USDA
United States Department of Agriculture
Economic Research Service
Washington, D.C. 20250
January 1977

EPA
United States Environmental Protection Agency
Research and Development
Energy, Minerals and Industry
Washington, D.C. 20460
EPA-600/7-77-008

State Taxation of Mineral Deposits and Production

Interagency
Energy-Environment
Research and Development
Program Report

STATE TAXATION OF MINERAL DEPOSITS AND PRODUCTION

by

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Prepared for Partial Fulfillment of
EPA Contract EPA-1AG-D6-E766

This study was conducted by the
Economic Research Service, U. S. Department of Agriculture
with the cooperation of the
University of Minnesota.

OFFICE OF RESEARCH AND DEVELOPMENT
U. S. ENVIRONMENTAL PROTECTION AGENCY
Washington, D. C. 20460

The research reported in "State Taxation of Mineral Deposits and Production" was conducted by the Economic Development Division of the Economic Research Service, U.S.D.A. in cooperation with the University of Minnesota through support of the U. S. Environmental Protection Agency Contract EPA-1AG-D6-E766. The contents do not necessarily reflect the views and policies of the Economic Research Service, the University of Minnesota, or the U. S. Environmental Protection Agency.

FOREWORD

As the coal resources of the Northern Great Plains are developed, new demands are placed on the economic systems of the communities in the region. Labor will be required to man the mines and conversion facilities. Service capabilities for both the mining and the added population follow in and around the development. The additional cost of community facilities and their operation are provided through tax revenues. The fiscal impact is the comparison of revenue and expenditure flows over time as local communities respond to resource development.

This report is one part of an intensive study by the Economic Research Service of methods of estimating population, employment, incomes, and the net fiscal impacts of coal development in the rural communities of the Northern Great Plains.

This study provides an overview of mineral taxation in each of the major mineral producing States. The report is useful to States which are in the process of revising their tax systems to mitigate the fiscal impacts of large mineral developments. Summarizing legislation of so many States is difficult; errors or omissions may have occurred. The author will appreciate having these called to his attention. Changes in mineral taxes are under consideration in many States. These summaries cannot substitute for careful reading of each statute. Taxpayers who want to know the detail of the law in their State are urged to consult State or local tax officials.

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ABSTRACT

Development of energy resources in the more rural western States is likely to create severe financial problems for some State and local governments. This new economic activity, with population inmigration and greater demand for public services, will generate a need for more government revenues. Increased use of mineral taxation is one way of financing the new services without increasing the tax burden on the area's existing residents.

Four mineral taxes--ad valorem, severance, gross production, and net production--are described and evaluated. Taxes are compared on the basis of ease of administration, social justice, consistency with national economic goals, and revenue adequacy. The gross production tax and the severance tax are the most desirable, with the gross production tax preferred except when the market price of the mineral is difficult to establish.

Since mine construction or development can take several years, any tax based on the output of the mine makes no contribution to government revenues until after the need for new services has arisen. Many local governments face this front end financing problem. No tax analyzed, with the possible exception of the ad valorem tax, treats this problem satisfactorily.

Some States have enacted special programs designed to ease the front end problem. Programs in Montana, North Dakota, Utah, and Wyoming are discussed. Unfortunately, these programs are so new that their impact cannot be evaluated. These programs, however, may underestimate the size of the front end problem.

Most major mineral producing States have a special tax system for mines and mineral production. Summaries of State laws are provided.

CONTENTS

ACKNOWLEDGMENTS

Special credit is due Stanley W. Voelker, Economic Research Service at North Dakota State University, Layton S. Thompson, Montana State University, Jim Wead, Council of State Governments, and Jerry Stam, Economic Research Service for the contribution of special materials and careful reviews of this manuscript. The study also benefited from criticism of other members of the research team: Fred K. Hines, Andrea Lubov, Jeff V. Conopask, Paul R. Myers, and George Temple.

INTRODUCTION

Coal is once again an important energy resource in the United States. The era of cheap and apparently limitless supplies of petroleum and natural gas appears to have ended. Now some industries, particularly the electric utilities, are converting so they may use coal as their primary fuel. Coal consumption is expected to jump from 600 million tons in 1975 to 1,100 million tons in 1985.[1]

Much of the increased production will come from new or expanded mines in sparsely populated areas. The Northern Great Plains States--North Dakota, Montana, and Wyoming--will see especially large increases in production since they contain a large proportion of the Nation's reserves of low sulfur coal. These States and their agriculturally based economies are likely to undergo major structural changes due to energy development. Small towns will feel the greatest impact, with developments that would have little impact on a city of 25,000, forcing major changes in the underlying social and economic structures of the smaller communities.[2]

Whether the needed expansion in services can be financed from local sources without increasing the tax burden on the area's existing residents is an important question. Systems of financing and delivering local public services in rural areas are closely interrelated; a change in the amount of services produced has an immediate impact on the tax bills of all the community's residents. Since agricultural land presently comprises much of the tax base in these areas, any change in the quantity or quality of local government services provided will also have an effect on local farmers and ranchers.

The immediate need for new services may outstrip the locality's ability to finance them until the new mine or plant comes into full production; this is the so-called front end load problem. Since it takes up to 3 years to ready a coal mine for operation, this is more than a temporary imbalance in local revenues and expenditures, especially since many State constitutions set limits on local millages and prohibit bonding for operating expenditures. Unless some

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[1] Federal Energy Administration, Project Independence, Project Independence Report, Washington, D. C., 1974.

[2] See for example the discussion in Northern Great Plains Resources Program, Effects of Development in the Northern Great Plains, Part V, Apr. 1975, or Roger L. Hayen and Gary L. Watts, A Description of Potential Socioeconomic Impacts from Energy Related Developments in Campbell County, Wyoming, U. S. Dept. of Interior, Office of Minerals Policy Development, Washington, D. C.

way is found to balance the revenues and expenditures made necessary by the new industry, permanent residents of the community may see a significant increase in their tax bills while the mine is being developed.

This report discusses ways that States have tried to tax the mineral industry. Special attention is paid to the taxation of coal, although the discussion is cast in terms of all minerals because the problems raised are similar. The report begins with a section discussing different ways of taxing minerals--ad valorem taxes, severance taxes, and gross and net production taxes--and the major advantages and disadvantages of each. Special features designed to minimize the front end load problem are discussed in a second section. The report concludes by providing specific details of the mineral tax laws in major mineral producing States.

EVALUATING ALTERNATIVE MINERAL TAXES

Any discussion of the relative merits of different types of taxes must begin by outlining the criteria to be used for evaluation. Here, criteria suggested by Walter Heller are used. Mineral taxes are compared on the basis of social justice, consistency with economic goals, ease of administration, and revenue adequacy.[3] This is by no means the only set of criteria which have been used to evaluate alternative types of taxes. But this set highlights clearly differences between the different mineral taxes.

As with any set of criteria, some explanation and clarification of terms is necessary. Social justice is interpreted to mean adherence to basic equity considerations. Included are the standard issues of horizontal and vertical equity--equal treatment of equals and consistent treatment of unequals--as well as questions of intergenerational equity and interregional equity. How well the alternative taxes compare with respect to ability to pay and the benefit principle will also be discussed.

Consistency with national economic goals also needs elaboration. There are many national economic goals--full employment, stable prices, and steady economic growth, to name the three most commonly agreed upon. However, it is unlikely that alternative mineral taxes will have an appreciably different effect on any of these goals. This report focuses on the Nation's economic goals with respect to resource use, an area in which mineral taxation can have an impact. Here, it is postulated that our national goal is to maximize the benefit that can be derived from our existing stock of resources. This is not the same as maximizing production from the resource in any particular year, or artificially lengthening the recovery period. Instead, the rate of recovery from the mineral deposit and the total amount mined should be determined by existing market conditions and technology, not by the particular form of taxation used in the area. The ideal is a tax neutral with respect to the amount of the resource to be extracted and the recovery rate.

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[3] Walter Heller, "Taxation," Encyclopedia Brittanica, Vol. 21, 1964, pp. 839-841.

In this study the effects of alternative taxes on mineral production are compared in a static, partial equilibrium framework. That is, reinvestment is impossible and the entrepreneur is assumed to be a profit maximizer who bases decisions only on his production function and the prices of all inputs and outputs. Dynamic and general equilibrium implications are dismissed by assuming that a tax equivalent to that levied on the mining firms is levied on the other sectors of the economy. If such a tax did not exist, or if mining was taxed at a greater rate than other activity, any mineral tax would decrease the number of mines in operation and reduce the output per mine when compared to the no tax situation. These results hold for the imposition of any form of tax on mining which is not accompanied by an equivalent tax on the other sectors of the economy.

The Ad Valorem Property Tax

Mineral property was first taxed by the ad valorem property tax. Mines were treated the same as all other industries, and no special taxes on either the physical product or the value of the product of the mine were levied. Depending on the State's procedures, either a county or a State assessor would examine the deposit and place a value on it for tax purposes. Then, the local millage rate was applied to the assessed value and the firm's tax levy determined. The taxes levied on a mine depended only on its assessed value and the local millage rate, and they were levied whether the mineral deposit was being worked or not. Today several major mineral producing States, including Pennsylvania and Illinois, still rely on ad valorem taxes as their principal means of taxing mines.

As the revenue needs of State and local governments grew, and as State tax systems became more complex, the tax treatment of the mineral industry came under considerable scrutiny. The ad valorem tax, although producing sufficient revenue for most local communities, had a number of critics. Most of these criticisms were focused on three areas--social justice, consistency with national economic goals, and ease of administration.

Ease of Administration

The administrative difficulties of the ad valorem tax were probably most responsible for the decline in its use. Under any ad valorem tax, the assessment process is the key to gaining equitable treatment for all taxpayers. But, estimating the value of a mineral deposit is not easy, even for trained mineral experts. For local assessors, it is almost impossible. Wide variations in local assessment practices and in the ratio of assessed to true value made the tax questionable on equity grounds; many felt that almost any other system of taxing mineral property would be better from an administrative standpoint.

Accurately assessing mineral property is difficult for several reasons. First, the assessor normally does not have comparative sales data available for use in determining the mine's fair market price. Thus, he must appraise the property using an alternative method. And, while the value of a claim certainly depends on both the size and the richness of the deposit, detailed information on those characteristics usually is not available to local assessors. The assessor's problems are further complicated by the fact that the deposit is underground and hidden from view. The volatility of mineral prices, the unpredictability of future extraction costs, and the fact that the amount of ore extractable from the mine depends at least in part on the capital investment in the mine make accurate assessment even more difficult. These problems led the States to gradually move toward using net income or net profit to estimate an assessed value of mineral property.[4]

Consistency with National Goals

The ad valorem tax was also said to be inconsistent with the national goal of maximizing the use of available resources.[5] Since the tax comes due whether the deposit is being worked or not, a profit maximizing producer will accelerate his recovery rate on each deposit in order to minimize his total tax bill. The sooner the deposit is depleted, of course, the sooner the taxes will be reduced. Under a system of ad valorem taxes, two identical mineral deposits, one developed and mined out 5 years after discovery and one mined at a slower rate for 10 years, would pay considerably different amounts of taxes over the life of the deposit. Such a system of taxation provides a strong economic incentive for developing the mineral property and extracting the minerals as soon as possible after the discovery is made known and added to the tax rolls.

The increased recovery rate contributes to an accelerated depletion of the mineral deposit in the following way. Because there is an incentive to increase production from each mine, supplies of the mineral are larger than would otherwise be the case. Consistent with this excess supply, the price drops. The price decline in turn produces two effects. First, consumption of the mineral increases or proceeds at a more rapid rate in keeping with the lower price. Second, and perhaps more important, the cutoff grade for the ore to be mined is raised, reducing the amount of economically feasible ore available. Ore of lesser value than the cutoff grade will not be mined. Since there are large startup costs involved, substantially higher prices would be necessary before it becomes economically feasible to re-open a mine--prices higher than might be expected in the future. Although the lower grade ore is not lost, the economics of the mine make it highly unlikely that those minerals will be used. The ad valorem tax would then work against the country's best interests in preserving or making maximum use of our national resources.

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[4] A more complete description of the process is given in G. Howard Spaeth, "Iron Ore Taxation in Minnesota," Proceedings, National Tax Association, 1948, pp. 230-243.

[5] Harold Groves, Financing Government, 5th Edition, Holt and Co., New York, 1958, pp. 314-317.

Social Justice

Although much of the criticism of the tax on social justice grounds is based on problems that could be remedied with better assessment procedures, some real inequities exist. Perhaps the most important from the national point of view is the interregional inequity. A single rich mine in a sparsely populated area might well provide a major proportion of the tax base in the taxing district. If this were the only mine open in the area, its tax bill could be significantly greater than it would be if the mine were located in a region with more mining enterprises. Similarly, the location of other economic activity in the same area as the mine may have a significant impact on the tax bill which the mine pays. There seems to be no justification for the mine's tax bill depending on the amount of other development in the area.

The national heritage issue is a second concern. Some argue that a mineral deposit is a gift of nature to the people and that they deserve some rent or compensation for the asset.[6] This argument has had considerable popular appeal. What most desire is for the State to receive a share of the excess profit or rent that the owner of the resource obtains and return it to the citizens. Those making this argument are not really arguing against the ad valorem tax; instead, they argue for increasing the total tax burden on minerals. A property classification system in which mineral property is assessed at a higher rate than other types of property will accomplish the same objective within the property tax framework.

As with most equity arguments, there is really no way to evaluate the natural heritage argument in terms of right or wrong. While there is some intuitive appeal to allowing the State to extract some of the rent from mineral land, holders of mineral rights correctly point out that owners of other "gifts of nature," such as fertile land, are not taxed on the rent they receive. There is really very little that economics can say about the merits of the argument. Instead, it is a decision more properly made through the governmental decisionmaking process. Accepting or rejecting the natural heritage argument does not force one to choose a particular tax system.

Revenue Adequacy

In terms of revenue adequacy, the major complaint has been that the ad valorem tax works too well. In the iron range communities of northern Minnesota, for example, the ad valorem tax produced so much revenue at so little cost to the residents of the community that the State government eventually was forced to place a ceiling on increases in local per capita expenditures. Without such a limit local government expenditures in that area would have become completely distorted from those in the rest of the State.[7]

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[6] See for example, The Report of the Governor's Minnesota Tax Study Commission, 1956, pp. 324-326.

[7] Ibid., p. 327.

Unlike the other taxes to be discussed, the ad valorem tax has no problems in matching the revenue flow with the need for services. The front end load problem is minimized because the mine property has the same value whether the mine is in operation or being developed, assuming proper assessment. Consequently, sufficient revenues should be available to the local governments during the construction phase to meet all increased demands for services. Revenue adequacy is one of the major problems facing the other mineral taxes which are more acceptable on the grounds of administrative convenience, consistency with national economic goals, and social justice.

Summary

Strong objections exist to the use of an ad valorem mineral tax due to its administrative problems and its implications for the rate of resource depletion. Despite these problems, several States continue to use the ad valorem tax as their primary source of mineral tax revenues, since the revenues associated with it are more certain than those from a severance tax or a production tax.

The Severance Tax

Michigan was the first State to impose a tax other than an ad valorem levy on mineral property. It imposed a severance tax in 1846. Others followed and by 1910, seven States had some form of a severance tax.[8] In most States, however, the severance tax was seen as a way of encouraging the development of the State's mineral resources, not as a way of increasing the tax revenue from mineral property or of more equitably taxing mines.

Twenty-nine States have some special taxes on minerals. In 10 of these States, that tax is levied in lieu of all other ad valorem taxes. In the other 19, however, some ad valorem taxes are levied at either the State or local level. Normally, the courts treat the severance tax as an excise tax paid by producers for the privilege of extracting resources from the soil of the State. Consequently, since severance taxes are not usually considered to be property taxes, they are not held to be subject to constitutional restrictions applicable to property taxes such as millage limits and uniformity provisions. In addition, since they are not property taxes, it is not normally considered to be double taxation when they are imposed in addition to an ad valorem tax.

In this report three distinct types of severance taxes will be discussed. The first is the "true" severance tax, which is levied at a set amount per unit amount produced. The others are the gross and net production taxes.[9]

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[8]Financing Government in Colorado, 1959, Report of the Governor's Tax Study Group, p. 351.

[9]The distinction made here between severance taxes and gross and net production taxes is not always made at the State level. For example, Montana's tax on oil and gas is officially titled the Oil and Gas Producers Severance Tax

Ease of Administration

The "true" severance tax has no tie to the value of the product mined. Instead, it is levied according to a rate schedule based on the amount the mine produces. This greatly simplifies tax administration compared to the ad valorem tax. Now, all the State revenue department needs to know is the number of tons mined during the year, a figure which is much easier to obtain and verify than the total value of the deposit, the figure needed for ad valorem tax purposes. For administrative convenience the severance tax is a noticeable improvement over the ad valorem tax.

Social Justice

When compared on social justice grounds the severance tax appears superior to the ad valorem tax. Each ton of mineral extracted is taxed an identical amount, no matter where in the State the mine is located. With a severance tax the owner of a mine located in the same taxing district as other economic activity receives no tax advantages, and production decisions between mines are not influenced by the relative property tax rates in different locations. This is clearly an improvement over the situation under an ad valorem tax where the economic feasibility of a mine can be affected by size of the tax base in the surrounding district.

Taxes may also be evaluated on their consistency with the ability to pay principle. The ad valorem system fails in this respect since taxes are levied and become due whether the deposit is being mined or not. The severance tax offers some improvement since the taxes are due only when the mine is actually in operation. However, since the tax is based on the physical units of production rather than a measure of profitability, some ability to pay problems remain. Specifically, if mineral deposits throughout the State are not of equal quality, a severance tax violates the ability to pay criterion by taxing the less profitable mine at a higher percentage rate than the more profitable one. In general, however, the severance tax is an improvement over an ad valorem tax with respect to social justice.

Consistency with National Goals

Since the severance tax offers no tax incentives for increasing the mine's recovery rate, the tax is more nearly in accord with the national goal of maximizing resource use. The rate of extraction remains unchanged with respect to any change in the level of the tax, and there is no way the company can mine out from under the tax.

Some economic incentives still exist, however, which restrict the use of the ore deposit. Since the severance tax is at a constant dollar amount per

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even though its base is the gross value of petroleum extracted. Under the classification system used in this paper, such a tax would be considered a gross production tax.

ton, the mining firm will extract minerals only to the point at which its marginal costs plus the severance tax are equal to the market price. Unfortunately, this means that some portions of the deposit where the actual costs of extraction are less than the expected market price are not mined. Those deposits for which the market price minus the marginal costs of extraction is less than the severance tax will be left in place, even though in the absence of a tax they would be mined. What the relative impacts of the severance and ad valorem tax on the amount of ore made inefficient to mine would be is an empirical question that cannot be answered without a specific study. But given the relatively low rates for severance taxes, they probably have a smaller impact on resource use.

Revenue Adequacy

The severance tax's greatest deficiency is related to revenue adequacy. Since the tax is based on the physical output of the mine, the flow of revenues from the project and the need for additional local government services associated with the project may not coincide. In early stages of development it is especially likely that revenues will be far below those needed to finance the new levels of services. This represents a front end load problem. Since the construction period for a mine can last for 3 or more years, additional revenue must be made available before the mine is in operation. This need is especially severe in sparsely populated areas where existing public services will probably be inadequate to serve the new residents. Financing the expansion of the services is essential. If revenues from the mine are not available until after the need for more local services arise, the local community will suffer in the short term. This may be only a temporary problem for the community, however, with new revenues exceeding service costs shortly after the mine begins full scale operation.

Special Problems

Two less important features of the severance tax, while not especially difficult to solve, also need some discussion.

First, the severance tax is typically a State-levied tax. That is, unless special provisions are made, the State levies the tax, receives all revenue from the tax, and then apportions it as it sees fit. While there is no reason why local governments could not be given the power to enact a "piggy back" severance tax in the same manner as the piggy back sales and income taxes, only Alabama has specifically allowed this.[10] Without such a program, some provisions are necessary to insure that local governments in the impact area receive some revenue. Lacking this, the costs of the mine to the local community are likely to greatly outweigh its benefits and there will be strong local resistance to its development. This is not an insoluble problem. The legislation providing for the severance tax can be written to include a specific

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[10] Act 1005, Alabama Laws, 1975.

distribution formula. Or State programs of aid to local governments can be modified so that areas impacted by mineral development receive a different allocation of funds. Utah, North Dakota, and Montana have recently enacted legislation aimed at returning funds to the energy impact areas.[11]

The other problem, less difficult to solve, is that a severance tax fails to adjust automatically to the effect of inflation on local revenue needs. Since the tax is levied at a fixed dollar amount per ton, during a period of inflation the quantity of government services financed by the tax will decrease even though the tax is producing the same dollar amount of revenue.

Several States have recognized this problem and the waste of time in returning to the legislature annually for small tax rate increases; they have linked the severance tax rates to a price index.[12] Now, a one percentage point increase in the appropriate price index increases the severance tax rate by a given percentage, allowing local government revenue to keep pace with inflation.

Summary

The severance tax is a major improvement over the ad valorem property tax when evaluated on administrative convenience and social justice criteria. It also offers significant advantages over the ad valorem tax when judged on the basis of its consistency with national economic goals, even though it has some adverse effects on the amount of economically recoverable resources. However, in the area of revenue adequacy, the severance tax does not compare well to the ad valorem tax. The front end load problem, much worse under this type of tax, requires special treatment to overcome. And, since producing revenue is the purpose of all taxes, this is a serious problem which State legislatures must confront.

The Gross Production Tax

State and local governments can also tax mining activity through a gross production tax. Under this tax, taxes are levied on a measure of the dollar value of the product extracted from the mine. Seventeen States use this tax rather than a severance or an ad valorem tax. Other States include gross proceeds in the base for ad valorem taxation. In some instances, gross proceeds are used in place of a value for the mine and equipment. In others, gross proceeds are an addition to the value of the mine. The discussion of gross production taxes in this section applies to both the separate gross production tax and to the inclusion of gross proceeds in the ad valorem tax base.

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[11] Utah Code Annotated 63:51.5-6, Ch. 563 North Dakota Laws, 1975, and Montana Revised Code 84:1314-19.

[12] For example see the Minnesota Taconite, Iron Sulfides and Agglomerates Tax, Minn. Statutes of 1957, Sec. 298.26, or the North Dakota Coal Severance Tax, S.B. 2031, Laws, 1975.

In many ways, the gross production tax is almost identical to the severance tax. However, because the tax is levied as a percentage of the value of the ore rather than at a fixed amount per ton, there are some important differences. Chief among them are the more equitable treatment of mines during rapid price changes for minerals and the more equitable treatment of mines producing minerals of different qualities. The discussion below centers on these differences.

From the local government's point of view the biggest advantage of a gross production tax is that tax revenues increase when mineral prices increase. During general inflation the State or locality can be confident that it will receive about the same real purchasing power from mineral revenue as before without being forced to increase the tax rate. However, this responsiveness of tax revenue to price changes is less desirable when mineral prices decrease. A government strongly dependent on production taxes might face major financial problems during a long period of depressed prices. And, the disadvantages of having a fluctuating revenue source may outweigh the advantages of having a built-in hedge against inflation.

Ease of Administration

The gross production tax is more difficult to administer than the severance tax. Most of the difficulties arise in computing the mineral's sale price. The problem is not usually caused by fluctuating prices. Instead, the problem is that often there are no market transactions from which prices can be obtained. Some coal mines, for example, are part of vertically integrated electric generating plants. All the coal mined is used as an input for a generating station located at the mouth of the mine. Since the coal is not actually sold on the market, the problem is one of determining what accounting price should be attached to the coal. Although it is more difficult to administer the gross production tax than the severance tax, the production tax is probably not as difficult to administer as the ad valorem tax.

Social Justice

Assuming that the administrative problems are adequately handled, the gross production tax is an improvement over the severance tax in terms of social justice.

The two taxes would be identical if all mineral deposits were of the same quality and if mineral prices were stable. But the gross production tax does a better job in matching the firm's tax bill with the firm's ability to pay when either of these conditions is not met.

When gross receipts of the mine are used as the tax base, differences in the quality of the mineral extracted can be easily taken into account and taxed accordingly. Under a gross production tax, a mine producing minerals worth $5 a ton and a mine producing minerals worth $10 a ton will be taxed differently. Their tax bills will be proportional to the value of the mineral produced. Similarly, the mine's tax bill will fluctuate with the mineral's sale price.

Consistency with National Goals

The severance tax and the gross production tax are similar in their consistency with national economic goals. Differences occur when either price or quality of the minerals varies.[13] The price question is relatively unimportant, however, since mine openings and closings are based on an estimate of the long-term trend in prices and not short-term variations. Unless a major price change occurs, it is unlikely that the gross production tax and the severance tax would have different impacts on mine development.

The severance tax and the gross production tax may affect the cutoff grade for the mine differently. The severance tax is a fixed charge added to each ton of mineral produced. Mineral deposits will not be developed where the marginal cost of production and the severance tax are greater than the market price. However, since the gross production tax is a percentage of the sales price rather than a fixed amount per ton, the tax will be lower for minerals of lower quality. This will enable some mineral production to occur which would not occur under the severance tax.[14] The size of the increase in economically feasible mineral production depends on the relative tax rates and the differences in ore quality within the State.

Revenue Adequacy

Like the severance tax, the gross production tax does not meet the front end financing problem; communities needing revenue to provide services for new residents during the development and construction phase of the mine will find no special relief from it. In fact, the need for some local services--welfare, for example--might vary inversely with the price of the minerals and the associated activity in the mine. If this is the case the revenue flow over time might be less desirable than either the property tax or the severance tax.

Summary

The gross production tax appears to be slightly more desirable than the severance tax. Its advantages with respect to ability to pay and its improved consistency with national economic goals appear to outweigh the potential disadvantages associated with the administration of the tax and the revenue flow. If major difficulties exist in determining the mineral's price, however, a severance tax is likely to be more satisfactory.

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[13] Allyn O. Lockner, "The Economic Effect of Severance Tax Decisions on the Mining Firm," Natural Resources Journal, Jan. 1956, pp. 480-481.

[14] Henry Steele, "Natural Resource Taxation: Resource Allocation and Distribution Implications," in Extractive Resources and Taxation, Mason Gaffney, ed., Univ. of Wisconsin Press, Madison, 1967, p. 246.

The Net Production Tax

Although the gross production tax is similar to the severance tax, the net production tax has several distinct differences. It is more closely related to a net income tax since companies are allowed to deduct some expenses from gross revenues in order to reach the definition of net taxable production.

Ease of Administration

Any net income tax introduces a special set of administrative problems. Tax officials must be able to check costs claimed as business expenses as well as estimate gross income. Necessary cost figures are usually obtained from the company's State or Federal income tax return. But the responsibility for checking and auditing returns still increases the administrative burden of the tax on the State or local government and the taxpayer.

Social Justice

The net production tax is an improvement over all the other mineral taxes when judged against social justice criteria. Net income is a much more satisfactory tax base than property value or total production when viewed from the perspective of either ability to pay or horizontal equity. The interregional equity issue is also handled well. This tax also provides a rational basis for allowing progressivity to enter the rate schedule. If any progressivity is introduced in either a severance or a gross production tax, there is a possibility that taxes on marginal enterprises will be increased. This may drive them out of business, while the highly profitable mines are allowed to continue to pay taxes at the same rate.

On social justice criteria the net production tax, if designed so that it includes all of the firm's relevant costs, is clearly superior to all other taxes. To the extent that deductible costs do not include all relevant costs to the firm, the tax is less satisfactory and, depending on the omissions, it may in some instances be worse than any alternative tax.

Consistency with National Goals

Assuming that the net production tax properly reflects both the income and the costs of doing business to the firm, it is also an improvement over the others in its consistency with national economic goals. Like the severance tax it does not interfere with the optimum rate of recovery in the mine--there are no incentives to mine out from under the tax as there are with the ad valorem tax. In addition, since the tax levy is a percentage of net income, the net production tax does not produce the same incentives to restrict output as do the severance and gross production taxes. With a net production tax, the marginal cost of mining each ton remains the same as it would be without the tax. The profit maximizing producer will, therefore, mine the same amount under a net production tax as he would if there were no taxes at all. All the net production tax does is reduce the mine's profits.

If mineral production is subject to a greater tax burden than other sectors of the economy, investment in mining will decrease and the minimum grade ore required for operation will increase. Levying a net production tax rather than another mineral tax will not affect this result.

Revenue Adequacy

The net production tax does not score well on revenue adequacy. Because it is based on net income it has the same difficulty as the severance and the gross production taxes with the front end load problem. It is conceivable that the problem may be worse with the net production tax because the mine may not operate at a profit for several years. The best a community can hope for is that it will begin to receive revenue from the mine after it is fully operational.

The revenue stream after operation is considerably more uncertain and subject to considerable variation under the net production tax. Since the tax revenue depends on the mine's net income there will likely be periods when, due to fluctuating market prices, the mine will have little net income while still operating with its full complement of workers.[15] This possible fluctuation and uncertainty in revenue could create considerable problems for local communities trying to finance services by a net production tax. However, for a State trying to extract some payment from mine owners under a "natural heritage" philosophy, this may be more equitable.

Summary

The net production tax has advantages over other taxes with regard to social justice and compliance with national economic goals. Unfortunately, it is more difficult to administer and a less reliable revenue source than the other taxes, especially at the local level. While this tax is acceptable for use at the State level, its use at the local level is not advisable.

Conclusions

Of the four major types of taxes levied on the mineral industry, none is clearly superior to the others on all of the criteria (Table 1). However, the severance tax and the gross production tax appear to provide the best vehicles for taxing mining activity. Even though the net production tax ranked highest in social justice and consistency with national economic goals, problems in administration and revenue flow may be overriding, especially at the local level. Choosing between the severance tax and the gross production tax is more difficult. There the decision probably should be made on the basis of how difficult it is to determine a sales price for the mineral taxed. If a market

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[15] Groves, _op_. _cit_., p. 317.

price can be easily ascertained for the minerals coming from each particular mine, the gross production tax offers several advantages over the severance tax. If, however, an appropriate market price is not available, the State may be better off with a severance tax.

TABLE 1. SUBJECTIVE RANKING OF ALTERNATIVE MINERAL TAXES ON EVALUATION CRITERIA

Type of tax	Ease of administration	Social justice	Consistency with national economic goals	Revenue adequacy
		* equals lowest rank		
Ad valorem	*	*	*	****
Severance	****	**	**	***
Gross production	***	***	***	**
Net production	**	****	****	*

STATE PROGRAMS TO REDUCE FISCAL IMPACT OF MINERAL DEVELOPMENT

Special taxes on minerals all fail to produce enough tax revenue during the construction and development phase of the mine to offset the increased costs of providing local government services. Severance and production taxes produce no revenue until the mine begins to operate. Even ad valorem taxes are often inadequate because, either by law or by custom, nonproducing mineral property is usually assessed at its surface value. Consequently, the necessary expansion of the service delivery system of the local community must be financed from the existing tax base. During the first few years, at least, the value of the new development is not included in the local tax base. This section describes programs which Montana, North Dakota, Utah, and Wyoming enacted to ease the financial strain created by the need for new services before new tax revenues became available.

For many communities the timing of tax revenues does not create major problems. Indeed, one way State and local governments have tried to attract new industry is by exempting the new firm from all or a major portion of its local property taxes for a period of years. For the communities taking this approach the benefits of growth outweigh problems associated with the possible short-term fiscal imbalance. These towns usually have sufficient excess capacity in their public service delivery systems to serve the newcomers. Or the local labor supply is sufficient to absorb the new jobs created without requiring significant inmigration. If the tax concession strategy is to create the fewest problems for local finances, however, growth associated with development must be relatively small compared to the existing local population.

Mineral developments--and especially coal development in the Northern Great Plains--does not typically occur in settings where the potential financial imbalance can be minimized. Most major mineral deposits lie in sparsely populated areas where service delivery systems may have little or no excess capacity. The majority of construction and development workers normally must come from outside the immediate vicinity. Population increases of 50 percent or more are not uncommon, much of it occurring before production begins. In the case of mines supporting mine mouth thermogenerators or gasification plants, the local population may peak before the plant goes into operation as the construction work force outnumbers the operating force.

These situations often create the need for a new school or an expansion of the water and sewer systems. Local residents face the choice of letting local service quality decline sharply or of paying considerably higher taxes. Those living in States where statutory limits exist on property tax millage rates may simply be forced to endure lower service quality.

Local residents may be able to look forward to lower taxes after the mine reaches full production. But the short-run prospects may be disturbing. Many argue that the situation is inequitable to existing residents of the community. There is no real answer to this problem. But, for many individuals, the increased taxes represent only a reduction in the net capital gain due to the appreciation of property values which accompanies the development. There is no net loss.

It is apparent, however, that the threat of higher taxes due to the new development is a powerful force for mobilizing local citizen opposition to any proposed development. If for no other reason than insuring the orderly development of the Nation's mineral resources, some attempt must be made to resolve the front end financing problem. Four States faced with the possibility of extensive coal development in relatively sparsely populated areas have enacted legislation designed to deal with this problem.

Experience with these programs is very limited; the following discussion is limited to how the State legislation proposes to meet the problems of funding the early mine developments in a region, how it handles impacts outside the taxing districts in which the mine is located, and the certainty of revenues for the impacted community. Future research on the actual success or failure of these programs is important.

Montana

The 1975 Montana State Legislature modified the coal severance tax to take account of possible local fiscal imbalances caused by coal development. A Coal Board was established with the power to award impact grants to counties, towns, and school districts on the basis of need, degree of severity of coal development, availability of funds, and the degree of local effort in meeting the needs. It was reported that the Board would have approximately $18.5 million to distribute during the 1975-76 biennium.[16]

[16] The Billings Gazette, May 2, 1975.

The Legislature also created a special property tax classification for gross proceeds from coal strip mines. This action by itself will produce no revenue prior to the mine's operation. But, a companion measure requires those constructing a new firm or mine which will have a major impact on the existing public services to prepay on request an amount not to exceed three times the estimated property tax due the year the facility is completed.[17] One-fifth of the amount prepaid is then allowed as a credit in each of the first 5 years after the start of productive operations.

There is no way at this time to forecast whether the revenues allocated to the Coal Board will meet the needs of impacted communities, or whether the 3-year prepayment of property taxes provides enough to cover temporary fiscal imbalance of the locality. The property tax prepayment provisions by themselves may solve the front end financing problem of the taxing districts in which the mine is located. For these communities, the extra revenue is certain and quickly accessible. And, it can be obtained by local action without waiting for the judgment of the Coal Board or any other State agency on the need for the funds. Impacts on the local governments outside the immediate vicinity of the mine may not be handled as well. The actions of the Coal Board will determine whether the financial problems these communities face will be treated adequately.

North Dakota

The North Dakota Legislature enacted a Coal Impact Program during its 1975 session. This program, which is to last only through June 30, 1977, unless renewed, is more modest in size than Montana's. It establishes a temporary severance tax on coal, creates a Coal Development Fund, and provides for a Coal Development Impact Office to apportion funds among projects suggested by local governments.[18]

Thirty-five percent of the revenue derived from the new severance tax is allocated to the Coal Impact Office for distribution to impacted cities, counties, and school districts. The Coal Impact Office determines which communities receive aid and how much impact aid they will receive. Between $1.3 million and $1.5 million may be available for distribution to the impacted areas during each of the 2 years of the program.

Program funds will probably be insufficient to cover the needs of the impacted communities. A single major school expansion or water and sewer expansion could absorb most of 1 year's appropriations. In addition, the program's mandated 2-year life appears to assume that all the severe fiscal impacts will have occurred during that time. Given the development forecasts for Northern Great Plains coal, it seems quite unlikely that all major mining and energy conversion projects will be underway in that time.

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[17] C.H. 571, Montana Laws of 1975.

[18] Ch. 563, North Dakota Laws of 1975.

The program also provides no assurance to local officials that they will receive any impact funds. The Coal Impact Office faces a budget constraint and the director is forced to choose among the projects proposed by the local governments. Under these circumstances, worthwhile and necessary projects may not receive funding because the cost of the necessary projects exceeded the available resources.

The North Dakota program is designed to handle much smaller impacts occurring over a shorter period of time than the Montana program. Unfortunately, there are few good current estimates of the actual extent of the early front end fiscal impacts.

Utah

In 1975, the Utah Legislature enacted a program centered on the prepayment of sales and use taxes on all the equipment and machinery involved in the development of the resource and its production.[19] These funds were to be placed in a special account and used to finance State-related public improvements, including highways and schools. The State Road Commissioner and the State Education Commissioner have the power to suggest projects, but the State Legislature is required to appropriate the funds for a specific facility related to a specific natural resource development. Appropriations made to the State Board of Education for Schools shall be repaid to the State General Fund by the school district where the facility is to be constructed within a period of 6 years from the date of substantial completion of the facility or the date assessed values in the district reached $50 million, whichever is first.

The sales and use tax revenues associated with the construction and development of a mine or energy conversion plant are likely to be quite large. Although there are no estimates of the amount of revenue this program could bring in during its first year, sufficient revenue could be generated to solve local front end financing problems.

Unfortunately, however, the distribution process for the funds does not insure that the available funds get to the impacted communities with any degree of certainty or speed. Since the Legislature is required to approve the projects to be funded, this process is likely to be even slower and less certain than the use of a coal impact office as is done in North Dakota. Since a major characteristic of the front end fiscal imbalance is the immediate nature of the problem, a program which might take more than a year before the impacted community would receive the funds is necessarily less desirable than a program providing funds more rapidly. Nonetheless, the possibility of using prepaid sales tax revenues as part of the fiscal impact fund appears to be worth further consideration.

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[19] Utah Code Annotated, 63:51.5-6.

Wyoming

The Wyoming Legislature passed an extensive series of bills designed to reduce local fiscal impact. The program includes the issuance of revenue bonds to finance a State community development authority, a special coal tax for impact assistance, and an industrial development information and siting act. This Act includes provisions forbidding issuance of a permit for the construction and operation of the facility if a means of alleviating negative impacts is not specified.[20]

The Wyoming Community Development Authority was created and authorized to issue up to $100 million of revenue bonds so that the State can provide assistance in areas where there have been major development impacts and where needed facilities and services cannot be financed through existing sources.

This program is unique because it has the power to make loans to the private sector to provide financial institutions in the affected area with additional mortgage money as well as the power to loan to public agencies. Because the Community Development Authority has the power to set terms for repayment of loans to local governments, the act may serve as a way of channeling new funds into the local community during the early stages of the development. A court test of the constitutionality of this act has been initiated at the request of the State. Consequently, applications for funds will not be accepted for at least 1 year.

The Wyoming Community Development Program has several advantages over the coal impact board programs used in other States. It allows the mobilization of a considerable amount of capital relatively quickly--not dependent on the actual mineral production in the State--and it allows some aid to the private sector in communities feeling the impact. The $100 million of funds made available for impact assistance appears more likely to be an adequate amount than that provided in other States. However, the community has no certainty about receiving funds. There could be considerable delay before the loan is granted, depending on the action of the Community Development Authority.

A constitutional amendment approved by Wyoming voters in 1975 created a permanent Mineral Trust Fund. The revenue from a 1.5-percent excise tax on coal, petroleum, natural gas, oil shale, and any other minerals designated by the Legislature is to be deposited in this fund. Earnings from the investment of the fund are to be deposited in the State's General Fund annually. The amendment also specifies that the Legislature may set conditions and terms under which the money may be loaned to local governments. This provides another potential source of impact aid.

The Coal Tax for Impact Assistance Act provides for a severance tax at increasing rates through 1979. The tax is to be collected until total collections reach $120 million. The funds are to be dispersed by the Wyoming Farm

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[20]A detailed review of all the legislation dealing with the economic impacts of energy development in Wyoming is in Hayen and Watts, op. cit., pp. 57-74.

Loan Board in areas directly or indirectly impacted by the production of coal. The money is to be used in financing public water systems, highways, sewers, and road or street projects. However, at least 60 percent of the revenues must be used to finance highway, road, or street projects. In 1977, this tax will likely reach only about $1 million; it is unlikely that this act will provide much immediate assistance to impacted communities.

SUMMARIES OF STATE MINERAL TAX LAWS

Alabama

Alabama levies severance taxes on oil, natural gas, coal, and iron ore. In 1975, the State received more than $10.9 million from these taxes, or about 0.1 percent of its total tax revenues.

Two separate taxes are levied on oil and gas production--a 4 percent production tax on the gross value of the oil or gas severed and a conservation tax at 2 percent of gross value. [51:431.2;26:179.49]

Net revenue from the production tax is distributed according to the following schedule:

a. Twenty-five percent of the oil and gas production taxes collected in any county shall be allocated to the county to be expended at the discretion of the county government. However, in counties with populations between 34,875 and 36,000 in the 1970 Federal census, the funds are to be prorated to boards of education based on the number of children in net enrollment in the district. In counties with a population between 16,000 and 16,250, the first $150,000 shall be paid to the custodian of the school funds. The balance remaining shall be allocated two-thirds to the county general fund and one-third to the school fund.

b. Ten percent of the taxes levied on oil and gas wells located within the corporate limits or the police jurisdiction of any municipality shall be allocated to the municipality.

c. Fifty percent of the first $150,000 remaining goes to the State, 42.5 percent to the county, and 7.5 percent to municipalities on a population basis. [51:431.8]

All oil or gas produced, all leases in production, including mineral rights on producing properties, and all oil or gas under the ground on producing property within the State are exempt from all ad valorem taxes of the State, counties, or municipalities. No additional assessment shall be added to the surface value of such lands by reason of the presence of oil or gas thereunder or production therefrom. [51:431(12)] Cities and counties are also expressly forbidden from levying any additional taxes on oil or gas produced in the State of Alabama.

The conservation tax was originally enacted to finance the Oil and Gas Board. In 1961, however, the 2-percent tax was allocated to the State General Fund. [26:179.55]

A severance tax is also levied on iron ore. This tax, in the form of a license or privilege tax, is imposed at a rate of 3 cents per ton of 2,240 pounds. [51:556]

Since 1971, a severance tax of 13.5 cents per ton has been levied on coal mined in the State. [51:431.14] The revenue goes to a special bulk handling facility trust fund and is to be used to pay principal and interest on revenue bonds issued to construct the State docks bulk loading facility. If in any fiscal year the funds on deposit exceed the amount due on the bonds in the succeeding 12 months, the excess is available for refund to individual taxpayers on a pro rata basis. [51:431.19]

Alaska

Alaska levies a production tax on natural gas and oil. The State derived approximately $29 million from the tax in 1975, about 14 percent of the State's tax revenues.

The tax rate is on quality adjusted output. For oil 27 degrees API gravity, the tax is $0.16875 for each of the first 300 barrels of average daily production, $0.2025 for each of the next 700 barrels, and $0.2700 for each barrel over 1,000. [43:55.615] For natural gas, the tax is imposed at a rate of 4 percent of gross value. [43:55.01]

The per barrel tax rates are increased or decreased by a percentage equal to the percentage change in the Wholesale Price Index for Crude Petroleum published by the Bureau of Labor Statistics.

The tax levied under this section is in place of all taxes imposed by the State or municipalities, except for the one-eighth of a cent per barrel oil and gas regulation and conservation tax. [43:57]

Arizona

Arizona uses an ad valorem property tax to tax the mineral industry; it has no severance or production tax. The State Tax Commission has responsibility for taxing all patented and unpatented mining claims. [42:126] The value of the mine is determined by estimating probable gross revenue and deducting the probable cost of extraction, reduction, and sale of the ore product. The net value is then converted to its present worth. Five classes of property are established in Arizona for assessment purposes. Mines, smelters, railroads, mills, and lumber are all assessed at 60 percent of market value, the highest rate of any class. In contrast, commercial and industrial property is assessed at 27 percent, agricultural property at 18 percent, and residential property at 15 percent of market values. [42:255]

A special tax on the mineral industry was enacted in 1967. A tax of 1.5 percent of gross proceeds or gross income was levied on every person in the State in the business of mining, quarrying, smelting, or producing for sale or commercial use any oil, natural gas, limestone, sand, gravel, copper, gold, silver, or other mineral product compound or combination of mineral products. Revenue from this tax goes to the State School Fund. [42:1371]

Arizona also levies a mining privilege tax at a rate of 1 percent of gross receipts. Revenue collected from that tax is distributed as follows: 4 percent for administration, 15 percent to the Department of Economic Security, and 25 percent to incorporated cities. The remaining 56 percent is divided 40 percent to the State General Fund and 60 percent to counties. The funds are allocated among the counties according to the counties' assessed values and the amount of privilege tax collected, with each factor receiving equal weight.

Arkansas

Arkansas levies a severance tax on the value of most natural resources removed from the soil or water. Among those included under the tax are natural gas, oil, coal, barite, bauxite, titanium, manganese, zinc, cinnabar, and lead. Other items taxed are crushed stone, gypsum, sand, and precious stones. [84:2102] During fiscal 1974, this tax provided slightly over $7.2 million, or about 1 percent of State tax revenues.

Since the tax is a severance tax, it is levied at a fixed rate per volume amount for most minerals. However, diamonds, other precious stones, native sulfur, salt, and an assortment of less important stones and resources are taxed at 5 percent of the value of the product at time of severance. [84:2102(h)]

Rates for other minerals are 15 cents per 2,000-pound ton of barite, bauxite, titanium, manganese and manganiferous ores, zinc, cinnabar, and lead, and 2 cents per ton of coal, lignite, and iron ore. Gypsum not used for manufacturing in Arkansas, chemical grade limestone, silica sand, and dimension stone are all taxed at 1.5 cents per ton. [84:2102(a)-(d)]

Natural gas and oil are also subject to this tax. Natural gas is taxed at 0.3 cent per 1,000 cubic feet. Oil from a well producing an average of 10 barrels or more is taxed at 5 percent of market value at the time of production. For wells averaging below 10 barrels, the tax is computed at 4 percent. [84:2102(e)] The State also levies a tax on timber and timber products harvested. [84:2102(f),(g)]

Severance taxes levied under this law are in addition to the general property tax. Payment of the tax does not affect the liability of the producers for all State, county, municipal, or special district taxes upon their real and corporeal property. However, no other privilege or excise taxes are to be imposed upon the right to use the natural resource. [84:211] This provision apparently does not apply to the Arkansas Oil and Gas Conversion Tax which is now limited to 10 mills per barrel of oil or 1 mill per 1,000 cubic feet of natural gas.

Although the State collects all severance taxes, the State Treasurer is required to return a large portion of the funds to local governments. The General Revenue Fund receives 3 percent; the remaining 97 percent is distributed as follows:

1. All of the severance taxes, penalties, and costs on timber and timber products goes to the State Forestry Fund.

2. Of the severance taxes, penalties, and costs, except those on timber, 75 percent shall be "general revenues" and shall be allocated to the various State treasury funds participating in general revenues in the proportions provided by the Revenue Stabilization Law of Arkansas.

3. The County Aid Fund receives 25 percent.

The State Treasurer prorates the County Aid Fund among the counties based on the proportion of the State's severance tax revenues produced by that county. On receipt of these funds the county treasurer credits 50 percent of the money to the County General School Fund and 50 percent to the County Highway Fund.

California

California levies a small oil and gas production tax on mineral property. In 1975, it raised $2.3 million from this tax, about 0.02 percent of total State tax revenue. The tax is levied on the number of barrels of oil and thousands of cubic feet of natural gas extracted at a rate determined annually by the California Department of Conservation. [93:3404]

Colorado

Colorado levies a coal severance tax and oil and gas conservation and production taxes. In 1975, these taxes produced slightly more than $1.3 million or about 0.27 percent of the State's tax revenues. Mineral property is also subject to an ad valorem property tax based on gross proceeds.

The oil and gas conservation tax is levied to pay expenses of the Oil and Gas Conservation Commission. The tax is 1 mill per dollar of market value of the oil or gas at the well. This tax is levied in addition to the filing fee and service fee required. [34:60.122]

The oil and gas production tax is levied on gross income from the production of oil or gas. The rate of the production tax on income under $25,000 is 2 percent; for income greater than $25,000 and less than $100,000, 3 percent; income greater than $100,000 and less than $300,000, 4 percent; and income greater than $300,000, 5 percent. Ad valorem taxes paid during the taxable year on gas and oil leases, and royalties are allowed as a credit against the tax. [39:22.505]

The State also levies a coal tonnage tax at a rate of 0.7 cent per ton. The revenue from this tax goes to the State General Fund. [92:11.1] This tax is in addition to a license fee based on the production of the mine. For mines producing between 500 and 1,000 tons the fee is $25, and for those producing more than 1,000 tons annually the rate is $50. [34:23.101]

All mines are also subject to an ad valorem property tax. Each mine owner or operator is required to file with the county assessor a statement showing among other things, the gross value of product extracted; the costs of extracting, treating, reducing, and transporting the product; the gross proceeds of the mine; and the net proceeds of the mine. The property is then assessed at 25 percent of gross proceeds, or at net proceeds, whichever is greater. [39:6.106] The mineral property so valued is then taxed at the rate established by the county.

Florida

In 1971, the State of Florida added a severance tax on solid minerals to its existing production tax on oil and natural gas. Solid minerals, defined broadly, include clay, gravel, phosphate, rich lime, shells, stone, sand, and any rare earths as well as the mineral ores.

In 1975, the State received slightly more than $30 million from this tax source or about 1 percent of its tax revenues. The proceeds of the tax are paid into the State Treasury with 50 percent going to the credit of the General Revenue Fund and 50 percent going to the credit of a Land Reclamation Trust Fund. This fund is designed to give refunds to taxpayers who institute an approved reclamation and restoration program at the mine site. [211:31]

The Florida tax is based on gross value at the time of extraction. For solid minerals the rate is 5 percent of the value at the point of severance of the minerals. [211:31] The tax rate for oil and natural gas production is 5 percent of gross value. Taxpayers are allowed to credit the full amount of ad valorem taxes paid on the separately assessed mineral interest of the property against the solid mineral severance tax. However, this ad valorem tax credit cannot exceed 20 percent of the taxes due under this section. [211:32.1(a)] The credit, which may be accumulated over several years, is allowed only if the taxpayer has a program for site reclamation and restoration approved by and filed with the Department of Natural Resources. [211:32.1(c)]

Taxpayers are entitled to a further return of taxes paid under this section if they institute a reclamation and restoration program on the mine site.

Other alternatives include the reclamation of land other than the mine site, or the transfer of the site to the State for use as State land. In the case of reclaimed land the taxpayer shall receive an amount equal to 100 percent of his costs of reclamation and restoration subject to a maximum limit of 25 percent of the taxes paid under this section. With regard to the transfer of land to the State, the taxpayer can claim a refund equal to 100 percent of the fair market value of the land up to a maximum of 50 percent of the taxes paid. [211:32]

Kentucky

Severance taxes in Kentucky produced more than $53 million for the State in 1974. Taxes are levied on both coal and petroleum production, although almost all revenues are derived from the coal tax.

The coal severance tax, enacted in 1972, is levied at a rate of 4.5 percent of the gross value of all coal severed during a reporting period. [143: 020] The tax is in addition to all other taxes levied by the State or local government. There is no restriction on the use of the tax by localities in addition to the State.

The oil production tax is levied by both the State and the county. All producers of crude petroleum must pay a tax of 0.5 percent on the market value of all petroleum produced in the State. Any county may impose an additional tax of 1 percent of the market value. These revenues may be used for any purpose by the county. However, when a producing well is located in a separate taxing district within the county, the funds shall be distributed equitably among districts. [137:120]

In 1974, the Kentucky Legislature created a special Coal Producing County Development Fund to be used for public improvement projects in coal producing counties. Possible projects which can be financed include "the construction, reconstruction and maintenance of roads and bridges, sewer and water projects, construction or renovation of public facilities, parks, and industrial development projects."

Money for the Coal Producing County Development Fund is appropriated by the Legislature from the General Fund. For fiscal year 1974-75, the appropriation was not to exceed half the difference between $41 million and the actual severance taxes collected in 1973-74. For fiscal year 1975-76, the appropriation was not to exceed half the difference between $44 million and the actual taxes collected in fiscal 1974-75. [Ch. 262, Ky. Acts of 1974]

Income from the fund is apportioned to counties on the basis of the ratio of the severance tax collected in the county to total amount of severance tax collected State-wide. Each year, a list of proposed expenditures from the fund is to be submitted by each coal producing county for consideration by the Commissioner of the Executive Department of Finance and Administration. Except where the proposed expenditure violates State law, the recommendation shall be accepted provided, however, that the Commissioner may ask for reconsideration on any project. [Sec. 4, Ch. 262, Ky. Acts of 1974]

The fund is supervised by an advisory committee of seven members, all from districts in coal producing counties. Five of the members are selected from the State House of Representatives by the House members; the other two are selected from the State Senate by its members.

Louisiana

Louisiana makes extensive use of severance taxes, levying them on many minerals including natural gas and oil. In 1975, the State received more than $548 million from these levies, nearly 36 percent of the State's tax revenues.

Severance taxes are levied in addition to all other State, parochial, municipal, district, and special district taxes levied on real estate and other corporeal property. However, no further taxes or licenses are to be imposed on oil or gas leases or rights, nor should any additional value be added to the assessment of land by reason of the presence of oil or gas on the property. In addition, no parish or other local government can levy a severance tax or license fee. [47:643]

The tax is levied at the following rates:

1. On oil, 12.5 percent of its value at time of severance.

2. On wells incapable of producing more than 25 barrels per day, and which also produce at least 50 percent salt water, 6.25 percent.

3. For wells incapable of producing more than 10 barrels per day, 3 1/8 percent.

4. Distillate, condensate, or similar resources, 12.5 percent.

5. Natural gasoline, ethane, or methane, 10 cents per 42-gallon barrel.

6. Butane and propane recovered through processing, 5 cents per 42-gallon barrel.

7. Natural gas, 7 cents per 1,000 cubic feet. If the gas comes from an oil well with pressure of 50 pounds per square inch or less, the rate is 3 cents per 1,000 cubic feet. If the well is judged incapable of producing an average of 250,000 cubic feet of gas per day, 1.3 cents per 1,000 cubic feet. The tax shall not be levied on gas injected into a formation for storage, used for drilling fuel, consumed as fuel in the operation of a gasoline or a recycling plant, or in the

production of natural resources in the State. Gas produced from oil fields vented or flared into the air is also not taxed.

8. Sulfur, $1.03 per long ton of 2,240 pounds.

9. Salt, 6 cents per 2,000-pound ton.

10. Coal and ores, 10 cents per 2,000 pounds.

11. Marble, 20 cents per ton.

12. Stone, sand, and gravel, 3 cents per ton. [47:633]

The revenue collected through the severance tax is distributed as follows:

1. One-third of all severance taxes are to be credited to the State General Fund; provided, however, that beginning in the 1974-75 fiscal year and for each of the 4 succeeding fiscal years, $10 million shall be deposited in the Bond Security and Redemption Fund, and beginning in fiscal 1974-75, $48 million is allocated to the highway department for its overlay and bridge replacement program.

2. One-third of the severance taxes on sulfur and 20 percent of the severance taxes on oil, gas, coal, ores, shells, marble, stone, sand, and gravel shall be allocated to the parish within which the taxes are collected. These credits are subject to a limit of $100,000 per parish from the sulfur tax and $200,000 per parish from all mineral taxes.

Severance taxes not otherwise allocated shall be credited to the Severance Tax Fund. [47:645]

Michigan

Michigan levies a production tax on individuals severing oil or gas. This tax produced slightly over $4.5 million in 1975, or slightly more than 0.1 percent of State tax revenues. The tax is levied at 2 percent of gross value of the oil or gas severed. It is in lieu of all other taxes, State or local, on the oil or gas, the property rights attached to them, or the values created and upon all leases or the rights to develop any land for oil or gas. [205:303]

Michigan also has a tax on low-grade iron ore production. A similar tax on copper mining was removed in 1960. While plants for the beneficiation or treatment of low-grade iron ore are being constructed, the property is subject to an annual tax equal to the rate annual capacity of the plant in gross tons multiplied by 1 percent of the value per gross ton, multiplied by the percent completion of the mining property. [211:622] After production has been established on a commercial basis, the property tax is equal to the average annual production during the preceding 5-year period multiplied by 2 percent of the value of the ore. [211:623] However, if at any time the specific tax as determined in Section 623 (above) is less than the tax determined under Section 622, the provisions of 622 become controlling.

The tax provided in this act is in lieu of ad valorem taxes on the low-grade iron ore, the low-grade iron ore property, and the lands used in mining, quarrying, transporting, and beneficiation of the ore, as well as taxes on mining or producing concentrate from the ore.

Minnesota

Minnesota received nearly $36 million from mineral taxes during 1975. This sum amounted to slightly more than 1.75 percent of State tax revenues. The major revenue source is the tax on the production of iron ore and low-grade iron ores such as taconite, although a tax is also levied on copper-nickel production.

An occupation tax of 15 percent of the value of production is levied on the production of taconite, semitaconite, and iron sulfides; all other ores are taxed at 15.5 percent. [298:01] However, to encourage employment and the utilization of lower grade, underground ores, a credit is allowed against the tax. For ore from underground mines or ore from open pit mines that has been beneficiated, the credit is equal to 10 percent of labor cost in excess of $0.70 per ton and less than $0.90 per ton, and 15 percent of labor costs in excess of $0.90 per ton. For other mines the credit is 10 percent of labor costs in excess of $0.80 but less than $1.05 per ton, plus 15 percent of labor costs in excess of $1.05 per ton. In both instances, the per ton credit is multiplied by the number of tons produced, not to exceed 100,000. For underground and taconite operations the credit shall not exceed 8.25 percent of the value of the ore. For other operations, the limit is 6.6 percent. [298:02]

If allowable costs for mines other than taconite and semitaconite exceed the value of the ore at the surface, a tax credit is allowed. The credit is computed by applying the current tax rates to the excess of such costs over the value, limited to 53.68 percent of the credit for open pit mines and 42.10 percent for underground mines. [298:027]

Five percent of all amounts paid under the occupation tax on iron mining are allocated from the General Fund to the Iron Range Resources and Rehabilitation Commission (IRRRC). The IRRRC is headed by a commissioner appointed by the Governor for a 4-year term. When the commissioner determines that distress and unemployment exist or may exist in any county because of the removal of natural resources or a limited use of these resources in the future, he may use such funds as he feels necessary in the development of the remaining resources of the county and in vocational training and rehabilitation of its residents.

Minnesota

All projects recommended by the commissioner shall be submitted to and approved by the members of the IRRRC. The members shall include three members of the State Senate, three members of the State House, and the Commissioner of the Department of Natural Resources who acts as chairman. [298:22]

Minnesota also taxes all royalties received for permission to explore, mine, take out, and remove ore. Royalties on taconite, semitaconite, and iron sulfides are taxed at 15 percent; all other royalties are taxed at 15.5 percent.

In addition to the occupation and royalty taxes, production of merchantable iron ore concentrates from taconite, iron sulfide, and semitaconite is taxed. Taconite and iron sulfides are taxed at a base rate of 11.5 cents per gross ton of merchantable iron ore concentrate plus an additional tax of 10 cents per gross ton of merchantable iron ore concentrate in 1975 and 1976, 12 cents in 1977 and 1978, and 14 cents in 1979 and thereafter. [298:24(3);298:241] In 1974, the Legislature enacted a supplemental tax on all taconite and iron sulfide production equal to 39 cents per ton.

The production tax rate increases 0.1 cent per ton for each 1 percent that the iron content of the product exceeds 55 percent when dried at 212°F. [298:24.1] In addition, both the basic rate and the additional tax are tied to the wholesale price index. When the wholesale price index increases one point, the tax rate increases 0.1 cent per ton. [298:24;298:241]

The taxes imposed on taconite and iron sulfides under Sections 298:24 and 298:241 are in addition to the occupation tax imposed on the business of mining and producing iron ore, and in addition to the royalty tax. However, these taxes are in lieu of all other taxes upon taconite or iron sulfides, or the lands in which they are contained or upon their mining or quarrying or the production of concentrate, or upon the machinery, equipment, tools, supplies, and buildings used. In addition, firms are allowed a credit of up to 2 cents per ton for direct taxes paid for principal and interest on bonds issued by a school district or a city.

Proceeds from production taxes are divided as follows: the 11.5-cent base tax is apportioned 11.5 percent to the city or town, 27 percent to the school district, 11.5 percent to the county, 3 percent to the State, and 47 percent to the Taconite Property Tax Relief Account of the State Treasury. [298:28]

The additional tax--10 cents in 1975 and 1976, 12 cents in 1977 and 1978, and 14 cents thereafter--is apportioned according to the following formula: 1 cent per ton to the county road and bridge fund; 1 cent per ton to the Iron Range Rehabiliation and Resources Fund; 3 cents per ton between 1976 and 1980 to the Taconite Property Tax Relief Fund; 4 cents per ton in 1980 and thereafter; 4 cents per ton in 1974 and 1975, 5 cents per ton in 1976 and 1977, 7 cents per ton in 1978 and 1979, and 8 cents per ton in 1980 and thereafter to the Taconite Municipal Aid Account. [298:281]

The Taconite Municipal Aid Account is distributed on a pro rata basis based on population of the eligible communities. To be eligible a community must either have had an assessed valuation of unmined iron ore on May 1, 1941 which was not less than 40 percent of the assessed valuation of all real property and have assessed valuation of ore at the assessment date of less than 60 percent of all real property, or be a municipality in which there is a taconite concentrating plant, where taconite is mined, or where an electric generating plant which qualifies as a taconite facility exists. [273:134]

Twenty-five percent of the occupation taxes paid on the mining of taconite and the production of taconite concentrates are distributed to local governments of the area in which they were collected in the following proportion: 25 percent to the city or town, 50 percent to the school district, and 25 percent to the county. [298:32]

The mining of semitaconite and agglomerates and the production of ore concentrate is also taxed. Concentrates from agglomerates are taxed at 5 cents per gross ton; concentrates from semitaconite are taxed at 10 cents per ton. To both of these rates is added a tax of 0.1 cent per gross ton for each 1 percent that the iron content of the product exceeds 55 percent when dried at 212°F. [298:35] Again, this tax is in addition to the occupation tax. However, if at least 1,000 tons of concentrate are not produced during the year, the tax may be levied at the local millage rates, provided that the tax shall not be greater than that on the assessed value assigned to semitaconite in 1958 or an amount sufficient to raise $1 per acre.

The proceeds of the semitaconite tax are returned to the various taxing districts where the semitaconite was mined according to the following formula: 22 percent to the city or town; 50 percent to the school district; 22 percent to the county; and 6 percent to the State. [298:39]

The combined occupation, royalty, and excise taxes imposed on taconite mining, production, and beneficiation are not to be increased so as to exceed the greater of (a) the amount which would be payable if such taxes were computed under the 1963 law or (b) the amount which would be payable if the person or corporation were taxed with respect to the income, franchise, and excise tax laws generally applicable. [298:40]

Other low-grade iron ores which must be separated from other detrimental compounds and elements before processing are taxed at the same rate as semitaconite. [298:425]

Minnesota also levies a tax on copper-nickel mining and production. The tax is based on the value of the ore produced less labor and supply costs, costs of overburden removal or tunnel construction, and royalties. The value of the ore is also net of the tax on ore transported to a concentrating mill. [298:61] A credit is allowed against the tax for instate processing and for research experimentation and exploration. [298:54;298:55] A tax is also imposed on royalties received from copper-nickel property. [299:013] The royalty tax is 1 percent of royalties plus an additional 1 percent of the royalty paid on gold, silver, platinum, and other precious metals.

Mississippi

Mississippi received more than $20.5 million in severance tax revenues in 1975. This money, almost entirely from a tax on the privilege of extracting oil and natural gas from the soil or water, accounted for more than 2.5 percent of State tax revenue.

The severance tax on oil is levied at 6 cents a barrel or 6 percent of value, whichever is greater. [27:25.503] Natural gas is taxed at 6 percent of value or 3 mills per cubic foot, whichever is greater. [27:25.703]

Proceeds from the severance tax on oil is distributed as follows:

1. On the first $600,000, 90 percent to the State and 10 percent to the county.

2. On the next $600,000, 66 2/3 percent to the State and 33 1/3 percent to the county.

3. Above and exceeding $1.2 million, 95 percent to the State and 5 percent to the county.

If oil producing properties exist within the corporate limits of a municipality, the municipality shares the funds returned to the county in the proportion in which the severance tax proceeds from properties located within the municipality bear to the total tax proceeds of the county. In no event, however, shall the amount allocated to municipalities exceed one-third of the tax produced in the municipality. The balance of the funds returned to the county shall be divided among the various funds and districts at the discretion of the board of supervisors.

The tax levied on gas production is distributed slightly differently. Two-thirds of the revenues go to the State General Fund and one-third to the county. [27:25.705] Again, if gas producing property lies within the territorial limits of any municipality, the municipality receives a pro rata share (not to exceed one-third of the tax) based on the proportion of the tax collected in the county that is derived from property located in the municipality.

All gas produced in the State and all gas producing property are exempt from ad valorem taxes levied by the State or any taxing district in the State. [27:25.721] This exemption does not apply to personal property used to drill for or gather gas, nor does it apply to the surface rights of land. However, no additional assessment may be added to the surface value of the lands by reason of the presence of gas.

The State also levies a charge of 6 mills per barrel of crude oil and 2/5 mill per 1,000 cubic feet of gas produced to pay expenses incurred in the administration and enforcement of the oil and gas conservation laws. [53:1.73]

The State also levies a license fee on all individuals mining clays, lignite, or other earth products. The tax is $75 if output is more than 1,000 tons per year; $25 if output is less.

Montana

Montana levies several special taxes on mines and mineral production. There are taxes on coal production, metaliferous mine production, oil and gas production, micaceous mineral production, cement, and gypsum. And there is a tax on the gross product of any type of mining. In addition, since these taxes are not in lieu of the ad valorem taxes, all mines are subject to local property taxes. In 1975 the State received about $14.6 million or about 6.3 percent of State tax revenues from these taxes. Gross receipts are used to measure the value of coal mines. Other types of mines are valued on their net production.

The State levies a general mineral mining tax on all individuals or firms mining, extracting, or producing a mineral from the surface or subsurface of the State. This tax is levied at a rate of $25 plus 0.5 percent of the gross value of the production in excess of $5,000. The revenue from this tax goes to a special State fund. [84:7007] When the fund reaches $10 million, then interest may be used to rectify environmental damage caused by coal mining. When the fund reaches $100 million, revenue from the tax as well as the interest generated can be used.

Minerals are also taxed through a series of selective license taxes levied on the privilege of mining. These tax rates differ allowing the State to take account of differences in production costs for different types of minerals.

The license fee for mining metals, precious or semiprecious stones, or gems is based on the gross value of the products. The annual fee is $1 plus the gross production levy. Rates for the gross production levy are: first $100,000, 0.15 percent; exceeding $100,000 not exceeding $250,000, 0.575 percent; exceeding $250,000 not exceeding $400,000, 0.86 percent; exceeding $400,000 not exceeding $500,000, 1.15 percent; exceeding $500,000, 1.438 percent. [84:2004]

The State license tax on micaceous minerals such as vermiculite, perlite, kerlite, and masonite is 5 cents per ton. Cement is taxed at 4 cents per 376-pound barrel, or 5 cents per 2,000 pounds of cement plaster, gypsum, or gypsum products. [84:5902;84:1102;84:1202]

Every person producing or extracting oil or natural gas in Montana must also pay a tax on the total gross value of all merchantable or marketable petroleum or natural gas produced. Natural gas is taxed at a rate of 2.65 percent of gross value. Oil is taxed at 2.1 percent for the portion of production equal to an average of 450 barrels per well per day and 2.65 percent of that portion of gross value of all production in excess of that amount. [84:2202]

Montana

A conservation tax is also levied at rates set by the State Oil and Gas Commission. The rates are currently 3/8 cent per barrel of oil on leases producing an average of 25 barrels per day or less and 3/4 cent per barrel on production from wells averaging more than 25 barrels per day. For natural gas the rates are 2.5 mills per 10,000 cubic feet of natural gas if marketed for more than 15 cents per 1,000 cubic feet. [60:145] The proceeds from the conservation tax are used to pay the expenses of the Oil and Gas Commission.

Coal mining is also taxed through a license tax. The 1975 Legislature modified the existing coal producer's license tax to take better account of the differences in cost between strip mining and underground mining. They also hoped to stabilize the flow of tax revenues from coal mines to local government through the property tax system and to simplify the structure of the coal taxation system in Montana. To accomplish this they imposed a severance tax with the rate depending on both the heating quality of the coal and the way in which it was mined. The rates are:

BTU's/lb.	Surface mine	Underground mine
7,000 or less	12¢/ton or 20% of value	5¢/ton or 3% of value
Between 7,000 & 8,000	22¢/ton or 30% of value	8¢/ton or 4% of value
Between 8,000 & 9,000	34¢/ton or 30% of value	10¢/ton or 4% of value
More than 9,000	40¢/ton or 30% of value	12¢/ton or 4% of value

Taxpayers are entitled to exclude 5,000 tons of coal annually from the tax. [84:1314]

Revenue from the coal license taxes is allocated in the following way:

1. The county receives 3 cents per ton or 4 percent of the value of the coal mined in the county, whichever is greater, for years up to 1980. For 1980 and beyond, the rate is 3 cents per ton or 3.5 percent of revenue.

2. Two and one-half percent of total collections per year until 1979 and 4 percent thereafter are earmarked to the credit of the Alternative Energy Research Development and Demonstration Account.

3. The Local Impact and Education Trust Fund Account receives 27.5 percent of total collections per year, until July 1, 1976 and thereafter 35 percent.

4. For each of the 4 years following the effective date of the Act, 10 percent of total collections per year go to the Coal Area Highway Improvement Account.

5. Ten percent of total collections per year are allocated to the State School Equalization Fund.

6. For the period ending December 31, 1979, 1 percent to the County Land Planning Account.

7. Two and one-half percent per year is earmarked for the Renewable Resource Development Account.

8. Two and one-half percent of total collections per year through June 30, 1979 shall be allocated one-half for the purpose of sites and areas described in Section 62-304 (dealing with parks) and one-half for the purposes of park acquisition. After June 30, 1979, 5 percent of the total shall be allocated to the purpose of parks acquisition.

9. All other revenues from license or severance taxes collected under this chapter shall be deposited to the credit of the General Fund of the State, except such portions of the severance tax authorized by laws in 1975 to go to earmarked funds. [84:1319]

The same act established a Coal Board to make grants to local governments impacted by coal development. The board has seven members all appointed by the Governor. Two of the members are required to have expertise in school matters and two others must reside in coal impact areas.

Taxes imposed on mineral production in Montana are in addition to the ad valorem taxes due. Montana has a classified property tax system in which all property is put in one of 11 classes. All property, except mines and agricultural lands are assessed at 40 percent of full value. Local property taxes are levied on taxable value, however, which is determined by multiplying the assessed value by the particular rate associated with the property class. For Class 1 property, which includes annual net proceeds of all mines except coal mines and the right of entry upon mining land, taxable value is 100 percent of assessed value. Gross proceeds from underground coal mines are assessed at 33 1/3 percent, and proceeds of strip mines are assessed at 45 percent. [84:301,302]

The 1975 Legislature enacted a measure requiring any person intending to construct a new industrial facility, including a mining facility, to prepay on request an amount not to exceed three times the estimated property tax due the year the facility is completed. One-fifth of the amount prepaid will then be allowed as a credit against property taxes in each of the first 5 years of operation of the facility. [C.H. 571, Laws of 1975]

New Mexico

New Mexico has an extensive and complicated mineral taxation system. In addition to the State taxes which must be paid by all firms, hard metal mining companies must pay a severance tax and a resource excise tax. Oil and natural gas producers are subject to a separate tax system. In 1975, the State received nearly $44 million in severance taxes, more than 10 percent of State tax revenues.

The severance tax, enacted in 1937, is levied on all natural resource products severed excluding oil and natural gas. The tax is based on gross value of the product. For minerals other than potash, uranium, and molybdenum, gross value is the sales value of the severed product at the first marketable point, less specific deductions for the hoisting, crushing, and loading necessary to place the severed product in a marketable form in a marketable place. These deductions are limited to an amount less than 50 percent of the gross sales price. Freight charges from the point of severance to the first sale and the actual cost of processing or beneficiation may also be deducted from the gross sale price. [72:18.2]

The gross value of potash, uranium, and molybdenum is determined slightly differently. The gross value of potash is 33.3 percent of sales revenue less 50 percent of the reported value as a deduction for the expenses of loading, crushing, processing, and beneficiation. For uranium and molybdenum the value to be reported is 50 percent of the gross value of sales less 50 percent of the reported value as deduction for the expenses of hoisting, loading, crushing, and processing the crude ore. [12:18-2.1,2.2,2.3]

Hard minerals are then divided into classes and taxed at separate rates. The classes and the assigned tax rates follow:

Class	Hard minerals	Percent
1	Potash	2.000
2	Copper	0.500
3	Uranium and other fissionable minerals	1.000
4	Timber	0.125
5	Coal	0.500
6	Pumice, gypsum, sand, gravel, clay, fluorspar, and other nonmetallic minerals	0.125
7	Gold, silver, lead, zinc, thorium, manganese, molybdenum, and other rare metals	0.125

A resource excise tax is also levied on the severing of hard minerals. This tax is really three mutually exclusive taxes--a resources tax, a processors tax, and a service tax. For all resources except timber, molybdenum, and potash, the resources tax and the processors tax is 0.75 percent. For potash, the resources tax is 0.5 percent and the processors tax 0.125 percent. For timber, the resources tax is 0.75 percent and the processors tax 0.375 percent. For molybdenum, both the resources and the processors tax are 0.125 percent. [72:16A.23,24] In the case of both timber and potash, the tax is designed to encourage instate processing of the resource. The service tax is levied against natural resources severed or processed and owned by another individual which are not otherwise taxable. The tax is imposed at the same rate as the resources tax. [72:16A.25]

Unlike many States, the mineral taxes in New Mexico are not levied in lieu of other State and local taxes. Any individual who sells nonrenewable natural resources other than for subsequent sale in the ordinary course of business or for use as an ingredient or component of a manufactured product is subject to the gross receipts and compensatory tax. [72:16A1-9]

Mineral property is not exempt from the ad valorem tax in New Mexico either. Mineral properties, other than those producing potash or uranium, are classified as class one nonproducing mineral property if they are held under private ownership and known to contain commercially workable minerals, but are not presently being mined. Class one producing mineral property is property meeting the requirements for class one nonproducing mineral property, except that it is being mined. Class two mineral property is defined as minerals taken from property the mineral rights of which are held by the United States.

Class one productive mineral property is valued at 300 percent of the annual net production value of the property. [72:29.12] The surface value for agricultural or other purposes also is included when the surface interest is held by the same owners as the mineral rights.

Class one nonproductive mineral property is valued for ad valorem tax purposes by applying a per acre value determined by the Department of Revenue to the surface areas of the property. This per acre value is to be based on the bonus bids accepted by the Commissioner of Public Lands for the latest period in which bids were accepted for the sale of mineral leases.

Class two mineral property is valued at an amount equal to 300 percent of the annual net production. [72:19.14]

Oil and gas production in New Mexico is subject to a different set of taxes. The State imposed an oil and gas severance tax [72:19], an oil and gas privilege tax [72:21.4], and an oil and gas equipment tax. [72:22;72:24]

The oil and gas severance tax is levied at a rate of 3.75 percent on the market value of the oil or gas, less royalties due to the United States, the State, or Indian tribes, and less the reasonable expense of trucking the product to market. [72:19.4] The oil and gas privilege tax is imposed at the rate of 2.55 percent of value. For this tax, value is defined as market value less royalties paid to the United States, the State, or Indian tribes; less any reasonable expense of trucking the product to market; and less the value of any products of a person taxed under the occupational gross income tax or of a person selling products to another taxed under the occupational gross income tax. The oil and gas conservation tax, which also applies to coal, is levied on the value of all oil, gas, and coal produced, less royalties due the Federal and State governments, and any Indian tribe and less the reasonable expense of trucking to market. The tax is levied at 0.18 percent.

Finally, the State applies an oil and gas production tax in place of an ad valorem property tax. The tax is imposed on the assessed value of production which is an amount equal to 150 percent of the value of the products after deducting royalties paid to the United States, the State, or any Indian tribe and a reasonable expense for trucking to the first place of market. Assessed value is determined by applying the uniform assessment ratio to the taxable value of the product. [72:22.4]

North Dakota

North Dakota has a gross production tax on oil and natural gas and a severance tax on coal. In 1975, these taxes produced more than $6.8 million or slightly more than 2.6 percent of total tax revenues.

The gross production tax on oil and gas is levied at 5 percent of the gross value of production at the well. [57:51.02] This tax is in lieu of all ad valorem taxes imposed by the State, counties, cities, townships, school districts, and other taxing jurisdictions on the property rights attached to producing oil or gas, upon machinery or equipment used in the production of gas or oil, or on the gas or oil produced. [57:51.03]

One percent of the gross value of the gas and oil at the well (20 percent of the tax revenue) is credited to the State General Fund. The remaining 80 percent of the production tax revenue is divided as follows:

1. The first $200,000 of revenue from each county is divided 75 percent to that county and 25 percent to the State General Fund.

2. The second $200,000 of revenue from each county is divided 50 percent to that county and 50 percent to the State.

3. All annual revenue above $400,000 produced in any county shall be allocated 25 percent to that county and 75 percent to the State General Fund.

Forty percent of all revenues allocated to each county are to be credited to the county road and bridge funds. However, the county commissioners may use this money for projects dealing with the control and utilization of water resources. Forty-five percent of all revenues allocated to any county shall be apportioned to the school districts on a basis of average daily attendance. Fifteen percent of all revenues allocated to the counties shall be paid to the incorporated cities of the county based on the population of the cities. [57:51.15]

In 1975, the Legislature placed a severance tax on coal and provided that a portion of the funds collected be available for allocation to assist counties and school districts feeling the greater impact from development. The tax was levied at a minimum rate of 50 cents per ton, plus an additional 1 cent per ton for each three points the wholesale price index for all commodities increased from its January 1975, base. This tax is in lieu of any sales or use taxes to be collected on the sale of coal. The tax is not in lieu of ad valorem property taxes on the mine site, however. [Ch. 563, Laws of 1975]

All money collected from the severance tax on coal goes to a specially created Coal Development Fund. The funds deposited in the fund are to be apportioned according to the following formula:

1. Thirty-five percent of the funds are credited to a special fund for distribution through grants by the Coal Development Impact Office to impacted cities, counties, school districts, and other taxing districts. Funds available are limited to the amount appropriated biannually by the Legislature.

2. Thirty percent are credited to a special fund to be held in perpetual trust as a replacement for depleted natural resources. The trust is administered by the Board of the University and School Lands, which has full authority to invest such funds and may consult with the State Investment Board as provided by law. Income from the trust is deposited in the State General Fund.

3. Five percent are allocated to the coal producing counties in proportion to the ratio of the number of tons of coal severed in the county to the total number of tons of coal severed in the State during each quarter. This revenue is to be allocated to the county's general fund.

4. Thirty percent are deposited in the State General Fund. [Ch. 563, Sec. 12.1]

The same act created a Coal Development Impact Office, the director of which is appointed by the Governor. The office is empowered to develop a plan to provide financial assistance to local governments in coal development impact areas, to study and report to the Governor and the Legislature on the impact of coal development on local government, to establish procedures and provide proper forms for use in making application for funds for impact assistance, and to make grants to counties, cities, school districts, and other taxing districts. In determining the size of the grant for which a political subdivision is eligible, the revenue to which the local government will receive from taxes on the real property of coal development plants and from other tax or fund distribution shall be considered. [Ch. 563, Sec. 14.4]

The 1975 Legislature also levied a tax on coal conversion facilities. This tax, which is in lieu of an ad valorem tax on any of the property except the land on which the facility is located, is designed to provide additional revenue for communities where thermogenerating plants or plants which convert coal from its natural form into a substantially different form will be located.

The tax is levied at a rate of 2.5 percent of gross receipts for facilities other than gasification plants or electrical generating plants. Gasification plants are taxed at 10 cents per 1,000 cubic feet of gas produced or 2.5 percent of gross receipts, whichever is greater. For electrical generating plants, the tax is at a rate of 0.25 mill per kilowatt hour produced.

The funds collected through this tax are deposited with the State Treasurer who distributes them as follows:

1. The first $100,000 of annual tax revenue received from each coal conversion facility in a county goes directly to the county.

2. The second $100,000 of annual revenue received from each conversion plant is allocated 50 percent to the county and 50 percent to the State General Fund.

3. All annual revenue in excess of $200,000 but not in excess of $500,000 from the taxation of a coal conversion plant is allocated 25 percent to the county and 75 percent to the State General Fund.

4. All tax revenue between $500,000 and $1 million from the taxation of each coal conversion facility is allocated 15 percent to the county and 85 percent to the State General Fund.

5. All annual revenue in excess of $1 million received from the taxation of each facility shall be allocated 10 percent to the county and 90 percent to the State General Fund.

The coal conversion tax allotment received by the county treasurer is apportioned as follows:

1. Fifteen percent of all revenues are allocated to the cities on the basis of population.

2. Forty percent are deposited in the County General Fund.

3. Forty-five percent are apportioned by the county treasurer to the school districts within the county on the basis of average daily attendance.

Ohio

In 1971, Ohio enacted a tax on the severance of certain natural resources to provide revenue necessary to meet the environmental management needs of the State and the reclamation of land affected by strip mining. [5749:02] In 1975, the State received slightly less than $4 million from this tax.

The mineral tax is levied at a fixed rate per ton according to the following schedule: coal, 4 cents per ton; salt, 4 cents per ton; limestone and dolomite, 1 cent per ton; and sand and gravel, 1 cent per ton. Oil is taxed at 3 cents per barrel; natural gas, at 1 cent per 1,000 cubic feet.

Although the money collected through these taxes is for strip mine reclamation and environmental protection, the revenue goes directly to the State General Fund.

In 1975, as part of the legislation establishing a State Energy Office, provision was made to exempt coal conversion facilities from corporate taxes and personal property taxes for up to 30 years. [5709:35] Under the provisions of this section a coal conversion facility was defined to be a gasification plant built under the auspices of the Federal Government, pursuant to a contract with the Energy Research and Development Agency. [5709:30]

Oklahoma

Oklahoma levies production taxes on oil, natural gas, and several other minerals. The tax yielded more than $128 million or about 14.5 percent of total State tax revenues in 1975.

Every person engaged in the production or mining of asphalt; ores bearing lead, zinc, jack, gold, silver, or copper; petroleum; or natural gas is liable for the severance tax. The tax is levied at a rate of 0.75 percent on the gross value of asphalt and ores bearing the above minerals. The rate is 7 percent on the gross value of petroleum and natural gas. [68:1001] However, the first $150 in gross sales each month from each well producing less than 3 barrels of petroleum a day or less than 1.5 million cubic feet of natural gas per month is taxed at 5 percent. [68:1023] Uranium bearing ore is taxed at 5 percent of gross value. [68:1020]

These taxes are in lieu of all taxes by the State, counties, cities, towns, school districts, and other taxing districts on any property rights to any of the above minerals. [68:1001(f)]

The State Board of Equalization has the power under its own initiative, or at the request of any person who claims his tax is too great, to conduct a hearing to determine if the tax levied is greater than the ad valorem property tax would be if it were levied on all mineral rights and personal property connected with the mining operation. The Board has the power to raise or lower the severance tax rate to conform to the level of the ad valorem property tax. [68:1001(h)]

The State also levies an oil excise tax of 0.25 cent per barrel of oil produced and 0.05 cent per 1,000 cubic feet of gas produced. The gross production tax is apportioned as follows:

a. Seventy-eight percent of all monies collected from the tax on oil, asphalt, or ores bearing uranium, lead, zinc, jack, gold, silver, or copper go to the State General Fund.

b. Seventy-eight percent of all monies collected from the tax on natural gas shall be distributed among funds as directed by the Oklahoma State Teachers Retirement System.

c. One-tenth of the sum collected from each county is to be returned to the county treasury to be credited to the County Highway Fund.

d. One-tenth of the sum collected from each county shall be paid to the county treasurer of the county and credited by him on the basis of average daily attendance to the school districts of the county, provided the district makes an ad valorem levy of at least 15 mills per year and maintains 12 years of instruction.

e. Two percent of all monies shall be placed to the credit of the Oklahoma Tax Commission Fund.

South Dakota

The 1974 South Dakota Legislature approved a license tax on the privilege of mining or extracting mineral products in the State. The license fee, which is really a net production tax, is 4 percent of the net profits from minerals or mineral products mined or extracted. [10:39.25] The law exempts any person mining or extracting minerals worth less than $100,000 per year.

Net profits are obtained by subtracting the following costs from the gross yield of the business:

1. The cost of extracting the mineral from the mine.

2. The cost of transporting the mineral or mineral product from the mine to the place of reduction, refining, and sale.

3. The costs of reduction, refining, and sale.

4. The cost of marketing and delivering the products and the conversion of the same into money.

5. The costs of maintenance and repairs of all mine machinery, equipment and facilities; all milling, smelting, and reduction works; plants and facilities; all transportation facilities and equipment; and general administrative buildings and facilities within the State.

6. All interest costs and all insurance costs paid or accrued, and payments into pension and profit sharing trusts and employee welfare.

7. Depreciation on the cost of machinery, equipment, apparatus works, plants, and facilities mentioned in subdivision (5) of this section.

8. The cost of development and exploration work in or about the mine or upon a group of mines when operated as a unit.

9. All State and local taxes.

10. General administrative expenses incurred within the State of South Dakota. [10:39.26]

The payment of the tax imposed by this chapter is in lieu of all other occupational excise, income, privilege, and franchise taxes levied by the State, but is not in lieu of sales, use, and property taxes. [10:39.40]

Tennessee

Tennessee levies a production tax on oil and natural gas and a severance tax on coal. The production tax on oil is 5 cents per 50-gallon barrel of crude oil. For natural gas, the tax is 5 percent of the sales price of the gas sold. [60:166] Proceeds from these taxes go to the State General Fund. Counties and other local governments are prohibited from levying a similar tax.

In 1974, Tennessee began levying a severance tax on coal. All coal severed from the ground by any means is taxed at a rate of 20 cents per ton. [67:5902] All revenue collected under this tax, less 1 percent to cover administrative and collection expenses, is returned to the counties in which the collection is made. Half the revenue returned goes to the educational system of the county. The other half goes for highway maintenance and water pollution control. [67:5905]

Texas

The gross value of minerals extracted in Texas is larger than that of any other State. The revenues from severance taxes on oil, natural gas, and sulfur are also much larger than those of any other State. In 1975, the State received more than $664 million from this source, approximately 18.3 percent of the State's tax revenue.

The tax on natural gas production is levied as an occupation tax on the business of producing gas. The tax is 7.5 percent of the market value of the gas produced. [3:01(1) Gen. Tax] The revenue from this tax, in effect since 1931, is distributed 0.5 percent for administration and enforcement, 25 percent of net revenues to the available school fund, and 75 percent of net revenue to the Omnibus Tax Clearance Fund, no portion of which can be allocated to any other fund until the needs of the Medical Fund have been fully met. [3:02]

Since 1933, Texas has also levied an occupation tax on the business of producing oil in the State. The tax rate is 4.6 cents per 42-gallon barrel unless the price is more than $1 per barrel, in which case the tax is levied at 4.6 percent of gross value.

The State also levies a tax on sulfur producers. This tax, in effect since 1930, is levied at $1.03 per long ton of sulfur. [5:01]

Utah

Utah collects severance taxes on metals, oil, and natural gas. In 1975, the State received more than $6.2 million from this revenue source, about 1.5 percent of State tax revenue.

The most important source of revenue is the State's mining occupation tax. Every person engaged in mining or extracting ore or metal containing gold, silver, copper, lead, iron, zinc, tungsten, uranium, or other valuable metal in the State must pay an occupation tax equal to 1 percent of the gross amount received for the product. For oil, gas, or other hydrocarbons the occupation tax is 2 percent of value. The law provides for an annual exemption from payment of the occupation tax for the first $50,000 in gross value from each mine or well. [59:5.67] The taxes collected under this provision go to the General Fund. [59:5.84]

In 1975, the Legislature took steps to minimize the impact of future resource development on local communities. The Legislature recognized that:

a. The development and utilization of natural resources in the State, particularly in rural areas, may have a significant financial impact on State agencies, local communities, and government unless financing is available so that necessary public works and improvements can be provided;

b. That it may be necessary and in the public interest of the State to provide through utilization of prepaid sales or use taxes funds for these necessary public works and improvements; and

c. These necessary public works and improvements may in part be of benefit primarily to the person developing or utilizing the natural resource in this State. [63:51.1]

Recognizing this, the Legislature provided that any person engaged in the development of a resource facility may prepay all or a portion of the sales taxes anticipated with the construction of the facility, including sales or use taxes anticipated to be imposed upon contractors, agents, and subcontractors. [63:51.3]

All revenues collected under this provision go to a prepaid sales and use tax construction account. This account is to be used to finance State related public improvements including but not limited to highways and related facilities and schools and related facilities. [63:51.5]

Funds for construction of the facilities needed as a result of the development of natural resources shall be appropriated by the Legislature to the State Board of Education and the State Road Commission. [63:51.6] Appropriations to the school fund shall be returned to the State General Fund by the school district in which the new facility was located within 6 years after the facility is completed.

West Virginia

The West Virginia tax structure relies heavily on a series of annual taxes on the privilege of doing business in the State. The extraction of coal and other natural resources is one of the occupations covered under this tax, which is really a gross production tax.

The gross product of miners is taxed at the following rates: coal, 3.5 percent; limestone or sandstone, 2.2 percent; oil, 4.34 percent; natural gas in excess of the value of $5,000, 8.63 percent; blast furnace slag, 4.31 percent; sand, gravel, or mineral products not quarried or mined, 4.34 percent; other natural resource products, 2.86 percent. [11:13.2a]

In 1975, an additional tax on the severance of coal was enacted. This act added an additional 0.35 percent to the tax previously imposed. Seventy-five percent of the net proceeds of this additional tax are distributed to the counties where coal is mined in proportion to the total coal production of the county. The remaining 25 percent of the net proceeds are to be deposited in the county and municipal fund. [11:13.2L]

Wyoming

Wyoming levies an oil and gas production tax, a coal severance tax, and a mining excise tax. The gross proceeds from all mines also are included in the State and local property tax base. The special mineral taxes produced more than $18.1 million during fiscal 1975, or more than 11.7 percent of State tax revenues.

The most important tax is the mining excise tax. It applies to all mines and mining claims from which gold, silver, and other precious metals; soda; saline; coal; petroleum or other crude mineral oil; natural gas; or other valuable deposit is or may be produced. [39:224]

The tax is levied at 2 percent of the value of the gross product extracted in the case of gold, silver, or other precious metals; soda; saline, uranium; bentonite; or any oil produced from a property whose average daily production per well did not exceed 10 barrels. The tax is 4 percent of the value of the gross product extracted in the case of coal, trona, petroleum, natural gas, or any other fossil fuel minerals except oil from a property whose average well production does not exceed 10 barrels per day. [39:227.1]

Coal also is subject to a special severance tax. The severance tax is levied in addition to the other taxes provided by law at the following rates:

1. For coal produced in 1974, 0.4 percent of the value of coal produced.

2. For coal produced in 1975, 0.8 percent of the value of coal produced.

3. For coal produced in 1976, 1.2 percent of the value of coal produced.

4. For coal produced in 1977, 1.6 percent of the value of coal produced.

5. For coal produced in 1978 and all subsequent years, 2.0 percent of the value of coal produced.

This tax shall expire on January 1 of the year following the year in which total tax collections under this section total $120 million. [39:227.1]

The distribution of the revenues obtained from the special severance tax is under the jurisdiction of the Farm Loan Board. Revenue is to be used to assist in areas impacted by the production of coal. At least 60 percent of the revenue must be used for highways and streets, while the remainder may be used for water and sewer projects. The Board has complete freedom in the choice of terms for the grants or loans.

An oil and gas production tax is levied on the value at the well of all oil and gas produced, saved, and sold, or transported. At present the tax is 0.4 mill per dollar of value.

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO.
EPA-600/7-77-008		

4. TITLE AND SUBTITLE	5. REPORT DATE
STATE TAXATION OF MINERAL DEPOSITS AND PRODUCTION	January 1977 issuing date
	6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S)	8. PERFORMING ORGANIZATION REPORT NO.
Thomas F. Stinson	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT NO.
Economic Research Service U.S. Department of Agriculture Washington, D.C. 20250	EHE 624C
	11. CONTRACT/GRANT NO.
	EPA IAG-D6-E766
12. SPONSORING AGENCY NAME AND ADDRESS	13. TYPE OF REPORT AND PERIOD COVERED
Office of Energy, Minerals & Industry Office of Research and Development U.S. Environmental Protection Agency Washington, D.C. 20460	Final Report
	14. SPONSORING AGENCY CODE
	EPA-ORD

15. SUPPLEMENTARY NOTES

16. ABSTRACT

Development of energy resources in the more rural western states is likely to create severe financial problems for some State and local governments. This new economic activity, with population in-migration and greater demand for public services, will generate a need for more government revenues. Increased use of mineral taxation is one way of financing the new services without increasing the tax burden on the area's existing residents.

Four mineral taxes--ad valorem, severance, gross production, and net production--are described and evaluated. Taxes are compared on the basis of ease of administration, social justice, consistency with national economic goals, and revenue adequacy. The gross production tax and the severance tax are the most desirable, with the gross production tax preferred except when the market price of the mineral is difficult to establish.

Since mine construction or development can take several years, any tax based on the output of the mine makes no contribution to government revenues until after the need for new services has arisen. Many local governments face this front end financing problem. No tax analyzed, with the possible exception of the ad volorem tax, treats this problem satisfactorily.

Some states have enacted special programs designed to ease the front end problem. Programs in Montana, North Dakota, Utah, and Wyoming are discussed. Unfortunately these programs are so new that their impact cannot be evaluated. These programs, however, may underestimate the size of the front end problem.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Taxes Coal Mining Mineral Economics	Coal Extraction Integrated Assessment Mineral Taxation Northern Great Plains	5C, 8F, 8I

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS *(This Report)*	21. NO. OF PAGES
Release unlimited	unclassified	51
	20. SECURITY CLASS *(This page)*	22. PRICE
	unclassified	

EPA Form 2220-1 (9-73)

U.S. GOVERNMENT PRINTING OFFICE 1977—