation funding is based on population, not directly on need. For example, while the Northeastern region accounts for 40% of all mass transit passenger miles traveled in the nation, less than 18% of the federal government's mass transportation operating subsidies are presently being allocated to this region. As a

²⁹ Regional Recovery: The Business of the Eighties, Port Authority of New York and New Jersey, June 1979, Pages 18-19.

³⁰ Ibid.

result, a state such as New Jersey with high ridership will receive only about 28¢ per rider in FY79 while a "Sunbelt" city such as Monterey, California, with lower ridership will receive 52¢ per rider. It is therefore recommended that federal mass transit resources be allocated on the basis of ridership or need, not population.

- (c) Other forms of mass transit should be promoted in more densely populated areas in addition to the upgrading and extension of existing rail systems. These include bus systems, park-and-ride facilities and carpooling programs. In less densely populated areas, however, other forms of mass transit should be promoted to the exclusion of new rail systems which are unlikely to be either economically feasible or energy efficient.
- (2) Increased funding should be provided for urban aid programs since the revitalization of urban areas represents one of the most sound energy conservation strategies available to federal policy makers. It is therefore recommended that the goals of the national urban policy be more fully integrated into federal energy policies, and that an explicit recognition of the greater energy efficiencies which can be achieved through promoting more intensive urban redevelopment become the basis for increasing federal urban aid expenditures.

(3) The investment of public resources in urban redevelopment programs is more consistent with national energy conservation goals than is, for example, the investment of public resources in promoting the development of presently undeveloped energy-rich regions. Congress is presently considering the Inland Energy Impact Assistance Act of 1979 which is designed to stimulate coal production in the Rocky Mountain region through subsidization of state and local government expenditures necessary to accommodate new commercial and residential growth. The assistance will be in the form of outright grants and federally guaranteed loans. This legislation fails, however, to account for energy impacts experienced by energy-consuming regions. Such impacts include the energy import-related drainage of capital from these regions, and the public costs associated with past and future energy-related development (i.e., refineries, pipelines) in these regions. It is therefore recommended that this legislation be expanded to account for energy impacts which will be experienced by the urbanized energy-consuming regions, whose maintenance is essential to promoting the kind of energy efficient growth which is not likely to take place in the rural Rocky Mountain region.

Further, current energy impact assistance policies emphasize the mitigation of impacts resulting from increased inland energy resource production. Under existing federal impact assistance programs, coastal states are receiving considerably less assistance

than inland energy-producing states. While it is true that OCS resources are not considered to be situated on state lands, and while it cannot be claimed that their acquisition has resulted in the states' loss of potential tax revenues, strictly speaking, the same argument applies to federally administered mineral leasing lands within state boundaries; both OCS and inland mineral resources found on federal lands are held in trust by the federal government for all Americans. In this respect, there seems to be no justification as to why inland states should receive substantially greater benefits from mineral production than do OCS affected states.

It is therefore recommended that revisions to existing federal subsidy programs based on OCS energy production be initiated in order to provide for comparable assistance to OCS affected states. First, the 8% interest rate under the CEIP loan program has proved too high for most eligible states. This rate should be lowered to reflect the minimum rate paid by a state, or an agency of the state, on a \$1 million bond issue (exempt from federal taxes) during the preceding year. This is the rate assessed on the BLM 317 loans, and would thus place federal loan assistance to OCS energy impacted areas on a par with that offered to inland energy impacted areas. Secondly, it is recommended that a revenue-sharing program, similar to that which has been established for inland energy-producing states under the Mineral Leasing Act, be established for OCS affected states.

B. ENERGY PRODUCTION

Failure to make a substantial national commitment to reducing the energy import-related monetary outflows from the Northeast through greater development of energy resources indigenous to the Northeast (which can be economically competitive with foreign oil) will significantly reduce the U.S.'s ability to attain its energy policy-related objectives.

The 1978 National Energy Plan placed an emphasis on the conversion of oil and gas-fired utilities and industry boilers to a coal base as a means of reducing the U.S. dependence upon foreign oil (the timing may be somewhat altered by the short-term substitution of natural gas for oil).

The increased coal production in the Rocky Mountain region which is likely to result from current federal energy strategies is unlikely to aid the Northeast because of:

- (a) prohibitive transportation cost and logistic (lack of adequate transportation facilities) barriers to the importation of Western coal, and
- (b) the increased cost of burning low-sulfur Western coal resulting from the legal obligation, as established by recently-issued EPA regulations, to remove 70% of the sulfur in low-sulfur coal.

In addition, current federal energy policies are unlikely to alter the economic/environmental factors constraining the increased utilization in the Northeast of Eastern coal. Greater use of the high-sulfur bituminous coal reserves of the Northeast is hampered by the substantial environmental/economic costs associated with the production and use of this coal. The mining of the low-sulfur anthracite reserves of the Northeast is constrained by:

- (a) high production costs which, because of the need to employ expensive open pit mining techniques, exceed the production costs associated with the deep mining of bituminous coal,
- (b) high construction or retrofitting costs since an anthracite boiler is about three times as large as an equivalent capacity oil-fired boiler,
- (c) high burning costs because of the need for scrubbers which was established by recent EPA regulations, and
- (d) the lack of adequate transportation facilities (this applies to all coal resources).

Financial support is thus needed to induce the successful development of Eastern bituminous and anthracite coal which, contrary to the development of Rocky Mountain coal, would stimulate both a significant reduction in foreign oil consumption and an increase in energy conservation.

It is therefore recommended that the federal government approve funding for an Energy Corporation of the Northeast (ENCONO) which would cater to the energy needs of this region, in much the same way that the TVA promotes the development of internally-generated low-cost power in the Tennessee Valley. ENCONO, in contrast to the TVA, is intended to make privately-controlled energy development possible through such mechanisms as low-cost loans and loan guarantees, rather than serving to substitute public for private control. This energy corporation would serve to subsidize highly costly, but necessary, energy-related development projects such as the following:

- (a) the development of coal production-related facilities, particularly those associated with the open pit mining of anthracite coal,
- (b) the conversion of existing oil- and gas-fired industry and utility boilers to a coal base along with the construction and operation of new coal-fired facilities,
- (c) the installation and operation of scrubbers which would, under the new EPA rule, be required for both anthracite and bituminous coal, and
- (d) the upgrading and extension of the coal transportation network.

In addition, the resources of ENCONO would be used to promote investment in alternative indigenous energy sources and in energy conservation-related technologies, which would otherwise be uneconomic.

One such project would be the subsidization of the development of solid waste resource recovery systems in Northeastern urban areas which have the greatest capacity to support these systems. This would reduce the consumption of foreign oil in the Northeast, and thus the U.S. balance of payments deficit by:

- (a) reducing the amount of energy needed to transport solid waste to disposal sites outside of urban areas,
- (b) deriving energy from an alternative energy source indigenous to the Northeast, and
- (c) promoting development in energy-efficient urban areas.

Another project would be the subsidization of investment in new, more efficient residential heating oil systems in the Northeast, which would also serve to further federal energy conservation and efficiency goals.

Additional legal or policy initiatives which should be taken to deal with the issues raised in this report include the following:

- 1) The Departments of Justice and Energy should conduct studies to determine the extent to which severance taxes imposed by energy-producing states may violate the provisions of the Commerce Clause by imposing an unconstitutional burden upon interstate commerce. According to a 1978 National Tax Journal article,³¹

³¹ Walter Hellerstein, "Constitutional Constraints on State and Local Taxation of Energy Resources", National Tax Journal, September 1978, page 249.

"one may fairly contend that the state's effective selection of a class of out-of-state taxpayers to shoulder a tax burden grossly in excess of any costs imposed directly or indirectly by such taxpayers on the state places an unconstitutional burden upon interstate commerce."

This study indicates that a large portion of Gulf Coast severance taxes, and particularly Texas and Louisiana natural gas severance taxes, is likely to be exported to out-of-state consumers and that a significant portion of these payments will be made by Northeastern consumers. Also, additional severance tax revenues which will accrue to Gulf Coast states under current federal energy policies are likely to exceed any additional energy-related public expenditures by these states because the major impact of energy development is likely to have already been experienced in this region. The possibility that Western severance taxes constitute an export tariff, and thus violate the Commerce Clause which prohibits the obstruction of free trade, should also be investigated.

2) The Mineral Leasing Act of 1920 has often been explained as a means of providing payments in lieu of taxes to Western states where it is claimed that federal land ownership has significantly reduced the potential tax base. The MLA program, however, originally designed to use federal resources as a means of encouraging Western economic development, is more nearly comparable to general revenue sharing. In fact, a formal payments in lieu of taxes program already provides payments to municipal governments based

upon federally owned lands within their boundaries. This includes payments in lieu of taxes based upon federal mineral producing lands for which the states already receive mineral leasing revenues. Also, the role of the Department of the Interior in allocating MLA receipts - essentially that of bookkeeping and passthrough - as well as the substantial increases in MLA revenues expected to accrue to the Western energy-producing states over the next several years suggest that these revenues can no longer be explained as payments in lieu of taxes, and now bear more of a resemblance to a general revenue-sharing program which applies only to energy-producing states.

3) The State should press for reform of existing federal funding formulas which increase state allocations based upon a misleading evaluation of state tax effort, or by employing personal income as a proxy for fiscal capacity. Energy-producing states which are able to export a substantial portion of their taxes to out-of-state consumers are now receiving inequitable shares of federal funds, and the inequities are expected to become even more pronounced as the taxes paid by out-of-state consumers to energy-rich states rise substantially over the next several years.



