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TAX LEAD TIME STUDY

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THE COLORADO OIL SHALE REGION

TAX LEAD TIME STUDY
FOR
THE OIL SHALE REGION

Fiscal Alternatives for Rapidly Growing
Communities in Colorado

The basic purpose of this study is to review alternative revenue sources for local governments and potential techniques for handling revenue timing and distribution problems created by rapid population growth. The discussion of the oil shale industry and what is likely to happen or not to happen is under constant speculation and revision. Information and projections contained in this report are furnished to provide a context for problem solving by local governments in the oil shale region.

Whether the projections prove accurate as to magnitude or timing is immaterial to the central purpose and should not be dwelled upon. Growth, whenever it comes and whatever causes it, will present the same challenge to local governments of the region, and the tools and information contained in this report will hopefully provide the assistance necessary to deal with the problem.

This study was prepared for the Regional Development and Land Use Planning Subcommittee of the Governor's Committee on Oil Shale Environmental Problems.

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PREFACE

After 56 years of expectation, production of oil shale in western Colorado now appears imminent. A rapid growth of population in the oil shale region within the next few years is the likely result of this development. One of the major problems in areas subject to high growth rates is the inability of local governments to finance and develop services and facilities expeditiously to accommodate such an influx of people. We were asked to undertake a study to develop a recipe book of financial approaches to aid local officials in their fiscal planning for growth. The charge was to identify alternative ways of raising revenue for the interim, from the time projected expenditures are required to the time projected public revenues from oil shale production facilities will be received.

The roots of this study are found in the Governor's Oil Shale Advisory Committee and its Report on Economics of Environmental Protection for a Federal Oil Shale Leasing Program, January 1971. This committee was formed in 1963 to provide state participation in the development of the Interior Department's oil shale leasing program. At the same time, the committee was asked to prepare a report concerning environmental problems of oil shale development. The committee was composed of representatives from the oil shale industry, local governments, conservation groups, the public, and universities.

A major recommendation of the committee was the formation of a joint advisory committee comprised of representatives of the Department of the Interior, state and local agencies, industry, and conservation groups. Further, it was hoped that this group would conduct special studies in designated areas where additional work was needed.

In the fall of 1970 this advice was taken and the Governor's Committee on Oil Shale Environmental Problems was created. It was charged with designing studies and providing recommendations which would serve as a basis in planning for environmental protection. Funds totaling $715,000 were provided in equal shares by the State of Colorado, the Department of the Interior, and the oil shale industry. Four areas of study were chosen and the Governor's committee divided into corresponding subcommittees to monitor the results.

Subcommittee	Contractor
Revegetation and Surface Rehabilitation	Colorado State University
Environmental Inventory and Impact	Thorne Ecological Institute
Water Resource Management	U.S. Geological Survey
Regional Development and Land Use Planning[1]	Oil Shale Regional Planning Commission

All of the studies have been completed or are in process of publication.

In assessing these studies, the subcommittee felt that while they provided overviews of most of the environmental questions likely to arise in the areas of land use planning needs, one area required further study at once--the tax lead time problem of local governments resulting from rapid development. The subcommittee, particularly Frank Cooley, realized the need for such a study and sought and received funds from federal and state governments and corporations involved in oil shale development. The role of monitor was assigned to the Regional Development and Land Use Planning Subcommittee. The following people are members of this subcommittee:

John Hutchins, Chairman
Cameron Engineers
Denver

Dr. Camilla Auger
TOSCO
Denver

Blake Chambliss
Chambliss, Dillon and Assoc.
Architects, Grand Junction

Frank Cooley, Attorney
Cooley and Benner
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Kathy Fletcher
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Pat Halligan, Director
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Council of Governments
Rifle

David Harris, Attorney
Atlantic Richfield
Denver

Al Leonard (Ex Officio)
Bureau of Land Management
Denver

Bob Engelke
Planning Director
Mesa County
(Resigned and replaced by Pat Hurley)

Phil Schmuck, Director
Colorado Division of Planning
Denver

Stan Anderson, Mayor
Grand Junction

Duane Rehborg
Planning Director
Rio Blanco County

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[1] A part of this study is Impact Analysis and Development Patterns, Regional Development and Land Use Study, THK Associates, Inc., Denver, Colorado, February 1974.

Bill Goodale
Planning Director
Garfield County
(Resigned and replaced by
Larry Schmueser)

Charles Tulloss
Bureau of Outdoor Recreation
Denver

John Rold (Ex Officio)
Colorado Geological Survey
Denver

The charge to the study groups was two-fold: (1) To provide a practical analysis and evaluation of the various methods of front-end financing currently available to local governments under existing legislation in the form of a "recipe book" formatted for use by local officials and their staffs; and (2) to develop specific recommendations for new legislation to increase the flexibility and effectiveness of the financing operations available to local governments. This report responds to part one of the charge. However, in addition, we have raised the issue of public fiscal policy planning and its role in the total development of the region. A fiscal policy based on a shopping list approach could be extremely dangerous; rather, it must be part of a management philosophy which can implement the use of such fiscal techniques to achieve area goals. These decisions include what land use patterns are to be permitted to develop, what type of development controls are to be imposed, and what framework, if any, will be used for operational management decisions necessary for functioning on a day-to-day basis.

Because it was desired that the study be completed within a three-month time frame, previous studies were utilized for information pertaining to the physical inventory of the area, goals of area residents, and anticipated level of impact from oil shale development. No new material related to these items was to be collected by our study team. However, because of the rapidly changing scene surrounding oil shale development, we did collect and update some of the data to give us a better estimate of the "where," "when," and "how much" of shale development. This information was current as of July 1, 1974, but is already undergoing change. Since additional information is being accumulated on an on-going basis, all studies of the region and industry should be reanalyzed and updated before any specific action is proposed based on the information they contain.

The intended ultimate users of this study are local governmental officials, their staffs, citizens of the oil shale area, and the Colorado legislature. Two legislative committees are presently active in the problems of the region: the Committee on Oil Shale, Coal and Related Minerals, chaired by Representative Michael Strang; and the Committee on Local Government, which is studying municipal laws and new communities, chaired by Representative Betty Ann Dittemore.

SECTION I. STATEMENT OF THE FISCAL PROBLEM

Based on currently used revenue sources, public revenues are likely to be insufficient in the oil shale region for the first five to eight years after development is initiated. The basic problem is timing and distribution of tax revenues to support new development when and where needed. This problem primarily affects cities, towns, and school districts.

INTRODUCTION

Since the initial recognition that the oil shale industry is going to be a reality in western Colorado, an increased local government fiscal problem has been anticipated for the immediate future because of an imbalance between available revenues and expenditure demands resulting from rapid development. Growth is already a problem in some portions of the oil shale area without the impact of oil shale development. Placing the problem in perspective is difficult because of three major factors:

1. Oil shale processing still remains to be proven technologically and economically. As a result, while some companies are preparing to proceed promptly to develop their shale deposits, others are proceeding slowly and on an almost experimental basis. Others have no immediate plans to develop their shale deposits. In this uncertainty, the future price of oil is, of course, a major unknown factor, and the cost of processing shale is another.

2. It is noteworthy that although recent announcements indicate that large sums have been paid to obtain interests in public land oil shale deposits, closer examination of the purchase terms shows that these sums are usually payable in installments over a period of years, and that the purchaser can usually back out of the purchase by forfeiting prior installments. Thus, even the commitments to purchase shale deposits cannot be fairly described as firm.

3. Among physical and environmental restrictions upon development, water availability is the most important. Therefore, it is a matter of some reasonable doubt whether all companies now planning to proceed will be able to complete the full development of their holdings in an environmentally acceptable manner.

These factors create serious uncertainty as to the extent to which even presently announced development plans can be taken at face value, and demonstrate the sensitivity of these plans to heavy early revenue demands upon a new industry. They also demonstrate the vulnerability of any analysis which simply takes the announced publicity or planned development at face value and extrapolates therefrom the population impact and revenue needs created by that assumed development.

IMPACT ANALYSIS

To assist the reader in understanding what happens to the fiscal affairs of local government when rapid growth occurs, we have developed an impact analysis to illustrate some of the key factors. The focus on causal factors is directed toward oil shale industry induced impacts. With other energy resources in the area, many of the indicated growth impacts will occur with or without current oil shale development pressures. The duration and magnitude of the impact can be measured and will be significant regardless of when development actually occurs.

The analysis presented here for Mesa, Rio Blanco, and Garfield counties should give some indication of the financial impacts on the area if the future were to evolve as theorized. Although the various unknowns affecting development plans make any forecast of development hazardous, a general idea of the scope of the impact can be gained even if it is telescoped in time. The figures derived in this study can be adjusted as firm dates establish the timing sequence of development and population growth.

We have relied heavily upon information supplied by the companies planning the first plants for cost data, plant size, number of employees and construction workers, and timing of completion. Most of this information has been extrapolated from the proposed Colony plant, which was done at the direction of the other companies, simply because plans for their proposed plants are not far enough along to supply such detailed information. Plants proposing different approaches to oil shale processing have supplied their own data. Thus, throughout this study, references to "industry supplied data" should be read in this context. (This information resulted from attendance at the Strang Legislative Committee hearing in Grand Junction, direct telephone conversations with oil shale company representatives, and meetings with industry representatives on the MART committee.) These extrapolations in the form of plant characteristics must be treated with caution since, at best, they provide only a general perspective.

Based on these factors, we have taken the most recent information available on proposed oil shale plant facilities, projected an estimated number of permanent and temporary employees, and projected estimated expenditures and

revenue needs. We added this information to the basic data from the THK report on projected population growth without oil shale development to obtain a total picture.[1]

The assumptions used in developing these examples and the computations used to develop the "dollar needs versus revenues available" comparison are included in Appendix A. A summary of that data, sufficient to develop an understanding of the procedure used to estimate the kinds of fiscal impact the counties may be facing as well as some of the causal factors from which the problem springs, are included therein.

The following assumptions and estimates were central in developing the graphic representations and text comments that follow, relating to county-by-county potential fiscal impacts:

1. Population estimates were used for the next 10 years assuming no oil shale impacting activities.
2. Oil shale industrial plant activity for the next 10 years was analyzed on a company-by-company basis with best "guestimates" of the companies themselves used to develop various impact characteristics resulting from plant development.
3. Population growth that would be associated with industrial shale plant activity was added to the normal population growth estimate of each county.
4. Total costs of delivering a full complement of urban services, on a per capita basis, were developed for both capital costs and annual operating costs.
5. Revenue assumptions on a per capita basis were developed assuming the average present revenue structure in the three-county area; then, where appropriate, additional revenues from ad valorem taxes on oil shale plants and mineral deposits were added.

With these basic assumptions, we proceeded to graph what would happen in fiscal terms if all the assumptions came true. When the major revenue

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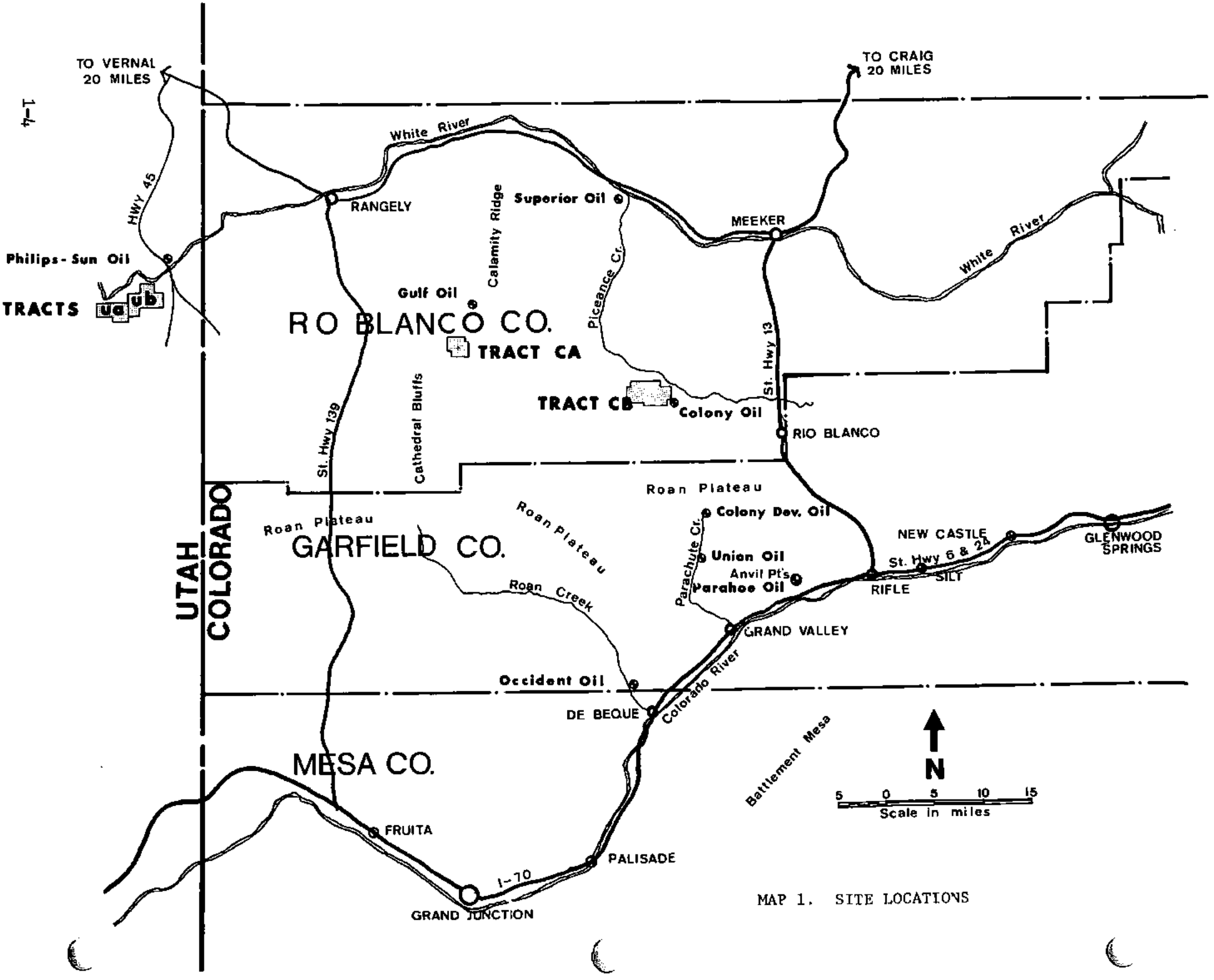
[1]The detailed procedure and figures utilized in arriving at these tables are contained in Appendix A.



MAP 1. SITE LOCATIONS

influx from the oil shale plants occurs in Rio Blanco and Garfield counties sometime near 1980, revenues will begin to exceed needs. Mesa County, however, will remain in a serious situation since its population growth will be related primarily to sources other than oil shale with no off-setting revenues from oil shale plants. Obviously, the situation portrayed in the graphs could not exist for long. New revenues would have to be generated or services cut to reduce expenditures. The graphs do illustrate the general amount of short fall and time range, two of the problems that rapid growth can be expected to generate.

A similar estimate was made for each of the school districts. The distribution problem of people and tax revenues again benefits some and places an onus on others. The conclusion here is that counties with oil shale plants will eventually have revenues sufficient to pay for a reasonable level of urban services, while counties lacking the industrial tax base will still have to meet growth demands resulting from industrial development.

Oil Shale Plant Characteristics

The following information is based on the current best estimates as of August 1, 1974, with timing and numbers subject to revision as start-up dates are approached.

1. Federal Test Lease Lands.
   a. Rio Blanco Oil Shale Corporation (Gulf Oil Corp. and Standard Oil of Indiana). Commercial Production Plant. Ca lease tract.
      - Located in Rio Blanco County.
      - Construction to begin in 1977.
      - Population impact 100% in Rio Blanco County.
      - Plant cost and employment characteristics similar to typical plant.

   b. Venture partners--Ashland Oil Co., Atlantic-Richfield Co., Shell Oil Co., and TOSCO. Commercial Production Plant. Cb lease tract.
      - Located in Rio Blanco County.
      - Construction to begin in 1978.
      - Population impact 50% in Rio Blanco County and 50% in Garfield County.

Plant costs and employment characteristics similar to typical plant.[2]

c. White River Shale Oil Corp. (Phillips Petroleum, Sun Oil Co., and SOHIO Petroleum). Commercial Production Plant. Ub lease tract. (Phillips Petroleum and Sun Oil) Ua lease tract. Jointly developed at 100,000 barrel-per-day capacity.

- Located in Utah.
- Construction to begin in 1976.
- Population impact 90% in Utah and 10% in Rio Blanco County.[3]
- Plant costs and employment characteristics 150% of typical plant.

2. Private Lands.

a. Colony (Venture partners--Ashland Oil Co., Atlantic-Richfield Co., Shell Oil Co., and TOSCO). Commercial Production Plant.

- Located in Garfield County.
- Construction to begin in 1975.
- Population impact 90% in Garfield County and 10% in Mesa County.
- Plant cost and employment characteristics are the base data for a typical plant.

b. Occidental. In Situ Plant. To be phased from present demonstration plant to commercial plant.

- Located in Garfield County.
- Construction to begin in 1974.
- Population impact 70% to Mesa County and 30% to Garfield County.
- Induced population build-up (employees, families, and indirect employees):

First Year	300
Second Year	450
Third Year	1350
Fourth Year	1800

- Plant cost will be $80 million with same percentage build-up rates as for Colony typical plant.

c. Parahoe (17 participating companies). Demonstration Plant. 500 barrel-per-day capacity.

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[2]Typical plant characteristics are based on the Colony data generated by the plant to be built on their own ground. See Appendix A.

[3]Vernal, Utah, and Rangely, Colorado, are equidistant to the site, but a new resident community is proposed near the tract in Utah.

- Located in Garfield County
- Construction to begin in 1975.
- Population impact 100% in Garfield County.
- Plant cost and employment characteristics 10% of typical plant.

d. Superior Oil Company. Demonstration Plant. 6,000-12,000 barrel-per-day model.
   - Located in Rio Blanco County.
   - Construction to begin in 1976.
   - Population impact 100% to Rio Blanco County.
   - Induced population build-up (employees, families, and indirect employees:

First Year	169
Second Year	301
Third Year	433
Fourth Year	514

   - Plant cost 10% of typical plant.

e. Superior Oil Company. Commercial Production Plant.
   - Located in Rio Blanco County.
   - Construction to begin in 1979.
   - Population impact 100% in Rio Blanco County.
   - Induced population build-up (employees, families, and indirect employees):

First Year	1688
Second Year	3008
Third Year	4332
Fourth Year	5144

   - Plant cost same as typical plant.

f. Union Oil Company. Demonstration Plant.
   - Located in Garfield County.
   - Construction to begin in 1975.
   - Population impact 10% in Mesa County and 90% in Garfield County.
   - Plant costs and employment characteristics 10% of typical plant.

g. Union Oil Company. Commercial Production Plant.
   - Located in Garfield County.
   - Construction to begin in 1977.
   - Population impact 10% in Mesa County and 90% in Garfield County.
   - Plant costs 85% of typical plant.

TABLE 1-1. COUNTY POPULATION PROJECTIONS

Year	RIO BLANCO			GARFIELD			MESA			Tri-County Totals
	No Oil[1] Shale	Plant[2] Induced	County Total	No Oil[1] Shale	Plant[2] Induced	County Total	No Oil[1] Shale	Plant[2] Induced	County Total	
1973	5,000	--	5,000	16,100	--	16,100	57,400	--	57,400	78,500
1974	6,584	--	6,584	17,283	--	17,283	58,433	--	58,433	82,300
1975	6,840	--	6,840	17,955	90	18,045	60,705	210	60,915	85,800
1976	7,040	--	7,040	18,480	3,719	22,199	62,480	677	63,157	92,396
1977	7,248	169	7,417	19,026	6,494	25,520	64,326	1,560	65,886	98,823
1978	7,608	4,424	12,032	19,971	8,700	28,671	67,521	2,114	69,635	110,338
1979	7,920	8,361	16,281	20,790	12,802	33,592	70,290	2,383	72,673	122,546
1980	8,392	10,530	18,922	22,029	13,226	35,255	74,479	2,303	76,782	130,959
1981	8,808	11,824	20,632	23,121	13,163	36,284	78,171	2,340	80,511	137,427
1982	9,248	13,336	22,584	24,276	13,349	37,625	82,076	2,340	84,416	144,625
1983	9,712	14,146	23,858	25,594	13,349	38,843	86,194	2,340	88,534	151,235
1984	10,200	14.146	24,346	26,775	13,349	40,124	90,525	2,340	92,865	157,335

[1]The basic no-growth data comes from the THK report. Further, it assumes a county-by-county allocation of the tri-county totals: Mesa--71%; Garfield--21%; and Rio Blanco--8%.

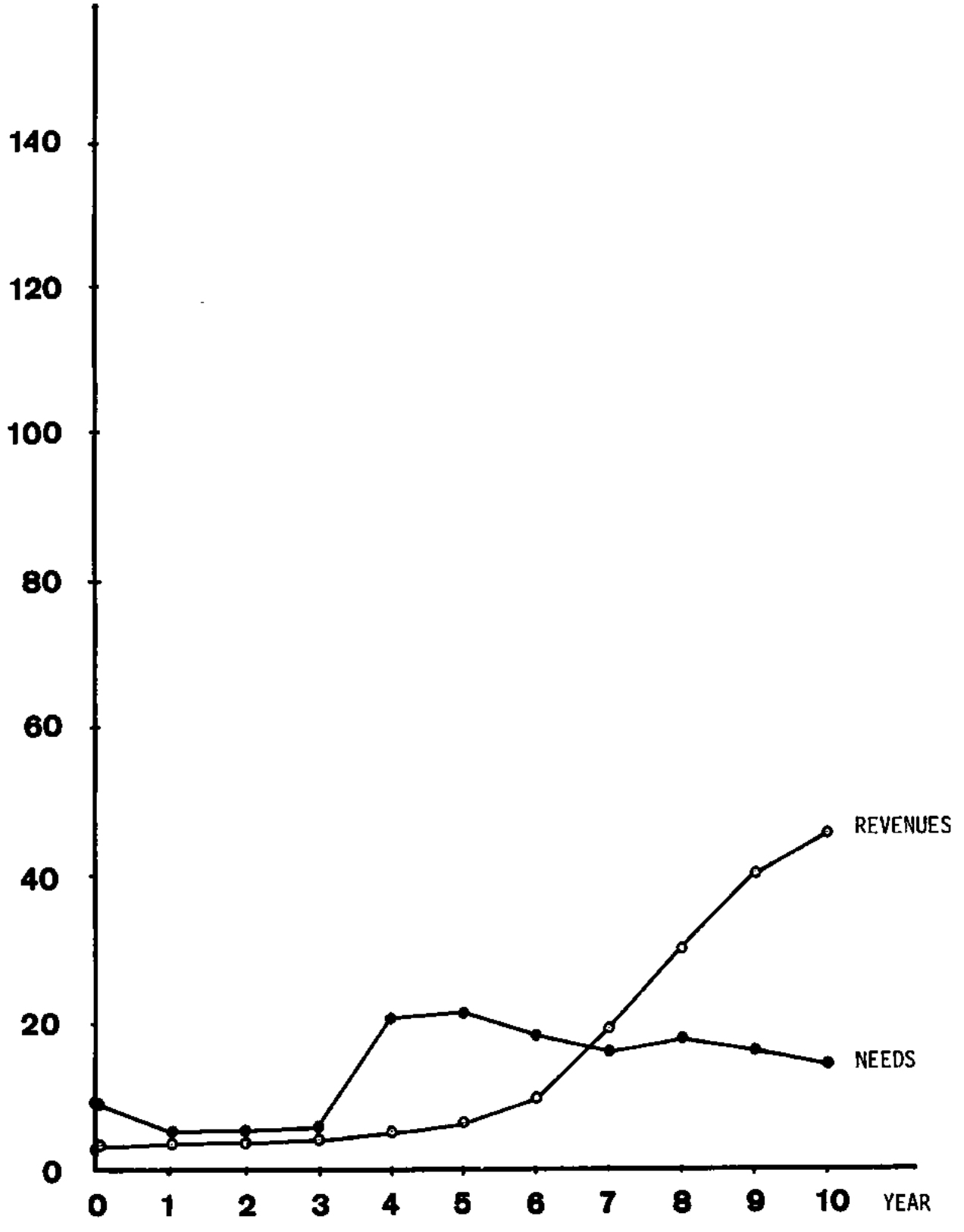
[2]The industry-induced population derives from tables shown in Appendix A.

TABLE 1-2. SUMMARY OF REVENUES AND EXPENDITURES FOR TOTAL PROJECTED COUNTY POPULATION (MILLIONS OF DOLLARS)

County	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
RIO BLANCO COUNTY											
Revenues	2.50	2.59	2.93	3.07	4.22	5.47	9.19	18.09	28.85	39.77	44.55
Expenditures											
Annual	3.29	3.42	3.52	3.71	6.02	8.14	9.46	10.32	11.29	11.93	12.17
Capital	4.76	0.77	0.60	1.13	13.88	12.78	7.94	5.14	5.87	3.83	1.48
Total	8.05	4.19	4.12	4.84	19.90	20.92	17.40	15.46	17.16	15.76	13.65
GARFIELD COUNTY											
Revenues	7.11	7.36	8.58	9.81	14.32	23.74	28.76	37.06	39.61	41.84	42.40
Expenditures											
Annual	8.64	9.02	11.10	12.76	14.33	16.80	17.63	18.14	18.81	19.42	20.06
Capital	3.56	2.29	12.49	9.99	9.48	14.80	5.00	3.10	4.03	3.66	3.85
Total	12.20	11.31	23.59	22.75	23.81	31.60	22.63	21.24	22.84	23.08	23.91
MESA COUNTY											
Revenues	24.65	25.41	26.15	27.27	28.59	29.83	31.52	32.99	34.70	36.40	38.17
Expenditures											
Annual	29.22	30.46	31.58	32.94	34.82	36.24	38.39	40.26	42.21	44.27	46.43
Capital	3.11	7.46	6.74	8.21	11.28	9.14	12.36	11.22	11.75	12.39	13.03
Total	32.33	37.92	38.32	41.15	46.10	45.48	50.75	51.48	53.96	56.66	59.46
TRI-COUNTY TOTALS											
Revenues	34.26	35.36	37.66	40.15	47.13	59.04	69.47	88.14	103.16	118.01	125.12
Expenditures	52.58	53.42	66.03	68.74	89.81	98.00	90.78	88.18	93.96	95.50	97.02

RIO BLANCO CO.

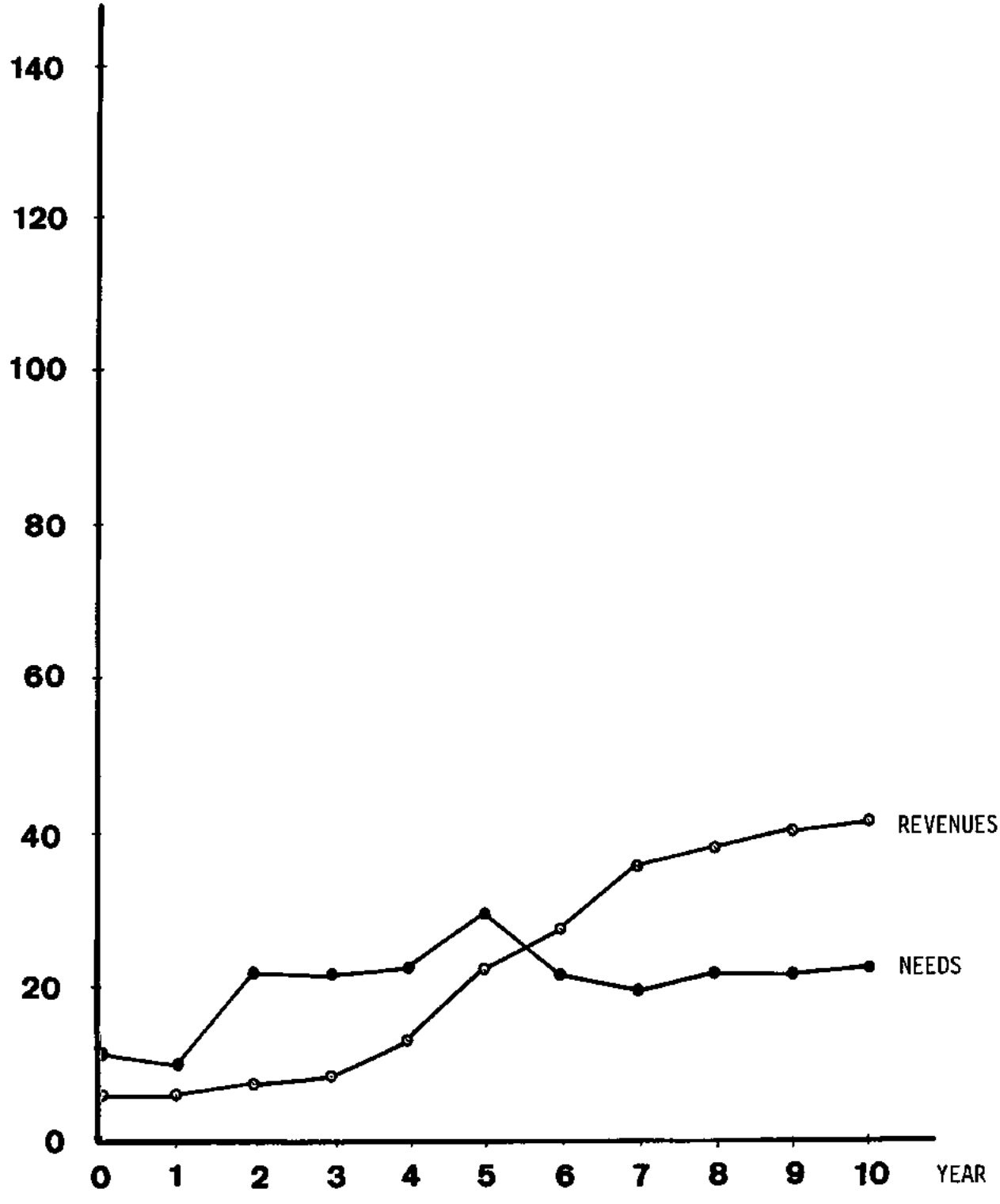
REVENUE-EXPENDITURE ANALYSIS



Revenues: Dollars available to finance governmental service needs (see assumptions, Appendix A).
Needs: Dollars required to meet governmental service needs (see assumptions, Appendix A).

GARFIELD CO.

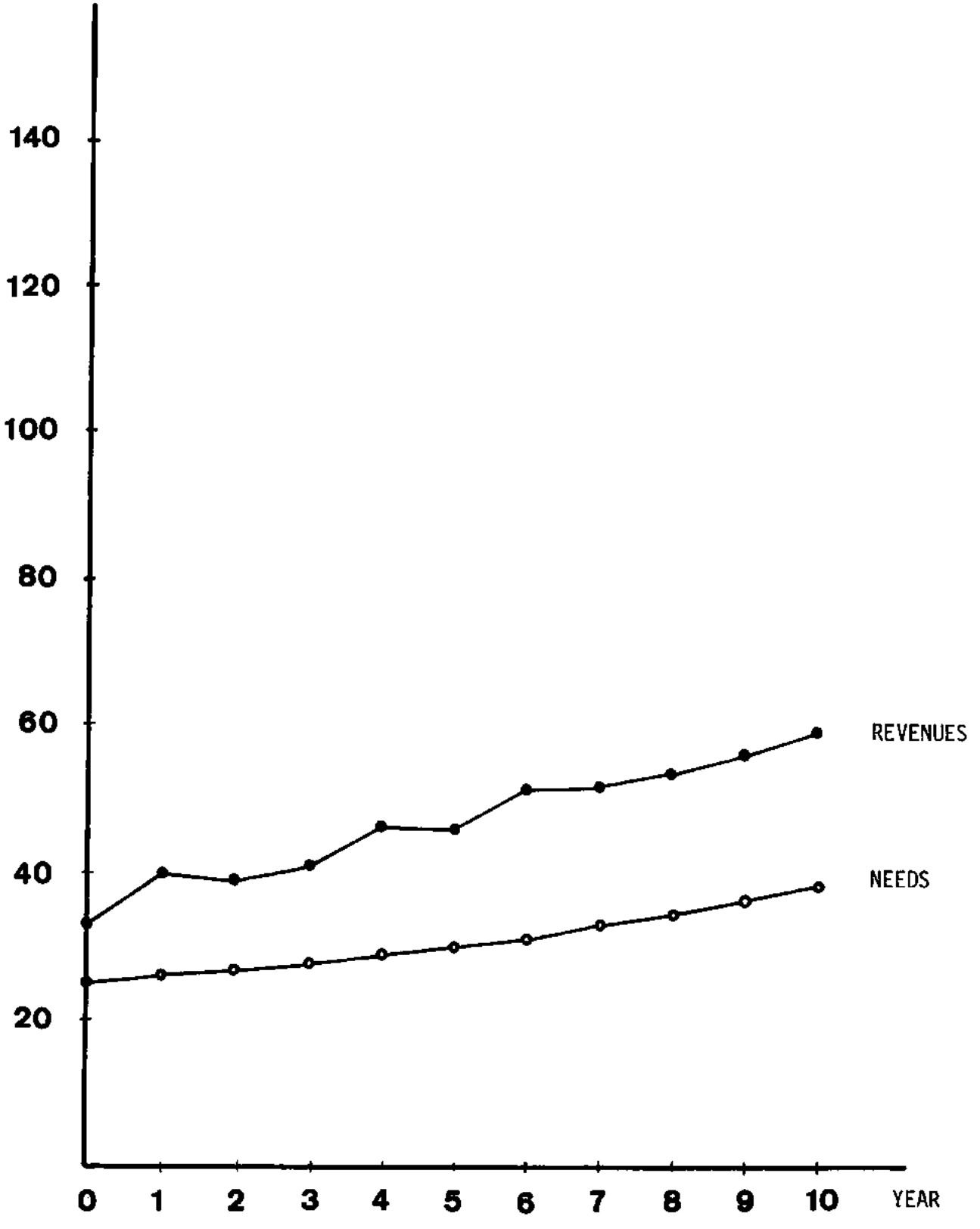
REVENUE-EXPENDITURE ANALYSIS



Revenues: Dollars available to finance governmental service needs (see assumptions, Appendix A).
Needs: Dollars required to meet governmental service needs (see assumptions, Appendix A).

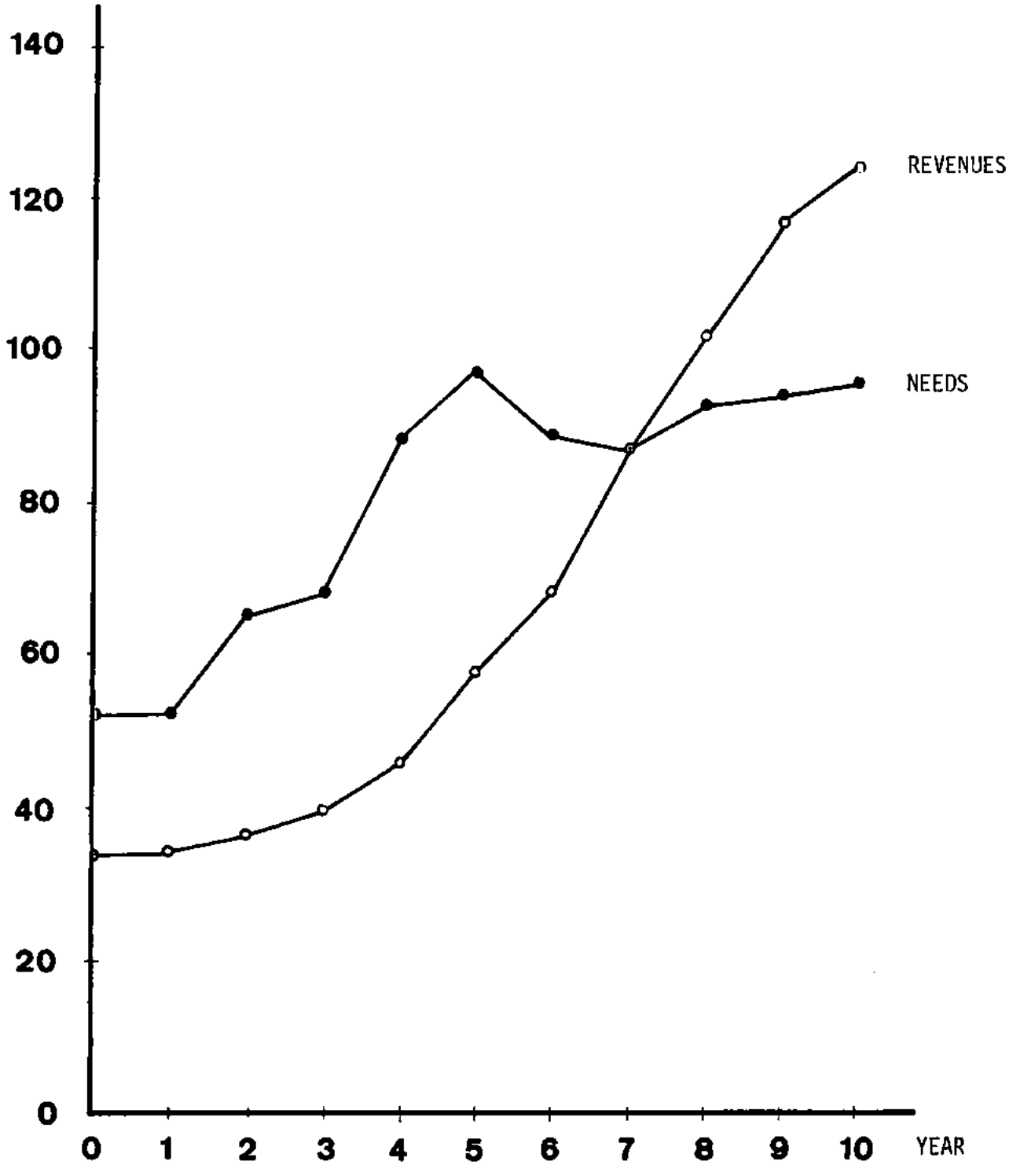
MESA CO.

REVENUE-EXPENDITURE ANALYSIS



Revenues: Dollars available to finance governmental service needs (see assumptions, Appendix A).
Needs: Dollars required to meet governmental service needs (see assumptions, Appendix A).

TRI-COUNTY TOTAL
REVENUE-EXPENDITURE ANALYSIS



Revenues: Dollars available to finance governmental service needs (see assumptions, Appendix A).
Needs: Dollars required to meet governmental service needs (see assumptions, Appendix A).

School District Impact

Without attempting to allocate population numbers to specific school districts, it is possible to identify which of the eight districts in the oil shale region will benefit from the proposed plant locations. Similarly, projections can be made for districts that are likely to have major population impacts as a result of those plant locations. Table 1-3 summarizes this distribution problem.

TABLE 1-3. POPULATION IMPACT ON SCHOOL DISTRICTS

School District	Plant Site	Population Impact
51 Mesa County Valley	--	Light
49 Junction De Beque	1	Medium
50 Plateau Valley	--	Light
Re-1 Roaring Fork	--	Light
Re-2 Garfield	1*	Heavy
16 Grand Valley	2	Heavy
Re-1 Meeker	2	Heavy
Re-4 Rangely	1#	Heavy

*A demonstration plant with relatively low assessed valuation (Parahoe project).

#Two Utah lease sites are also in proximity to Rangely but not in the district.

Proposed demonstration pilot plants will have little population impact on the area, but in each case, except Parahoe, a commercial plant is to be phased in. Pilot plants are used to test the oil shale process on a reasonable product sample. These plants may be abandoned after the commercial plants are constructed or incorporated into the larger commercial facility.

CONCLUSION

Viewed in a simple way, there will be a time lag for a period of years between the expenditures necessary to serve the population growth and the amount of revenue local government can collect from their present taxing procedures. After a period of from five to eight years, those procedures will produce excesses of revenue over expenditures.. Capital improvement funds are the critical need in the early growth years. Thereafter the key fiscal concern will be operation, maintenance, depreciation, and previously assumed debt financing costs.

There will also be a problem of equitable distribution to cities, school districts, and Mesa County of revenues generated from the oil shale plants. We have not attempted to bring the distribution problem down to the specific urban center or school district level since extrapolation of population to the county level raises enough problems of accuracy. Production plant revenues, however, can be very specifically located geographically, and it is obvious that some governmental agencies will be severely impacted by growth where no industrial development occurs within their taxing jurisdiction, but residential development does occur to serve the industry.

Allocation of employees and associated population by county and school districts was according to our best judgement based upon the proposed plant locations, existing road systems, milage to and nature of existing urban concentrations.

SECTION II. LAND USE POLICY AND FISCAL DECISIONS

An identification of the individual sources of revenue needed to finance local services is the surface problem. Given potential revenue sources and nothing else, the local governments in the oil shale region may or may not cope with the larger problems of preserving the desirable aspects of their present way of life as indentified in the Project 76 report. Only by placing the revenue sources within a larger context of community fiscal planning are the chances of recognizing and achieving local desires possible. Combining physical development decisions, public service management philosophy, and non-monetary considerations of fiscal policy planning with community goals will permit the best combination of revenue sources to be chosen to preserve the quality of life in western Colorado.

INTRODUCTION

Consideration of types of revenue sources alone will do little more than focus attention on the symptoms of the problem of rapid growth on the Western Slope.[1] The challenge is much larger. To achieve the short- and long-term goals of the region, the potential side effects of the various revenue sources will have to be understood and incorporated into a complete fiscal program and philosophy.

The problem of time lag between the eventual receipt of tax revenues and the immediate need of expenditures for public facilities to serve new growth is familiar to anyone who has been involved in local government or school financing in a rapid growth situation. The opportunities to evaluate current procedures and to adopt, where justified, an improved fiscal management program before the growth impact occurs is not as familiar. Similarly, the importance of the interrelationship of other governmental decisions as they affect new growth and fiscal policy planning is seldom recognized. Too seldom have communities, faced with imminent growth pressures, prepared themselves by making development planning an integral part of their fiscal policy in order to achieve community goals. Current efforts to move from line budgets to program budgeting or to use Programming, Planning and Budgeting Systems (PPBS) are a recognition of the need for a better understanding of the effects of community financing. Coordinated development, management, and fiscal policies can provide the base for funding growth without bankrupting local government.

DEVELOPMENT DECISIONS

The first element of a sound fiscal policy deals with the physical pattern of development and its relationship to fiscal responsibility. In order for local governments to provide maximum efficiency in return for the tax dollar, sound land use decisions are essential; decisions that can reduce the environmental, social, and governmental costs of development. The goals as expressed in the Task Force 76[2] report developed through extensive citizen involvement imply that, in part at least, local governments in the oil shale region should attempt the

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[1] See Impact Analysis and Development Patterns, THK Associates, Inc., Denver, Colorado, February, 1974.

[2] Task Force 76: Preliminary Regional Goals and Issues, Colorado West Area Council of Governments, Rifle, Colorado, July 1973.

following:

1. To maintain the quality of life that presently exists in the area, while reaping the benefits of added economic opportunities for both private and public purposes.

2. To avoid penalizing existing residents who derive no direct benefit from the changes that are anticipated as a result of shale development.

3. To minimize adverse financial impacts on old and new residents as well as on industry and business.

4. To maximize services and facilities for the revenues expended while still protecting social and environmental concerns.

If these goals are to be attained, experiences on the Eastern Slope of Colorado as well as in other areas of the country indicate that strong control must be exercised over where, when and how development takes place. Not only must the direction of growth come from local government, but the manner in which it occurs must be controlled locally. New development based entirely on uncoordinated individual market decisions makes it difficult for local government to deliver necessary services. Such random land use decisions usually force uneconomical local improvements or system design and marginal living environments.[3]

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[3] An example of chaos for cities with urban densities that have developed on a random basis without governmental coordination is seen in Lakewood, Colorado. Before incorporation in 1969, the area developed in Jefferson County as a series of subdivisions and special districts. At the time of incorporation, 96,000 people lived in this chaotic service area. Today 83 separate entities still provide water and sewer service inside Lakewood city limits. Each service agency has the power to levy its own mill tax--one has a levy of 25 mills. In addition, fire, drainage, and park and recreation districts have their own boundaries, none of which coincide with city boundaries. A backlog of $81 million dollars in capital improvements is required to bring the city up to current standards since many of the areas developed to different improvement levels, including no park requirements in some. An average house in the Lakewood area is taxed 110 mills per assessed valuation which includes levies for special districts, school districts, and the city itself.

For example, if a laissez-faire policy is adopted with regard to the location of subdivisions, individual residences, ranchettes, and mobile home parks, all of which might be expected to generate school children, high costs for busing students to central school sites must be expected. The tax bill for such busing services could be avoided if people not connected with ranching or farming are encouraged to cluster in service areas large enough to support urban-type facilities, such as schools.

Numerous studies have been conducted regarding the cost of urban development on a scattered or sprawl basis versus a clustering of population and accompanying facilities and services. These studies have repeatedly shown that costs are greater and can range up to twice as much, or more, for sprawl.[4] Scattered development patterns serve neither local government nor the residents very well. An urban concentration at a density of three to five houses or mobile homes per acre continues to be an urban density even if it is surrounded by 500 acres of ranch or agricultural land. Residents of such developments require the same urban services that are required in the heart of our largest cities; central water and sewer service, police and fire protection, libraries, schools, gas, electricity, telephone, road maintenance, mental health clinics, hospitals, and parks and recreation.

If control of development in the oil shale area is to occur in a positive manner, all governmental agencies must operate in a coordinated manner and indicate through a comprehensive planning program where development will be permitted. Without intergovernmental coordination and direction, land use and financial decisions will be made in response to crises situations and impressive graphic presentations of proposed developments. Subsequent increased costs for all taxpayers--agriculture, business, industry, residents--and inefficiency of operation will be unavoidable. Furthermore, the environmental degradation and social problems inherent in such an approach to land use will probably fulfill the worst expectations for the changing complexion

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[4] Santa Rosa Optimum Growth Study, Livingston and Blayney, Santa Rosa, California, 1973. A. Allen Schmid, Converting Land from Rural to Urban Uses, Resources for the Future, Washington, D.C., 1968. B. Tsaguis, Urban Growth and Development, An Urban Economist, California State College, Fulton, California, 1971. Ray W. Bahl, Jr., Bluegrass Leapfrog, Bureau of Business Research, University of Kentucky, Lexington, Kentucky, 1963. Toby Clark, Costs of Sprawl, Council on Environmental Quality, Washington, D.C., 1974.

of the oil shale region.[5]

The choice of developing controls and directing development patterns in a coordinated manner is in the hands of city and county governments and the Western Area Council of Governments. Federal and state government can only lend their support by encouraging development decisions to be made within a planning context before monies are appropriated. It is up to local officials to see that planning preserves the chosen way of life for the area residents. It is clearly within the power of local government to avoid uneconomical and environmentally destructive development and yet Meeker's plans do not have to be the same as Rifle's and Garfield County need not mirror Mesa County. Development control is the first step towards a sound fiscal policy.

PUBLIC MANAGEMENT DECISIONS

The second element of a solid financial policy is a proper approach for making public management decisions. The following Urban Services Chart summarizes the characteristics of each service along with the tax lead time implications for new development. The chart is to be used as a guide only. The current state of local services must be considered in determining the priorities for action. Localizing the information should not be difficult, and it is an essential step for adapting the chart to local conditions.

A community's funding philosophy for such services can range from no philosophy to a strongly documented "growth-pays-its-own-way" approach. A common practice is one of seldom changing rates unless to pay for replacement or expansion bonds. Depreciation and replacement are seldom provided for in the basic rates and unit costs of services are rarely known. Flat water rates are charged regardless of the amount of individual use with discounts sometimes given to large users. Where the population is stable with little growth expected, this approach may be traditional, and essentially satisfactory.

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[5] Denver Post, June 9, 1974, p. 1E; Rocky Mountain News, February 19, 1974, p. 11; Smithsonian Magazine, July 1974, pp. 73-79; New York Times, April 11, 1974 (Gillette, Wyoming, article).

A more sophisticated approach involves each agency knowing the general cost of providing its particular service, but making little effort to charge unit costs back to the users. Innovation may be attempted when it becomes necessary to fund new or expanded facilities. For example, charges to water users may be gradually adjusted by changing from a flat rate to the use of water meters and direct charges for the amount used. Whatever is politically acceptable to users is often the method employed; when money is needed it is obtained from the general fund or excess revenues from other services to avoid irritating the users by raising the rates. This approach is characteristic of communities with professional management but little growth pressure; it creates a minimum of problems but is not equitable.

The "growth-pays-its-own-way" approach involves a detailed understanding of unit costs as they apply to various types of consumers as well as knowledge of operation, maintenance, and replacement costs. More sophisticated management techniques or modifications thereof, such as PPBS, require this data. Although few communities have the necessary information or attempt to use it, this approach is becoming more popular in communities experiencing rapid growth. Boulder, Lafayette, Broomfield, Aurora, Aspen, and Arvada have moved strongly in this direction. A more complete discussion of the essential steps and an example applied to water utility financing is given in Appendix B.

A combination of all of the above is usually the case. A community may know its unit cost for each service and still chose to subsidize the cost in order to serve more people or because it is politically expedient. The important factor for fiscal policy development is that a known management policy be followed and the information on each service or facility collected and analyzed. Consideration of the economic feasibility of constructing the initial service facility may then include operation, maintenance, and replacement considerations. In this manner the full fiscal impact may be anticipated and prepared for.

In addition to funding concerns, public management decisions greatly affect fiscal efficiency. A water treatment plant improperly located usually requires additional capital facilities prematurely as well as higher operational costs

than a properly designed and located facility. Fire station locations are an example of a public facility that is rarely considered in economic terms. The cost of a station house is minor compared with its operational costs. Improper location can require additional stations and operational costs whereas by simply relocating the existing station the additional operation costs might be avoided. ·The problem of rapidly increasing public expenditures needs can be partially offset with more efficient management decisions on facility design and location. However, seeking new ways to raise more revenue is the usual approach.

FISCAL POLICY

As the third but equally vital element, fiscal policy gives basic support to determination and implementation of community goals. Revenue sources are the tools of fiscal policy. Their effects on the community exceed simply raising funds to finance public services. Decisions on how to raise revenue greatly affect such broad public concerns as the distribution of the public financial burden among subgroups of citizens; performance of local markets including labor, housing, land, consumer goods, services and transportation; efficiency in the consumption of public services; and local control of future spending and resource allocation decisions. Since the appropriate set of revenues is the one that best serves total community objectives, a clear recognition of what a revenue measure's non-monetary effects are and when and how they operate is essential if local government is to structure its revenue system in a manner that not only raises adequate funds, but also reinforces local government policy.

There are a number of key issues in the oil shale region that will be affected by the choices of revenue systems. It is extremely important that the expanded service demands associated with oil shale development be met by every unit of government when and where the need arises. However, this should not lead to a neglect of other local goals such as the aim that the costs of providing these services be distributed equitably among current residents, new residents, commuters, consumers of public services, and nationwide consumers of energy. The low income, elderly, and fixed income people should not be asked to share a heavier burden. Determination of an equitable distribution of costs is a matter of practicality and local goals.

Public policy is best served when the levels of taxation and spending and the allocation of resources within the budget can be determined without being unduly influenced by past decisions. Yet the selection of a revenue system tends to be a long-term one that requires great care to avoid encumbering later spending and allocation decisions. Although local spending and allocation decisions are made annually, it is not politically practical to change the revenue system that often. Because proposed expenditures must be matched with projected revenues, funds generated by the existing revenue system significantly circumscribe expenditure decisions. This fact leads to a concern about the stability and elasticity (revenue reponse to local population, income growth, and inflation) of the revenue system.

There is public concern that local resources, whether public or private, be used efficiently. It is inefficient when businesses locate outside of a taxing jurisdiction to escape taxation, causing both workers and customers to spend extra time and money to reach them. On the other hand, the provision of public services at no cost, financed with general taxation, may lead to their inefficient use simply because they are free. Cost-based user charges may ration the use of public services to the point where the services is used efficiently, but may preclude the full use by citizens who cannot afford the cost. Therefore, social costs must be weighed against efficiency of use promoted by higher user costs, with desired community goals serving as the determinant.

CONCLUSION

The identity of the individual sources of revenue needed to finance local services is the surface problem. Given potential revenue sources and nothing else, the local governments in the oil shale region may or may not cope with the larger problems of preserving the desirable aspects of their present way of life as identified in the Project 76 report. By placing the revenue sources within the larger context of total community fiscal planning, the chances of coping with and achieving local desires are greatly enhanced. Combining physical development decisions, public service management philosophy, and non-monetary considerations of fiscal policy planning with community goals will permit the best combination of revenue sources to be chosen to accomplish the task at hand.

SECTION III. REVENUE TOOLS

The optimal set of revenues for any public agency is the one that best serves overall local policy objectives. To enable objective evaluation of alternative combinations of revenues, criteria is used to establish a common basis of facts and conclusions about each. Some revenue sources will not meet the tax lead time problem, but should be considered for their effects on the overall long-range fiscal policy of individual local governments. Different needs of the individual governments thus will determine optimal local stratagies and combinations of revenue sources.

INTRODUCTION

Revenue sources are basic tools for establishing fiscal policy. Decisions on revenue sources importantly affect such broad public concerns as the distribution of the public financial burden among citizens; the performance of local markets including labor, housing, land, consumer goods, services, and transportation; efficiency in the consumption of public services; and local control of future spending and resource allocation decisions. For these reasons, it is important that selection of revenue sources be based on considerations that are much broader than simple revenue productivity, legality, and political acceptance. The appropriate set of revenues for any public agency must be the one that best serves overall local policy objectives.

In order to assess the ability of alternative combinations of revenues to serve these objectives, it is necessary to establish a great deal of detailed information about each revenue source. This section contains a discussion of the various revenue sources that might be used by public bodies impacted by oil shale development. The analysis concentrates on establishing facts and conclusions about each revenue source in the following areas:

1. Description: The nature of the source including the type of levy, revenue base, places where the source is currently used, and common variations in form.

2. Information Sources: Contacts for further information about the revenue tool, especially sources having experience with or research concerning it.

3. Yield: The magnitude, time pattern, and location of cash flows generated by various levels of tax rates.

4. Legality: The legal unknowns and legal constraints that circumscribe the use of the revenue source.

5. Elasticity: The sensitivity of revenue yield to economic growth and decline including changes in population, price and wage levels, and

per capita real incomes. Revenue sources with yield changes inproportional to changes in population, price levels, and per capita real income are inelastic.

6. Incidence: The party or parties bearing the ultimate burden of payment including various groups such as elderly, low-income property owners; public service users; residents and non-residents; current and future citizens; oil shale industrial workers, stockholders, creditors, and customers.

7. Control: The extent to which tax rates and revenue cash flow depend on factors outside of local control such as regional, state, national, and international economic conditions; social values; political decisions by other governments; and industry decisions.

8. Market Side Effects: The nature of the side effects, if any, the revenue source creates in local markets including labor, housing, land, consumer goods and services, and transportation.

9. Certainty/Predictability: The accuracy with which future cash flows can be predicted for purposes of long-range planning, borrowing, and annual budgeting.

10. Administrative Cost: The cost incurred by a public body in administration, collection, and enforcement of its taxes and charges.

11. Citizen Acceptance: Citizen attitude about the general desirability of the revenue source.

RETAIL SALES TAX

1. Description: Retail sales taxes are commonly separated into two categories: (1) general and (2) selective. Both forms are used at the state level in Colorado. The general sales tax is the form predominantly used at the local level. As used in Colorado, the general sales tax is an excise tax levied on retail sales of tangible personal property in the taxing jurisdiction. Sales of services are excluded from taxation at both state and local levels. Some governments in other states do tax services in varying degrees.[1] Denver, Pueblo, Glenwood, and Littleton exempt food not consumed on the premises. As of September 15, 1972, more than 100 local governments in Colorado levied general sales taxes of up to 3%.

   Selective sales taxes have traditionally focused on a few commodities, most notably motor fuels, alcoholic beverages, tobacco products, insurance, public utilities, paramutuals, and amusements. At present, in Colorado, the most productive forms of selective sales taxes--motor fuels, alcoholic beverages, cigarettes, insurance, and paramutuals--are taxed by the state. Selective sales taxes are not widely used by Colorado local governments, but revenues from state-collected motor fuel and cigarette taxes are shared with localities.

2. Information Sources: Table 3-1 lists Colorado local governments using the sales tax as of June 30, 1974. Financial officers of these localities can provide information on their experience with the sales tax. Additional information is available from the Colorado Muncipal League, the Division of Local Government in the State Department of Local Affairs, and the Sales Tax Division of the State Department of Revenue.

3. Yield: The level of revenue arising from a 1% general sales tax levied in counties, cities, and towns of various types and sizes can be esti-

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[1] State sales taxes in New Mexico and Wyoming apply to a relatively broad range of services, including laundry, dry cleaning, repair of tangible personal property, transportation, and other services. For full details of general sales taxes found in the United States, see the Advisory Commission on Intergovernmental Regulations publication State-Local Finances: Significant Features and Suggested Legislation, M-74, U.S. Government Printing Office, Washington, D.C., 1972.

mated using the following general principles:[2]

Levying Body	Annual Revenues (1974 Dollars) Per Capita
Towns up to 2500 population	$20 - $30
Cities over 2500 (not trade centers)	$30 - $40
Cities over 2500 (trade centers)	$45 - $55
Western Slope Counties	$28 - $35
Colorado Average	$35

Revenues from selective sales taxes can be estimated as follows:

Cigarette tax:[3] $1.25 - $1.35 per capita for each penny of tax.

Alcoholic beverage tax:[4] State of Colorado levies of

$1.80 per gallon of spiritous liquor

$0.06 per gallon of beer

$0.20 per gallon of wine (14% or less alcohol by volume)

$0.30 per gallon of wine (over 14% alcohol by volume)

raise $6 - $6.50 per capita annually.

Motor fuel tax:[5] State of Colorado levy of $0.07 per gallon of fuel used for propulsion on public highways raises approximately $43 per capita.

There are no significant time lags between the collection of sales taxes and the occurance of economic activity.

4. Legality: Under the powers extended directly to home-rule cities by Article XX of the State Constitution, any home-rule city is free to adopt general and/or selective sales taxes unless the city charter prohibits such a tax. Further, the municipal governing body of a home-rule city may enact a sales tax directly by ordinance unless the charter requires a vote of the electorate.

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[2]Based on a survey of actual collections, updated to 1974.

[3]Op. cit., Advisory Commission, p. 283, and Colorado cigarette tax collections.

[4]Colorado Department of Revenue.

[5]Colorado Department of Revenue.

TABLE 3-1. COLORADO LOCAL SALES TAXES
(Source: Colorado Department of Revenue, June 30, 1974)

Locality	Rate	Effective Date	Collected By State	Vendors Fee	Distribution of Proceeds
Alamosa*	1%	1/1/63	No	5%	
Antonito	1%	7/1/72	Yes	3%	
Archuleta County	1%	1/1/69	Yes	3-1/3%	50% County 50% Pagosa Springs
Arvada*	2% (increased to 2% effective 7/1/74)	1/1/69	No	--	
Aspen*	2% (increased to 2% effective 1/1/73)	1/1/71	Yes	3-1/3%	
Aurora*	2%	1/1/64	No	1-1/2%	
Basalt	2%	1/1/71	Yes	3-1/3%	
Bayfield	1%	1/1/71	Yes	0	
Bennett	2%	7/1/74	Yes	3-1/3%	
Bent County	1%	7/1/71	Yes	3-1/3%	100% County
Berthoud	2%	1/1/71	Yes	3-1/3%	
Black Hawk	2%	7/1/68	Yes	0	
Boulder*	2%	8/1/64	No	1-1/2%	
Brighton (1)(2)	1%	7/1/70	Yes	3-1/3%	
Broomfield (1)(2)	1%	7/1/72	Yes	--	
Buena Vista	1%	1/1/73	Yes	3-1/3%	
Carbondale	2%	7/1/71	Yes	3-1/3%	
Central City**	3% (increased to 3% effective 3/13/73)	8/1/65	Yes	3-1/3%	
Cherry Hills Village*	2%	1/1/68	No	--	
Colorado Springs*	2% (increased to 2% effective 1/1/72)	3/1/68	No	3%	
Commerce City*	2%	3/31/71	No	2%	
Cortez*	1%	3/1/65	No	5%	

*Home-rule city, which if it collects its own sales taxes has both sales and use taxes.
**Contract city.
(1) Use tax on motor vehicles and building materials collected by city.
(2) Has agreement with County Clerk for collection and direct remittance of sales and use taxes on motor vehicles.

TABLE 3-1. COLORADO LOCAL SALES TAXES (Continued)

Locality	Rate	Effective Date	Collected By State	Vendors Fee	Distribution of Proceeds
Costilla County	1%	7/1/69	Yes	0	75% County 20% San Luis 5% Blanca
Crested Butte	3% (increased to 3% effective 1/1/74)	7/1/71	Yes	3-1/3%	
Cripple Creek	1%	7/1/72	Yes	--	
Dacono	1%	7/1/73	Yes	3-1/3%	
Delta County	1%	7/1/70	Yes	3-1/3%	65% County 21.14% Delta 6.615% Paonia 2.94% Hotchkiss 3.325% Cedaredge 0.98% Crawford
Delta* (1)(2)	1% (State collected effective 1/1/74)	7/1/73	Yes	3-1/3%	
Denver*	3% (increased to 3% effective 10/1/69)	1948	No	2%	
Dolores	1%	1/1/69	Yes	0	
Dove Creek (1)(2)	1%	1/1/70	Yes	3-1/3%	
Durango*	1%	4/1/62	No	5%	
Eagle	2%	1/1/71	Yes	3-1/3%	
Edgewater*	2%	7/1/69	No	3%	
Empire	2%	1/1/74	Yes	1%	
Englewood*	3%	3/22/68	No	1.6%	
Estes Park	2%	7/1/71	Yes	3-1/3%	
Evans	1%	7/1/73	Yes	3-1/3%	
Fairplay	2%	1/1/74	Yes	3-1/3%	
Federal Heights (1)(2)	2% (increased to 2% effective 1/1/73)	7/1/71	Yes	3-1/3%	
Ft. Collins*	2% (increased to 2% effective 4/1/73)	1/1/68	No	3%	
Ft. Lupton	1%	1/1/71	Yes	3-1/3%	

*Home-rule city, which if it collects its own sales taxes has both sales and use taxes.
**Contract city.
(1) Use tax on motor vehicles and building materials collected by city.
(2) Has agreement with County Clerk for collection and direct remittance of sales and use taxes on motor vehicles.

TABLE 3-1. COLORADO LOCAL SALES TAXES (Continued)

Locality	Rate	Effective Date	Collected By State	Vendors Fee	Distribution of Proceeds
Fraser	2%	7/1/72	Yes	3-1/3%	
Fruita	1%	1/1/69	Yes	3-1/3%	
Georgetown	2%	1/1/70	Yes	2%	
Glendale*	2-1/2%	1/1/68	Yes	3-1/3%	
	(increased to 2% effective 7/15/72)				
	(increased to 2-1/2% effective 1/1/74)				
Glenwood Springs*/**	1%	4/1/67	Yes	3%	
Granby	2%	1/1/71	Yes	3-1/3%	
	(increased to 2% effective 1/1/72)				
Grand Junction*	1%	8/1/64	No	5%	
Grand Lake	2%	8/1/66	Yes	3-1/3%	
Greeley*	1%	1/1/69	No	3%	
Greenwood Village*	3%	7/1/72	No	0	
Gunnison*/**	1%	9/1/63	Yes	5%	
Hayden	2%	1/1/73	Yes	3-1/3%	
Hinsdale County	2%	1/1/73	Yes	3-1/3%	According to point of collection between county and Lake City
Hot Sulphur Springs	2%	1/1/73	Yes	3-1/3%	
Huerfano County	1%	7/1/68	Yes	3-1/3%	County, Walsenburg, La Veta in proportion to motor vehicle registrations
Idaho Springs (1)(2)	2%	1/1/71	Yes	3-1/3%	
Ignacio	1%	1/1/71	Yes	3-1/3%	
Jefferson County	1/2%	7/1/73	Yes	3-1/3%	100% County
Johnstown	2%	1/1/71	Yes	3-1/3%	
Kremmling	2%	1/1/74	Yes	3-1/3%	
Lafayette*	2%	5/1/67	No	5%	

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(2) Has agreement with County Clerk for collection and direct remittance of sales and use taxes on motor vehicles.

TABLE 3-1. COLORADO LOCAL SALES TAXES (Continued)

Locality	Rate	Effective Date	Collected By State	Vendors Fee	Distribution of Proceeds
La Jara	1%	1/1/72	Yes	3%	
Lake County	1%	7/1/72	Yes	3-1/3%	According to point of collection between county and Leadville
Lakewood (1)	2% (increased to 2% effective 1/1/72)	7/1/70	Yes	1%	
Lamar*	1%	10/1/70	No	5%	
Littleton*	3%	1/1/62	No	2-1/2%	
Longmont*	2%	1965	No	3%	
Loveland	2% (increased to 2% effective 1/1/75)	1/1/70	Yes	3-1/3%	
Lyons	2%	7/1/68	Yes	3-1/3%	
Mancos	1%	1/1/69	Yes	0	
Manitou Springs*	2% (increased to 2% effective 4/1/71)	1/1/70	Yes	0	
Meeker (1)	1%	1/1/72	Yes	3-1/3%	
Mineral County	1%	7/1/71	Yes	3-1/3%	66-2/3% County 33-1/3% Creede
Miniturn	2%	7/1/72	Yes	3-1/3%	
Montrose*	2% (increased to 2% effective 11/2/71)	7/1/64	No	3-1/3%	
Morrison	2%	7/1/73	Yes	3-1/3%	
Mountain View*	2%	11/1/72	Yes	3-1/3%	
Naturita	1%	7/1/73	Yes	3-1/3%	
Nederland	2%	1/1/70	Yes	3-1/3%	
Northglenn (1)(2)	2% (increased to 2% effective 1/1/72)	1/1/70	Yes	0	
Norwood	1%	7/1/72	Yes	3-1/3%	
Nucla	1%	7/1/72	Yes	3-1/3%	

*Home-rule city, which if it collects its own sales taxes has both sales and use taxes.
**Contract city.
(1) Use tax on motor vehicles and building materials collected by city.
(2) Has agreement with County Clerk for collection and direct remittance of sales and use taxes on motor vehicles.

TABLE 3-1. COLORADO LOCAL SALES TAXES (Continued)

Locality	Rate	Effective Date	Collected By State	Vendors Fee	Distribution of Proceeds
Olathe	1%	1/1/73	Yes	3-1/3%	
Ouray	2%	7/1/69	Yes	0	
Palisade	1%	1/1/70	Yes	3-1/3%	
Pitkin County	2%	7/1/69	Yes	3-1/3%	47% County 53% Aspen
Platteville	1%	1/1/75	Yes	3-1/3%	
Pueblo*	3% (increased to 3% effective 1/1/72)	1/1/56	No	5%	
Rangely	1%	1/1/73	Yes	3-1/3%	
Regional Transportation District	1/2% (comprised of Denver, Jefferson, Boulder, Douglas, western Adams and western Arapahoe counties)	1/1/74	Yes	3-1/3%	
Rico*	1%	1/1/73	Yes		
Rifle*	2% (increased to 2% effective 12/1/73)	8/1/65	No	5%	
Rio Grande County	1%	7/1/69	Yes	3-1/3%	50% County 35% Monte Vista 15% Del Norte
Saguache	1%	1/1/73	Yes	3-1/3%	
Sheridan	3%	7/1/74	Yes	3-1/3%*	
Silt	1%	1/1/69	Yes	3-1/3%	
Silverton	1%	1/1/69	Yes	0	
Steamboat Springs	2% (increased to 2% effective 1/1/73)	7/1/69	Yes	3-1/3%	
Sterling*	1%	1/1/75	Yes	3-1/3%	
Summit County*	2%	7/1/71	Yes	3-1/3%	Breckenridge, Frisco, Dillon, Silverthorne, Blue River if collected there. To county if collected outside of these towns. 15% of

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(1) Use tax on motor vehicles and building materials collected by city.
(2) Has agreement with County Clerk for collection and direct remittance of sales and use taxes on motor vehicles.

TABLE 3-1. COLORADO LOCAL SALES TAXES (Continued)

Locality	Rate	Effective Date	Collected By State	Vendors Fee	Distribution of Proceeds
					remittances to towns go to county.
Telluride	2%	1/1/69	Yes	0	
Thornton*	2% (increased to 2% effective 1/1/73)	1/1/70	No	2%	
Trinidad	2% (increased to 2% effective 1/1/73)	7/1/68	Yes	3-1/3%	
Vail*	4% (increased to 4% effective 7/1/74)	1/1/68	Yes	0	
Walsenburg	1%	7/1/72	Yes	3-1/3%	
Westcliffe	1%	1/1/75	Yes	3-1/3%	
Westminster*	2% (increased to 2% effective 9/1/73)	7/1/67	No	5%	
Wheat Ridge (1)(2)	1%	7/1/70	Yes	3-1/3%	
Windsor	1%	1/1/71	Yes	3-1/3%	
Woodland Park	1%	1/1/71	Yes	3-1/3%	

*Home-rule city, which if it collects its own sales taxes has both sales and use taxes.
**Contract city.
(1) Use tax on motor vehicles and building materials collected by city.
(2) Has agreement with County Clerk for collection and direct remittance of sales and use taxes on motor vehicles.

Counties and statutory cities and towns may impose general sales taxes pursuant to CRS '63, 138-10-2. In all cases a local election is required. Further, provisions of such a tax ordinance must conform to or incorporate the state provisions contained in CRS '63, 138-5. All local sales taxes imposed pursuant to CRS '63, 138-10 must be collected, administered, and refunded free of charge by the State Department of Revenue.

The county-wide general sales tax is applicable throughout the incorporated and unincorporated portion of the county and the proposal must specify the revenue distribution to be made between municipal and county units of government. In no case may the total sales tax imposed by the state, county, or municipalities outside of the Regional Transportation District (RTD) exceed 7%. Throughout the RTD the limit is 7-1/2%.[6]

There is no express authority for statutory cities and towns and counties to impose selective sales taxes. However, statutory cities and towns have levied cigarette taxes for many years. In 1973, the General Assembly enacted a state-collected, locally shared cigarette tax including a provision that in order to qualify for a share of these tax monies from the state local governments cannot impose fees, licenses, or taxes on any person engaged in the business of selling cigarettes or attempt in any manner to impose a tax on cigarettes. Although home-rule cities could levy selective sales taxes on motor fuels, the proceeds would be restricted to highway-related expenditures in accordance with State Constitution Article X, Section 8.

5. Elasticity: As shown in Table 3-2, recent research by tax economists indicates that the general sales tax is roughly unit elastic. That is, the revenues from a fixed rate sales tax levy tend to change, both up and down, proportionately with changes in price levels, population, and per capita real income, or more simply, economic growth. On the other hand, the table shows that the most common forms of selective sales taxes are generally inelastic with respect to economic growth. For instance, a 10% increase in economic activity would be accompanied by only a 5 - 8% rise in selective sales taxes on motor fuels.

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[6] CRS '63, 138-10-8; CRS '73, 39-1-105.

TABLE 3-2. RANGE OF ESTIMATED INCOME ELASTICITIES OF MAJOR STATE AND LOCAL TAXES

Investigator (Year)	Area	Elasticity
	Personal income tax	
Harris (1966)	Arkansas	2.4
ACIR (1971)	Kentucky	1.94
ACIR (1971)	New York	1.80
Harris (1966)	United States	1.8
Groves and Kahn (1952)	United States	1.75
Netzer (1961)	United States	1.7
ACIR (1971)	Hawaii	1.47
Planning Division (1971)	Arizona	1.30
Harris (1966)	New Mexico	1.3
	Corporate income tax	
Peck (1969)	Indiana	1.44
ACIR (1971)	Kentucky	1.19
Harris (1966)	United States	1.16
ACIR (1971)	New York	1.13
Netzer (1961)	United States	1.1
ACIR (1971)	Hawaii	0.98
Planning Division (1971)	Arizona	0.97
ACIR (1971)	Oregon	0.93
ACIR (1971)	New Jersey	0.72
	General property tax	
ACIR (1971)	New York City, N.Y.	1.41
Mushkin (1965)	United States	1.3
ACIR (1971)	Baltimore City, Md.	1.25
Netzer (1961)	United States	1.0
Bridges (1964)	United States	0.98
ACIR (1971)	Honolulu Co., Hawaii	0.89
ACIR (1971)	Multnomah Co., Ore.	0.84
McLoone (1961)	United States	0.8
Rafuse (1965)	United States	0.8
ACIR (1971)	Jefferson Co., Ky.	0.50
ACIR (1971)	Newark, N.J.	0.38
ACIR (1971)	Albany City, N.Y.	0.34

Investigator (Year)	Area	Elasticity
	General sales tax	
Davies (1962)	Arkansas	1.27
Rafuse (1965)	United States	1.27
ACIR (1971)	Maryland	1.08
Peck (1969)	Indiana	1.04
Netzer (1961)	United States	1.0
Harris (1966)	United States	1.0
Davies (1962)	United States	1.0
ACIR (1971)	Kentucky	0.92
Planning Division (1971)	Arizona	0.87
Davies (1962)	Tennessee	0.80
	Motor fuels tax	
ACIR (1971)	Maryland	0.80
Peck (1969)	Indiana	0.77
ACIR (1971)	Kentucky	0.75
Planning Division (1971)	Arizona	0.74
ACIR (1971)	New Jersey	0.74
ACIR (1971)	Oregon	0.70
ACIR (1971)	New York	0.69
Harris (1966)	United States	0.6
ACIR (1971)	Hawaii	0.48
Rafuse (1965)	United States	0.43
	Tobacco tax	
ACIR (1971)	Kentucky	0.64
Harris (1966)	United States	0.4
ACIR (1971)	New Jersey	0.36
ACIR (1971)	Hawaii	0.30
Planning Division (1971)	Arizona	0.21
ACIR (1971)	New York	0.12
ACIR (1971)	Maryland	0.00
ACIR (1971)	Oregon	0.00

Sources: Advisory Commission on Intergovernmental Relations, "State-Local Revenue Systems and Educational Finance," Unpublished report to the President's Commission on School Finance, November 12, 1971; Arizona, Department of Economic Planning and Development, Planning Division, *Arizona Intergovernmental Structure: A Financial View to 1980,* Phoenix: 1971; Bridges, Benjamin, Jr., "The Elasticity of the Property Tax Base: Some Cross Section Estimates," *Land Economics,* 40: 449-51 (November, 1964); Davies, David G., "The Sensitivity of Consumption Taxes to Fluctuations in Income," *National Tax Journal,* 15: 281-90 (September, 1962); Groves, Harold M., and C. Harry Kahn, "The Stability of State and Local Tax Yields," *American Economic Review,* 42: 87-102 (March, 1952); Harris, Robert, *Income and Sales Taxes: The 1970 Outlook for States and Localities,* Chicago: Council of State Governments, 1966; McLoone, Eugene P., "Effects of Tax Elasticities on the Financial Support of Education," Unpublished Ph.D. dissertation, College of Education, University of Illinois, 1961; Mushkin, Selma, *Property Taxes: The 1970 Outlook,* Chicago: Council of State Governments, 1965; Netzer, Dick, "Financial Needs and Resources Over the Next Decade," in *Public Finances: Needs, Sources, and Utilization,* Princeton: Princeton University Press, 1961; Peck, John E., "Financing State Expenditures in a Prospering Economy," *Indiana Business Review,* 44: 7-15 (July, 1969); Rafuse, Robert W., "Cyclical Behavior of State-Local Finances," in Richard A. Musgrave (ed.), *Essays in Fiscal Federalism,* Washington: Brookings Institution, 1965.

6. Incidence: Researchers who have studied the tax incidence have found general sales tax regressive to income; i.e., it consumes a larger percentage of low income budgets than higher income budgets. A recent study for the Colorado Legislative Council[7] revealed that as a percentage of income the sales tax burden on Colorado citizens in the $5,000 and under income bracket is two to three times more than that on people with incomes over $25,000. As shown in Table 3-3, the same study concluded that selective sales taxes commonly used in Colorado are regressive with respect to household income.[8]

TABLE 3-3. TAX BURDEN RATIOS OF LOWEST TO HIGHEST INCOME CLASS

Tax	Low Estimate	High Estimate
General Sales Tax	1.9	3.0
Highway User Tax	2.3	3.3
Cigarette Tax	2.5	4.6
Alcoholic Beverage Tax	1.4	1.9

The study also considered the incidence of general and selective sales taxes with respect to household size. In general, the tax burden for both forms of the sales tax are evenly distributed among all households regardless of the number of people within the household.

Sales taxes are revenue sources that tax non-residents, commuters, visitors, and tourists as well as residents. Depending on local circumstances, revenue from non-residents can be quite large. A 1973 research study[9] estimated that the City of Boulder derives approximately 1/3 of its total general sales tax revenues from non-residents.

A large number of state and local governments using the general sales tax exempt food in an effort to reduce regressivity. It is estimated

[7] Zubrow, Coddington, and Korbel, Colorado Tax Profile Study, Colorado Legislative Council Research Publication No. 202, October 1973, p. 34.

[8] Ibid.

[9] Report of the Citizen's Research Committee on Fiscal Policy, City of Boulder, Boulder, Colorado, June 1973.

that such an exemption reduces revenue collections more than 20%.[10] Further, the effectiveness of the food tax exemption in reducing regressivity is a matter of contention. According to an analysis of the Indiana sales tax in 1965,[11] the tax is roughly proportional to income when home-prepared food is tax exempt--except at the lowest and the highest income brackets. On the other hand, a 1974 study[12] for the Colorado Legislative Council concluded that " . . . exempting food in lieu of the $7 food tax credit actually makes the tax more regressive, whereas increasing the credit to $21 makes the general sales tax about proportional." For food exempt sales taxes with no food tax credit, the percentage of tax borne by the under $5,000 income group was approximately 1.8 times that borne by the $25,000 income group.[13]

Because of the high administrative cost of the food tax exemption (20% of revenue), the fact that it is abated at higher income levels, and the unresolved debate regarding its effectiveness in eliminating regressivity, the food tax exemption has become less popular among tax economists in recent years.[14] Programs providing credits or rebates of larger amounts to lower income people are felt to be better tools for eliminating tax regressivity. This type of program is in operation at the state level in Hawaii (1965), Massachusetts (1966), Vermont (1969), and Washington, D.C. (1970). Each person below a specified income level receives a credit against income tax liability or a cash rebate. In 1973, Boulder adopted a similar program designed to refund an amount that would eliminate regressivity in both sales and property taxes.

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[10] L. L. Ecker-Racz, An Analysis of Colorado's Revenue System, Colorado Education Association, Englewood, Colorado, 1973, p. 67.

[11] Charles F. Bonser, Analysis of Alternative Sales Tax Exemption Plans, Indiana Senate Finance Committee, Commission on State Tax and Financing Policy, January 18, 1965.

[12] Zubrow, Coddington, and Zeif, Estimates of Revenue and Tax Burden Effects of Some Proposed Changes in the Colorado State Tax Structure, Colorado Legislative Council Research Publication No. 205, March 1974, p. 6.

[13] Ibid., p. 5.

[14] James A. Murray and Reuben A. Zubrow, "Should Food Be Exempt from Sales Tax?" Colorado Municipalities, November 1974, p. 114.

7. Control: There has been some interest in recent years in consolidating the various local general sales taxes in Colorado into a state-collected, locally shared sales tax.[15] Although methods of distribution and opportunities for local rate options have not been finally determined, it is clear that the adoption of a state-collected, locally shared tax would result in a significant loss of local control, especially for home-rule cities. Loss of control would be particularly evident in areas of exemptions, audit practices, vendor fees, delinquent payment procedures, general collection, enforcement, and administration.

   At present, elections are required to raise general sales tax rates in statutory cities and towns, counties, and some home-rule cities. The general sales tax base is much less subject to local control. Retail sales of tangible personal property (and services when taxed) are strongly affected by national and state economic policies and events.

   Local control of selective sales taxes is a moot point for statutory cities and towns, and counties, since they have no authority to levy such a tax. Although for home-rule cities selective sales taxes are legal, the cigarette tax is already state-collected and locally shared. Any proceeds from motor vehicle or related taxes must flow to highway-related expenditures. Subject to contrary charter provisions, any selective sales tax may be levied without an election by home-rule cities and the proceeds used for general funds.

8. Market Side Effects: Various studies have shown that differential sales tax rates within a metropolitan area drive significant amounts of business from the high tax areas.[16] By locating outside of municipal

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[15] Most recently this recommendation was made by L. L. Ecker-Racz in his Analysis of Colorado's Revenue System, Colorado Education Association, March 1973, p. 66.

[16] William Homovitch, "Sales Taxation: An Analysis of the Effects of Rate Increases in Two Contrasting Cases," National Tax Journal, XIX (December 1966), pp. 411-420. Henry M. Levin, "An Analysis of the Economic Effects of the New York City Sales Tax," The Brookings Institution, Washington, D.C., 1967, Reprint 127.

boundaries, businesses can offer tax-free sales. Although cities can inhibit such development via control of utilities extensions or annexation policies, peripheral commercial development will still occur, particularly where large rate differences exist.

9. Certainty/Predictability: Variation in the sales tax base causes fluctuation in sales tax revenues. Changes in the size of the tax base are vitally connected with annual changes in local population, price levels, real per capita income, and location of commercial facilities. Therefore, forecasting sales tax revenues requires forecasting demographic and economic variables. Though fairly accurate short-term predictions are possible, long-term projections are difficult to make with any degree of accuracy. Further, a fair degree of technical expertise in economic forecasting is required to translate predictions or projections of the economic and demographic variable into sales tax revenue forecasts.

10. Administrative Cost: General sales taxes levied by other than home-rule cities must be collected, administered, and returned to the local body free of charge by the State Department of Revenue. However, the funds returned generally reflect a reduction of 3-1/2% as a result of vendors fees which are returned to businesses collecting the tax as authorized by the state. This service is optional for home-rule cities. The cost of collecting sales taxes by Colorado home-rule cities generally runs from 2% to 7%, with most of the cost due to local vendors fees. This fee is locally determined and ranges from 0% in a few communities to as high as 5% in Grand Junction, Rifle, and several other home-rule cities. Although the vendor fee portion of the administrative cost does not vary with the overall magnitude of sales tax revenues, other costs[17] are subject to economies of scale and can be expected to decrease as a percentage of collections as the amount of collection increases, whether due to rate increases or tax base growth.

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[17] See Fred J. Mueller, The Burden of Compliance: A Study of the Nature and Costs of Tax Collections by the Small Business Firm, University of Washington, Bureau of Business Research, Seattle, Washington, 1963, p. 59.

11. Citizen Acceptance: In 1971, the Urban Observatory published a report of findings from responses to 4300 in-depth interviews conducted in 10 major U.S. cities.[18] The findings indicated that the sales tax is considered the most popular way to raise additional local tax money when compared to taxes on property, income, utilities, and automobiles. In a more recent survey,[19] the U.S. Advisory Commission on Intergovernmental Relations (ACIR) obtained the following response to the question of which type of tax is fairest:

Federal Income Tax	36%
State Income Tax	11%
State Sales Tax	33%
Local Property Tax	7%
Don't Know	13%
	100%

[18] See Nation's Cities, August 1971.

[19] Public Opinion and Taxes, Advisory Commission on Intergovernmental Relations, Washington, D.C., May 1972.

USE TAX

1. Description: Use taxes are very closely related to general sales taxes; so closely, in fact, that use taxes are seldom considered independently. They are considered separately here because counties in Colorado are authorized by statute to levy sales taxes, but not use taxes. Both state and various local governments in Colorado levy use taxes on the privilege of storing, distributing, using, or consuming articles of tangible personal property brought into the taxing jurisdiction. Local governments usually allow a credit on use tax due when sales taxes have been paid to another Colorado local government.

   In Colorado, the use tax is limited to articles of tangible personal property as a complement to the sales tax. If the general sales tax included a broad range of services, the use tax would also apply although its actual effect would probably be minimal in view of the nontransportability of most services.

   The great majority of use tax revenues in Colorado are derived from motor vehicles (taxed at point of registration based on owner's address), construction building materials (taxed on estimated basis when building permit is issued), and machinery and equipment (licenses issued to local businesses and periodic returns required). In these cases sales taxes are not applied nor is credit for sales tax paid allowed against use tax due.

2. Information Sources: Table 3-1 lists Colorado local governments imposing sales taxes as of June 30, 1974. Many of these localities, especially the home-rule cities, levy the use tax in conjunction with the sales tax. Additional information about the use tax is available from the Colorado Municipal League, the Division of Local Government in the State Department of Local Affairs, and the Sales Tax Division of the State Department of Revenue.

3. Yield: On a statewide basis, the use tax, employed in conjunction with the general sales tax, raises approximately 10% of the amount raised by the general sales tax. For the state, the tax generates some $3 per capita annually. However, in areas of rapid growth, with unusually high

rates of construction, the tax may generate significantly more revenue. The following table indicates use tax revenues arising from the most important sources of the tax:

TABLE 3-4. COLORADO USE TAX REVENUES

Item	Use Tax Revenue Per 1¢ Use Tax Levied
New Residential Construction*	$117.25 for $35,000 Unit $167.50 for $50,000 Unit
Motor Vehicles	$2 to $3 per capita annually
Oil Shale Plants** ($435 million cost)	$1.5 to $2.0 million per plant constructed

*Yield based on the assumption that taxable value of tangible personal property is 50% of building permit valuation which in turn is 67% of sale price.

**Yield based on the assumption that 35%-50% of plant cost is tangible personal property.

There are no significant time lags between the collection of use taxes and the occurance of economic activity. Construction use taxes are often prepaid at the time building permits are obtained. Motor vehicle use taxes are paid at the time of vehicle registration.

4. Legality: Under the powers extended directly to home-rule cities by Article XX of the State Constitution, any home-rule city is free to adopt a local use tax unless the charter requires a vote of the electorate. Statutory cities and towns, but not counties, may impose use taxes only on construction and building materials and all motor vehicles on which registration is required pursuant to CRS '63, 138-10-2 (CRS '73, 29-2-102). In all cases, a local election is required with the exception of areas where a municipal sales tax has been approved by the qualified electors at an election prior to July 1, 1973. In no case may the total use tax imposed by the State of Colorado or any municipality in Colorado exceed 7%

5. Elasticity: The present experience in Colorado is that for most jurisdictions approximately 50% of use tax receipts arise from the use of building materials in construction. Another 25% or so derives from the

registration of motor vehicles in the taxing jurisdiction. Expenditures on these capital items are strongly influenced by factors other than the primary components of local economic growth, local population, price levels, and per capita real income. For example, mortgage and consumer loan rates are most important. For this reason, in a short time frame of from 1 to 3 years use tax revenues are rather cyclical and not strongly correlated with the same factors that most significantly affect local economic growth and public expenditure requirements.

6. Incidence: Use taxes bear most directly on producers and consumers making new acquisitions. However, costs borne by consumers on new housing and new motor vehicles may be passed on at resale so indirectly the tax is borne by all users of these items. The portion of the tax applied to local producers for the use of plant and equipment will be passed on to their customers and labor force.

   Most studies of regressivity in sales taxes have included use tax, but not separately. Therefore it is not possible to state the incidence of use tax alone. However, since the use tax is normally applied in conjunction with a general sales tax, it is useful to know that there is a concensus of opinion that the sales and use tax combination is regressive. A recent study for the Colorado Legislative Council[20] revealed that the sales and use tax burden on the under $5,000 groups is two to three times that borne by the over $25,000 group.

7. Control: Although local use tax rates are locally controlled, the use tax base is not. Rather, since most of the base is capital of one type or another, it is importantly influenced by national economic and political events, particularly national monetary and fiscal policy. If a state-collected, locally shared general sales tax were adopted by the state legislature, use taxes would most likely move under state control as well.

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[20] Zubrow, Coddington, and Korbel, op. cit., p. 34.

8. Market Side Effects: The use tax tends to reduce the incentive for local businesses to locate outside of a sales taxing jurisdiction because the use tax applies to sales-tax free purchases. However, as a practical matter, it is impossible to enforce the use tax in many cases such as food, liquor, and other consumer items. A use tax also affects the local cost of housing. As a general rule, a 1% use tax will add roughly 1/2% to the cost of housing, reflecting a 50% component of taxable material in the total housing cost.

9. Certainty/Predictability: Because of the dependency of use tax collection on two rather unstable and cyclical sectors of the economy--construction and motor vehicles--its certainty and predictability are very poor generally. For example, use tax revenues in Grand Junction in 1967 were up 63% over 1966, but in 1968 fell back to slightly above the 1966 level.[21]

10. Administrative Cost: Use taxes are complex and expensive to administer. The following exerpt from the Colorado Municipal League Local Option Sales Tax Manual[22] indicates that cost may approach 10% of revenue.

> Deliveries from outside constitute a major problem for the enforcement apparatus, inasmuch as the use tax is the most difficult aspect of collection. The city must make a concerted effort to license as many vendors outside the city as possible in order that the local merchant can be assured that his competitor is not enjoying unfair advantage.
>
> The difficulties of collecting an automobile use tax are compounded in a community with a large number of students, military personnel, and other non-residents. Most cities find that the cost of collecting this particular tax runs more than any other local tax; Boulder estimates the collection cost to be about 10%.
>
> Various or even alternate methods are employed to collect the use tax on construction materials. One method is to require the contractor to pay the 1% tax on 50% of the estimated valuation (excluding the land); this approach is subject to contractor criticism because the cost of

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[21] Selected Non-Property Revenues of Colorado Cities and Towns, Colorado Municipal League, Boulder, Colorado, 1969.

[22] Local Option Sales Tax Manual, Colorado Municipal League, Boulder, Colorado, 1967.

labor frequently exceeds 50% of the total value. A second approach is to permit the contractor and his subcontractors to take out a license and then report any tax due on a monthly basis. Some communities estimate the value of the structure on a square foot basis, but Boulder has subscribed to a national assessing service which more accurately determines building valuation. If the contractor uses the estimated basis option, he may later claim refunds by itemizing the actual purchases made. The enforcement ordinance may require that the certificate of occupancy be withheld until the tax is paid. It can also authorize liens to be filed against the property.

11. Citizen Acceptance: Use taxes have been criticised as adding to the already high cost of housing and transportation. However, the typical citizen's lack of understanding of the tax has limited public discussion. Local merchants may tend to favor use taxes that are carefully enforced because of the competitive advantage of merchants located outside of the taxing jurisdiction who escape sales taxation. Since the use tax also applies to motor vehicles, buildings, and equipment used by local merchants, the cost may outweigh the gain with respect to outside competition.

PROPERTY TAX

1. Description: The property tax in Colorado is an ad valorem tax computed on the assessed valuation of all taxable property, real and personal, located within the territorial limits of the authority levying the tax. Constitutional limitations on the use of the property tax in Colorado include the requirement for uniformity, exemptions from taxation, and the provision that the General Assembly shall not impose taxes for the purpose of any county, city, town, or other municipal corporation.

   The uniformity requirement provides that all taxes shall be uniform for each of the various classes of real and personal property located within the territorial limits of the authority levying the tax.

   Five general classes of exemptions from property taxes are provided in the Constitution. They are (1) irrigation ditches and flumes shall not be taxed separately from the land; (2) public property; (3) property used for religious worship, schools, and charitable purposes, and cemeteries not used or held for profit; (4) motor vehicles, mobile homes, and mobile machinery or self-propelled construction equipment on which a specific ownership tax is paid; and (5) household furnishings and personal effects which are not used for the production of income.

   The importance of property taxes as a source of revenue for Colorado local governments is illustrated by the fact that in 1972 86% of all local tax income was represented by property taxes, approximately equally distributed between residential and non-residential properties.[23]

2. Information Sources: Most units of local government in Colorado use the property tax and finance officers can be contacted for information. Information is also available from the Colorado Municipal League and the Division of Property Taxation of the State Department of Local Affairs.

3. Yield: The property tax yield is determined by the mill levy applied to the assessed valuation base within the taxing jurisdiction. Construc-

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[23] Zubrow, Coddington, and Korbel, op. cit., p. 4.

tion of oil shale plants and pipelines and mineral production will have massive effects on the assessed valuation bases where plants, pipelines, and mine sites are located. For example, the added assessed value of two 50,000 bbl/day plant sites alone will roughly equal the current total assessed valuation in all three oil shale counties.

Assessment and tax levy procedures create a lag in the collection of property tax revenues compared to the actual construction of improvements or other generators of increased property values. This lag may exceed two years. It arises because the first day of January of each year is the official assessment date and increases in property values occurring thereafter during the year do not appear on the assessment rolls until the subsequent year.[24] Moreover, all property taxes become due and payable on the first day of January in the year following that in which they are levied and do not become delinquent until the first day of the following August.[25] Thus, if an improvement is started anytime after January 1, 1975, the property value increment created will not appear on the tax rolls until 1976. Property taxes due thereon may be paid as late as August 1977, fully 2-1/2 years after the project was started.

It is important to note that the assessment of property is not deferred until completion of a project. Anything in place on the site on the annual assessment date, such as partially completed buildings, machinery, and equipment, is assessed. During construction there is an annual increment of assessment. Further, construction equipment used is either assessed for property tax or subject to specific ownership tax.

The yield of property tax levies will differ substantially among locations in the oil shale region. Table 3-5 sets forth some general rules for property tax yield estimation.

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[24] CRS '63, 137-1-5; '73, 39-1-105.

[25] CRS '65, 137-10-2;'73, 39-10-102.

TABLE 3-5. ESTIMATED PROPERTY TAX YIELD

Levying Body	Per Capita Revenue From Existing Base* (Per Mill)	Per Capita Incremental Revenue from Growth** (Per Mill)
Towns up to 2500	$1 - $1.50	Same
Cities over 2500	$2 - $2.20	Same
Garfield County	$2.80 - $3.00	$2 - $2.20
Mesa County	$1.90 - $2.10	$1.60 - $1.70
Rio Blanco County	$10.50 - $11.50	$2 - $2.25

*Based on a survey of existing tax bases.
**Excludes any value based on oil shale mines, retort plants, or pipelines.

It is useful to consider the property tax revenue that might be derived from oil shale mining, processing, and transporting separately from other property tax sources. The factors involved in estimating tax yields from oil shale activity are complex and uncertain at this time. Property tax would apply to producing oil shale mines, lands containing producing and non-producing oil shale mines, exploration and drainage tunnels, equipment, improvements, public utilities including pipeline companies, free port merchandise, stocks of merchandise held for resale, and stockpiled ore. Various methods for determining the assessed value of these properties are given in Appendix C.

Although there are many unknowns related to the values and procedures for determining revenue yields, it appears that retort plants and equipment along with producing mines will contribute the highest yield. For example, if the appraisal of actual taxable value of the plant and equipment associated with a 50,000 bbl/day operation were $400 million, the assessed value would be $120 million so that a levy of 1 mill would generate $120,000 annually.

In order to determine the assessed value of the actual mines, it is necessary to have some estimate of the gross value of the ore after extraction before any treatment, reduction, or transportation occurs. The assessed value of producing oil shale mines will be derived from the same type of value estimate. Since under normal circumstances ore will not be

bought and sold at this stage, it is difficult to arrive at a true value. One approach, though not universally accepted, is to take the ore value after extraction as the crude oil sales price, less the costs of extraction and the subsequent costs of processing, including all costs of capital. This approach indicates an assessed value for a 50,000 bbl/day producing mine of $20 to $75 million based on $6 to $10 per barrel oil price.

4. Legality: Colorado home-rule cities have the power to assess property and levy and collect taxes thereon within the limits of their charter.[26] In practice, it is common for home-rule cities to levy taxes on assessments made by the county assessor. The taxes are then collected by the county treasurer and remitted to the city. Counties likewise have the power to apportion and levy taxes as follows:[27] For county general fund purposes--6.5 mills for assessed value of $40-50 million; 6.0 mills for assessed value of $50-70 million; 5.5 mills for assessed value of $70-100 million; and 5 mills for assessed value over $100 million. The levy can go higher only with the approval of the Colorado Division of Local Government or voter approval. More than one-half of Colorado counties adopted levies in excess of the limitation in 1973 for 1974 collection.

   An additional 3 mill levy can be made without an election by a county for the purpose of development, maintenance, and operation of mass transit systems, public buildings or additions, or to supplement bond issues for the same purposes.[28] The voters may approve more.[29] Limitations do not apply for repaying bonded indebtedness.[30] Table 3-6 lists other special purposes for which counties may impose mill levies.

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[26]Colo. Const. art. XX, sec. 6.

[27]CRS '63, 36-1-7; '73, 30-11-107.

[28]CRS '63, 36-3-1; '73, 30-25-201.

[29]CRS '63, 36-3-2; '73, 30-25-202.

[30]CRS '63, 36-3-2; '73, 30-25-202.

TABLE 3-6. SPECIAL PURPOSES FOR WHICH COUNTIES MAY IMPOSE LEVIES

Purpose	Statutory Cite		Limitation
Contingency	'63, 32-2-7; '73, 12-17-207		None
Hospital	66-7-1;	25-3-301	3 mills
Library	84-1-15;	24-90-116	2 mills
Retirement	111-9-10;	24-51-910	None
Welfare	119-3-6;	26-2-106	2-1/2 to 6 mills
Roads/Bridges	120-1-2,3;	43-2-202,2-3	None

Statutory cities and towns have the power to levy taxes on real, personal, and mixed properties that are subject to taxation for state and county purposes.[31] County public improvement districts have the power to levy and collect ad valorem taxes on and against all taxable property within the district.[32] No limit on the amount of mill levy is specified, but a petition signed by a majority of qualified electors in the district, including a statement of project cost, must be filed. For statutory cities and towns, counties, and special districts, excepting bond repayment, the mill levy may be adjusted each year so that the total revenue collected is no greater than 105% of the preceding year.[33] This limitation may be waived by the Division of Local Government or the electorate of the taxing jurisdiction.

There are several different classes of real and personal property that by statute are treated differently for purposes of establishing assessed valuation in each county of the state. Home-rule cities are not bound by these statutory provisions, but by their charter and the State Constitution.

The general statutory provision for assessment of property is that is be assessed at 30% of its actual value. Exceptions to this provision include producing mines and oil and gas leaseholds, and land, which

[31]CRS '63, 36-3-5; '73, 30-25-205.

[32]CRS '63, 88-3-1; '73, 29-1-301.

[33]CRS '63, 36-25-13; '73, 30-20-514.

are assessed according to the production therefrom during the preceding year; inventories of merchandise and manufacturers, assessed at 5% of actual value; and livestock, assessed at 13%.

Oil shale mines, when producing, would be assessed as producing mines according to the provisions of Article 6, Chapter 137, CRS 1963 (1965 Supp.). The term 'producing mine' is defined to include all mining claims and other forms of land or mineral interest (including possessory interests in unpatented mining claims and leasehold interest in publicly owned mineral rights) included as part of a mining operation which produces ores containing any type of metallic or non-metallic mineral substance except those specifically excluded under Section 137-6-3. Drilled wells producing sulfur and oil, gas, and other liquid or gaseous hydrocarbons are excluded from the definition of mines. Mines worked or operated primarily for coal, asphaltum, rock, limestone, dolomite, or other stone products, sand, gravel, clay, or earths are excluded from assessment as producing mines under the provisions of Article 6. Since oil shale is clearly a form of non-metallic mineral substance, and since it is not excluded from the provisions of Article 6, a producing oil shale mine is subject to assessment as a 'producing mine' under the provisions of that article.

The assessment on a producing mine is what is known as a unit assessment, and includes in addition to the land and/or mineral interests all excavations within the mine such as shafts, adits, raises, pits, stripped areas, rooms, stopes, etc., and all mining improvements within such excavations. Such improvements which are included in the unit assessment and therefore not subject to separate assessment would include room supports, various types of structures, railroad track, water lines, air lines (both compressed and ventilation), power lines, etc. Improvements not involved in the mining process such as crushing plants or mills, even though located within the mine, are not mining improvements and are separately assessed. Mining machinery and equipment are also separately assessed.

The assessed valuation of a producing mine is the larger of the net proceeds or 25% of the gross proceeds of production during the preceding

year. Gross proceeds are defined as the value of the ore immediately after extraction from the mine. Since the object is to value a producing mine as an item of real property, the value added to a product by subsequent processing, such as crushing, milling, grading, concentration, retorting, smelting, chemical treatment or refining, is not included in gross proceeds. Net proceeds are gross proceeds less the cost of extraction.

Presently, there is a question of whether or not an oil shale mine using in situ retorting would be assessable under the provisions of Article 6 as a producing mine. All other property of an oil shale operation would be assessed as provided for other property. Any improvements which are not 'mining improvements,' including oil chale retorting plants and other buildings, water supply systems, sewage disposal plants, spent shale disposal facilities, machinery and equiment (including mining machinery and equipment) and lands used as plant and disposal sites would be assessed at 30% of actual value. Plant inventories of shale awaiting processing and in process, of petroleum or other end products, and of supplies, would be assessed at 5% of actual value. With reference to mobile machinery or self-propelled construction equipment, there would be an option of assessment for property taxes or registration as motor vehicles with payment of specific ownership tax, the proceeds of which would be shared by the appropriate local governments in proportion to their respective property tax levies.

Non-producing oil shale mineral interests are subject to a provision of law that the assessment on such interests per acre shall not exceed the assessment per acre of the surface of the land thereover.

These various property categories and methods of determining assessed valuation are summarized in Appendix C.

5. Elasticity: Numerous research studies conducted by tax economists in recent years and summarized in Table 3-7 indicate that the general property tax is inelastic. However, the relevancy of these studies to some part of the oil shale region is questionable. In taxing jurisdictions where oil shale plants are located, the property tax

TABLE 3-7. RANGE OF ESTIMATED INCOME ELASTICITIES OF MAJOR STATE AND LOCAL TAXES

Investigator (Year)	Area	Elasticity
	Personal income tax	
Harris (1966)	Arkansas	2.4
ACIR (1971)	Kentucky	1.94
ACIR (1971)	New York	1.80
Harris (1966)	United States	1.8
Groves and Kahn (1952)	United States	1.75
Netzer (1961)	United States	1.7
ACIR (1971)	Hawaii	1.47
Planning Division (1971)	Arizona	1.30
Harris (1966)	New Mexico	1.3
	Corporate income tax	
Peck (1969)	Indiana	1.44
ACIR (1971)	Kentucky	1.19
Harris (1966)	United States	1.16
ACIR (1971)	New York	1.13
Netzer (1961)	United States	1.1
ACIR (1971)	Hawaii	0.98
Planning Division (1971)	Arizona	0.97
ACIR (1971)	Oregon	0.93
ACIR (1971)	New Jersey	0.72
	General property tax	
ACIR (1971)	New York City, N.Y.	1.41
Mushkin (1965)	United States	1.3
ACIR (1971)	Baltimore City, Md.	1.25
Netzer (1961)	United States	1.0
Bridges (1964)	United States	0.98
ACIR (1971)	Honolulu Co., Hawaii	0.89
ACIR (1971)	Multnomah Co., Ore.	0.84
McLoone (1961)	United States	0.8
Rafuse (1965)	United States	0.8
ACIR (1971)	Jefferson Co., Ky.	0.50
ACIR (1971)	Newark, N.J.	0.38
ACIR (1971)	Albany City, N.Y.	0.34

Investigator (Year)	Area	Elasticity
	General sales tax	
Davies (1962)	Arkansas	1.27
Rafuse (1965)	United States	1.27
ACIR (1971)	Maryland	1.08
Peck (1969)	Indiana	1.04
Netzer (1961)	United States	1.0
Harris (1966)	United States	1.0
Davies (1962)	United States	1.0
ACIR (1971)	Kentucky	0.92
Planning Division (1971)	Arizona	0.87
Davies (1962)	Tennessee	0.80
	Motor fuels tax	
ACIR (1971)	Maryland	0.80
Peck (1969)	Indiana	0.77
ACIR (1971)	Kentucky	0.75
Planning Division (1971)	Arizona	0.74
ACIR (1971)	New Jersey	0.74
ACIR (1971)	Oregon	0.70
ACIR (1971)	New York	0.69
Harris (1966)	United States	0.6
ACIR (1971)	Hawaii	0.48
Rafuse (1965)	United States	0.43
	Tobacco tax	
ACIR (1971)	Kentucky	0.54
Harris (1966)	United States	0.4
ACIR (1971)	New Jersey	0.36
ACIR (1971)	Hawaii	0.30
Planning Division (1971)	Arizona	0.21
ACIR (1971)	New York	0.12
ACIR (1971)	Maryland	0.00
ACIR (1971)	Oregon	0.00

Sources: Advisory Commission on Intergovernmental Relations, "State-Local Revenue Systems and Educational Finance," Unpublished report to the President's Commission on School Finance, November 12, 1971; Arizona, Department of Economic Planning and Development, Planning Division, *Arizona Intergovernmental Structure: A Financial View to 1980*, Phoenix: 1971; Bridges, Benjamin, Jr., "The Elasticity of the Property Tax Base: Some Cross Section Estimates," *Land Economics*, 40: 449-51 (November, 1964); Davies, David G., "The Sensitivity of Consumption Taxes to Fluctuations in Income," *National Tax Journal*, 15: 281-90 (September, 1962); Groves, Harold M., and C. Harry Kahn, "The Stability of State and Local Tax Yields," *American Economic Review*, 42: 87-102 (March, 1952); Harris, Robert, *Income and Sales Taxes: The 1970 Outlook for States and Localities*, Chicago: Council of State Governments, 1966; McLoone, Eugene P., "Effects of Tax Elasticities on the Financial Support of Education," Unpublished Ph.D. dissertation, College of Education, University of Illinois, 1961; Mushkin, Selma, *Property Taxes: The 1970 Outlook*, Chicago: Council of State Governments, 1965; Netzer, Dick, "Financial Needs and Resources Over the Next Decade," in *Public Finances: Needs, Sources, and Utilization*, Princeton: Princeton University Press, 1961; Peck, John E., "Financing State Expenditures in a Prospering Economy," *Indiana Business Review*, 44: 7-15 (July, 1969); Rafuse, Robert W., "Cyclical Behavior of State-Local Finances," in Richard A. Musgrave (ed.), *Essays in Fiscal Federalism*, Washington: Brookings Institution, 1965.

base will be dominated by oil shale related facilities. Sensitivity of these assessed values to changes in local economic conditions may be minor. Rather, it seems likely that the broad economics of the oil industry and not local economic conditions will dictate oil shale production in Colorado as well as investment in and the market value of oil shale producing facilities. These latter values translate into assessed values.

From this point of view, the property tax appears to be a risky source of revenue because of its dependency on factors other than those affecting expenditure requirements. It is quite possible that such expenditure requirements as price levels, population, and per capita real income would be rising while assessed values, perhaps due to oil industry economic conditions, were declining. Assessed valuations could also drop with technical changes in the industry, perhaps leading to less capital intensive production methods.

6. Incidence: The property tax on residential property imposes a heavier tax burden (tax payments as a percentage of income) on lower income classes. It is regressive. A recent study[34] revealed that the residential property tax burden for the $5,000 income group was two to three times heavier than the burden for the over $25,000 group.

Property taxes in the State of Colorado are approximately equally divided between residential and non-residential public. Some unknown part of the nonresidential portion is passed along outside of the region in which it is collected by industries selling outside of the area and including some part of its property tax cost in its product prices. Taxes borne by the oil shale companies would fall into this latter category.

The residential property tax in Colorado does not impose significantly different burdens on households of different size with the exception of single-member households which may pay 20% to 40% more of their income

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[34] Zubrow, Coddington, and Korbel, op. cit., p. 34.

in property taxes.[35] In spite of the constitutional requirement that property taxes be uniform upon each of the various classes of real and personal property within the territorial limits of the authority levying the tax, it is known that this ideal is not generally met. The following statement by the state property tax administrator in early 1973 indicated the problem:

> The sales were categorized by county, by property type, and by age grouping. Graphs were presented to compare the ratios. There is a wide disparity among the average sales ratios as between classes of property. Ratios for improved properties are higher than those for unimproved. In most cases they are still below the 30 percent level, and in many counties there is little or no change from 1971 to 1972. In most counties, commercial lands indicate a low level of assessment. Commercial-improved property ratios are higher than residential-improved property ratios. Most counties have an extremely low assessment on unimproved urban lands.[36]

A number of relief programs are used by other states to alleviate the inequitable tax burden imposed by the property tax on citizens with low incomes. These programs are loosely designated "circuit-breaker" programs and resemble one another in that they attempt to limit the percentage of income any household must pay in property taxes. Table 3-8 illustrates how the programs worked in Wisconsin and Minnesota in 1968.

Colorado has a form of "circuit breaker" that provides for an income tax credit or refund of a portion of residential property taxes paid by elderly persons (65 years of age or older) and those totally disabled having a low level of income.

7. Control: Local control of property tax revenues is limited for statutory cities and towns, counties, and special districts by the statutory limitations on mill levies and by the requirement that annual revenue growth not exceed 5%.[37] Of the home-rule cities in the oil shale region, only Rifle has a charter limit that is similar to the statutory limitation.

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[35] Ibid., p. 44.

[36] Second Annual Report of the Division of Property Taxation, State of Colorado, 1972, p. 8.

[37] CRS '63, 88-3-1; '73, 29-1-301.

TABLE 3-8. THE "CIRCUIT BREAKER" SYSTEM FOR PROTECTING LOW INCOME HOUSEHOLDS FROM PROPERTY TAX OVERLOAD SITUATIONS HOW IT WORKED IN WISCONSIN AND MINNESOTA IN 1968

Household Income Group	Number of Claims	Average Household Income	Average Property Tax* Before Credit	Average Property Tax* After Credit	Percent of tax burden Relieved	Ratio of Property Tax* to Household Income Before Credit	Ratio of Property Tax* to Household Income After Credit
Wisconsin							
$ 0	102	$ 0	$333	$151	55%	--%	--%
1-499	539	381	254	98	61	66	26
500-999	6,508	801	211	78	63	26	10
1000-1499	14,903	1269	249	140	44	20	11
1500-1999	16,809	1750	288	188	35	16	11
2000-2499	14,287	2236	323	241	25	14	11
2500-2999	9,857	2734	363	307	15	13	11
3000-3500	5,576	3207	514	392	5	13	12
Minnesota							
$ 0-249	192	$-495	$164	$ 51	69%	--%	--%
250-499	198	434	145	38	75	33.4	8.8
500-749	994	652	128	39	70	19.6	6.0
750-999	2108	891	136	42	69	15.3	4.7
1000-1249	2779	1132	143	72	50	12.6	6.4
1250-1499	3666	1380	151	76	50	10.9	5.5
1500-1749	3453	1624	160	95	41	9.9	5.8
1750-1999	3828	1880	167	100	40	8.9	5.3
2000-2249	3115	2122	179	125	30	8.4	5.9
2250-2499	2879	2375	182	127	30	7.7	5.3
2500-2749	2403	2717	190	151	21	7.0	5.6
2750-2999	2189	2875	194	155	20	6.7	5.4
3000-3249	1488	3124	200	179	10	6.4	5.7
3250-3499	1270	3368	215	193	6	6.4	5.7

*Includes property tax portion of rent payments.

Sources: Wisconsin Department of Revenue Research Division, July 28, 1970; and Minnesota Department of Taxation, Property Tax Relief for Minnesota's Senior Citizens (Special Report) August 1970.

8. Market Side Effects: Concern over the market side effects of the property tax centers on the housing market, the market for business improvements, impacts on the rate and nature of urban development, and the market for local public services. Conclusions from the property tax literature regarding these points are summarized by George F. Beal[38] and restated as follows:

   With regard to housing, the effects of the federal income tax combined with the property tax stimulates the demand for owner-occupied housing, but discourages the construction of rental properties. Because the property tax is a fixed cost associated with the development of improvements as a business investment, marginal undertakings may be discouraged because the private profit left after taxes is considered insufficient.

   Since vacant lands yield the owner no current income, a property tax will tend to stimulate land development. However, as the property tax is applied to nonproducing and producing mines in Colorado, there is no encouragement for rapid mining.

   Finally, the property tax allocates the costs of some local public services to the beneficiaries--the homeowners of the area--and provides each resident with a means of comparing benefits and costs, allowing a more rational choice regarding the consumption of public services.[39]

9. Certainty/Predictability: The residential, commercial, industrial, agricultural, and state-assessed (primarily utilities) portions of the property tax are fairly predictable. These assessments change in regular, generally small, increments that are well correlated with indicators of local economic activity. The oil, gas, and mineral portions of the assessed valuation, however, behave erratically and are difficult to predict far in advance because they are based on actual oil, gas, or mineral production in the previous calendar year. For example, assessed

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[38] George F. Break, Agenda for Local Tax Reform, Institute of Governmental Studies, University of California, Berkeley, 1970, pp. 25-34.

[39] Dick Netzer, Economics of the Property Tax, The Brookings Institution, Washington, D.C., 1966.

valuation of oil, gas, and minerals in the Tri-County oil shale region dropped from $43 million to $39 million in 1971. As a result, Rio Blanco's total assessed value dropped about 7% in 1971.

10. Administrative Cost: Much of the administrative cost of a property tax is fixed cost incurred by the assessment function and not sensitive to mill levy level or level of revenues generated. Therefore, once a property tax is imposed, the incremental cost of generating a higher level of revenue is small.

11. Citizen Acceptance: Property taxes have been widely criticized by citizens and various tax experts as being regressive and unfairly administered. In two recent public opinion surveys,[40] citizens considered the property tax as the least desirable means of raising additional local revenue.

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[40] Public Opinion and Taxes, Advisory Commission on Intergovernmental Relations, Washington, D.C., May 1974; and "Public Opinion and Taxes," Nation's Cities, August 1971.

OCCUPATION TAXES

1. Description: Occupation taxes are taxes imposed for the privilege of carrying on certain occupations within the taxing jurisdiction. There are two kinds of occupation taxes: (1) general and (2) specific. Some 40 municipalities in Colorado levy general occupation taxes which impose a single rate for all businesses and professions throughout the community. These levies are primarily used as revenue sources as opposed to business regulation. For example, Denver levies a $2-per-month tax on both employers and employees for the privilege of working and employing workers inside Denver.[41] In 1973, Denver raised approximately $10 million through this tax, or $18 per capita. Durango has a general occupation tax which imposes a graduated fee scale based on total employment which is paid annually and raises roughly $5 per capita.

   Specific occupation taxes are levied by nearly 100 Colorado cities and towns. The specific occupation tax generally requires payment of a set annual fee for the privilege of conducting business within the muncipality. Though a specific occupation tax may support a regulatory licensing program, it may also be a profitable source of municipal revenue. The most important types of specific occupation taxes in terms of revenue production are the utility occupation or franchise tax and the liquor and beer occupation tax.

2. Information Sources: Denver and Durango are the two Colorado localities using the general occupation privilege tax as a major revenue source. The Finance Department of either city could provide additional information. The Colorado Municipal League has information about the tax itself as well as the muncipalities using the tax. Table 3-9, prepared by the Colorado Municipal League, is the most recent compilation of Colorado cities using general occupation taxes. An update is due to be published Fall 1974. The Division of Local Government of the State Department of Local Affairs is another information source.

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[41] Revised Municipal Code of the City and County of Denver, 166C and 166D. Additional information may be obtained from the Manager of Revenue, City and County of Denver, Denver, Colorado.

TABLE 3-9. COMPARISON OF ANNUAL TOTAL REVENUES FROM GENERAL OCCUPATION TAXES 1959–1968 (All figures represent dollars)

Municipalities in Descending Order of Population	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Aurora	35,269	38,020	40,629	45,123	50,111	9,378	8,485	0	0	0
Englewood	60,739	60,135	56,958	75,475	0	0	0	0	0	0
Westminster				1,177	1,237	1,545	1,605	1,567	1,639	2,021
Thornton	NR	2,777	1,840	2,500	NR	NR	NR	NR	4,172	7,706
Durango			28,139	29,000	27,986	27,795	27,304	27,049	26,937	29,464
Golden	NR	7,250	7,705	8,250	NR	NR	NR	8,975	8,725	8,375
Leadville	4,887	8,617	7,092	7,000	NR	NR	NR	NR	NR	NR
Edgewater				900	1,075	1,125[1]	1,250[1]	4,225[1]	4,267[1]	5,407[1]
Manitou Springs			1,815	1,815	NR	5,861[1]	5,438[1]	4,676[1]	4,575[1]	2,750[1]
Sheridan			2,839	3,000	NR	NR	NR	NR	NR	NR
Delta	502	2,020	2,542	2,850	NR	NR	NR	0	0	0
Limon	5,900	6,100	6,600	7,400	0	0	0	0	0	0
Rangely								4,767	5,095	5,065
Fruita	2,812	2,804	2,672	2,252	2,764	3,280	3,496	NR	NR	NR
Aspen				3,100	0	0	0	0	0	16,454[3]
Woodland Park			1,467	1,467	NR	1,095	1,530	1,255	1,455	1,380
Estes Park	5,450	5,835	5,905	10,080	10,290	10,115	9,695	10,325	10,081	12,110
Federal Heights										990
Palisade	970	1,009	1,142	918	972	996	990	921	762	750
Silverton				1,307	1,492	1,618	2,030	2,435	2,589	2,351
La Jara	400	400	380	440	NR	NR	NR	NR	NR	NR
Ignacio			1,467	1,467	NR	1,095	1,530	NR	NR	2,975
Sanford								60	60	60
Dove Creek				1,510	1,510	1,160	1,330	505[1]	640[1]	745[1]
Wellington	575	650	550	534	479	412	350	712[1]	667[1]	907[1]
Cripple Creek	250	260	265	260	NR	NR	NR	NR	NR	NR
Ovid	25	25	25	50	0	0	0	0[2]	0[2]	0[2]
Breckenridge							3,547	2,138[2]	1,866[2]	1,960[2]
Frisco	478	478	601	693	733	1,270	1,299	1,383	1,383	1,383
Morrison				400	400	400	400	NR	NR	NR
Georgetown								600	550	625
Fairplay	126	753	1,082	800	NR	NR	NR	NR	NR	NR
Silt	85	85	85	100	95	100	85	14	14	15
Bayfield	550	520	559	680	445	552	505	775	630	700
Central City					3,889	3,455	3,675	3,100[1]	3,445[1]	3,300[1]
Garden City				255	240	250	265	295[1]	315[1]	290[1]
Peetz	120	120	80	80	0	0	0	0	0	0
Grand Lake				2,929	2,488	3,054	3,215	NR	NR	NR
Dillon	1,813	1,236	628	160	NR	NR	NR	NR	NR	NR

1 Includes specific occupational license receipts

2 Includes liquor outlet license fee receipts

3 From September 4, 1968

Source: Colorado Municipal League, Wheatridge, Colorado.

TABLE 3-10. COMPARISON OF TOTAL REPORTED ANNUAL REVENUE FROM SPECIFIC OCCUPATIONAL TAXES 1966-1968 (All figures represent dollars)

Municipalities in Descending Order of Population	1966	1967	1968	Per Capita Income 1968
Denver	1,371,065	1,398,299	1,525,775	
Colorado Springs	71,177	62,733	69,251	.58
Pueblo	36,049	35,855	35,105	.34
Aurora	43,714	46,462	62,196	.89
Boulder	13,065	9,512	13,852	.28
Fort Collins	22,675	22,067	20,378	.51
Arvada	20,350	21,565	23,460	.61
Englewood	23,642	23,289	27,165	.74
Greeley	10,701	11,131	11,175	.34
Grand Junction	9,970	11,889	11,810	.52
Littleton	1,611	1,757	1,865	.09
Westminster	8,850	8,250	10,672	.56
Commerce City	1,825	7,190	8,840	.48
Longmont	5,535	5,284	5,837	.32
Loveland	3,627	3,800	4,577	.31
Sterling	975	956	1,002	.09
Trinidad	6,653	6,749	7,413	.67
Canon City	4,860	6,137	5,527	.59
La Junta	2,299	2,282	2,289	.25
Golden	703	1,255	2,360	.27
Lamar	1,321	1,254	2,075	.24
Brighton	2,820	2,490	2,770	.34
Cortez	1,360	1,365	1,275	.17
Fort Morgan	8,973	9,822	10,257	1.31[2]
Montrose	2,163	2,192	2,576	.33
Alamosa	2,225	2,823	3,050	.46
Edgewater	(See footnote #1)			
Rocky Ford	1,020	1,210	977	.18
Manitou Springs	(See footnote #1)			
Salida	1,675	1,733	1,650	.32
Craig	660	520	620	.14
Delta	710	665	1,132	.28
Brush	2,803	1,320	1,818	.47
Las Animas	100	100	100	.03
Florence	1,375	1,665	1,075	.33
Lafayette	1,825	2,036	1,263	.41
Rifle	1,396	985	1,090	.36
Burlington	145	225	270	.09
Fountain	3,857	3,956	4,510	1.63
Fort Lupton	275	275	275	.11
Wray	155	155	155	.07
Yuma	215	215	175	.08
Center	40	40	40	.02
Rangely	10	150	130	.07
Aspen	6,373	4,363	6,156	2.99
Akron	343	332	483	.26
Meeker	NR	75	90	.05
Woodland Park	2,573	4,288	3,572	
Windsor	621	630	488	.32
Idaho Springs	540	410	485	.32
Berthoud	375	430	616	.44
East Canon	177	195	193	.15
Paonia	142	142	142	.11
Ordway	331	237	307	.26
Cheyenne Wells	850	1,053	870	.85
Ouray	40	103	99	.10
Palmer Lake	55	55	55	.05
Hugo	NR	410	640	.75
Manassa	773	939	854	1.02
Ault	225	235	225	.28
Aguilar	378	378	347	.45
Saguache	20	20	10	.01
Flagler	12	24	24	.03
Ignacio			2,975	
Sanford	62.50	62.50	62.50	
Platteville	220	315	300	.45
Wellington	712	668	908	
Granada	20	20	20	.03
Boone	35	35	40	.07
Manzanola	20	0	20	.04
Monument	7	7	7	.01
Otis	10	10	20	.04
Gilcrest	100	100	100	.24
Crested Butte	172	35	110	.44
Garden City	295	315	290	
Seibert	10	15	10	.05
Mead	NR	NR	15	.08
Poncha Springs	102	99	105	.55

1 Specific occupational revenues listed with general occupational revenues
2 Includes telephone franchise tax

Source: Colorado Municipal Leage, Wheatridge, Colorado.

TABLE 3-11. COMPARISON OF ANNUAL TOTAL LIQUOR & BEER OCCUPATIONAL LICENSE TAXES, 1952-1968 SELECTED YEARS (All figures represent dollars)

Municipalities in Descending Order of Population	1959	1962	1963	1964	1965	1966	1967	1968
Colorado Springs	20,737	21,172	23,257	23,790	25,752	29,908	34,863	42,034
Pueblo	61,770	71,227	72,543	71,926	70,189	64,624	66,004	67,397
Aurora	12,015	17,300	18,190	18,443	11,868	13,220	14,311	13,507
Boulder	1,400	1,690	2,087	1,237	4,492	2,000	2,200	18,913
Englewood	4,316	7,200	7,200	7,500	7,800	8,300	8,150	9,700
Grand Junction	8,274	7,785	9,950	8,476	8,271	8,796	7,550	7,067
Littleton	5,623	7,135	6,185	7,948	8,250	7,700	7,575	15,325
Westminster	331	1,178	1,476	1,741	1,725	1,450	1,600	1,700
Commerce City						5,875	5,875	5,500
Loveland	4,309	9,199	11,225	11,275	11,425	12,576	11,534	12,510
Thornton							500	1,600
Durango		3,170	2,910	2,753	3,325	6,648	6,362	6,523
Sterling		3,508	7,042	6,925	7,000	7,000	7,717	8,433
Golden						400	450	400
Lamar	3,000	2,750	2,500	2,600	3,200	NR	NR	NR
Brighton						2,564	2,198	2,350
Cortez	3,000	3,200	3,200	3,350	3,350	3,370	4,918	4,053
Fort Morgan					2,275	5,602	7,800	8,600
Montrose	4,800	5,325		5,300	5,300	5,325	5,725	5,850
Edgewater						1,750	1,750	1,750
Rocky Ford	600	2,025	2,950	2,625	NR	2,900	2,900	2,700
Delta	5,212	5,855		1,450	1,450	5,440	7,092	6,385
Brush	5,483	4,588	4,250	4,400	4,150	10,691	8,982	10,469
Monte Vista	4,500	5,100	5,100	5,100	5,100	NR	NR	NR
Florence			2,500	2,500	2,500[1]	NR	NR	NR
Fountain	700	400	700	700	1,300[1]	725	725	725
Louisville							8,105	2,200
Yuma	1,700	1,775	1,775	1,775	1,775	1,725	1,725	1,725
Steamboat Springs	2,500	2,833	3,500	2,500	3,500	2,752	3,777	2,755
Springfield	2,000	2,000	2,000	2,000	2,000	NR	NR	NR
Center	1,500	1,500	1,950	1,950	1,950	1,800	1,800	1,800
Fruita		104	104	104	104	NR	NR	NR
Del Norte	1,506	1,570	1,520	1,520	1,520	1,520	1,520	1,520
Akron	1,450	1,450	700	1,400	1,588	950	550	975
Aspen	1,559	3,690	4,504	6,067	5,588	6,400	6,274	2,041[2]
Holyoke	250	250	250	250	250	250	250	250
Woodland Park						45	60	60
Estes Park	3,700	3,800	3,900	5,100	NR	4,700	5,100	11,850
Berthoud							500	500
Paonia				325	325	NR	650	650
Holly	870	700	700	700	700	NR	NR	NR[3]
Haxtun	3	3	3	3	3	3	3	3
Mancos		1,125	1,125	725	725	NR	NR	NR
Ouray						843	509	805
Hugo	1,000	1,000	1,000	1,100	1,100	1,400	1,400	1,300
Dolores		125	125	125	125	0	0	0
Silverton	875	875	875	575	875	875	700	600
Walden	1,500	NR		1,500	1,500	1,500	1,500	1,500
Ault		775	775	775	775	NR	NR	NR
Olathe					15	NR	NR	22
Ignacio	125	800	800	800	800	NR	NR	600
Oak Creek						1,225	975	1,125
Dove Creek						60	60	105
Wellington	2,050	200	200	200	200	150	150	150
Hotchkiss						652	652	652
Granada	860	35	35	35	35	45	45	45
Breckenridge					550	550	550	550
Georgetown						1,050	1,050	1,050
Silt		30	35	30	25	0	0	0
Gypsum		45	45	45	45	NR	NR	NR
Bayfield	275	200	375	200	200	NR	NR	NR
Log Lane Village	10,100				1,500	0	0	0
Black Hawk		40	40	40	40	NR	NR	NR
Vilas						650	750	900
Rosedale						950	950	950

1 Includes transfer of license
2 Partial receipts only
3 Repealed 1-1-69

Source: Colorado Municipal League, Wheatridge, Colorado.

Many Colorado cities use specific occupation taxes. The most recent compilations are given in Tables 3-10 and 3-11. Updated information should be available Fall 1974 from the Colorado Municipal League.

3. Yield: The Colorado Municipal League periodically publishes a compilation of revenue sources used in Colorado Municipalities entitled Selected Non-Property Revenues of Colorado Cities and Towns. An updated version is scheduled for publication late Fall 1974. Data from the most recent edition, 1969, given here in Tables 3-9 through 3-11, indicates revenue significance of general and specific occupation taxes for Colorado municipalities through 1968. Estimation of the potential revenue from a county-wide general occupation tax in the form and amount of the Denver head tax would be $18 to $20 per capita annually.

4. Legality: The power of home-rule cities, in the absence of charter restrictions, to impose general or specific occupation taxes purely for the support of their municipal operations has been clearly established in Colorado case law.[42] The Duffy case is particularly important since it is the first Colorado case to clearly uphold the authority of a municipality to levy occupational taxes on employees as well as employers. Cities and towns have express statutory authority to license and tax occupations and places of business.[43] Counties and special districts also have such authority.

   The power of statutory cities and towns to levy specific occupation taxes is based on the broader authority to levy general occupation taxes.[44] A municipality may enact a specific occupation license ordinance for the dual purpose of raising revenue and regulating business.[45] The constitutional requirement that all taxes shall be uniform is limited to ad valorem taxes on property.[46]

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[42] Post v. City of Grand Junction, 118 Colo. 434; Jackson v. City of Glenwood Springs, 122 Colo. 323; Ping v. City of Cortez, 139 Colo. 575; Denver v. Duffy Storage & Moving Co., 450 P. 2d. 399.

[43] CRS '63, 139-78-3; '73, 31-15-301.

[44] Ibid.

[45] Hollenbeck v. City and County of Denver, 97 Colo. 370, 49 P. 2d. 435, 1935.

[46] Jackson v. Colorado Springs, 122 Colo. 323, 221 P. 2d 1083, 1950.

5. Elasticity: Occupation taxes that are either an annual flat rate for the particular business or occupation, or that vary with employment, are inelastic with respect to local economic conditions because they are insensitive to changes in local price levels and local per capita real purchasing power. The elasticity could be greatly improved if the tax rate were tied to a measure of local price levels.

6. Incidence: The incidence of a tax on occupations is on the particular business or occupation taxed. However, the merchant will tend to pass the tax forward to the consumer so that the incidence will parallel that of the general and selective sales taxes discussed earlier in this chapter.

   The Denver head tax is a special case. This tax imposes a $2-per-month charge on all employees earning in excess of $250 per month. Because of the exemption, the tax is not regressive at low income levels. However, it is regressive to income at higher income levels because of its fixed rate nature. This tax does not bear heavily on elderly who are not employed nor on those earning less than $250 per month.

   If it were possible for the oil shale counties to impose occupation taxes on oil shale producers, much of the tax would probably be passed on to consumers of oil products.

7. Control: For Colorado cities and towns, both general and specific occupation taxes are local levies so that the form, rates, and administration of the tax are under local control. The occupation tax base is less subject to local control, but might be somewhat influenced by local policies regarding growth and commercial development.

8. Market Side Effects: For general and specific occupation taxes, other than the Denver head tax, the market side effects are very similar to those created by the sales tax. If head taxes of $2 per month on employees and employers were levied in some towns and not in others, business locational effects might occur although major shifts would appear unlikely. Location of oil shale employment would depend on the location of shale deposits and certain power transmission and transportation facilities. Significant market side effects are unlikely since at the point of full

development of the intensive profile, the total annual cost to the oil shale industry would be approximately $500,000.

9. Certainty/Predictability: Because of the fixed rate nature of most occupational taxes, either with respect to the operation of the business or with respect to total employment, the occupation tax is somewhat more easily predictable than taxes that depend on several economic variables. However, if the taxes could be used by counties and applied to oil shale production, long-term certainty/predictability would be weakened because of the very heavy dependence on a single employment source.

10. Administrative Cost: As a percent of revenue, occupation taxes are high cost revenue sources in most instances due to the fact that most occupation taxes have a relatively narrow base over which the fixed costs of licensing, record keeping, collection, enforcement, and appeal procedures can be spread. This is particularly severe in the case of specific occupation taxes that often yield very little income.

    When the tax base is relatively broad, the cost may not be unusually high. For example, Denver's cost of administering its head tax, including auditing activities, is in the area of 2% of yield. Since no significant economies or diseconomies of scale in administration are apparent, the 2% cost estimate may be reasonable even though fewer employees are being taxed. Denver's major administrative problem arises from the fact that certain federal and state employers who are exempted from the tax have not agreed to withhold their employees' occupation tax. A large number of individual accounts have been created to handle this problem, each yielding small revenue return.

11. Citizen Acceptance: Citizens may feel that they are being "nickeled-and-dimed" to death as a result of occupation taxes. This is less likely with the general than the specific occupation tax. Businesses will not support these taxes, arguing that there is no relation to benefits received. Low income and elderly citizens would probably support a head tax similar to Denver's.

USER FEES AND SERVICE CHARGES

1. Description: User fees and service charges represent the second largest and most rapidly growing area of local government financing.[47] The Douglas Report to the 91st Congress in 1968, Building the American City, urged local governments to move towards greater reliance on this type of revenue source to deal with the crisis of urban financing. Such fees and charges have the following basic economic characteristics to support their expanded utilization:

   a. User fees, like taxes, provide revenues. Expansion of service demand results in expanded revenues from fees. Hopefully, if the fee is properly designed, expanded service costs can be put in balance with expanded service revenues.

   b. User fees, unlike taxes, tend to ration the output of the service. Only those willing to pay the cost receive the service.

   c. User fees allocate the cost of services to those who benefit from them.

   d. User fees can perform a function that taxes cannot by sending a demand signal to local government when services should be expanded or curtailed.

   User fees and service charges tend to divide themselves into two basic categories; one relating to front-end investment fees tied primarily to new development and the other relating to fees for continuing services. A brief description of each follows:

   New Development: Front-end fees are based on the premise that each new development requires certain improvements to be added to the physical plant of the area in which it occurs; i.e., roads, water and sewer lines, local drainage, parks, etc. Some of these facilities are created solely for the benefit of new development, others are already in existence and the new development simply uses an increment of the excess capacity, i.e., water or sewage treatment plants or major highways.

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[47] Harry L. Johns, ed., State and Local Tax Problems, University of Tennessee Press, Knoxville, Tennessee, 1969, p. 164.

Several communities in Colorado have adopted various types of front-end user fees, sometimes called plant investment fees (PIFs). Differences are primarily in the scope of facilities included, the use of historical average costs versus estimated incremental costs as a basis for the fee, and the method of collection and payment of the fee.

Continuing Service Fees or Charges: User fees such as are commonly charged for water, sewer, solid waste, and recreation services, on a continuing basis, can take many forms. Although pricing strategies may vary substantially, the basic concept is usually reasonably near that of an incremental unit of service being delivered for an incremental unit of cost--approximately in balance. The calculation of cost may or may not include consideration of the cost of replacing worn-out facilities at a future date.

User fees and service charges, whether they be for physical plant investment purposes or for sale on a continuing basis of a unit of service, require careful policy consideration prior to establishment to assure that the fee is set to achieve the desired results. The range of pricing opportunities is from a token fee that recognizes that the service has some value but is subsidized by other sources to a service that is delivered at a price clearly designed to produce a profit.

2. Information Sources: A number of Colorado communities are experienced in the application of various types of user charges. Glenwood Springs, Colorado Springs, and Boulder are good sources of information. Boulder probably has the most experience related to user fees for recreation. Broomfield and Louisville have recently attempted to expand the concept of user fees to cover total capital costs of a broad range of municipal physical facilities. Further information is available from the Colorado Municipal League.

3. Yield: User fees designed to cover the total capital cost of a broad range of municipal physical facilities are beginning to appear in Colorado. Broomfield and Louisville have recently adopted ordinances that provide for the levy of an expansion fee on new construction. The concept underlying these expansion fees is approaching the idea of requiring new residents to "purchase stock" or "shares" to finance the physical assets

of the community. The price of a community share (the expansion fee) can be set so that new residents pay for the full cost of new facilities used exclusively by them, such as local streets, utility extensions, neighborhood parks, and pay an equal pro rata share toward the cost of all other facilities shared on a community-wide basis.

A narrower application of user fees to finance investment in utilities, parks, local streets, etc., is common in Colorado. Boulder, Lafayette, Longmont, Broomfield, and Louisville levy various charges on new development to support required new investment in parks and water and sewer facilities.

User fees are also capable of generating sufficient yield to cover certain operating costs of a local government. In some cases, user fees may only partially cover program costs (public transit, recreation) while in other cases a profit may be produced (utilities). In many cities in Colorado, public ownership of utilities, particularly the electrical utility, has led to funds which have been used for major assistance to the general fund or to provide funds for other capital facilities. Glenwood Springs, Colorado Springs, Fort Collins, Loveland, and Longmont are some of the cities that benefit from owning their own electrical distribution systems. Additional candidates for user fee financing are building and zoning activities, traffic control, fire inspection, library special services, and development review.

4. Legality: Mandatory improvements and dedications have been utilized in Colorado for many years. Boulder first required a 5% land dedication for park purposes in 1951 as part of subdivision procedures. Any question of local government's ability to require park dedications was answered with the 1972 amendment to the State subdivision enabling act. Streets, right-of-way, utility lines, and street improvements have long been recognized as permissible areas for mandatory dediction.[48] User charges and plant investment fees are based on unit costs for services charged to the user. No specific enabling legislation aside from local acts are necessary for establishing this revenue tool.

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[48] Land Dedication Requirements, American Society of Planning Officials, Chicago, Illinois, 1971. See Appendix C for examples of development fees.

5. Elasticity: User fees for services are somewhat inelastic because rates do not respond to changes in overall price levels. They do respond well to change demand due to population growth and/or growth in real per capita income. For this reason, fees may need to be adjusted periodically.

6. Incidence: User fees are paid by the beneficiary of the service or facility. Incidence has no regard for differences among citizens' ability to pay. In the oil shale region, user fees would direct the cost of new development to new residents.

7. Control: Fees and dedications are locally controlled. If there is a demand, the fees are paid. Dedications must be exercised within the state enabling legislation or what is accepted by the courts in the case of home-rule cities.

8. Market Side Effects: Demand and consumption of local government services are affected by the level of user fees. In particular, it is thought that user fees encourage efficiency in the use of public services. On the other hand, for those lacking the ability to pay user fees, basic needs such as housing, health, or transportation can become unavailable. Thus, fees tend to be more widely used to finance discretionary services such as recreation as opposed to services such as elementary education. Unless applied somewhat uniformly in the region, user fees could result in placing one community in an undesirable competitive position for new growth, if such is the goal.

9. Certainty/Predictability: Inasmuch as the fees are only necessary when a demand is made and are used only to provide for the demand, the certainty is directly related and readily predictable--no demand; no fees; no need.

10. Administrative Costs: In order to process proposed developments of any magnitude a staff is necessary. The addition of front-end PIFs and service fees increases staff workload.

11. Citizen Acceptance: Plant investment fees are well received by existing residents if the costs are tied to new growth paying its own way. When

a traditional service has been provided at below true cost, it can sometimes be very difficult to make the change over to charging true cost.

SEVERANCE TAXES

1. Description: As used by different states, severance taxes exhibit great variety of form. Colorado's oil and gas production tax is an example of a severance tax levied on gross income derived from oil and gas production. Oil and gas produced from oil shale is not subject to this tax. The tax is levied on a graduated scale in Colorado to a maximum of 5% on gross income of $300,000 and over realized from the production and extraction of crude oil, natural gas, or both from petroleum deposits in the state.[49] Importantly, a credit against this tax is allowed for ad valorem taxes paid on crude oil, natural gas, oil and gas leasehold interest, and oil and gas royalty interests (excluding taxes paid on equipment, facilities, and pipelines). This credit has generally abated an average of 75% or more[50] of the severance tax liability, amounting to an estimated $5.5 million in 1972.[51] Since oil and gas production and prices are up while property taxes are generally down as compared with previous years, a greater portion of the severance tax is expected to be paid beginning in 1974.

   Although more than half of the states have severance taxes, it is difficult to find a "typical" tax among them. Louisiana levies a severance tax against all natural resources extracted and sold from soil or water, including minerals, timber, and fish. The tax is applied in various fixed amounts per unit for different resources. For instance, the tax on oil is 13¢ to 26¢ per barrel depending on specific gravity; coal is 10¢ per 2,000 pounds; sulfur is $1.03 per 2,000 pounds; and stone and gravel is 3¢ per 2,240 pounds.[52]

   Minnesota levies occupation privilege taxes on all ore producers operating in the state. A rate of 15.5% of the value of all ore produced during the calendar year is the standard rate, although special rates of 15% and 1% are applied respectively to taconite, iron sulfides, and

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[49] CRS '63, 138-1-60; '73, 39-22-505.

[50] Colorado State Department of Revenue, Statistics Section, and Rocky Mountain Oil and Gas Association.

[51] Rocky Mountain Oil and Gas Association estimate.

[52] Sec. 47-631, et seq., L.S.A., as amended.

semi-taconites, and copper-nickel ore.[53] Minnesota also levies a tax on certain mineral producers in lieu of property and income taxes. It is applied as a fixed amount per unit of production and varies according to type and content of minerals in the ore. In the case of taconite, the basic rate varies from 2.5¢ to 11.5¢ per gross ton of marketable concentrate plus an additional tax above the base tax on ore of richer mineral content, ranging from 4% in 1971 to 14% by 1979.[54] Credits in substantial amounts based on locally related operations and conditions are allowed so that Minnesota effective tax rates may be as little as 1/3 nominal rates.

New Mexico taxes all mineral and timber production other than oil and gas at 1/8% to 2-1/2% of the value of the severed and sold product.[55] Oil, gas, and liquid hydrocarbons are subject to a series of taxes that are equivalent to a severance tax of 5.19% of the value of the severed and sold product.[56]

Wyoming recently amended its 1969 severance tax laws to impose an occupation privilege tax on the extraction of valuable minerals. The rate is 3% of the gross value of coal extracted and on petroleum products produced in quantities exceeding 10 barrels per day. The rate is 1% for all minerals other than those mentioned here. A credit of slightly over 5% of property taxes paid is allowed on the severance tax liability.[57]

Severance taxes in excess of 4% do exist, but usually where state and property taxes tend to be comparatively low. Rates between 1% and 3-1/2% are common in mineral producing states.[58]

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[53] Sec. 298.01, et seq., Minn. Stats., as amended.

[54] Sec. 298.24, et seq., Minn. Stats., as amended.

[55] Art. 72-18, N.M.S., as amended.

[56] Arts. 72-19 through 72-21, N.M.S., as amended.

[57] Sec. 39-227.1, et seq., W.S.A., as amended

[58] Furnished by Mosley, Wells, and Dean, Attorneys-at-Law, Denver, Colorado.

2. Information Sources: Information on Colorado's oil and gas production tax is available from the Department of Revenue. Local governments do not usually use severance taxes. For general information concerning state-levied severance taxes, see Donald K. Roberts and John A. Gordnier, "Mineral Taxation: The Wyoming Problem as Compared with Other Western States," Land and Water Law Review, Vol. III, University of Wyoming, 1968.

3. Yield: A substantial amount of revenue can be raised by severance taxes. Colorado's net revenue from oil and gas production tax is severely curtailed because of the property tax credit provision. The production tax yielded $511,000 in 1972-73, but an estimated $5.7 million in property tax credits were taken for calendar year 1972.[59] However, the State of New Mexico has accounted for approximately 10% of its revenue through severance taxes.[60]

For the purposes of illustration, we can calculate the yield of a severance tax on the production of oil from oil shale by assuming that the tax takes the same form as the state's oil and gas production tax. However, a problem arises in establishing the value of the product when it is extracted, prior to further processing, since little of the product is expected to be sold in its raw material stage. If its value is estimated by its ultimate sales price as crude oil, less processing costs incurred immediately after extraction (estimated as $6.30 per barrel[61]), a $10 per

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[59] Rocky Mountain Oil and Gas Association, Denver, Colorado.

[60] State Tax Collections, 1973, U.S. Department of Commerce, Bureau of the Census, 1974, p. 28.

[61] Based on data in Katell, Stone, and Wellman, Oil Shale--A Clean Energy Source, MRED, Bureau of Mines, U.S. Dept. of Interior, Morgantown, West Virginia. All cost figures are expanded 1-1/2 times to update to more recent estimates and relate to a 50,000 barrel per day operation.

	All figures per barrel
Breakeven Price 5.66 x 1.5	$8.49
Operating Costs 3.45 x 1.5	5.18
Capital Cost	3.31
Mine Cost of Capital (10%)	.33
Mine Operating Cost 1.25 x 1.5	1.88
Total Mining Cost	2.21
Total Costs after Extraction	$6.28

barrel price would represent approximately $68 million (gross) income annually for each 50,000 bbl/day extraction operation. A 1% gross proceeds severance tax on this value would then yield $68,000 annually, excluding credits allowed.

Most severance taxes, including occupation taxes on mineral production, are based on the quantity or value of the resources severed and sold. Whenever this is the case, revenues from the tax are not realized until production is underway. In the case of oil shale, this is after the estimated three-year construction period and start-up and shake-down time.

4. Legality: There is presently no authority for the state or any of its subdivisions to levy severance taxes on oil shale. There are no constitutional limitations that would preclude statutory authorization for such a tax, either at the state or local level.

5. Elasticity: In most forms the severance tax is not directly reponsive to changing local economic conditions. Rather, the yield is more typically related to (1) quantity of annual production and (2) price per barrel received. Although both of these factors may correlate indirectly with local changes in population, price levels, and real income, they are more directly affected by national and international economic and political conditions.

6. Incidence: The severance tax generally does not bear on local citizens. This is because the tax is levied solely on the mining company which treats the tax as a cost of doing business. It seeks to pass the tax along to its customers or its labor force; otherwise it must absorb the tax. Market conditions and market power will determine the ultimate tax incidence, but it is safe to say that in any case much of the tax will be obtained from outside of the region.

7. Control: Severance taxes are not locally controlled. Usually they are state levied and subject to control of the state legislature. Unless constitutionally provided for, tax rates, exemption, distribution of proceeds, and other taxing considerations can be changed by the legislature at any time. Severance tax revenue yields are also dependent upon the production decisions of mining companies in response to national and

international political and economic events. The effect of these factors is illustrated by the fact that, without changing tax rates, Colorado collected $925,617 in 1969-70 and $511,000 in 1972-73 from the existing oil and gas production tax.

8. Market Side Effects: As a cost of doing business, severance taxes can significantly affect the economic feasibility of mining. However, a number of factors are involved in determining whether or not a mining product can be sold competitively and the severance tax is but one such factor. The imposition of a new or higher level of severance tax may have very broad market side effects after an industry is established in an area since it would then have established local economic relationships with its labor force, local suppliers, local markets, land, and housing. Under these conditions, a severance tax may affect the industry's level of mining activity and result in extreme effects on all local markets.

   It appears that a severance tax levied prior to the development of all of these intricate economic relationships would create much less severe market side effects. Even so, at present these unrealized economic relationships are anticipated. If the oil shale industry does not develop in the region, market side effects, such as losses to land speculators, will occur.

9. Certainty/Predictability: The severance tax yield is not easily predictable because of important national and international determinance factors. In the short run, industry probably knows approximately what its production will be. However, prices will be difficult to anticipate.

10. Administrative Cost: This cost is very low because only a few accounts are involved. Only about 300 firms file returns for the oil and gas production tax in Colorado. A state-collected tax on income from oil shale production might be handled by extending the present administration of the oil and gas production tax.

11. Citizen Acceptance: Colorado citizens may favor severance taxes for two reasons: (1) They may feel that it is logical for the consumer to pay some of the social and environmental costs of energy development in Colorado and the severance tax is the means of doing so. (2) They like the idea of exporting local taxation.

LOCAL INCOME TAX

1. Description: There are four distinct types of local taxes on personal and business income: (1) a flat-rate tax on income earned within the local jurisdiction; (2) a flat-rate tax on both earned and unearned income; (3) a graduated tax on earned and unearned income, with a tax base differing in some particulars from that used by the state; and (4) a local tax levied as a supplement to a state income tax. Tables 3-12 and 3-13 provide information on local income taxes currently in effect in cities and counties outside of Colorado.

   In a January 1968 publication, the U.S. Advisory Commission on Intergovernmental Relations (ACIR) suggested that state laws ensure that any county income tax would be administered by a state tax collection agency. Also, the ACIR recommended that the local tax be levied as a percent of the state tax, with the same rules and regulations applying to both, "except when, in the judgment of the [tax commissioner] such rules would be inconsistent or not feasible of proper administration."

2. Information Sources: Table 3-13 contains a list of local governments using income taxes as of Dec. 31, 1971. No Colorado localities currently use the tax, but information regarding the state income tax is available from the Income Tax Division of the State Department of Revenue.

3. Yield: For fiscal year 1972-73, the State of Colorado collected in excess of $100 per capita in combined personal and corporate income taxes, approximately 80% of which derived from personal income. A local income tax in the form of a surtax on state collections would raise some fraction of $100 per capita. For example, a 25% surcharge would raise $25 per capita. This can be compared with a 1% sales tax which raises roughly $30 to $40 per capita.

   If the local tax were a flat rate, a rate of 1/2% of the adjusted gross income would again raise approximately $25 per capita.[62] However, it does not seem likely that a local income tax would generate tax revenues

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[62] According to ACIR Publication M-74, State-Local Finances: Significant Features and Suggested Legislation, 1972, the state overall effective income tax rate is roughly 2% so that 2-1/2% rate is equivalent to a 25% surcharge tax rate in terms of yield.

TABLE 3-12. LOCAL INCOME TAXES, RATES, AND COLLECTIONS
(Dollar amounts in thousands)

State and Local Government	% Rate Dec. 31, 1971	Municipal tax collections, 1969-70 (Cities with over 50,000 population in 1970)		
		Total Tax Collections	Income Tax Collections	
			Amount	% of Total Collections
Alabama:				
Gadsden	2.0	$ 4,961	$ 2,850	57.4
Delaware:				
Wilmington	1/4 of 1% or[1] 1.5%	15,580	1,998	12.8
Kentucky:				
Ashland	1.5	--	--	--
Benton	0.5	--	--	--
Berea	1.5	--	--	--
Bowling Green	1.5	--	--	--
Catlettsburg	1.0	--	--	--
Covington	2.5	3,996	1,997	50.0
Cynthiana	1.5	--	--	--
Danville	1.0	--	--	--
Dawson Springs	1.0	--	--	--
Elizabethtown	0.8	--	--	--
Flemingsburg	1.0	--	--	--
Frankfort	1.0	--	--	--
Fulton	1.0	--	--	--
Glasgow	1.0	--	--	--
Hazard	1.0	--	--	--
Hopkinsville	1.0	--	--	--
Leitchfield	1.0	--	--	--
Lexington	1.5	10,460	5,674	54.2
Louisville	1.25	34,435	18,887	54.8
Jefferson County[2]	1.75	--	--	--
Ludlow	1.0	--	--	--
Marshall County	0.5	--	--	--
Mayfield	1.0	--	--	--
Maysville	1.5	--	--	--
Middlesboro	1.0	--	--	--
Newport	2.0	--	--	--
Owensboro	1.0	2,541	1,214	47.8
Paducah	1.25	--	--	--
Pikeville	1.0	--	--	--
Princeton	1.0	--	--	--
Richmond	1.0	--	--	--
Russellville	1.0	--	--	--
Versailles	1.0	--	--	--
Winchester[3]	1.0	--	--	--

See footnotes at end of table.

TABLE 3-12. LOCAL INCOME TAXES, RATES AND COLLECTIONS (Continued)
(Dollar amounts in thousands)

State and Local Government	% Rate Dec. 31, 1971	Municipal tax collections, 1969-70 (Cities with over 50,000 population in 1970)		
		Total Tax Collections	Income tax collections	
			Amount	% of Total Collections
Maryland:	% of State tax			
Baltimore City	50	$200,884	$33,851	16.9
19 Counties	50	--	--	--
Wicomico County	45	--	--	--
Queen Anne's County	40	--	--	--
Talbot County	35	--	--	--
Worcester County	20	--	--	--
Michigan:				
Battle Creek	4	--	--	--
Big Rapids	4	--	--	--
Detroit	4,5	223,051	93,349	41.9
Flint	4	18,433	9,613	52.2
Grand Rapids	4	14,838	7,234	48.8
Hamtramck	4	--	--	--
Highland Park	4	--	--	--
Hudson	4	--	--	--
Jackson	4	--	--	--
Lansing	4	11,876	5,474	46.1
Lapeer	4	--	--	--
Pontiac	4	9,486	5,058	53.3
Port Huron	4	--	--	--
Saginaw	4	7,468	3,654	48.9
Missouri:				
Kansas City	1.0	56,223	13,487	24.0
St. Louis	1.0	101,036	33,854	33.5
New York:				
New York City	0.7 - 3.5[6]	3,023,242	469,523	15.5
Ohio:				
Cities 50,000 pop. and over				
Akron	1.4(1.5-1/1/72)	21,206	12,505	59.0
Canton	1.5	8,792	7,119	81.0
Cincinnati	1.7	51,565	22,883	44.4
Cleveland	1.0	95,672	36,742	38.4
Cleveland Heights	1.0	4,309	1,158	26.9
Columbus	1.5	31,066	22,438	72.2
Dayton	1.0	28,014	16,682	59.5
Elyria	1.0	2,227	145	65.1

See footnotes at end of table.

TABLE 3-12. LOCAL INCOME TAXES, RATES, AND COLLECTIONS (Continued)
(Dollar amounts in thousands)

State and Local Government	% Rate Dec. 31, 1971	Municipal tax collections, 1969-70 (Cities with over 50,000 population in 1970)		
		Total Tax Collections	Income tax collections	
			Amount	% of Total Collections
Ohio (Continued):				
Euclid	1.0	$ 6,750	$ 3,083	45.7
Hamilton	1.5	3,916	2,543	64.9
Kettering	1.0	4,320	2,117	49.0
Lakewood	1.0	4,709	1,265	26.9
Lima	1.0	2,742	2,095	76.4
Lorain	1.0	5,622	3,577	63.6
Mansfield	1.0	3,731	2,673	71.6
Parma	1.0	5,684	2,225 est.	39.1
Springfield	1.5	4,193	3,001	71.6
Toledo	1.5	29,586	22,652	76.6
Warren	1.0	3,620	2,622	72.4
Youngstown	1.5	13,361	12,361 est.	59.5
308 cities and villages (with less than 50,000 pop.)	0.25-1.7	--	--	--
Pennsylvania:[7]				
Cities 50,000 pop. and over				
Abington Township	1.0[8]	2,976	n.a.	n.a.
Allentown	1.0[8]	7,675	1,616	21.1
Altoona	1.0[9]	2,927	644	22.0
Bethlehem	1.0[8]	5,121	1,163	22.7
Chester	1.0[10]	3.779	1,929	51.0
Erie	1.0[8]	8,630	1,640	19.0
Harrisburg	1.0[8]	5,353	909	17.0
Lancaster	1.0[8]	2,896	620	21.4
Penn Hills Township	1.0[8]	2,454	858	35.0
Philadelphia	3.3125[11]	357,041	212,064	59.4
Pittsburgh	1.0[10]	61,805	12,419	20.1
Reading	1.0[8,12]	5,646	1,056	18.7
Scranton	1.0[8]	6.567	2,094	31.9
Wilkes Barre	0.5[8]	3,094	382	12.3
York	1.0[8]	3,562	408	11.5
Approx. 3,400 other local jurisdictions (including over 1,000 school systems)	0.20-1.0	--	--	--

Note: Excludes Washington, D.C. which has a graduated net income tax more closely akin to a State tax than to the municipal income taxes. Also excludes the Denver Employee Occupational Privilege Tax of $2 per employee per month, which applies only to employees earning at least $250 per month; the Newark 1% payroll tax imposed on employees, profit and nonprofit, having a payroll over $2,500 per calendar quarter; the San Francisco

1% payroll expense tax (eff. 10/1/70); and 1/2 of 1% quarterly payroll tax on employers imposed in the Tri-county Metropolitan Transit District (encompassing all of Washington, Clackamas, and Multnomah counties, Oregon); and the 3/10 of 1 percent payroll tax imposed on employers in the Lane County Oregon Mass Transit District.

-- Signifies a county city under 50,000 population.
n.a., not available.

[1]If total annual wages or net profits are $4,000 or less, there is no tax liability. On income between $4,000.01 and $6,000.00, the rate is 1/4 of 1%; on income of $6,000.01 or more, 1.5%. The tax rates apply to total income, not merely to the proportion of income falling within a given bracket. In this sense, the tax is not a typical graduated levy.

[2]A taxpayer subject to the 1.25% tax imposed by the City of Louisville may credit this tax against the 1.75% levied by Jefferson County.

[3]New tax effective April 1, 1971.

[4]Under the Michigan "Uniform City Income Tax Act," the prescribed rates are 1.0% for residents and 0.5% for nonresidents. A resident is allowed credit for taxes paid to another city as a nonresident.

[5]The rate for residents in Detroit was increased from 1% to 2% effective October 1, 1968.

[6]New York City residents' rate ranges from 0.7% on taxable income of less than $1,000 to 3.5% on taxable income in excess of $30,000. An earnings tax of 0.45% of wages or 65/100 of 1% on net earnings from self-employment, not to exceed that which would be due if taxpayer were a resident, is levied against nonresidents.

[7]Except for Philadelphia, Pittsburgh, and Scranton, the total rate payable by any taxpayer is limited to 1%. For coterminous jurisdictions, such as borough and borough school district, the maximum is usually divided equally between the jurisdictions unless otherwise agreed. However, school districts may tax only residents. Thus, if a borough and a coterminous school district each have a stated rate of 1%, the total effective rate for residents is 1% (1/2 of 1% each to the borough and school district) and the tax on nonresidents is 1%, the stated rate imposed by the borough.

[8]The school district rate is the same as the municipal rate.

[9]The school district rate is 0.5%.

[10]There is no school district income tax.

[11]The Philadelphia school district imposes a 2% tax on investment income.

[12]Combined city and school district rate may not exceed 2.0%.

Source: ACIR staff compilation based on Commerce Clearing House, State Tax Reporter, and U.S. Bureau of the Census, Governments Division.

TABLE 3-13. MAJOR PROVISIONS OF CITY INCOME TAX REGULATIONS: CITIES WITH POPULATION IN EXCESS OF 100,000--1967

City	Nonresident relative to resident rate	Business taxed[a]		Resident Income Base Includes:				Reciprocal city tax credit allowed	Personal exemptions allowed	Personal deductions allowed	Tax withheld on wages and salaries
		Incorporated	Unincorporated	Wages, salaries, similar income only	Income earned out of jurisdiction	Capital gains	Dividends				
New York, N.Y.	b	Yes	Yes	No	Yes	Yes	Yes	No	$600 ea.[b]	Yes	Yes
Philadelphia, Pa.	Same	No	Yes	Yes	Yes	No	No	No	No	No	Yes
Detroit, Mich.	Half	Yes	Yes	No	Yes	Yes	Yes	Yes	$600 ea.	No	Yes
Baltimore, Md.	Zero	Yes	Yes	No	Yes	Yes	Yes	No	$800 ea.	Yes	Yes
Cleveland, Ohio	Same	Yes	Yes		Yes		No[c]	Yes	No	No	Yes
St. Louis, Mo.	Same	Yes	Yes	Yes	Yes	No	No[c]	No	No	No	Yes
Cincinnati, Ohio	Same	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes
Pittsburgh, Pa.	Same	Yes	Yes	No	No	No	No[c]	Yes	No	No	Yes
Kansas City, Mo.	Same	Yes	Yes	Yes	Yes	No	No[c]	Yes	No	No	Yes
Columbus, Ohio	Same	Yes	Yes	No	Yes	No[c]	No	Yes	No	No	Yes
Louisville, Ky.	Same	Yes	Yes	Yes	No	No[c]	No	No	No	No	Yes
Toledo, Ohio	Same	Yes	Yes	No	Yes	No	No	Yes	No	No	Yes
Akron, Ohio	Same	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes
Dayton, Ohio	Same	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes
Flint, Mich.	Half	Yes	Yes	No	Yes	Yes	Yes	Yes	$600 ea.	No	Yes
Youngstown, Ohio	Same	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes
Erie,Pa.	Same	No	Yes	No	Yes	No	No	Yes	No	No	Yes
Canton, Ohio	Same	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes
Scranton, Pa.	Same	No	Yes	Yes	Yes	No	No	No	No	No	Yes
Allentown, Pa.	Same	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes
Grand Rapids, Mich.	Half	Yes	Yes	No	Yes	Yes	Yes	Yes	$600 ea.	No	Yes

[a] Charitable, religious, educational, and other nonprofit organizations exempt in most cases. Tax generally confined to income stemming from activities in city.

[b] Nonresidents taxed on different basis from residents. The rate is markedly lower, instead of deductions, an exclusion related to income level is allowed. The exclusion of $3000 on income up to $10,000 drops to $2000 for income over $10,000, to $1000 for $20,000-$30,000 income, to none for income over $30,000.

[c] Except where derived in connection with the conduct of a business.

Source: Tax Foundation, Inc., City Income Taxes (New York: 1967), p. 23. Table compiled by the foundation from Commerce Clearing House data and information obtained directly from city officials.

significant enough to reduce the tax lead time problem. The oil shale industry profitability will likely be delayed several years due to construction and start-up costs, investment credits, lease bonus payments, and other extraordinary costs.

4. Legality: It has been held that Denver, as a home-rule city, is without the power to enact an ordinance imposing a city income tax for the reason that Section 17 of Article X of the State Constitution, which provides that the General Assembly may levy an income tax for the support of the state or any political subdivision thereof, took away any muncipality's right to levy such a tax and made income taxes solely a matter of state concern.[63] This ruling, however, does not eliminate the possibility of the General Assembly levying an income tax at the request of a political subdivision, with the proceeds being returned to the local district.

   At its June 1974 annual meeting, the membership of the Colorado Municipal League adopted a resoltution expressing its support of legislation that would enable such a state-levied, state-collected, locally shared income tax. If the Board of the Municipal League, meeting in the fall of 1974, finds the income tax to be of high enough priority, the League staff will be directed to draft legislation and a search for sponsorship will begin.

5. Elasticity: Table 3-14 presents the results of recent research efforts to determine income elasticities of major state and local taxes. Local income tax revenues automatically rise faster than incomes rise. The response of revenues to changes in income is greater related to income taxes than any other form of local taxation.

   An important factor contributing to the income tax's elasticity is the progressive nature of most income tax structures. For example, in Colorado, personal income tax rates rise steadily from 3% to 8% as net income after personal exemptions move from $1,000 to over $10,000.[64] This means that the effect of 10% annual inflation not only increases

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[63] Denver v. Sweet, 138 Colo. 41. Denver v. Duffy Storage and Moving Co., 450 P. 2d 339.

[64] ACIR, op. cit., p. 201.

TABLE 3-14. RANGE OF ESTIMATED INCOME ELASTICITIES OF MAJOR STATE AND LOCAL TAXES

Investigator (Year)	Area	Elasticity
	Personal income tax	
Harris (1966)	Arkansas	2.4
ACIR (1971)	Kentucky	1.94
ACIR (1971)	New York	1.80
Harris (1966)	United States	1.8
Groves and Kahn (1952)	United States	1.75
Netzer (1961)	United States	1.7
ACIR (1971)	Hawaii	1.47
Planning Division (1971)	Arizona	1.30
Harris (1966)	New Mexico	1.3
	Corporate income tax	
Peck (1969)	Indiana	1.44
ACIR (1971)	Kentucky	1.19
Harris (1966)	United States	1.16
ACIR (1971)	New York	1.13
Netzer (1961)	United States	1.1
ACIR (1971)	Hawaii	0.98
Planning Division (1971)	Arizona	0.97
ACIR (1971)	Oregon	0.93
ACIR (1971)	New Jersey	0.72
	General property tax	
ACIR (1971)	New York City, N.Y.	1.41
Mushkin (1965)	United States	1.3
ACIR (1971)	Baltimore City, Md.	1.25
Netzer (1961)	United States	1.0
Bridges (1964)	United States	0.98
ACIR (1971)	Honolulu Co., Hawaii	0.89
ACIR (1971)	Multnomah Co., Ore.	0.84
McLoone (1961)	United States	0.8
Rafuse (1965)	United States	0.8
ACIR (1971)	Jefferson Co., Ky.	0.50
ACIR (1971)	Newark, N.J.	0.38
ACIR (1971)	Albany City, N.Y.	0.34

Investigator (Year)	Area	Elasticity
	General sales tax	
Davies (1962)	Arkansas	1.27
Rafuse (1965)	United States	1.27
ACIR (1971)	Maryland	1.08
Peck (1969)	Indiana	1.04
Netzer (1961)	United States	1.0
Harris (1966)	United States	1.0
Davies (1962)	United States	1.0
ACIR (1971)	Kentucky	0.92
Planning Division (1971)	Arizona	0.87
Davies (1962)	Tennessee	0.80
	Motor fuels tax	
ACIR (1971)	Maryland	0.80
Peck (1969)	Indiana	0.77
ACIR (1971)	Kentucky	0.75
Planning Division (1971)	Arizona	0.74
ACIR (1971)	New Jersey	0.74
ACIR (1971)	Oregon	0.70
ACIR (1971)	New York	0.69
Harris (1966)	United States	0.6
ACIR (1971)	Hawaii	0.48
Rafuse (1965)	United States	0.43
	Tobacco tax	
ACIR (1971)	Kentucky	0.54
Harris (1966)	United States	0.4
ACIR (1971)	New Jersey	0.36
ACIR (1971)	Hawaii	0.30
Planning Division (1971)	Arizona	0.21
ACIR (1971)	New York	0.12
ACIR (1971)	Maryland	0.00
ACIR (1971)	Oregon	0.00

Sources: Advisory Commission on Intergovernmental Relations, "State-Local Revenue Systems and Educational Finance," Unpublished report to the President's Commission on School Finance, November 12, 1971; Arizona, Department of Economic Planning and Development, Planning Division, *Arizona Intergovernmental Structure: A Financial View to 1980*, Phoenix: 1971; Bridges, Benjamin, Jr., "The Elasticity of the Property Tax Base: Some Cross Section Estimates," *Land Economics*, 40: 449-51 (November, 1964); Davies, David G., "The Sensitivity of Consumption Taxes to Fluctuations in Income," *National Tax Journal*, 15: 281-90 (September, 1962); Groves, Harold M., and C. Harry Kahn, "The Stability of State and Local Tax Yields," *American Economic Review*, 42: 87-102 (March, 1952); Harris, Robert, *Income and Sales Taxes: The 1970 Outlook for States and Localities*, Chicago: Council of State Governments, 1966; McLoone, Eugene P., "Effects of Tax Elasticities on the Financial Support of Education," Unpublished Ph.D. dissertation, College of Education, University of Illinois, 1961; Mushkin, Selma, *Property Taxes: The 1970 Outlook*, Chicago: Council of State Governments, 1965; Netzer, Dick, "Financial Needs and Resources Over the Next Decade," in *Public Finances: Needs, Sources, and Utilization*, Princeton: Princeton University Press, 1961; Peck, John E., "Financing State Expenditures in a Prospering Economy," *Indiana Business Review*, 44: 7-15 (July, 1969); Rafuse, Robert W., "Cyclical Behavior of State-Local Finances," in Richard A. Musgrave (ed.), *Essays in Fiscal Federalism*, Washington: Brookings Institution, 1965.

the tax liablility by 10%, but unless exemption allowances are similarly inflated, net income after personal exemptions will rise by more than 10%. Moreover, it is very likely that the taxpayer will move into a higher bracket as well. The combination of these two factors will generally increase the total tax paid considerably in excess of the inflation rate.

A local income tax in this form of a surtax would exhibit precisely the same elasticity as the state tax. However, a flat rate income tax would be less elastic in that inflation would cause no upward movement through the rate schedule.

Table 3-14 indicates a much lower degree of elasticity for the corporate income taxes and increases in income, either real or simply reflecting inflation, do not create increased tax liabilities of greater percentage. For example, Colorado's corporate tax rate is a straight 5% of net income from sources within the state.[65]

Since 80% of Colorado's overall income tax is comprised of personal income tax, the elasticity of the total structure should closely approximate that of the personal tax.

6. Incidence: The incidence of a local income tax is closely tied to the steepness of graduation of the rate schedule and the nature of the exemptions allowed. However, even flat-rate income taxes are slightly progressive because of the standard exemptions applied across the board.[66]

Graduated income taxes, specifically of the type levied by the state, can be strongly progressive. For instance, recent research[67] in Colorado indicates that the percentage tax burden of the $25,000 and over group is roughly 5 times that of the under $5,000 income group and approximately double that of the $10,000 to $15,000 group. The same research indicates a rough equality in the percentage of income paid in income taxes for all households regardless of the number of family members.[68]

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[65] CRS '63, 138-1-35; '73, 30-22-301.

[66] See R. Stafford Smith, op. cit., p. 93.

[67] Zubrow, Coddington, and Korbel, op. cit., p. 35.

[68] Ibid., p. 44.

Income taxes tend to bear relatively less heavily on the elderly due to the special personal exemptions allowed for age and the fact that proportionately more of their income is derived from non-taxable sources such as savings, social security payment, pension allowances, and medical payments.

Some exportation of the income tax from the taxing region arises from the corporate income tax in the case of export base industries.

7. Control: The Colorado Supreme Court ruling in the case of City and County of Denver v. Sweet clearly established that home-rule cities lack the power to levy local income taxes and that the authority to do so is vested solely in the General Assembly. Such authority may not be delegated by statute to municipal units of government. This seems to indicate that if any form of income tax is to be made available to local governments in Colorado, it must be levied and, therefore, closely controlled by the General Assembly. The income tax base is likewise not subject to direct local control, particularly in the short run. Perhaps in a longer time frame, local policy can significantly affect the level and types of local income. However, this lack of control of the tax base may not be important when the base in the oil shale region would seem to be rather narrowly dependent on the state of national and international energy markets and probably subject to more fluctuation than a broader, more diversified base.

8. Market Side Effects: Research revealing the effects of local income taxes on business and household location decisions is scarce. A survey of Chamber of Commerce officials[69] of cities with local income taxes gave no indication that the income taxes imposed had any affect on business location decisions. Incentives to locate residences outside of the taxing jurisdiction are affected by the form of the tax. For example, in Ohio the situs of employment takes precedence over the place of residence so that residential locations are unaffected by local income tax rate differentials. If the place of residence took precedence, incentives would exist to locate outside the taxing jurisdiction and commute in.

Most basically, it is clear that high-income groups have less desire than middle- and lower-income groups to live in an area that has enacted a local

[69] R. Stafford Smith, op. cit., p. 31.

income tax. This is due to the heavier burden borne by this group for the total local tax bill. From this it follows that investors, employees, and suppliers connected with local establishments catering to high-income groups would probably suffer from the enactment of the income tax. Because the business income tax varies with profitability as opposed to using a fixed cost as the property tax, it may facilitate the development of new business, particularly in cases where large inputs of real property are used. This is true in the case of the oil shale industry.

9. Certainty/Predictability: Aside from changes in tax rates, income tax revenue production is highly correlated with economic activity. In Colorado, there exists a substantial base of historical data on tax collections in local areas, that together with historical data on local economic conditions can be used to identify the particular form of the relationship between local economic conditions and income tax revenues. Prediction then becomes a matter of considering future values of population, price levels, per capita real income, etc. Short-term projections for these variables are generally available, although long-term projections are more difficult to obtain.

10. Administrative Cost: In his study of local income taxes, Smith carefully considered the various components of administering the local income tax and concluded the following:[70]

> Studies have indicated that the administrative costs of collecting local income taxes do not differ significantly from the costs of collecting other local taxes. The compliance costs of income taxes should be, however, of greater concern. Compliance costs include the actual expense to business of complying with local income tax regulations, as well as the out-of-pocket expense paid by individual citizens in order to get the tax forms completed, and the opportunity costs of spending the time preparing this additional tax form. Businesses operating in jurisdiction with local income taxes have complained about the costs of complying with local income tax ordinances, and have pointed out that the costs of complying are frequently in excess of the taxes paid. Many corporations operating in more than one local jurisdiction have refrained from filing tax returns in all but their home jurisdictions.
>
> By using flat-rate taxes on wages and salaries which can easily be withheld by employers, or by using a tax base similar to or

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[70] Ibid., p. 143.

identical to that used for the state income tax, compliance costs can be held to an acceptable level. On the other hand, evidence suggests that compliance costs for more complex forms of local income taxes may be significant.

Based on a review of 330 local tax jurisdictions in Pennsylvania, John W. Cook[71] found that the average collection costs ranged from 6.0% of revenues collected in localities collecting less than $50,000 to 3.9% in communities collecting over $200,000.

11. Citizen Acceptance: Local income tax distributes the cost of local public services quite differently than other forms of local taxation, moving a much greater burden to the higher income levels. This rather major shift in allocation of the financial burden is expected to be met with opposition from groups who stand to bear the increased cost. Although progressive taxation is accepted at the federal level, the concept may not be readily accepted at the local level.

Differences in citizen viewpoints regarding similar taxes applied at different levels of government is illustrated by the results of an ACIR public opinion survey[72] which found that although the federal income tax was considered the fairest tax in the country by 36% of those surveyed, only 11% thought the state income tax most fair, and 33% thought the state sales tax fairest.

Added citizen opposition may arise due to the newness of the local income tax. It may also be viewed as opening the door for local governments to greatly expand spending.

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[71] John W. Cook, The Administration of the Earned Income Tax, Pennsylvania Department of Internal Affairs, Bureau of Municipal Affairs, Harrisburg, Pennsylvania, 1964, p. 77.

[72] ACIR, Public Opinion and Taxes, Washington, D. C., 1972, p.7.

REAL ESTATE TRANSFER TAX

1. Description: The real estate transfer tax is levied on the conveyance of real property within a taxing jurisdiction and is analogous to a "sales tax on property." In Maryland, New York, Pennsylvania, Virginia, and Washington, real estate transfer taxes have been levied at rates up to 2% by local governments since before 1963. Recently, there has been a broadening interest in the use of this tax by local governments. Both San Jose and Oakland, California, now have real estate transfer taxes of 1/3% and 1/2%, respectively, of total consideration including liens and encumberances.

   In Colorado, Louisville and Aspen attempted to adopt such a tax. Louisville as a statutory city did not have the authority to levy the tax under present state statutes. In Aspen the tax would have amounted to 1% of total consideration on all land transfers in excess of $500. Aspen voters rejected the tax in an October election. The issues of what the tax was to be used for is considered to have had a partial effect on the rejection. According to Professor Wilma Mayers:[73]

   > It has been suggested that a rationale for this tax can be found in many communities where the construction and sale of new homes is accompanied by increased costs for schools and other local government facilities such as roads, sewers, and water lines. Accordingly there is considerable justification for levying the tax on the groups associated with a substantial part of the increase in costs. An argument which may appeal to the already established citizens of a community is that the tax would fall largely on newcomers, or at any rate the rather small segment of the community at any one time engaged in real property sales.

2. Information Sources: Of all Colorado local governments, the cities of Aspen and Louisville have studied the real estate transfer tax most thoroughly. No Colorado localities have yet levied the tax. The city manager of Louisville or city attorney, Aspen's economist, city attorney, or finance director can be contacted for information. Numerous cities in California have recently studied and enacted the tax including Oakland, Fremont, and San Jose. Wilmington, Delaware; Washington, D. C.; New York City; 1850 local governments (including more than 1000 school districts) in Pennsylvania; and all

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[73] Wilma Mayers, "The Real Estate Transfer Tax," Tax Study, Part 7, California Assembly Committee on Revenue and Taxes, DSC 1964, p. 40.

39 counties in Washington have substantial experience using the tax. It is also collected in Rockville, Maryland, where the city manager (the former assistant city manager in Boulder) is familiar with Colorado circumstances.

In February 1973, Nation's Cities published "Let's Put the 'Underworked Tax' to Work," by Robert H. Rose, describing the real estate transfer tax.

3. Yield: Revenues from the real estate transfer tax begin to flow as soon as the tax is adopted. Data based on existing state documentary fee collections indicate that a 1% real estate transfer tax would generate $10 - $15 per capita annually in the oil shale region. This may be compared with a 1% sales tax that yields $30 to $40 per capita annually.

4. Legality: Counties, statutory cities and towns, and special districts do not have statutory authority to levy a real estate transfer tax. The tax may be legal for home-rule cities, but no local jurisdication in Colorado utilizes it.

   During the 1973 session of the Colorado state legislature, Representative Michael Strang proposed a bill which would have granted authority to local governments to enact such a tax up to 2% of the total consideration for the transfer, less a $10,000 homestead exemption. The bill was defeated in committee.

5. Elasticity: The revenue yield from a real estate transfer tax is not well correlated with such expenditure determinants as population, price and wage levels, and per capita real income. Rather, the dollar volume of real estate transfers in any given year is very sensitive to interest rates, the availability of real estate loans, and speculation in the real estate market. Table 3-15 illustrates the volatility of the real estate transfer tax which is very highly correlated with documentary fee collections. In spite of the uneven growth pattern exhibited, revenue growth from a real estate transfer tax levied in the counties shown in the table from the late 1960s to the mid 1970s would have grown an average annual rate of of 15% to 25%.

TABLE 3-15. DOCUMENTARY FEES*

County	1968	1969	1970	1971	1972	1973	1974E**
Mesa	$2,627	$2,738	$2,688	$4,424	$5,484	$8,379	$7,449
Garfield	971	1,633	1,552	1,488	2,798	3,975	4,167
Rio Blanco	1,123	233	296	667	603	851	876
Boulder	n/a	12,505	11,853	16,610	23,061	23,873	21,330
El Paso	18,864	19,087	19,566	27,741	37,755	45,072	31,992
Weld	4,392	6,371	6,352	8,335	10,623	13,394	12,351

Source: County clerk and recorder of each county.
*State of Colorado documentary fee is 0.1 mill on total consideration for transactions exceeding $500.00.
**Full year 1974 projection based on first four months actual collections.

6. Incidence: In terms of the legal language, the real estate transfer tax is in some cases levied against the buyer, in other cases against the seller, or distributed between both parties. In fact, the actual cost of the tax is shared by the buyer and the seller in some proportion dictated by the state of the market for the property being transacted. For example, in a soft buyer's market, the seller most likely will absorb most of the tax. In a tight market, the buyer will pay most of the tax. Exportation of the tax may occur when export base industries are involved in transactions, bear part of the tax, and pass the cost on to non-local customers through their product prices. Likewise, when the tax is shifted onto the seller and the seller leaves the area, exportation will occur.

   It is possible to make the real estate transfer tax progressive with respect to income by exempting some minimum dollar level from taxation. It is quite erronious, however, to argue that the exemption level must be equal to the value of low priced housing. This is not necessary to achieve either a proportional or progressive tax with respect to income. As an example, consider a 1% tax with a $10,000 exemption.

Household Income	Home Value	Tax Amount	Tax as Percent of Income
$13,000	$35,000	$250	1.92
23,000	60,000	500	2.18

The example shows this particular form of the tax is progressive, taking a larger share of income from the higher income household.

This question of the exemption required to achieve equitable distribution of the tax is quite important because the exemption is extremely expensive in terms of lost revenues. Compared with revenue for a tax with no exemption, a $10,000 exemption costs one-half the revenue, and a $25,000 exemption costs two-thirds to three-fourths. Such costs must be made up with higher rates which may lead to other problems.

Finally, the exemption should be allowed on a dwelling unit basis as opposed to a transaction. On a per transaction basis, multi-family unit exemptions are diluted and are ineffective in eliminating regressivity.

It is not known that this tax imposes a particularly heavy burden on any age group. However, we might speculate that the tax bears lightly on the elderly in a rapid-growth area where markets are tight and the tax is passed on to the younger immigrant buyer.

7. Control: Revenues depend on the turnover of land and land prices, as well as the tax rate applied. Though the tax rate may be locally controlled, the turnover rate of land and land prices are not subject to local control. These latter two factors have recently risen very rapidly on the Western Slope as shown in Table 3-15. Current high levels may not continue far into the future.

8. Market Side Effects: The real estate transfer tax creates an incentive to purchase and sell (and thus invest in and develop) real estate outside of the taxing jurisdiction. Certainly the importance of this incentive is very sensitive to the tax rate and exemption levels applied. However, the precise nature of this relationship has never been studied.

   The tax may also raise the price of housing in tight housing markets where the buyer is forced by the seller to assume most of the tax. When the buyer later becomes a seller, he may try to force the new buyer to bear both the tax originally paid as well as the current levy, thus compounding the effect of the tax on housing prices. The tax could make it more difficult to obtain

financing in a tight housing market when the tax must be absorbed by the buyer, and thus financed with the mortgage, but the tax will not be represented by equity in the home.

The essential point here is that when financing is very tight, the tax may be paid with the buyer's and seller's cash, not borrowed funds. In such a case, the parties ability to borrow is reduced by a factor of four or five times the tax amount because of the fixed relationship between total loan and down payment requirements.

So far as we know, no real estate transfer tax in excess of 2% is now imposed anywhere. Market side effects of higher rates have never been observed.

9. Certainty/Predictability: The yield of the real estate transfer tax is quite difficult to predict because of the influence of interest rates and investor expectations on the prices and turnover of real property. For example, the 0.1 mill documentary tax in Garfield County raised $1,552 in 1970, $1,488 in 1971, and $2,798 in 1972. Based on the sales that occurred, a 1% transfer tax would have raised 100 times that amount each year.

10. Administrative Cost: The mechanism for detecting and establishing the value of real estate transactions is in the deed recording process. Collection of the tax or assuring it has been previously paid is a relatively simple process at this point. Probably the most difficult administrative problem is enforcement in the case of very large transactions. A 1% tax on a $500,000 deal is $5,000--enough to encourage the parties to search for legal or illegal loopholes.

11. Citizen Acceptance: Any new tax that appears to have great potential for periodic rate increases can be expected to generate citizen opposition. The real estate and banking communities may be particularly concerned. Homeowners, particularly in soft housing markets, may object. Enacting a tax without an election may further generate citizen opposition.

Discussion and adoption of the tax on first reading in Aspen generated very little controversy. However, the voters rejected the tax, apparently because of disagreements about uses of the tax revenues. According to the minutes

of the October 15, 1973, meeting of the Oakland, California, Long-Range Revenue Task Force, San Jose's tax received widespread support from the local real estate industry because the funds were earmarked for specified capital improvements needed by newly developed areas (libraries, parks, fire stations, etc.) On the other hand, Oakland's tax, containing no earmarking provisions, ran into considerable opposition from Oakland realtors.

SITE VALUE TAX

(Note: The material in this section draws heavily from Dick Netzer, The Economics of the Property Tax, The Brookings Institution, 1966.)

1. Description: The site value tax is a variation of the traditional property tax under which only the land, not the improvements on it, is taxed. Differentially heavy taxation of land, or complete exemption of improvements from a general ad valorem tax on real estate, is practiced in the United States only in Pennyslvania (notably Pittsburgh), but is widespread in Australia, New Zealand, Canada, and South Africa. Some of the European real property taxes have differential rates for land and buildings, but the rate on land is not always higher. In addition, differentially heavy taxation of land recently has been instituted in Hawaii.

   In 1913, Pennsylvania authorized the cities of Pittsburgh and Scranton to shift, over a period of 12 years, to a "graded tax," under which land is taxed at twice the rate on improvements; since 1925, this has been the practice. However, the "graded tax" applied only to city levies, not to county and school levies, which are large for both these cities. Consequently, in 1960, improvements in Pittsburgh were taxed at 71% of the rate on land, not 50%.

   Legislation in 1951 and 1959 extended authorization for differential taxation of land to 48 other Pennsylvania cities (not including Philadelphia) without limit on the ratio of tax rates on land to tax rates on improvements, but few cities have taken advantage of this.

   According to Dick Netzer:

   > Experience with site value taxation perhaps does no more than prove that it is a conceivable alternative.
   >
   > Differential taxation of land is also not uncommon in underdeveloped countries, at times for fiscal purposes and at times for nonfiscal ends. But neither the resource allocation setting nor the level of administrative performance suggests that this experience has much relevance for the United States.

2. Information Sources: No American localities have significant experience with a meaningful site value tax. Information on the theoretical aspects of the tax are available in Netzer's book referenced above, and the Center for Land Economics, Washington, D. C.

3. Yield: The site value tax promises the same time lag problem that plagues the broader ad valorem tax on land plus improvements. Appraisals would be required, time for appeals, time for compilation of appraisal data, and billing and collection. This process can create as much as a 2-1/2 year time lag between increases in market values and production of tax revenues.

   For the three counties in the oil shale region, land comprises some 15% to 20% of total valuation. Thus, 5 to 6 mills levied on site value would produce the equivalent revenue of a 1 mill levy on land plus improvements. The site value tax would raise no revenue from the oil shale retort plants or other improvements, and depending on its exact nature might or might not apply to mineral resources.

4. Legality: It does not seem that the site value tax would violate the constitutional requirement that property taxes be levied uniformly upon each of the various classes of real and personal property,[74] as long as land occupied a different class than improvements. However, this would require action by the General Assembly to designate land as a separate class of real property for assessment purposes.

5. Elasticity: There is no evidence that the elasticity of the site value tax would differ from that of the property tax on land and improvements.

6. Incidence: In the oil shale region, a site value tax would impose a much heavier burden on the local community than would a property tax raising an equivalent amount of revenue because the revenue tax on both land and improvements which might have been raised from the oil companies and their plants (assessed value of $120 million to $150 million each) would have to be replaced by taxes paid by landowners. The oil companies liabilities would be far less based on their proportionate holdings of assessed value in land alone.

7. Control: Local control would depend on the exact nature of enabling state legislation. In general, local control should approximate that of the property tax.

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[74] Colo. Const., Article X, Section 3.

8. Market Side Effects: (From Dick Netzer.) The essence of the argument for site value taxation is simple enough. There is such a phenomenon as location rents--that is, differential returns from particular sites which are entirely independent of the nature of improvements (including not only structures but also grading, site preparation, and soil conditioning for farm uses). Location rents constitute a surplus, and taxing them will not reduce the supply of sites offered; instead, the site value tax will be entirely neutral with regard to landowners' decisions, since no possible response to the tax can improve the situation, assuming that landowners have been making maximum use of their sites prior to imposition of the tax. Thus a change from the present property tax which tends to discourage investment in new construction and rehabilitation to the site value tax which is neutral will encourage building and rehabilitation.

The site value tax is also neutral with regard to the intensity of use of particular sites. It is a lump-sum charge to the owner. While the land component of the present American property tax is similarly neutral in concept, the part of the tax on improvements, by discouraging development, tends to foster low return land uses. Moreover, although the site value tax itself has no bearing on choices among land uses in theory, switching over to heavy taxation of land values would substantially increase the holding costs of land and thus encourage more intensive utilization. This will not reduce the site value tax, but will make it a smaller fraction of total gross receipts from the site and its improvements.

Finally, increased taxes on site values will capitalize into land prices, which will decline since the net after-tax return on land is now lower. Conceivably, this might be mitigated if untaxing improvements, by stimulating new construction, led to a general rise in the demand for sites. Also, the tax might reduce the interest rate used for capitalization of land rents, although this seems unlikely in view of the small segment of the overall capital market represented by land itself. On balance, land prices should be reduced by heavier taxation of land.

The argument suggests, therefore, an increased rate of investment in new and better structures, less speculative withholding of land from development, and reduced "urban sprawl"--checkerboard, discontinuous development at low densities on the fringes of urban areas.

9. Certainty and Predictability: The residential, commercial, industrial, agricultural, and state-assessed (primarily utilities) portions of the site value tax are fairly predictable. These assessments change in regular, generally small, increments that are well correlated with indicators of local economic activity. The oil, gas, and mineral portions of the assessed valuation, however, behave erratically and are difficult to predict far in advance because they are based on actual oil, gas, or mineral production in the previous calendar year. For example, assessed valuation of oil, gas, and minerals in the Tri-County oil shale region dropped from $43 million to $39 million in 1971. As a result, Rio Blanco's total assessed value dropped about 7% in 1971.

10. Administrative Cost: Not much is likely to be saved by eliminating the need to assess improvements because of the greater care required in separating improvement value from bare land value. The cost should approximate that of the property tax.

11. Citizen Acceptance: In the oil shale region we expect citizens would totally reject the idea that land and not improvements should be taxed because of the enormous burden that would be shifted to them from the oil companies.

LAND VALUE INCREMENT TAX

1. Description: The land value increment tax is imposed on the net gain in the value of a given parcel of land or land with improvements between two points in time. This type of tax has not been used in this country until very recently when the State of Vermont adopted a form of the tax in 1973.[75] The tax has been used in Denmark, Spain, and the United Kingdom for a number of years. The rationale for such a tax is that land value is created by the actions and investments of society, arising from growth in population, transportation development, prosperity of local economy, and other public investments in both physical and human capital. Therefore, it is argued, some portion of the capital gains on land values should be recouped by the public authority as a return on its investment.[76]

   Where the tax has been applied, the rate has taken the form of some fraction of the gain (40% in the British betterment levy[77]), possibly at a sliding scale as a function of the period over which the incremental value developed (Vermont). The tax base may include total incremental value (Vermont, Denmark), incremental value related only to municipal public works (Spain), or incremental values attributable to certain government actions regarding permitted land use (British betterment tax).

2. Information Sources: No American government has significant experience with the land value increment tax. The State of Vermont enacted such a tax in 1973 and the State Commissioner of Taxes may be contacted for further information.

3. Yield: It is not possible to develop revenue figures without working with a particular form of this tax. It is known in general that the tax does not have the ability to produce the volume of revenues as do such broad-based taxes as property, sales, and income taxes. A study

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[75] State of Vermont, Revised Statutes, Chapter 236.

[76] Edwin H. Spengler, The Bulletin of the National Tax Association, XX, May 1936, p. 243.

[77] C. Lowell Harriss, "Land Value Increment Taxation: Demise of the British Betterment Levy," National Tax Journal, XXV, p. 567.

of the land increment tax applied to rezoned property was done by Louis A. Rose for the State of Hawaii and contains some estimates of yield for various forms of the tax.[78] The tax would be calculated as 50% of the gain in the fair market value of the land in its highest and best use on the day of the rezoning as assessed by the state tax department. The tax would be paid within six months of the rezoning date. Yields were calculated for several forms of the tax, but none exceeded $3 million annually as compared with the average annual property tax yield of approximately $59 million during the same period. It is true that the yield could be increased if the tax base were broader and included value increments occurring on other days, such as when the government announces a new transportation route or during periods of rapid population or income growth.

4. Legality: The land value increment tax is imposed on some portion of capital gains income. The specific form of the tax studied for Hawaii differs from existing federal and state income taxes on capital gains in that it applies to accrued as opposed to realized gains. Likewise, the British betterment levy applied to accrued gains. Vermont's tax, on the other hand, is applied upon realization of gain at the time of sale or exchange.

   The legality of this tax for local governments in Colorado seems subject to the same discussion as the local income tax. Essentially it appears that the Constitution prohibits local entities from levying income taxes, but with suitable state legislation, it might be possible to develop a state-levied, locally shared betterment tax that would do the job.

5. Elasticity: In theory, we expect gains on property values to correlate with population growth, increases in general price levels, and rises in the local per capita real income. However, the strength and purity of this relationship is dependent on the exact nature of the tax, as well as local government policies, especially in the area of land use.

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[78] Louis A. Rose, Taxation of Land Value Increments Attributable to Rezoning, Economic Research Center, University of Hawaii, Honolulu, December 1971.

It is important to note that revenues from a tax applied to accrued gains will relate much more closely to local economic growth than would a tax based on realized gains because of the strong effects of money market conditions on actual sales and exchanges of real property, and thus on revenues from a tax on realized gains. Money market conditions may change considerably during a period of sustained economic growth, thus destroying a close correlation between increment tax revenues and local economic growth. The fact that the tax has been so sparsely used in the setting of the American economy leaves much uncertainty as to its elasticity.

6. Incidence: Little is known about the incidence of the increment tax from actual experience. It is clear that its incidence is dependent on the tax base (rezoned land, land impacted by public improvements of all types, all raw land, or all land together with improvements) and point of imposition of the tax (periodically on accrued gains or at transfer). Mable Walker of the Tax Institute, Incorporated, discussed incidence in relation to some of these issues.[79]

> It is sometimes suggested that the increment tax be imposed periodically rather than at the time of transfer, but a periodic tax would fall upon paper profits and would involve considerable administrative difficulty, as well as being harsh and inequitable. For example, owners would be heavily penalized during inflationary periods. A homeowner who held on to his property and paid periodic increment taxes on it during boom years might find that he had to let it go during a depression at a very much deflated figure.
>
> It would seem to be more defensible to levy the tax every time a transfer of property was effected, whether by sale, gift, or bequest. At that time a tax could be levied upon the property equivalent to a certain percentage of the increase in value since the previous transfer, as measured by the actual sale price. This would provide a continuous flow of funds into the treasury and it would not have a disastrous effect on property holders inasmuch as it would affect only those owners who had realized a profit and would strike them only at the time when the profit out of which to pay the tax was actually in hand.

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[79] Mable Walker, "Land Use and Local Finance," Tax Policy, XXIX, Nos. 7-9, 1962, p. 27.

> It would fall no more heavily on the piece of property which changed hands frequently than the one which was passed on only at the end of a long lifetime, inasmuch as the tax would always be a percentage of the increment since the previous transfer. The same amount would be paid on a $100,000 piece of property which doubled in 50 years and was held all of that time by one owner as would be paid on a similar piece which had been transferred a number of times during the same period.

C. Lowell Harriss[80] discussed the incidence of the British betterment tax imposed at the time of transfer:

> Legally, the levy fell on the seller. Only when the existence of the levy would enable the seller to get a higher price than otherwise would the buyer bear part. Perhaps sellers decided to be tougher in bargaining. Some buyers, including governmental agencies as acquirers of land, may have paid more than if the levy had not existed. Guessing of this vague sort, however, can hardly be helpful.

7. Control: Local control of revenues from a land increment tax would appear to be weak. Constitutionally, the General Assembly would have to levy the tax and so control the rate, and presumably with local input, control the form and structure of the tax. The tax base is shaped by some local factors (local policies affecting supply and demand of land) and some non-local factors (energy market conditions, national economic policy, money market conditions, non-local land use legislation, etc.).

8. Market Side Effects: Again, experience contributes little to an understanding of the broad market effects of this tax. Also, the effects are vitally linked to the exact form and structure of the levy. According to Mable Walker,[81] the tax imposed at exchange would tend to cure speculative activity. Louis A. Rose notes that users of land will have to pay higher rents or purchase prices because of the tax, which would curtail existing marginally profitable land uses.[82]

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[80] Harriss, op. cit., p. 571

[81] Walker, op. cit., p. 28.

[82] Rose, op. cit., p. 37.

In cases where the tax is imposed upon exchange, it would seem that the tax would tend to enhance the status quo pattern of land use by adding to the cost of exchange. The tax can be avoided as long as exchange is avoided. On the other hand, a tax imposed on the accrued gains would seem to promise a pattern of land use that would tend to rapidly adjust to a highest and best use pattern which would generate a level of income consistent with the value of the land and required tax payments on the accrued gain. This tendency would be weakened to the extent that efforts to upgrade land to a higher use potential (rezoning, location of public facilities) are reduced in view of the smaller payoff because of the tax.

Because the tax causes delay in rezoning and development, and an increase in land cost to the developers, construction would be expected to be more capital intensive; that is, to substitute capital for land.

9. Certainty/Predictability: Revenues from a tax on accrued gains would be more predictable than one imposed at exchange. Revenues based on realized gains might be severely affected during a period of tight money in which few exchanges occur. Also, simply because of the narrow base of the tax, land value increment, its revenue production will be volatile over time. For example, in a period of very small gain in community property values, the property tax base will simply not grow from its previous level, but an increment tax will drop from its previous level to some small extent.

   A tax on realized gains might be less volatile than a tax on accrued gains because the gains realized in any period actually developed over many different previous periods, each exhibiting different growth rates than the present.

10. Administrative Cost: There is a concensus among those who have studied the increment tax that its administration promises considerable difficulty in any of its forms. The difficulty arises from the need to isolate the impact of certain events on the value of land or land with improvements. First, a "post-event" value must be established, then the contribution of certain qualifying events (rezoning, location of public facilities, social investments) must be determined without con-

founding their effects with nonqualifying events such as privately financed improvements. Actual experience with the British betterment levy (40% of increases in land attributable to rezoning) led C. Lowell Harriss[83] to conclude:

> The betterment levy was a tax of limited application. It made no pretense of reaching all "unearned increments." Complexities inherent in the betterment levy's very special characteristics led to administrative requirements totally out of reasonable relation to the small revenue yield.

11. Citizen Acceptance: Uncertainties associated with new taxes generate citizen opposition. Also, when the increment tax is first imposed, very significant paper losses are incurred by landowners with unrealized capital gains. These are usually the community's longer-term residents.

[83] Harriss, op. cit., p. 572.

STATE AND FEDERAL DISCRETIONARY FUNDS

1. Description: In addition to the existing locally shared, annually distributed funds from the state government such as motor vehicle and fuel taxes, school funds under Colorado's School Finance Act, and the specific ownership tax, there are also discretionary funds. These funds take the form of grants and long-term loans. Some require matching funds or services in lieu thereof; other require simply an application from a qualified governmental agency. The federal government also has funds of this type available.

   For purposes of this report it is not possible to identify every program and measure it against the criteria used for other revenue sources. However, these funding sources are discussed briefly as follows:

   a. Federal Programs. Social program funding is available through Health, Education and Welfare (HEW) and Department of Labor (DOL); renewal, planning, management, and engineering funding through HUD; transportation through Department of Transportation (DOT); sewer, water, and drainage through HUD; park and open space through HUD and Bureau of Outdoor Recreation (BOR); manpower training through DOL; and housing, fire and rescue equipment, water and sewer funding and loans through Farmers Home Administration (FHA) for cities under 10,000. Federal catalogs covering the complete breakdown of programs and conditions for eligibility are available.

      In addition to categorical programs, however, there are two other important funding sources: (1) revenue sharing and (2) the Federal Impact Fund Law. Revenue sharing is distributed to cities, counties, and states based upon population, total local tax effort, and inversely to per capita income. A problem for the counties is that their funds flow through the state while city funds flow directly from the federal government without state control. The State of Colorado has chosen not to utilize its funds immediately, but has for the most part invested them on a short-term basis to earn interest until a priority system can be developed.

The Federal Impact Fund Law for school construction and operation is used in areas affected by federal installations (Public Law 81-814 and 81-815). There was a question of whether the oil shale leasing of federal lands constitutes eligibility under this Act. Review of the categories of eligibility with the Department of Education confirms that the region is eligible to apply for such assistance, but this should be more fully investigated. The federal coordinator's office in Rifle will provide the necessary detailed information concerning which programs are available, purposes of which the programs can be used, and funding available within the current year.

b. State Programs: Various state programs not associated with automatic annual funding also present revenue opportunities. For example, in the last legislative session, H. B. 1084 created a Conservation Trust Fund with an appropriation of $725,000 for one fiscal year. The money is to be distributed to applicant cities and counties for acquisition, development, and maintenance of new conservation sites (greenbelts, parks, floodplains, agricultural lands, scenic areas, and historical areas). Such monies are to be disbursed on a per capita basis to cities and counties that agree to create a conservation trust fund. Other agencies with potential funds include the Housing Finance Authority and State Division of Planning. The State Coordinator for the oil shale region, Don Rapp, is responsible for providing information and coordination relating to funding programs for local governments. Like federal programs, state programs are subject to annual changes which may affect timing and funding amounts.

c. Oil Shale Bonus Bids, Rents, and Royalties: From the leases of the federal Ca and Cb tracts, three sources of funds will accrue to the state and the region: (1) Money from two bonus bids ($210.4 million for the Ca tract and $117.8 million for the Cb tract); (2) rent payments; and (3) production royalties. These revenues are proportioned according to the Mineral Leasing Act of 1930. The federal reclamation fund will receive 52.5% with

37.5% going to the state. A limitation for which an amendment is presently under consideration restricts the use of the state's portion for the maintenance of public roads or for the support of public educational institutions providing no more than 75% is used for either purpose. Senate Bill 3009, introduced by Senators Haskell and Dominick, would remove the restriction on the use of the money, but the amendment is presently bogged down in committee. A common feeling is that the Mineral Act needs a major overhaul; not simply spot amending. The problem of the 1920 Act's limitation on spending has been ignored by other states without repercussion. Under the wording of the Act it is possible that when a state spends more than its share on schools and roads, as does Colorado, it would be meeting the limitation anyway.

A law passed in the 1974 Colorado Legislative Session, H.B. 1046, directs that the money received from the oil shale leases be deposited in a special fund for appropriation to state and local agencies; primarily for use in the region affected by oil shale development for planning and providing facilities and services necessitated by new development, and secondarily for other state purposes.

Stipulations in the land leases affect the amount of revenue available to the state and region. One stipulation, an attempt to encourage the development of resources as soon as possible, permits the fourth and fifth bonus payments to be offset by development costs. If the lessee spends more in capital expenditures during the third and fourth years of development than the amount of the yearly bonus payment, he does not have to pay the remaining two-fifths of the initial bonus amount. Similarly, companies may forfeit the lease during the first three years and not have to pay the fourth and fifth year installments.

A second stipulation affects the royalties. The basic royalty rate is 12¢ per ton of oil shale, subject to adjustments up or down depending on the numbers of gallons yielded per ton (30 gallons is

the benchmark) with 4¢ per ton being the minimum. The limitation on royalties is that any development cost not credited against the fourth and fifth bonus payments may be credited against the royalties. Such crediting of development costs against royalties may continue up to the tenth anniversary date of the submission of a development plan (the development plan must be filed with the Mining Supervisor on or before the third anniversary date of the lease). Hence development costs will offset any royalty payments. The minimum royalty, if there is production, is $10,000 per year for which there is no credit for development costs. Yield of $3,750 would be given to the state on this basis.

The last stipulation which could adversely affect payments is a clause that if production is started prior to the eighth anniversary the lessee may deduct one half of any royalty payment required over and above the minimum payment for that particular year. Again, this clause encourages rapid development of the resource.

Rental payments are 50¢ per acre, which would amount to $5,092 dollars for the Ca and Cb tracts. However, this money would be credited against royalty payments.

Table 3-16 displays potential state income from bonus payments, rent, and royalties.

2. Elasticity: Generally an area experiencing rapid growth receives a higher priority for funds. The Federal Regional Council, the Governor, and the State Legislature have already acknowledged the oil shale region as in need of special consideration. Therefore, federal and state programs would be considered elastic; i.e., they will respond rapidly to population changes.

3. Control: The major deterrent to federal and state programs is that most are annually funded. Revenue sharing is the exception. Availability of programs and funds are at the discretion of the President of the U. S., the Congress, the Governor of the State, and the State Legislature. For example, housing programs and funds were approved

TABLE 3-16. STATE REVENUES FROM OIL SHALE BONUS BIDS, RENT, AND ROYALTIES
TRACTS Ca AND Cb[1]

Year	BONUS BIDS			ROYALTIES			TOTAL STATE REVENUE	
	Bonus Bid	Possible Bonus Bid Payments[2]	RENT*	Minimum[3]	Possible Payments[4]	Payments[5]	Minimum	Maximum
1974	$24,607,020		$1,909				$24,608,929	$24,608,929
1975	24,607,020		1,909				24,608,929	24,608,929
1976	24,607,020		1,909				24,608,929	24,608,929
1977		$24,607,020	1,909				1,909	24,608,929
1978		24,607,020	1,909				1,909	24,608,929
1979			1,909	$ 78,570			1,909	78,570
1980			1,909	157,140			1,909	157,140
1981			1,909	235,710			1,909	235,710
1982			1,909	314,280		$ 7,500	1,909	314,280
1983			1,909	392,850		7,500	1,909	392,850
1984			1,909	471,420	$471,420	2,731,466	471,420	2,731,466
1985			1,909	549,990	549,990	2,731,466	549,990	2,731,466
1986			1,909	628,560	628,560	2,731,466	628,560	2,731,466
1987			1,909	707,130	707,130	2,731,466	707,130	2,731,466
1988 et seq.			1,909	785,700	785,700	2,731,466	785,700	2,731,466

1 This table was prepared by the Colorado Legislative Council staff. The royalty figures were based on the figures in the Ca and Cb leases.
2 Assumes no deductable development costs for first four years of lease.
3 Assumes neither lease reaches production.
4 Assumes neither lease reaches production, but that sufficient development costs are incurred by lessees to offset minimum royalties. Allowed only for ten years.
5 Assumes both tracts reach full production by 1984, are operating in 1982, but have developmental costs that are deducted over the allowed ten year period.

Rent is an allowed credit against any royalties due.

by Congress in 1972-73, but the funds were impounded by the White House in January 1973 and still have not been released. Use of revenue sharing funds is primarily for capital facilities or planning and management programs that will be shifted to other revenue sources after one or two years.

4. Administrative Costs: In the past, federal or state statutory requirements and/or processes (liaison, application), bookkeeping, accountability, annual eligibility requirements, and reports have resulted in substantial additional administrative costs. Concern has been expressed over the detailed review requirements which discourage communities from even applying for funds. Good local utilization of federal and state resources requires local management capabilities which increases local administrative costs. However, the programs usually can be structured to absorb these increased costs.

5. Citizen Acceptance: It is not anticipated that residents in western Colorado will be adverse to federal or state assistance. Nor will they resist equal opportunity procedures and nondiscrimination in hiring requirements that accompany such programs. However, acceptance of outside governmental assistance may require that local governments insist on having a voice in establishing federal and state goals within the local area. Without this assurance, local governments may prefer not to seek federal and state aid.

SECTION IV. NON-MONETARY DEVICES

In order to deal with the typical problems of rapid growth, local governments must establish methods for shifting revenue distribution rapidly to areas of greatest need. This section contains analyses of the available non-monetary fiscal tools which, in conjunction with the revenue tools, can greatly improve a community's ability to cope with the fiscal problems of rapid growth.

INTRODUCTION

In addition to the basic revenue sources reviewed in Section III, there are a number of non-monetary fiscal devices that should be considered in attempting to devise an optimal fiscal strategy for local government. These tools do not extract revenues from the broad community for financial support of local government. Rather, they provide flexibility in the use of the given revenue base of a community or region. They can also aid in utilizing a special, narrowly conceived revenue source. In particular, this category of fiscal tools includes several varieties of borrowing, leasing and installment purchases, non-profit corporation financing, regional service authorities, intergovernmental agreements, regional tax bases, and private sector assistance. When used in conjunction with available revenue tools, these devices can greatly improve a community's ability to address such broad public concerns as the distribution of the public financial burden among citizens; the performance of local markets, including labor, housing, land, consumer goods and services and transportation; efficiency in the consumption of public services; and local control of future spending and resource allocation decisions.

In order to assess the capability of alternative combinations of revenues and non-monetary fiscal devices to serve broad policy objectives, it is necessary to establish a great deal of detailed information about each revenue source. This section contains a discussion and analysis of the non-monetary tools according to the following outline:

1. Description: What the tool is, how it operates, and where it is presently utilized.
2. Purpose: When and why the tool is used and what it is being used to accomplish.
3. Legality: Legal parameters and considerations circumscribing the use of the tool.
4. Citizen Acceptance: Likely citizen reaction and the history of response to using or attempting to use the tool.
5. Advantages: Major pluses to be considered with respect to typical community objectives.
6. Disadvantages: Major liabilities generally associated with the tool.

BORROWING

Sales of new long-term municipal bonds by cities and states in 1974 are expected to about match the $23 billion sold in 1973 -- not far behind the record $24.4 billion sold in 1971. In comparison, an average of roughly $12 billion was issued annually over the period 1965 - 1970. In addition to this long-term borrowing, cities and states will borrow some $27 billion in short-term funds in 1974.

Short-term borrowing, in large measure, represents money that borrowers either could not find or could not afford over a long-term period. Much of the short-term borrowing will sooner or later have to be converted into a long-term debt.

Long-term municipal borrowing has typically been used to finance water, sewer, drainage and gas/electric facilities; schools; parking facilities; public buildings; and sports and recreation facilities. The variety of bonding applications has contributed to the development of several distinct and different types of bonds. These include general obligation bonds, revenue bonds, special assessment bonds, industrial development bonds, and refunding bonds. Following a discussion of several issues common to all forms of borrowing, each specific type of bonding will be reviewed.

Tax Exemption

The most distinctive aspect of local government bonding is that interest earned by investors in such securities is exempt from federal income taxation. While this exemption only applies to federal income taxes, most states, including Colorado, also grant state income tax exemption to certain bonds. This special advantage, dating back to 1913, is statutory, not constitutional. Attempts have been made in the past to get Congress to abolish this subsidy to local and state governments, but the disruption to the ability of local government to borrow has, so far, been sufficient to maintain their tax exempt status.

This tax exempt feature is the reason that municipal bonds sell at a lower interest rate than corporate bonds of similar rating and maturity. The value of this tax-free status does vary among taxpayers depending on their income tax bracket, but overall is sufficient to cause municipal interest rates to be some 30% or so below taxable bond rates. To illustrate with the most

severe case, that of taxpayers in the 70% bracket, a bond subject to a 10% tax exemption is worth no more than a tax exempt security that returns 3%.

Bond Ratings

Large scale bond issues of local governments are given ratings of quality by independent rating organizations, most notably Moody's Investors Service and Standard & Poors. The rating given by such firms is very important when bonds are sold publicly because there is no better measure of a bond's security, yield, or overall desirability. Ratings published by Moody and Standard & Poors range from a high rating of Triple A to a low rating of C. Among the factors taken into account are financial credibility as determined by local fiscal tradition, estimated expandability of taxing ability, estimated degree of tax revenue stability, debt as measured on a per capita or property valuation basis, and the prospect of continued prosperity.

Bond ratings have been of substantial help as a measure of general investment quality of new bond issues, yet less than half of new municipal issues are rated. In many cases, non-rated issues are sold at negotiated rates to bond underwriters who then accept the burden of marketing unrated bonds. However, a premium interest rate must be paid to offset the more difficult marketing problem. Large issues, perhaps including financing for a diversity of projects, stand a much better chance of being rated by Moody's or Standard & Poors.

Cost of Borrowing

Information on interest rates for bonding is readily available to local governments from a professional advisor familiar with the money market for municipal bonds. He can provide local government officials with quite accurate estimates in advance as to what interest rate will likely be required to "float" an issue of a particular type of bond for a given period of time. However, there are other expenses involved in marketing bonds, although they are relatively insignificant compared to the interest rate.

In some cases, plans for a bond issue first require voter approval. When this occurs, attempts might be made to decide the question during a primary or general election to escape the costs of a special bond election. When a special election is required, the full cost of that election has to be borne by the

bond issue. Other costs are incurred in obtaining professional advice from a financial advisor, legal counsel, and special bond counsel. Such advice is provided in numerous ways. The city or county attorney provides liaison with the bond counsel and financial advisor. Because of the competitiveness of the investment banking industry, most firms have developed staffs which are especially qualified for assisting local governments in considering various borrowing techniques, as well as marketing the bonds. Standard bond fees cover these services unless an extremely complicated, special issue is being considered.

Other costs may include the preparation of a bond prospectus explaining the issue to prospective buyers; printing the bonds; preparation and publication of a bond ordinance; obtaining a bond rating; preparing legal notices; and renting a machine for multiple signatures. While none of these costs is extensive in itself, total preparation costs can be significant and must be included in the bond issue.

Bond Insurance

Bond insurance is an important new development in the municipal bonding area. It insures against defaults on bond issues and places the credit of an insurance company behind local government bonds. The cost of such insurance will depend upon the overall risk the insurance company feels it will be taking, the bond rating, size and type of issue, and the term of the bond. Once an issue qualifies for coverage, however, a top bond rating will be granted, with significant net savings often realized.

Bond insurance seems to be most advantageous to local governments at present, since they might not fare well in today's bond market for a variety of reasons. They might realize a real savings in interest costs.

General Obligation Bonds

1. Description: General obligation bonds are secured by the issuer's pledge of full faith, credit, and property taxing power. That is, the bonds carry the issuer's promise to levy additional property taxes if it is necessary to retire the debt. The promise to pay is contractual and unrestricted, and gives the bondholder a degree of safety lacking in bonds payable from a specific limited source.

2. Purpose: General obligation bonds are used by local governments to finance capital projects felt to be liabilities of the entire public, spread over a long period of time. However, the limitations of both statutory or charter funding as well as the common requirements of an election presently insure discriminate use of these bonds in Colorado. Often, fears of reaching debt limits, thereby restricting future options, cause local government officials to turn to other types of bonds for projects that might otherwise be funded by general obligation bonding.

3. Legality: The power to create long-term debt is not inherent in, nor incident to, the existence of local government in Colorado. Rather, any such power must be expressly granted by statute subject to constitutional limits. In home-rule cities, an ordinance subject to charter and constitutional limits is required.

Two sections of the Colorado Constitution are particularly important related to the creation of public indebtedness by local governments. Article XI, Section 1, addresses the question of permissible purposes for the pledging of credit by local communities. It states:

> Neither the state, nor any county, city, town, township or school district shall lend or pledge the credit and faith thereof, directly or indirectly, in any manner to, or in aid of, any person, company or corporation, public or private, for any amount, or for any purpose whatever; or become responsible for any debt, contract or liability of any person, company or corporation, public or private, in or out of the state.

Article XI, Section 6, states:

> (1) No political subdivision of the state shall contract any general obligation debt by loan in any form, whether individually or by contract pursuant to article XIV, section 18 (2) (a) of this constitution except by adoption of a legislative measure which shall be irrepealable until the indebtedness therein provided for shall have been fully paid or discharged, specifying the purposes to which the funds to be raised shall be applied and providing for the levy of a tax which together with such other revenue, assets, or funds as may be pledged shall be sufficient to pay the interest and principal of such debt. Except as may be otherwise provided by the charter of a home rule city and county, city, or town for debt incurred by such city and county, city, or town, no such debt shall be

> created unless the question of incurring the same be submitted to and approved by a majority of the qualified taxpaying electors voting thereon, as the term "qualified tax-paying elector" shall be defined by statute.
>
> (2) Except as may be otherwise provided by the charter of a home rule city and county, city, or town, the general assembly shall establish by statute limitations on the authority of any political subdivision to incur general obligation indebtedness in any form whether individually or by contract pursuant to article XIV, section 18 (2) (a) of this constitution.
>
> (3) Debts contracted by a home rule city and county, city, or town, statutory city or town, or service authority for the purposes of supplying water shall be excepted from the operation of this section.

It is clear that in order to create a general obligation debt, except for supplying water, local governments are subject to three restraints: (1) The debt must be for a public purpose, (2) it must be approved by electorate, and (3) the amount of the debt must be known and fall within any statutory or charter limits.

a. Statutory Cities and Towns: The General Assembly has established a debt limitation on total amount of indebtedness for all purposes of 3% of the actual value of the taxable property in the city as determined by the assessor, except such debt as may be incurred in supplying water. There is no limitation of the purpose of bonding, other than the constitutional one for a "public purpose." However, certain purposes are listed in the statute, and serve as guidelines.[1]

b. Home-Rule Cities: Glenwood Springs has a charter bonding limitation of 10% of assessed valuation (water and sewer bonds are exempted). Grand Junction and Rifle have the same limitation as statutory cities and towns, 3% of actual value (except for water bonds in Grand Junction and water or sewer bonds in Rifle).

c. Counties: The aggregate amount of indebtedness may not exceed 1-1/2% of the valuation of assessment of property located within the county.[2]

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[1] CRS '63, 139-32-1(7)(b); CRS '73, 31-12-101(7)(b).

[2] CRS '63, 36-6-1(3); CRS '73, 30-26-301(3).

Additionally, debt can only be incurred "for the purpose of erecting necessary public buildings, making or repairing public roads or bridges, developing, maintaining, and operating mass transportation systems, acquiring or building airports and landing strips, including the necessary land therefore, and approaches thereto. . . ."[3]

d. School Districts: Each school district has a limit on bonded indebtedness of 20% of the assessed valuation of the taxable property located within the district.[4] In addition, and unique to school districts, H.B. 1035 in the 1973 session established a school bond guarantee program.[5] This Act provides that school districts, upon successful completion of a bond and guarantee authorization election, may enter into a contract of guarantee with the State Board of Land Commissioners. Under the terms of such an agreement, if a school district is unable to make principal and interest payments on its bonds as such payments become due, the Board will lend Public School Permanent Funds to the district in the amount necessary to meet such deficiencies. School districts must repay the loan with interest at the premium rate.

   It is expected that a school district taking advantage of this Act will benefit by a lower interest rate and increased marketability of its bond issue.

e. Special Districts: Limitation upon amount of indebtedness varies considerably for special districts. Reference should be made to the specific statute dealing with the particular type of district under consideration.

4. Citizen Acceptance: Unique to guaranteed bonding, citizens get to express the extent of their acceptance of the bond issue through a required bond election (except for water supply financing). As a result, increased ad valorem taxes may determine the issue instead of the nature or need of the proposed project. For some projects, citizen acceptance is reduced

[3] CRS '63, 36-6-1(1); CRS '73, 30-26-301(1).

[4] CRS '63, 123-11-5; CRS '73, 22-42-104.

[5] CRS '63, 123-4-9; CRS '73, 22-41-109.

by the fact that a general obligation bond is a joint liability of the whole community while the project may be viewed as beneficial to only a part of the community. The recent bond election for the Denver Stadium is an example.

5. Advantages: General obligation bonds provide local governments with large amounts of capital funds at the best possible interest rate, repayable over an extended time period. By being retired out of general revenues through ad valorem taxation and other revenues, public cost is distributed over the life of the issue. This is considered equitable for projects with prolonged usefulness.

   In an economy experiencing a consistent inflationary spiral, all long-term bonds help to "hedge" on the dwindling dollar buying power by allowing local government to buy with today's dollar and pay back with tomorrow's. This "hedge" is furthered by the fact that municipal bonds pay tax-free interest, thus selling at interest rates normally far below anticipated inflation rates.

6. Disadvantages: General obligation bonds have to fall within statutory or charter debt limitations. Once a bond is issued, a community's financial flexibility is diminished far into the future. Election requirements add great uncertainty to general obligation bond use, create time lag, and often are very costly to local governments. Citizens rarely approve bonds based on an anticipated need. Usually a crisis situation must develop before funds are approved. This can be a major detriment in obtaining funds at the right time for a community facing rapid growth.

   Specified debt limitations often have the adverse effect of encouraging overlapping of governments because new borrowing power is gained with each new government formed. On this basis, consolidation of governments might be resisted by local officials fearing a reduction of the aggregate borrowing power of the area.

   Counties can use general obligation bonds only for particular purposes. Debt liability is spread throughout the community, based on assessed valuation, not by benefit received or ability to pay. A subsequent tax

hike may be required if additional development to share the cost does not occur. This issue is rarely considered at the time of bond issue.

Revenue Bonds

1. Description: Revenue bonds are not subject to the same constitutional and statutory limitations as general obligation bonds. They do not create the same broad obligation for property owners. Revenue bonds are payable solely from revenues generated by the project financed by the bonds rather than by general revenues. These bonds are commonly used for utilities, parking lots, auditoriums, airports, and other facilities capable of generating sufficient revenue to retire the debt.

2. Purpose: Historically, revenue bonds have been used to finance revenue-producing enterprises which are fully capable of paying their own way plus a little extra (coverage). This ensures the revenue bond's marketability. No liability is imposed on the general community. In recent years, revenue bond applications have expanded beyond normal public utility consideration to swimming pools, golf courses, college dormitories, airports, mass transit, and zoological gardens. In some cases, recent applications have not used project revenues to retire the debt, but have used some other specifically designated tax source such as sales tax revenues. In order to use these revenues, they must not have previously flowed into the government's general fund.

3. Legality: The limitations on borrowing, discussed in the section on general obligation bonding, are applicable only if the local government incurs the debt. If the community as a whole incurs no indebtedness, constitutional requirements do not apply. The issuance of bonds payable only out of a special fund, into which only designated revenues are deposited, has been held in Colorado case law not to be a pledge of the general credit of the local government and, therefore, does not create a debt. Thus, while still required to be issued for a public purpose, unless otherwise provided by charter, revenue bonds do not require voter approval. The designation of such a distinct bonding method has developed over many years in Colorado case law and is usually referred to as the "special fund" doctrine. Although an election is not required by the

Colorado constitution or statutes for the issuance of revenue bonds by statutory entities, such an election may be required by home-rule charter.

4. Citizen Acceptance: As a taxpayer, a citizen will have relatively little concern over a revenue bond issue. The user of the facility will bear the cost. However, citizen resistance to public borrowing of any kind is common and revenue bonds do not escape this malaise.

5. Advantages: Revenue bonds avoid constitution debt limitations. Default on an issue burdens the taxpayers of the issuing government only in a moral sense as they have no legal liability. Voter approval is not necessary, except in home-rule cities by charter provision. Local governments can attempt new kinds of enterprises without apprehension of voter disapproval or of limiting future borrowing capability. Revenue bonding fits well with the common view that projects serving only specific users should pay their own way or be financed largely by those who directly benefit from them.

7. Disadvantages: Revenue bonds generally require a higher interest rate than general obligation bonds. Although local government has no legal obligation to assume general fund responsibility for a revenue bond issue in case of default, other pressures may obligate it to do so. Revenue bonds can only be used for projects which can produce sufficient revenues to retire the indebtedness.

Special Assessment Bonds

1. Description: Special assessment bonds are used to finance public improvements that enhance the value of specific private properties. They are retired solely by special assessments against the benefitted properties, except as additionally secured under certain charter provisions. Property is most commonly assessed for improvement costs on a "front-foot" or "square foot" basis. The bonds are short term, commonly 10 to 15 years duration.

2. Purpose: Special assessment bonds are issued by counties and municipalities in Colorado to enable property owners to amortize property improvement costs over a period of years. These improvements would include street paving, curbs, gutters, storm drainage, and sometimes water and sewer services.

Assessments are applied against abutting property in the district according to benefits received.

3. Legality: As mentioned in the discussion on revenue bonds, the "special fund" doctrine implies that constitutional provisions pertaining to general obligation bonds do not apply to special assessment bonds. There is express statutory authority for cities and towns to make special assessments against benefitted property.[6] Counties and special districts also have such authority.[7] At present there is a question of whether or not statutory cities and towns can additionally secure special assessment bonds with a pledge of general revenues and yet escape treating them as general obligation bonds.

4. Citizen Acceptance: Taxpayers generally favor special assessment bonding since it places costs directly on those benefitted. However, the landowners who are being assessed may well resist assessment, although they may welcome the opportunity to pay off the assessment over a multi-year period at a low interest rate.

5. Advantages: Special assessment bonds provide a means of relating the cost of capital facilities to the benefits received without placing undue hardship on the property owners served. Constitutional and statutory debt limitations do not affect special assessment bonds. An election is not required and special assessment bonds work well for established areas of a city or town.

6. Disadvantages: Special assessment bonds often are difficult to market and generally have a higher interest rate than general obligation bonds. These bonds do not work well for unimproved areas of a city or town as a general rule. Usually some citizens object to the improvement or the amount of assessment.

Industrial Development Bonds

1. Description: Industrial development bonds (called county and muncipality development revenue bonds in Colorado) are issued by a local government

[6] CRS '63, 139-32-1(15); CRS '73, 31-12-101(15).

[7] CRS '63, 36-30-18; CRS '73, 89-2-30.

to aid industry in financing capital costs. The government incurs no legal obligation to pay interest or redeem the debt out of its own resources. The bonds are rated according to the credit standing of the industry benefiting from them, not on the credit standing of the muncipality. They are secured with a pledge of revenues from the industry using the facilities. When the issue meets the requirements of Section 103(c) of the Internal Revenue Code, the bonds are given tax exempt status.

2. Purpose: The Internal Revenue Service permits two types of federal tax-exempt development revenue bonds: (1) bonds to promote and encourage new industry to locate or remain within a particular jurisdiction area and (2) bonds for special projects. The first type covers bonds that are issued to pay for the construction of a plant facility which will be leased to an enterprise on a long-term basis. The lease payments are used to pay off the bonds, and at the end of the issue, the facility vests in the corporation. Since 1968, the IRS has restricted this type of bond to small bond issues to eliminate abuses by large corporations. The City of Broomfield, Colorado, has recently sold two such bond issues.

   The second type of bond is used to finance without limitation certain types of projects as specified in Section 103(c), including housing, transportation, sewage and pollution control facilities, and industrial parks. However, this type of bond requires state authorization, and Colorado's statute takes a more restrictive view of what projects are allowed.

   Since these bonds are issued for public purposes, whether to stimulate economic growth or promote general health and welfare, the federal government allows tax exempt interest on these bonds. Careful use of these bonds by local governments can influence private development decisions.

3. Legality: Development revenue bonds are not subject to the Colorado constitutional requirement (Article XI, Section 1) prohibiting the lending of credit to aid any person, company, or corporation. In the 1960s

the Colorado legislature passed an industrial development bond statute, which was liberalized by the passage of the County and Municipality Development Revenue Bond Act.[8] According to the Act, counties and all municipalities (except as restricted by home-rule charter) have the power to issue development revenue bonds, without an election, for the purpose of defraying the cost of financing, acquiring, improving, or equipping any project. "Projects" are defined as follows:[9]

> any land, building, or other improvement and all real or personal properties, and any undivided or other interest in any of the foregoing except inventories, raw materials, and other working capital, whether or not in existence, suitable or used for or in connection with research, product-testing, administrative facilities, hospital care, or other services, or pollution control facilities, or suitable or used for or in connection with manufacturing, industrial, commercial enterprises, or any utility plant.

Development revenue bonds are secured primarily by the revenues from the lease or sale of the project. In addition, they may be secured by a mortgage on the project or by a corporate guarantee. Cities, towns, and counties are prohibited from using funds other than project revenues for bond and interest retirement or for payment in lieu of taxes.[10] Maximum term of bonding is 40 years. There is no interest rate limitation. These bonds are authorized by resolution of County Commissioners or by ordinance of a municipality.[11]

Broadly stated, the Internal Revenue Code, Section 103 (c) (4), and the regulations thereto, exempt the interest on industrial revenue bonds in two categories: (1) Commercial, industrial, and manufacturing facilities bonding with a limit of $1 million per project, or a $5 million total, taking into account all capital expenditures at a given location for three years prior to the date of issue and three years after; and (2) special bonding projects of a municipal nature without limitation. Provision is

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[8] CRS '63, 36-24-1, et seq.; CRS '73, 29-3-101, et seq.

[9] CRS '63, 36-24-2(8); CRS '73, 29-3-103(8).

[10] CRS '63, 36-24-5(1); CRS '73, 29-3-105(1).

[11] CRS '63, 36-24-2(1); CRS '73, 29-3-103(1).

made in the law for, among other things,[12]

> residential real property for family units; airports, mass commuting facilities, parking facilities, or storage or training facilities directly related to any of the foregoing; sewage or solid waste disposal facilities or facilities for the local furnishing of electric energy or gas; air or water pollution control facilities; or facilities for the furnishing of water, if available on reasonable demand to members of the general public.

In Colorado, the definition of "project" limits municipal uses while accepting the Section 103 category definition for commercial, industrial, and manufacturing bonding. At the present time, Colorado views allowable projects as being only hospital and pollution control facilities, and perhaps some types of water and sewage facilities on the municipal level. To broaden the uses to the Section 103 definition will take state enabling legislation.

4. Citizen Acceptance: A problem with industrial development bonds is that many citizens do not understand the concept. Rather than seeing the economic advantages inherent in such an approach, they view the proposal as a subsidy to industry. Proper communications could alleviate this problem and encourage ready citizen acceptance.

5. Advantages: Industrial development bonds provide a means of encouraging industry to locate within a jurisdiction and can, therefore, be a valuable planning tool for local government. Provision of services that might otherwise be difficult to finance can often be accomplished through this device. The indebtedness is the responsibility of the industry, not the local government. They are not subject to constitutional or statutory debt limitations, and do not require an election; but they are subject to IRS restrictions.

6. Disadvantages: The amount limitations on development revenue bonds can be an important constraint in achieving local objectives. Local governments using the bonds become involved in the private sector which could lead to political problems, e.g., charges of favoritism. Industrial

[12] IRC '54, 103 (c) (4)

development bonds can substantially benefit industry. Therefore, local governments must have clearly stated policies defining their use.

Refunding Bonds

1. Description: Refunding bonds are issued to change the form of outstanding debt in order to obtain certain advantages. Such bonds may be exchanges with existing bond holders or sold with proceeds used to retire an outstanding bond issue at maturity or on prior redemption dates. So-called advance refundings invest proceeds of the refunding issue to pay the debt service of the outstanding issue. Refundings are possible with the mutual consent of the issuer through advance refunding or through a court supervised reorganization.

2. Purpose: Refundings may be used to shorten or lengthen the term of a bond issue to take advantage of a change in market interest rates; to eliminate restrictive bond covenants; to reorganize the maturity pattern; or to consolidate debts or stay solvent when default is likely.

3. Legality: As a general rule, any bond issued in Colorado can be refunded. Since refunding is simply a change in the form of the debt and not a change of the debt itself, debt limitations are not a consideration. In the past, most refunding bonds were issued on prior redemption dates according to the terms of the bond agreement. However, to refund before the call period has passed, or in the case of a bond issue without a call feature, and where a mutual agreement cannot be made between the issuer and the holders, resort must be made to advance refunding bonds. With this technique, new bonds are issued and the proceeds used to purchase federal securities, which, in turn, earn more than sufficient interest to pay off the old issue. However, such bonds are quite complex and their use is now significantly limited by the U.S. Treasury.

4. Citizen Acceptance: Circumstances dictating the refunding would largely determine what citizen acceptance would be. Many citizens do not understand this technique and proper communication would be essential to elicit their support.

5. Advantages: When built into a bond issue in advance, refunding provides a flexible means of adjusting to changing circumstances, and taking advantage of opportunities to achieve a lower overall interest rate. As no debt is incurred in a refunding, no election or statutory limitations apply.

6. Disadvantages: The costs of refunding, including the call premiums, can be significant. As a result, potential savings usually have to be considerable to warrant a refunding.

LEASING/INSTALLMENT PURCHASES

1. Description: It is possible for Colorado counties, home-rule cities, statutory cities and towns, and districts to acquire equipment or provide facilities through leasing. This financing approach gives local governments an alternative for the acquisition of equipment or construction of public facilities, temporary or permanent, without direct borrowing.

   In Colorado in recent years several varieties of leasing arrangements have been tried. The lessor has been a private leasing corporation or a public non-profit corporation. There are more than 25 private leasing companies in Colorado. They will lease most types of equipment and facilities to public and private organizations. A small number of private leasing firms specialize in leasing to public organizations. These firms are generally familiar with legislation defining a public body's right to lease and can better structure their leases to deal with the public sector's special circumstances.

   Several non-profit corporations have been specifically created to acquire equipment and/or facilities to be leased to local governments. These corporations are discussed in this section under "Non-Profit Corporation Financing."

   Another major variable in local government leasing arrangements is the structure of the lease itself. There are wide variations in the term of the lease, options to renew, and disposition of undepreciated capital in non full-payout leases. These differences generally respond to the special needs and constraints of local governments and can be combined in a variety of ways to suit the particular problem at hand. The lease structure for a given project must be carefully considered. Input from a party independent of the lessor, such as an investment banker, can be very valuable in achieving the optimal structure of the lease.

2. Purpose: Leasing is generally used by local governments facing substantial capital outlays when it is either impossible or impractical to use traditional forms of debt financing. For example, legal debt limits

may be binding or election requirements may discourage bonding. Most types of equipment and capital facilities can be leased, although the advantages and disadvantages to the local government may vary importantly with different equipment and facilities. Leasing seldom produces a cost saving when compared with local government debt financing.

3. Legality: Most local governments in Colorado have the power to lease from other entities or persons. Most municipal attorneys agree that a true lease, even if its term extends beyond the current year, does not constitute a debt within the Colorado constitutional election requirement or the usual charter election requirement and percentage debt limitation. To constitute a "true" lease in this context, the rent payments should be reasonable compensation for the use of the property, any option to purchase the property should not be compulsory, and the amount to be paid upon exercise of any purchase option should be equivalent to the value of the property at the time the option is exercised. Often where the motive is to avoid an election requirement or a debt limit, the lease involved fails to be a "true" lease. It may prove to be an installment purchase contract or an unlawful evasion of debt or budget and appropriation requirements, resulting in the transaction being declared invalid.

   The following factors were considered significant by courts finding "leases" to be installment purchase contracts and, therefore, indebtedness: (1) lease rentals in amounts necessary to pay debt service on bonds issued by the lessor to purchase or construct the facilities leased, or to pay over the lease term the cost of the facilities; (2) the facilities automatically vesting in the municipality at the conclusion of the lease term; (3) the facilities being subject to purchase by the municipality for a nominal sum; and (4) rent previously paid credited against the purchase price of the facilities upon the exercise of an option to purchase.

   While it is difficult to generalize, the key consideration necessary to ensure that a lease does not create indebtedness is that the agreement be structured in such a way that the local government can walk away

from the transaction at the end of any lease year no worse off than at the inception of the lease. Additionally, a local government would be well advised to directly address those factors which have been considered determinative by the courts in finding a "lease" to be an installment purchase agreement.

The law is sufficiently fluid that experienced counsel should be obtained prior to entering into any lease commitment, even though the exposure is generally that of the lessor rather than the lessee. If in a particular situation it is deemed sufficiently important to resolve the question of legality, test litigation through the Colorado Supreme Court may be worthwhile.

4. Citizen Acceptance: Citizen opposition might arise if it is felt that the lease arrangements are being used to circumvent debt limitations and/or election requirements regarding the acquisition of capital equipment and facilities. In general, however, the use of leasing does not seem to attract much public attention. Moreover, in some circumstances, leasing may be politically acceptable where a bond election would fail.

5. Advantages: The lessee may select facilities or equipment at lease rates and terms that suit current local fiscal needs. Funds can be provided within a short time frame without an election and the lessee may acquire title and ownership of the property at the end of the lease period. There are no penalities for prepayment and the local government's debt capacity is not used.

6. Disadvantages: When a private leasing corporation is used, effective interest rates generally double equivalent bond rates. Even when a non-profit corporation is used, effective interest rates are a point or more higher than equivalent bond rates. There is legal danger in that no clear legal definition of the differences between year-to-year renewable leases and local government indebtedness incurred by installment purchase contracts. Leasing from non-profit corporations is a new concept which involves a number of technical complexities. Professional familiarity with the technique is essential if crucial problems are to be avoided.

NON-PROFIT CORPORATION FINANCING

1. Description: Colorado law permits the establishment of non-profit corporations to finance facilities for public purposes. Because this form of financing is relatively new, it involves numerous legal, political, and financial unknowns. Thus, although its use may be strongly justified in certain cases, more than the usual degree of care must be exercised.

   Usually this financing takes the form of tax-exempt bonds issued by a non-profit corporation to provide for the cost of public facilities. Funds flow to the non-profit corporation for the purpose of covering administrative costs and debt service in one of two ways. In some cases, the project itself is capable of generating sufficient revenues to fully support the non-profit corporation's fund requirements. Examples of this are non-profit corporations formed to finance utilities (Steamboat Springs) supported by assessment revenues and property liens, to finance a rodeo stadium (Cheyenne, Wyoming) supported by gate receipts and a mortgage, and to finance a parking structure (Grand Junction) supported by parking revenues and a mortgage.

   The second method of covering administrative costs and debt service is the use of a non-profit corporation bond issue which denotes the lease of the facilities directly to the political subdivision. The governmental body customarily uses the facilities for governmental or proprietary purposes and pays an annual rental which provides debt service for the bonds. Depending upon the source of revenues used to make the rental payments, the lease may be long-term or year-to-year at the option of the user in order to avoid the creation of a debt.

2. Purpose: Non-profit corporation financing is used in cases where public bodies find it undesirable, impractical, or impossible to issue their own bonds. Under such conditions, the public body ordinarily enters into a lease agreement with a non-profit corporation and uses related non-tax revenues or provides in the lease that the agreement can be terminated at the end of any year at the option of the lessee.

Vail recently adopted an additional 1% sales tax that will flow into a special fund allowing the town to pledge these sales tax proceeds on a long-term basis without creating indebtedness.

Non-profit corporation financing is also used in the financing of revenue-generating projects where the marketability of the bonds is substantially improved by the security of a mortgage. Revenue bonds of the local government may not be secured with a mortgage without creating indebtedness, whereas a non-profit corporation may secure its borrowing with a mortgage without affecting the public body's debt position. This rationale was an important factor in the use of a non-profit corporation to finance the Grand Junction parking facilities.

Non-profit corporation financing has been used for the construction of projects that are in the public interest, but the financing of which is not expressly permitted by state law. Very often, the only role played by the public body is the adoption of a resolution approving the formation of the non-profit corporation and an expression of willingness to accept ownership of the facilities no later than the time the financing is paid out. The public body will incur no liability for the non-profit corporation's bonded indebtedness. An example of this type of financing is the Cheyenne Frontier Days stadium in Wyoming.

It is also possible to use non-profit corporation financing to lower the cost to citizens of public facilities that would otherwise be financed by the developer. In the spring of 1974, Steamboat Springs Public Improvement Corporation, a Colorado non-profit corporation, issued some $1.7 million tax-exempt bonds, the proceeds of which will finance the costs of acquisition and construction of road and street improvements and water and sewer facilities for the Willett Heights Subdivision. These bonds are direct obligations of the non-profit corporation payable from assessment charge collections due on all properties within the subdivision. Such assessments, until paid, constitute a lien on and against the subject property. However, when possible, special assessment financing by the city itself could be undertaken at lower interest rates and lower incidental costs.

3. Legality: In cases where the bonds issued by the non-profit corporation are supported by revenue sources arising from the project or from other sources independent of the local government, the function of the public body is limited to meeting certain requirements of the Internal Revenue Service by adoption of a resolution approving the formation of the non-profit corporation and expressing its willingness to accept ownership of the facilities no later than the time the financing is paid out.

   Express statutory authority for governing bodies of counties, cities, towns, and districts to adopt such resolutions does not exist in Colorado. However, implied powers may be sufficient to enable adoption of the resolutions. Though state attorneys differ on this matter and some are concerned as to the agency status of the non-profit corporation and the possible obligation the local government may incur in accepting the facilities, the IRS has recently approved a number of similar requests for tax-exempt bond issues by non-profit corporations. It appears that the overriding concern of the IRS is whether the facilities so financed are indeed public and that the entity issuing the bonds is acting on behalf of some governmental unit of the state.

4. Citizen Acceptance: Citizens may feel that the use of non-profit corporation financing is an attempt either to evade debt limits or to avoid election requirements. On the other hand, substantial benefits may accrue to citizens through lower cost public utilities or through provision of facilities otherwise unavailable. It is likely that citizen controversy would be minimal if the project itself is not controversial.

5. Advantages: Non-profit corporation financing may open the door for projects that otherwise would not be undertaken. It may also open the door for cost savings in certain projects by financing with tax-exempt bonds rather than taxable borrowing. Cost savings also may arise if the non-profit corporation's bonds are more marketable. Use of non-profit corporation financing may also preserve debt capacity and avoid public referenda. When the local government is a lessee of

a facility constructed by a non-profit corporation, its lease payments will always be less than in the case of a comparable lease with a private leasing firm because of tax-exempt financing and very low administrative costs. The ability of the local government to exercise control over the non-profit corporation is substantially greater than it would be with a private corporation.

6. Disadvantages: It is difficult to terminate a lease agreement for use of public facilities under non-profit corporation financing before the time of the lease has expired. In such a case, if court action is taken, the arrangement might be found to constitute public debt. The time required to set up a non-profit corporation, obtain IRS approval, and sell the bonds is four to six months, which does not allow for immediate cash flow. A non-profit corporation is an additional public entity with which local government would have to cope.

SPECIAL DISTRICTS

1. Definition: Special districts are quasi-municipal corporations. They are created by statute to provide a single service such as water, sewer, hospitals, transportation, housing, flood control, or fire protection. In providing these services, they may cut across local government boundaries. Special districts are created directly under state enabling legislation. Sometimes they are regional in scope; other times statewide. They operate in unincorporated areas as well as inside city limits. In Colorado, examples of major area districts are the Colorado Housing Finance Authority, the Regional Transportation District, and the Denver Urban Drainage District. In the oil shale region, there are numerous single purpose districts for hospital, water, fire, and sewer services.

   Special purpose governmental bodies are referred to at the national level as special districts, public authorities, or limited purpose governments. For purposes of this report, we will use "special district" for all. The special district is a corporate entity governed by a board of directors or commissioners, appointed by the governor with legislative approval, by district court, by county commissioners, or directly elected by the people in the district. Special districts have some of the powers of local government. They can contract, levy taxes, construct facilities, borrow money, issue bonds, acquire land or facilities, and use eminent domain. Their duties and responsibilities are defined by the specific enabling legislation. Therefore, the statutory law must be consulted for each district.[13]

2. Purpose: A special district is created to provide a desired service local government is not supplying. Because it is semi-autonomous from local general purpose government, it may operate like a private corporation in setting its priorities, seeking funds, and charging fees according to need in order to be self supporting. On the other hand, it has the benefits of governmental agencies: no taxes to pay, power of eminent domain, and ability to issue tax free securities. In short,

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[13] See, generally, Chapter 89, Colorado Revised Statutes, 1963, and Title 32, Colorado Revised Statutes, 1973.

it combines aspects of the public and private sectors to provide a service where private enterprise finds it unprofitable or undesirable and where local government is hamstrung by corporate boundaries, bureaucratic morass, or such a large range of responsibilities that it cannot bring sharp focus to bear on a particular problem. It provides a means of solving a functional problem with minimal changes to local government.

3. Legality: Special districts are creations of the state, usually ratified by the voters. Special districts are usually created outside of cities and towns, although they may serve areas inside municipal boundaries. Unless action is taken to dissolve the district, it continues to operate inside cities or towns when annexation or incorporation of their service areas occurs. The special district does not have the full powers of a municipality; it is limited to those necessary to achieve its limited objectives.[14]

   Because of the proliferation of special districts in Colorado, the state legislature in 1965 passed a Special District Control Act (CRS '63, 89-18-1 et seq.) to coordinate such districts and prevent unnecessary proliferation and fragmentation of local government and to avoid excessive diffusion of local tax sources. Power was given to boards of county commissioners to review and approve a service plan for each new special district proposed, except those confined within an existing city, city and county, or incorporated town. Criteria to be followed in evaluating the service plan and the process of public hearings including mandatory notice to all municipalities within a radius of three miles is included in the Act.

4. Citizen Acceptance: Since special districts usually develop out of a perceived need via a petition from citizens, the state legislature, or a developer, they usually have citizen support. Theoretically, they do not pose a political threat to local officials since they require no boundary changes; however, they are sometimes considered liabilities because of their single purpose approach to services and the few operational restraints that control them.

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[14] See, generally, Banks, Colorado Law of Cities and Counties, 2nd ed., Sections 1.8 and 2.11.

Special districts are lightly noted by citizens when first created. They appear supportive of sound development and when used to provide water and sewer service usually result in a more intensive use of the land. Only when placed in the large context of what more intensive development means to the county budget or demand for additional services do the problems begin to surface.

5. Advantages: Services transcending established political boundaries can be provided without requiring boundary adjustments. Regional taxing and funding becomes possible with the capability of matching revenues to the area of impact. Economies of scale can be achieved, primarily from a management and operations standpoint, but also in the construction of capital facilities. Special districts do not supersede local government, they supplement services as desired and are relatively easy to create. They expedite the production of facilities without infringing on local government debt limitations. Being single- or limited-purpose agencies, they respond faster to service needs.

6. Disadvantages: Special districts assume responsibilities normally associated with local government. They sometimes have been less than responsive to citizens' desires or complaints (usually where the board is appointed rather than elected). Being independent of local government control, special districts frequently fail to take into account or coordinate local governments' plans for the areas in which they operate. They are often held unaccountable because of citizen unawareness of who is responsible for what. In the total picture, the use of a single urban service district will frequently be undesirable because it encourages development when or where other services cannot be provided economically, efficiently, or in an environmentally sound manner.

TABLE 4-1. PROCEDURES FOR CREATING SPECIAL PURPOSE DISTRICTS IN COLORADO[1]

Type of District	Creating Agency	Initiative	Election	Voter Qualifications	Statement of Result	Inclusion and Exclusion of Territory
Domestic Waterworks District - 1913	County Commissioners	Petition by 50% of Electors	Yes	All Electors	Publication, Judges, Votes Cast, Directors	Board Decision
Metropolitan Districts - 1947	District Court	Petition by 10% or 100 taxpaying elector, whichever is smaller	Yes	All Electors	Decree from District Court	Petition and Board Decision
Water & Sanitation District - 1939-49	District Court	Petition by 10% or 100 taxpaying electors, whichever is smaller	Yes	All Electors	Decree from District Court	Petition and Board Decision
Fire Protection District - 1949	District Court	Petition by 75% or 50 taxpaying electors, whichever is smaller	Upon Counter Petition by 75% or 50 taxpaying electors, whichever is smaller	All Electors	Decree from District Court	Petition and Board Decision
Disposal District - 1953	County Commissioners	County Resolution	No	--	County Commissioners' Resolution	Business Choice and Petition
Metropolitan Recreation District	District Court	Petition by 15% of taxpaying electors	Yes	All Electors	Decree from District Court	Business and Farm Choice and Petition to Court
Metropolitan Water District	Councils of Member Municipalities	City Ordinance	No	--	Declaration by Secretary of State	City Ordinance

Source: Final Report of the Governor's Local Affairs Study Commission, September 1966.

[1]See, generally, Chapter 89, Colorado Revised Statutes, 1963, and Title 32, Colorado Revised Statutes, 1973.

TABLE 4-1. PROCEDURES FOR CREATING SPECIAL PURPOSE DISTRICTS IN COLORADO (Continued)

Type of District	Creating Agency	Initiative	Election	Voter Qualifications	Statement of Result	Inclusion and Exclusion of Territory
Hospital District	District Court	Petition by 15% of taxpaying electors	Yes	All Electors	Decree from District Court	
Metropolitan Sewage Disposal District	City Councils of Member Municipalities	City Ordinance	No	--	Declaration by Secretary of State	City Ordinance

TABLE 4-2. SPECIAL DISTRICT ORGANIZATION IN COLORADO[1]

Type of District	Number of Directors	How Chosen	Term of Office	Meetings	Organization Secretary	Treasurer	Compensation of Board Members
Domestic Waterworks -1913	3	Election	6 years, 1 every 2 yrs.	Quarterly	Appointed	County Treasurer	$2.50 each meeting
Metropolitan District -1947	5	Election	6 years, 1 every 2 yrs.	Discretion of Board	Appointed by Board	Appointed by Board	$2.50 each meeting $600 per yr. maximum
Water and Sanitation -1939-49	5	Election	6 years, 1 every 2 yrs.	Discretion of Board	Appointed by Board	Appointed by Board	$25 each meeting $600 per yr. maximum
Fire Protection District -1949	5	Election	6 years, 1 every 2 yrs.	Discretion of Board	Appointed by Board	Appointed by Board	$25 each meeting $600 per yr. maximum
Disposal District -1953	County Commis-ioners	ex offi-cio	----------	----------	---------	---------	----------
Metropolitan Recreation	5	Election	4 years	Discretion of Board	Appointed by Board	Appointed by Board	$25 each meeting $600 per yr. maximum
Metropolitan Water	*	Appointment by Member Cities & Counties	2 years	Discretion of Board	Appointed by Board	Appointed by Board	Discretion of Board
Hospital District	5	Appointment	6 years	Discretion of Board	Appointed by Board	Appointed by Board	----------
Metropolitan Sewage Disposal	*	Appointment by Member Units	2 years	Discretion of Board	Appointed by Board	Appointed by Board	$25 each meeting $600 per yr. maximum

*Determined by the number of member units.

[1]See, generally, Chapter 89, Colorado Revised Statutes, 1963, and Title 32, Colorado Revised Statutes, 1973.

TABLE 4-3. SPECIAL PURPOSE DISTRICT FINANCIAL REGULATIONS IN COLORADO[1]

Type of District	Tax Assessing & Collecting Agency	Mill Levy Limit	Audit	Popular Vote on Bond Issues	Limit on Term of Bonds	Bond Interest Limit	Tax Levying Body
Domestic Waterworks-1913	County	---------	Yes	Yes	20 years	--------	County Commissioners
Metropolitan District-1947	County	---------	Yes	$5,000 or over	3-20 years	6%	District Board
Water and Sanitation -1939-49	County	---------	Yes	$5,000 or over or 10% of assessed	3-20 years	--------	District Board
Fire Protection-1949	County	6 mills	Yes	----------	----------	--------	District Board
Disposal District-1953	County	---------	Yes	----------	----------	--------	County Commissioners
Metropolitan Recreation	County	4 mills	Yes	$15,000 or more or 1-1/2% of assessed	3-20 years	--------	District Board
Metropolitan Water	County	6 mills	Yes	Yes	----------	--------	District Board
Hospital District	County	2 mills	Yes	Yes	3-20 years	--------	County Commissioners
Metropolitan Sewage Disposal	County	3/4 mill 5 yr. limit	Yes	Yes	40 years	--------	District Board

[1]See, generally, Chapter 89, Colorado Revised Statutes, 1963, and Title 32, Colorado Revised Statutes, 1974.

Source: Metro-Denver: Mile High Government, Bureau of Governmental Research and Service, University of Colorado, Boulder (1966). (Tables have been revised and updated by Commission staff).

SPECIAL IMPROVEMENT DISTRICTS (LOCAL)[15]

1. Description: Special improvement districts give legal authority to groups of people within municipal jurisdictions to provide public improvements in the immediate vicinity of their properties and assess themselves in proportion to the amount of benefit their properties receive from the project (with or without financing assistance from the local government). Cities have been given some latitude in developing special local assessment techniques, but their determination must be based upon the concept that individual property owners can be assessed for local improvements in the vicinity of their land to an extent that does not exceed the benefit their property receives. Almost every city in Colorado has used this approach to finance local improvements.

   Front-end cash requirements to pay the contractor who has built the project, engineering services to design and supervise the project, plus administrative expenses to bring the project to completion must be paid by some device initially. The most common technique for this process is that of governmental financing of front-end costs with eventual pay-back by the assessment from individual property owners. Another device is that of issuing bonds which are to be paid off by the assessments against benefitting property owners. Although both procedures can be used in various situations where the local governmental agency has some financial capabilities, it is more efficient for local government to provide front-end financing and carry the debt requirements until pay-back can accrue from the benefitting property owners.

2. Purpose: Special improvement districts have long been used in cities, and, presumably, will be used in the future in counties, in situations where local government either is not financially able to provide necessary and desired improvements for local property owners or is not inclined to use general revenues for philosophical reasons. Philosophically, many people object to providing neighborhood improvements that seem primarily to benefit the immediate property owners with money

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[15] CRS '63, 89-2-1, et seq.; CRS '73, 31-25-501, et seq.

raised from the total community. In some cases, combination funding is provided where part of the improvement cost is paid by the local property owners in relation to the benefits they receive and a portion is paid by the local government presumably in exchange for benefits that accrue to the total community.

As the new law, which now includes counties, becomes more broadly understood, there will probably be numerous applications of special improvement districts in county areas where improvements are needed and people choose to assess themselves to provide such benefits.

3. Legality: Legislation in 1973, H.B. 1245, clarifies the use of special improvement districts in counties for grading, paving, curb and gutter, and drainage features.[16] A brief synopsis of that bill appears in this section. It closely approximates the general nature of the provisions that guide special improvement districts in cities. The statute providing for special improvement districts in cities is one of long standing and one that has been sufficiently tested and upheld. With reasonable care and prudent procedures, concerns about its legality should be minimal. However, in the case of the new county law, limited use and experience would require that more caution be exercised.[17]

4. Citizen Acceptance: Special improvement districts in cities have occasioned the full range of public response from complete acceptance to substantial opposition. Inasmuch as approval of the project, which ultimately results in assessments being levied against the benefitting property owners, does not require 100% acceptance by property owners in the district, there is always the possibility that a majority of the people will be in favor of the project with a minority group opposing them although benefits would accrue to everyone in the district. Special improvement districts have, in fact, always been an arena for substantial public reaction. It is not, however, a concept that one should be reluctant to use if the project is well thought out and if, in fact, benefits do accrue to all property owners.

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[16] CRS '63, 36-30-1, et seq.; CRS '73, 30-20-601, et seq.

[17] Ibid.

SYNOPSIS OF HOUSE BILL #1245

(STATE OF COLORADO)

SPECIAL IMPROVEMENT DISTRICTS[18]
(EFFECTIVE JULY 1, 1973)

WORK THAT CAN BE AUTHORIZED: Grading, paving, curb and gutter, drainage.

WHO INITIATES AND WHAT IS THE PROCESS:

County Commissioners	Property Owners
Plans, specifications, cost estimates prepared by County Engineer or other officer having similar duties.	The majority of the road fronting owners sign a petition setting forth type of improvement and maximum cost excluding engineering and certain administration fees.
Notice mailed to property owners with synopsis of proposal 10 days prior to public hearing.	County Clerk gives newspaper notice with synopsis. County Commissioners will have hearing in 30 days.
Resolution passed at public hearing setting forth improvement district, type and extent of improvement, estimated costs, etc.	Resolution passed or failed by County Commissioners.
Contract advertised, awarded by County Commissioners, completed. County may order utility connections done by private property owners. County may share 50% in intersections.	If resolution passes, the contract is advertised and let by the County Clerk and the work is completed.
The Commissioners by special election may contract indebtedness or issue bonds.	

County Clerk gives newspaper notice that improvements have been completed along with costs 20 days prior to County Commissioners considering the resolution to assess. No limit on mill levy.

County Clerk assesses in proportion to benefits. Costs are collected within 30 days after the resolution to assess or the property owner may elect to make equal annual payments up to 20 years.

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[18]CRS '63, 36-30-1, et seq.; CRS '73, 30-20-601, et seq.

5. Advantages: Primary advantages of the concept of special improvement districts are that (1) improvement projects can be provided for, financed, and constructed without total funding by the local government; (2) substantial public participation in a project tends to lead to a project that is realistically in tune with the needs and desires of the people in the neighborhood; and (3) local government providing a small amount of "seed money" as a starter to pick up some of the costs of the project frees general revenues for higher priority items.

6. Disadvantages: The primary disadvantages of the special improvement district are that (1) substantial negative public reaction can occur if the projects are not well chosen, well planned, and well executed in terms of construction and assessment; (2) because of their nature and the numerous steps required to carry through all of the procedures, special improvement districts are very time consuming from an administrative point of view; (3) they cannot be carried out with strong administrative staff assistance because of the needs for substantial attention to detail in executing such a program; and (4) front-end financing is required before assessments can be levied against property owners since such assessments occur only after the improvement has been completed and is operational.

IMPROVEMENT DISTRICTS (GENERAL)[19]

1. Description: General improvement districts, simply called improvement districts in Section 89-4 of the Colorado Revised Statutes which authorized their creation, are a taxing unit which may be created in any city or town, whether operating under a home-rule charter or under statutory provisions. The major distinction between general improvement and special improvement districts is that the general improvement district is quasi-independent of local government and is allowed to levy taxes.

   A general improvement district can be created by the governing body of a city or town to achieve various public purposes, such as the formation of a parking district. It is created as a result of a petition from a majority of the voters within the district and a majority petition of the real or personal property owners in the same area.

2. Purpose: A general improvement district can be created for the purpose of constructing any public improvement except gas or electric systems. In the past the concept has been used primarily for parking facilities. However, since the wording of the legislation is very broad, application to various other public improvements seems quite possible.

   A district, once created and operating under the direction of the governing body of the city, becomes a quasi-municipal entity with many of the same powers as the city itself, including the power to levy ad valorem taxes on real and personal property within the boundaries of the district. These taxes can only be used for paying costs of the public improvement for which the district was created.

3. Legality: The statutes providing for the general improvement districts in cities and towns are of reasonably long standing and have apparently been sufficiently tested to uphold their legality. With reasonable care and prudent procedures, concerns about their use should be minimal. One question that may arise is just what is meant by the statutory language of "any public improvement" when discussing the basic purpose for which a district can be formed.

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[19] See, generally, CRS '63, 89-4-1, et seq.; CRS '73, 38-23-101 et seq.

4. Citizen Acceptance: Citizen acceptance of the concept should be generally favorable, as long as the purpose for which the district is being proposed is supported by the people of the district. With the safeguards that district creation is subject to both majority voter consent within the district and majority dollar consent from the holders of taxable real and personal property within the district, a majority decision is virtually assured. In addition, once a district is created, an additional vote of the people within the district is required if long-term debt is to be incurred.

5. Advantages: A principal advantage of the concept is that people within an area can choose to create a public improvement district and pay for it themselves over a reasonably long period of time. The debt incurred by district formation and construction of a public improvement is not an obligation of the city but of the district itself and, therefore, does not affect the debt limitation of the city. The district can function as a corporate entity and, therefore, deal readily with revenue producing facilities such as parking structures and may never actually have to tax district members if income from the created facility offsets annual operating and debt retirement costs. If the number of people involved in the district is relatively small, little public education will be required to get the district approved.

6. Disadvantages: One disadvantage of creating a general improvement district is the administrative red tape required. Time lag of one year is not uncommon for such projects. Also, as in most financing vehicles the decision of whether or not to proceed will be made by a majority of the people within the district boundary with no guarantee that minority concerns will be addressed.

   Front-end cost requirements to initiate the district and the project can be a serious problem. Legal costs of forming the district, administrative and engineering costs to define district limits, estimated project costs, etc., must be paid either by the people within the district or by the city itself. In any event, since these costs are often substantial, significant concern may arise. From the city's

point of view, even though general improvement districts are looked upon favorably, they are another governmental entity with which local government must deal.

REGIONAL SERVICE AUTHORITIES (RSA)[20]

1. Description: Regional Service Authorities are political subdivisions of the state which may be formed to meet service needs on a regional basis. They must be comprised of at least two counties and can only be created upon a vote of the people. No territory can be in more than one RSA. It was envisioned that an RSA would provide services in much the same way as special districts now do in Colorado, but as a multiple function agency under one board of directors. RSAs are given greater powers than special districts. They are authorized to take over management of special districts within the service authority area if such action is approved by the special district. An attempt was made to form an RSA in the Denver Metro Area, but was defeated by the voters of the four counties to be included in the district.

2. Purpose: The legislative declaration of purpose of the Service Authority Act stated that it is the policy of the state to utilize "single service authorities to provide those functions, services, and facilities which transcend local government boundaries, thus reducing the duplication, proliferation, and fragmentation of local governments." To this end, many services that presently are being provided by various agencies in an area can be brought under the control of a single agency. The following services may be provided upon authorization of a majority of the voters in each county within the RSA: domestic water, urban drainage and flood control, sewage, public transportation, housing, solid waste collection and disposal, parks and recreation, libraries, fire protection, cultural facilities, hospitals and military facilities, weed and pest control, central purchasing and other management services for local government, local gas and electric service, jails and rehabilitation, and land and soil preservation.

3. Legality: A constitutional amendment adopted in 1970 declared that the General Assembly would provide a statute for the organization, services, and powers of service authorities. In 1972, the legislature passed the Service Authority Act[21] but as of now no RSAs function in the state.

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[20] See, generally, CRS '63, 89-25-1, et seq.; CRS '73, 32-7-101, et seq.

[21] Ibid.

Any two or more contiguous counties can initiate the formation of a RSA upon petition or resolution by filing with the District Court. Contingent upon a court finding of compliance, an organizational committee is appointed which determines what services shall be voted upon and how the formation election shall be held. The election determines whether or not the authority shall be formed, selects the services to be provided, and elects a Board of Directors in whom all legislative power of the service authority is to be vested. The question of formation must receive a majority of the votes cast, but no service can be authorized without first receiving a majority of the votes in each county within the authority. The Board of Directors is elected from districts of equal population within the service area for staggered four-year terms.

Service authorities have powers beyond the provision of services. They are responsible for providing comprehensive planning in the service area and for reviewing and commenting on state and local government comprehensive plans which affect the area. The board can fix rates of the tax levy; incur general obligation indebtedness; issue revenue bonds, local improvement bonds, refunding bonds, and anticipation warrants; and establish special taxing districts when the provision of certain services benefits substantially less than the entire area included within the service authority, and where resulting ad valorem taxes or charges may vary from those imposed in other areas of the RSA. Additionally, auxillary powers are granted to the board "to adopt by resolution and enforce regulations not inconsistent with state law or regulation which are necessary, appropriate, or incidental to any authorized services provided by the service authority."

Once a service authority has been established, no new special district can be formed within the area for the provision of the same or essentially the same service or services as the special district would perform. In the case of existing special districts, their governing bodies may designate the Board of Directors of the service authority in which the special district is located to act as the board for that district if the service authority is authorized to provide the same service or services that the district is performing. Such a designation

is made by a majority of the members of the governing board of the special district. Provision is made in the Act for the challenge of such a designation by voters within the special district, and the question of approving the designation must then be submitted at an election.

4. Citizen Acceptance: Because of the appearance that the RSA would supersede local government in certain areas, local political bodies may hesitate to support such an encompassing agency. Citizens also appear to have reservations, although originally supporting the concept at the polls. A vote in the Denver Metro Area which defeated the RSA proposal in 1973 may not have been a reasonable test of citizen acceptance. The RSA election was caught between two other general elections, one of which concerned the formation of the Regional Transportation District (RTD). Considerable monetary and personal support when into that campaign which might otherwise have supported the RSA issue. The Denver Council of Governments analyzed the campaigns and reported that the same people supported both issues, but RTD got the support of the campaign workers. Also, animosity over annexation wars between Denver and the surrounding three counties was at a peak.

5. Advantages: A regional view of services may be taken with coordination mandated instead of the proliferation of uncoordinated activities which occur when special districts are relied upon. Existing political boundaries would not be disturbed. Regional taxing and user charges become possible without affecting local government debt limitations; revenue can be matched with expenditures on a regional scale. Local government would not be superseded except for the services listed which citizens desire and approve. Economy of scale should be realized in providing services. The RSA is directly responsible to the voters.

6. Disadvantages: The RSA is an additional level of government which may be looked upon as another layer of bureaucracy. There may be conflicts between local government desires and the regional viewpoint, i.e., growth versus limiting growth. It does not address the revenue problems of school districts.

INTERGOVERNMENTAL AGREEMENTS[22]

1. Description: Amendment of the Colorado Constitution in 1970 required the General Assembly to pass enabling legislation to specifically permit cooperation among various levels of government, special districts, and private corporations to provide services and facilities for public purposes. This included the sharing of costs, imposition of taxes, and the incurring of debt. It became possible, for example, for one local government to contract another local government to provide a given service within its boundaries. It also became possible for two governments to create a joint special taxing district for funding services provided by a private corporation under a single contract.

2. Purpose: The intent of the Intergovernmental Relationship Act[23] is to permit and encourage governments to meet their obligations in the most efficient way possible by permitting them to cooperate and contract for services with other public and private agencies. This approach recognizes that it may be easier to cooperate than to reorganize existing political boundaries to achieve desired services or facilities. Local governments have used these agreements primarily for services such as sanitary landfill, fire and police protection, or water. Glenwood Springs has entered a number of such agreements, one to provide water to a district and another to lease a vehicle with Carbondale. Garfield County has an agreement with Rifle to provide sanitary landfill facilities, and Mesa County is contracted to provide law enforcement for Palisade. The potential of the law to serve a region has not yet been utilized. The taxing district concept with its potential for meeting geographical problems of population impact in one area and tax revenue in another has yet to be tried.

3. Legality. The enabling legislation for intergovernmental agreements is very broad. It gives power to political subdivisions of the state, i.e., home-rule cities, statutory cities and towns, counties, service authorities, school districts, and special districts to cooperate and

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[22] See, generally, CRS '63, 88-2-1, et seq.; CRS '73, 29-1-201, et seq.; and CRS '63, 88-4-1, et seq.; CRS '73, 29-1-401, et seq.

[23] CRS '63, 88-2-1, et seq.; CRS '73, 29-1-201, et seq.

contract with each other, with agencies of the state and federal government, or with political subdivisions of an adjoining state. Furthermore, they may create a separate legal entity to administer the service or facility for them. They may share the costs, impose taxes, or incur debt to provide revenue if jointly agreed to. Such agreements are easy to create if the parties involved share the same concerns. Citizen votes are not necessary nor are public hearings.

4. Citizen Acceptance. Intergovernmental agreements may be very acceptable to citizens since they do not create new layers of government nor require changes in established political boundaries.

5. Advantages: Flexibility in taxation techniques is optimized by permitting any level of government to collect and distribute revenues to other cooperating governments. Governmental or taxing boundaries can be crossed for revenue or functional purposes without instituting a new governmental level or changing existing ones. There are many options available to various levels of government to solve regional problems. These agreements might complement a Regional Service Authority or similar institutional arrangement.

6. Disadvantages: Such agreements could add to the already chaotic situation of identifying which agencies are providing which services and where tax monies are going. Regional planning and cooperation might be difficult to achieve since this approach does not require coordination of agreements and expenditures. Cooperation among competitive local governments is often difficult to achieve without a directive and/or incentives from a higher level of government.

REGIONAL REVENUE DISTRIBUTION

1. Description: Tax revenue distribution within a geographical area is a concept deserving of special study in the oil shale region. Methods such as sharing the ad valorem tax base of other revenue sources such as sales and use taxes, regulatory taxes, or perhaps a severance tax would go a long way in solving the distribution of revenues problem. While this type of program would function best on a regional scale, the technique also could be used between two counties, or even between a county and a city or town. In the oil shale region, cities and school districts are the potential "have nots" while the counties are generally in the "have" position.

   Methods for achieving a distribution of revenues are presently available. Contractual agreements among local governments under the Intergovernmental Relationship Act,[24] using the special taxing district powers of a Regional Service Authority, is one way to handle revenue distribution. Perhaps an innovative application of H.B. 1041, the major land use bill passed during the 1974 session,[25] is another. Additionally, but needing legislation to become a reality, is the use of special taxing districts or the creation of a tax distribution mechanism similar to the one presently being used in the St. Paul-Minneapolis metropolitan area in Minnesota.[26]

2. Purpose: Regional revenue distribution would ease problems in the oil shale region resulting from the concentration of industries paying large amounts of property taxes to Rio Blanco and Garfield Counties while much of the growth pressure from such development is exerted on incorporated areas throughout the region.

3. Legality. For those means of distributing revenues allowed under existing legislation, the only legal complication is likely to be agreement over the wording of the contract. All such agreements are voluntary, however. A viable revenue distribution procedure probably will

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[24] CRS '63, 88-2-1, et seq.; CRS '73, 29-1-201, et seq.

[25] CRS '63, 106-7-101, et seq.; CRS '73, 24-65.1-101, et seq.

[26] Minnesota Revised Statutes, Sec. 473 F.02.

require state legislation. Fortunately, constitutional authority exists at present:[27]

> The General Assembly may provide by statute procedures whereby any county, home rule county, city and county, home rule city or town, statutory city or town, or service authority may establish special taxing districts.

Although this constitutional provision was added in 1970, the legislature has only provided special taxing districts for RSAs to date. Under such a broad mandate, the Colorado legislature could authorize a tax revenue distribution procedure.

An example of the potential of such a provision can be seen at present in Minnesota. In 1971, the Minnesota legislature enacted a regional distribution procedure for the Twin Cities Metropolitan Region.[28] The plan provides for increases in the assessed valuation of commercial and industrial property to be allocated among governmental units in seven counties. Simply stated, 40% of new nonresidential property taxes are pooled and shared among all jurisdictions.

4. Citizen Acceptance: So often citizen acceptance of innovative proposals depends upon their understanding of the concept. This probably would be the case with a regional distribution proposal.

5. Advantages: A revenue distribution mechanism will place monies where they are most needed. The existing tax system can be utilized. Regional problems can be addressed by regional solutions.

6. Disadvantages: Determination of an equitable distribution formula is difficult. Certain local governments will be required to contribute more revenues than others. As a result, agreement on the concept may be difficult. A fear that taxes would increase might be encountered.

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[27] Colorado Constitution, Article XIV, Section 18 (1)(d).

[28] Minnesota Revised Statutes, Sec. 473 F.02.

INDUSTRY ASSISTANCE TO LOCAL GOVERNMENT

1. Description: There are many ways in which industry can ease the fiscal burden of extreme growth pressures on local governments. The following briefly describes some of those methods:

   a. Industry financed facilities: Examples of this approach are (1) companies providing basic utilities and/or housing for their workers; (2) subdivision developers providing a cottage school until permanent facilities are available; and (3) complete new towns built by a company or industry. Control of such facilities varies. Often the company constructs the facility, retains ownership, and rents on a non-profit basis. In other cases, the company undertakes construction and then leases the facilities to a local government. School districts throughout Colorado (Jefferson County, Denver, Boulder, Greeley) have used the "cottage" school concept in new subdivisions while waiting for the construction of permanent facilities. Company towns have a long history ranging from military installations with total living environments to the coal mining towns of Appalachia and the "new" towns of the Tennessee Valley Authority. Where local communities were non-existent or incapable of meeting the demands of an "instant" major new employment center, companies have been compelled to meet their workers' needs for community facilities and housing. Tax incentives for the industry providing such facilities can be a positive factor. Otherwise, industrial competition may discourage such actions.

   b. Purchase of bonds: An industry might aid local government by providing a market for local bond issues which might otherwise not be readily marketable. Additionally, a lower interest rate should be realized. This technique was used in Nevada in the early 1950s. Anaconda opened a mine in a rural area of the state, placing a burden upon the local school district. When bonds were issued for the construction of a new high school, the company bought most of the issue.

c. Purchase of short-term paper: Because of the delay in receiving ad valorem taxes, a bad money market, or other factors, it may be undesirable to issue long-term bonds. Yet local governments may need money immediately. Interim financing through short duration promissory notes would alleviate this problem. As with other approaches, a purchaser is necessary; the more willing the purchaser, the lower the interest rate. If a company were to buy such notes or to guarantee the issue, the local government would gain the time it needs to achieve a better financial position, and the company would only be obligating itself for a short period of time, likely three to five years.

d. Third-party leasing: Another possibility might be a third-party lease for needed public facilities. Such a scheme would resemble a third-party beneficiary contract. Under such an agreement, an industry would contract a leasing corporation or a specially created non-profit corporation to supply a facility or equipment needed by the local government. The liability would belong to the industry. The local government could enforce the contract against the lessor in its own right.

e. Securing a bond issue: A large corporation with vast resources securing local government bonds would likely result in the issue receiving a greatly lower interest rating. Additionally, the market for the bond issue would be greatly expanded.

f. Prepayment of taxes: A great aid in reducing the lead time inherent in ad valorem taxes would be voluntary prepayment by an industry of part of its anticipated tax burden. Such a plan could probably be attempted under existing statutes. One possible way that such a program could be formulated would be to project the likely tax burden of an industry for a period of time into the future, such as ten years. The total figure of anticipated taxes would probably be projected for only seven or eight of those ten years if operations were imminent in year one--reflecting the two to three year property tax lag. However, if that total amount

of taxes was to be divided by ten, that fraction could be paid at year one and each succeeding year and the same amount of taxes would be paid by year ten. This, of course, is assuming that the tax projection is accurate. Deviations of actual taxes during the period from projected taxes could be corrected periodically. Such a plan, with or without legislation, seems possible, although many problems are inherent. Brief research in preparation of this report did not reveal any prepayment of tax plan in existence in other states. However, legislation allowing such a procedure in North Dakota is planned for introduction at the next session of their legislature.

2. Purpose: All of the proposals just discussed are possible ways that industry can help local governments obtain funds, facilities, or equipment when they are needed. Such devices are not likely to solve fiscal problems all by themselves. However, they can be important parts of an overall fiscal policy. Use of any of these devices serves two purposes. Most importantly, it eases the troublesome "front-end" capital problems, in some cases faster than local government could do by itself. Additionally, such an aid or "helping hand" offered to local government would go a long way in erasing fears that this latest interest in oil-shale development is just another "boom or bust."

3. Legality: The legality of the methods just discussed, with the possible exception of tax incentives where facilities are provided on prepayment of taxes, appears beyond serious question. In Colorado, this seems especially true since the passage of the Intergovernmental Relationships Act, based on the 1970 amendment to the Colorado Constitution. Rather, the chief legal issues involve corporate tax and securities and exchange regulation questions which are well beyond the scope of this study.

4. Citizen Acceptance: These devices, with the possible exception of a "company town," should be warmly accepted by local residents as a showing of "good faith" on the part of industry.

5. Advantages: Industrial assistance to local government could provide relatively immediate availability of funds. Lower interest rates may be available. Cooperation between the public and private sectors would be encouraged.

6. Disadvantages: Substantial legal expertise is required to employ these devices properly, both for the local government and the industry. Their use is solely determined by an industry's willingness to enter into such an agreement. Local government officials might fear that too close an association with the industry will result in a diminution of their powers, e.g., control over provision of services, etc.

SECTION V. FEDERAL INVOLVEMENT IN THE OIL SHALE REGION

Local governments in the oil shale region are likely to experience increasing interaction with higher levels of government. Present perceptions of the needs for development of domestic energy sources will require numerous federal agencies to exercise regulatory and assistance responsibilities resulting from oil shale development on federal land. The interrelationship of local governments with these higher levels of government will be complicated as objectives, policies, and functions overlap and sometimes conflict.

INTRODUCTION

Increasing national interest in the development of domestic energy sources has resulted in agencies of the federal government, by virtue of federal ownership of much of the oil shale deposits, becoming deeply involved in the oil shale region of western Colorado. Agency responsibilities include the regulation of resources and industries to assure an adequate supply with proper precautions taken to protect the environment and assure the recovery of the land. Within the federal government, coordination is presently centralized in the Mountain Plains Federal Regional Council. An office for federal coordination of assistance programs has been established in Rifle, but the regulatory agencies have not as yet established a formal mechanism by which activities can be coordinated with state and local governments.

As a prime provider of programs and financial assistance to local governments in the oil shale area for socioeconomic and utilities planning and environmental protection, the federal government also has a major responsibility in playing a supportive role for local governments. Federal agencies can use leverage to achieve programs which will reduce the lead time impact problem. Because of the potential impact federal regulatory agency decisions may have on the control over the development of the shale industry, a brief discussion of the powers and responsibilities of these agencies is included in this section. Specific programs are not reviewed or listed due to the vast number and constantly changing validity of each. What is currently approved or funded can be readily identified by the Region VIII office in Denver or by the local federal representative in Rifle.

FEDERAL REGULATORY AGENCIES

Of particular importance to this study is the federal ownership of much of the land in western Colorado. This "proprietorial" ownership is exercised through the principal federal land management agencies, the Department of the Interior and the Department of Agriculture.

In areas of extensive federal land ownership, the U.S. Forest Service (Department of Agriculture) and the Bureau of Land Management (Department of the Interior) have effective tools for determining land use patterns on

both public and private lands within their jurisdiction. Among these tools are the following:

1. In mineral leases, clauses are included which require compliance with environmental and other standards of performance both on and off the leased area.

2. The granting of rights-of-way over public land for ingress and egress to private land is conditional to conformance with federally promulgated land use plans, or to other requirements of the federal landowner, such as location of facilities, dumps, tailings, etc.

3. Price, joint-use, and other conditions, such as provision for "utility corridors," are attached to leases, contracts, right-of-way grants, and patents.

4. Contracts and land transactions for post-lease or post-grant supervision are conditional under specified procedures.

5. Public land and intermixed private land is classified in a manner to control the use of the private land as well as the public land.

There is no question that in actual operation, the responsible officials of these and other land-managing federal agencies have a strong policy for cooperation and coordination with local, county, regional, and state agencies, and with public and private interest groups where appropriate. Furthermore, their procedures provide for very broad citizen participation in the planning process. Yet, it is to be emphasized that the federal government's activities in these areas are functionally different from its activities in broad programs which call for state and local involvement in regulation under federal standards, as under the Clean Air Act Amendments or the Federal Water Pollution Control Act. The land management agencies have sole responsibility for regulation although they solicit comments and concerns from state and local governments.

It should be noted that federal agencies are organized to perform a specific regulatory function and not to regulate a particular form of energy (except in the case of the Atomic Energy Commission). As a result, regulation of some aspect of oil shale development will likely be one of these functions.

Often many federal agencies are involved in the regulation of a particular energy project. However, there is little overlap in their areas of responsibility. Furthermore, all federal agencies must conform to the requirements of the National Environmental Policy Act. An environmental impact review must be undertaken by each federal agency for all of its own projects. Additionally, agencies must respond to environmental impacts resulting from activities by other agencies when such activites relate to their expertise or statutory authority.

The following federal agencies will be involved, in varying degress, in the regulation of oil shale development in western Colorado.

BUREAU OF LAND MANAGEMENT (BLM) (Department of the Interior)

The BLM classifies, manages, and disposes of public lands and their related resources according to the principles of multiple-use management. It exercises the discretionary authority of the Secretary of the Interior to determine whether or not leases, permits, and licenses are to be issued. The Bureau is responsible for issuing mineral leases, permits, and licenses, and is the office of record in mineral leasing matters.

The BLM conducts oil shale lease sales on the public domain and acquired lands pursuant to the Mineral Leasing Act of 1920. It is required to protect nonmineral resources during energy development as well as to prepare and review environmental impact statements resulting from the exploration for and development of oil shale.

The BLM is the agency most likely to affect local governments in the oil shale region because of its power to grant rights-of-way over public lands. Since it can make land available for residential development, urban expansion, and industrial and commercial uses, the Bureau has considerable power to affect land use planning in the area. Cooperation between cities, counties, and the BLM to work towards desired land use goals is essential. Rights-of-way are going to be required for roads, pipelines, and other utilities.

The Bureau is well aware of the potential impact on the region beyond the physical impact caused by granting rights-of-way and, therefore, is a lever on shale development. For this reason, it is expected that all BLM environmental impact studies will consider all impacts, including those on private lands and community development.

A good example of such a study is the BLM's environmental impact analysis of the 192-mile pipeline which Colony Development is proposing to build between their plant site near Grand Valley, Colorado, and Lisbon, Utah. While the obvious impact of the pipeline may seem relatively minor, the study will integrate impacts of building electric power transmission lines, water lines, new towns, highways, railroads, new industries, other natural resource development, and will identify ways of lessening detrimental impacts. The emphasis of the study will be regional impacts on people and of people on the environment.[1]

U.S. GEOLOGICAL SURVEY (USGS)(Department of the Interior)

The USGS performs surveys, investigations, and research covering topography, ecology, and mineral and water resources of the nation; classifies land according to mineral character and water and power resources; enforces Department of the Interior regulations applicable to oil, gas, and other mining leases; and disseminates data relative to the foregoing activites.

The USGS is responsible for all geologic, engineering, and economic value determinations for the Department mineral management program. These determinations include the mineral characterstics of lease and permit areas, parcelling, amounts of bonds, royalties, unit values, rentals, mineral production evaluation, reserves, investments, diligent development, minimum production requirements, and all other terms and conditions relating to mineral operations under leases and permits.

The USGS exercises the Secretary of the Interior's delegated authority regarding operations conducted under BLM oil shale leases. This authority is exercised through the mining supervisor who insures compliance with lease terms, approves development plans, and supervises operations within the "area of operation" for all BLM oil shale leases. He enforces stipulations in the leases regarding emissions and effluents as well as public safety regulations. It should be noted that this authority of the mining supervisor is limited to the area of operation of the lease. Outside of this area, BLM has full authority.[2]

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[1] The Denver Post, Wednesday, June 5, 1974, p. 24.

[2] The division of responsibility between USGS and BLM is far from clear. Some clarification is provided in Secretary Order No. 2948, October 6, 1972.

U.S. FOREST SERVICE (Department of Agriculture)

The Forest Service is responsible for the protection and development of federal forest reserves under the principles of multiple use and sustained yield. Forest Service lands were reserved from the public domain at the time of its severance from the Department of the Interior, plus lands acquired by the United States through purchase, exchange, and donation.

This distinction of Forest Service lands is important. The BLM has been granted authority by the Department of the Interior to lease Forest Service lands which were reserved for energy development, storage, and pipeline rights-of-way. This authority is total, although the Forest Service is allowed to make recommendations. In the case of lands acquired by the Forest Service, the Department of the Interior must obtain the consent of the Forest Service before committing these lands to energy development.

The Forest Service administers roads that are aligned over Forest Service lands to reach areas leased for oil shale production. Also, the Service will review oil shale leases issued by the BLM and make recommendations regarding stipulations for emissions and effluents.

ENVIRONMENTAL PROTECTION AGENCY (EPA)

The EPA was established to implement coordinated and effective governmental action to protect the environment. The agency's major concerns are the regulation of air and water quality pursuant to the Clean Air Act and the Federal Water Pollution Control Act. Among the duties of the EPA are research, monitoring, standards, enforcement, and commenting on environmental impact statements prepared by other federal agencies.

The EPA has a strong interest in environmental problems of oil shale development, much as it has in coal development in the northern great plains region. It has been monitoring the Colorado River in conjunction with the USGS. Presently, it is examining the problem of salinity increases in the Colorado River and is negotiating with the seven Colorado River states to quantify salinity levels. It is also likely that the agency will underwrite numerous studies examining environmental aspects of oil shale development.

Actual enforcement of EPA standards for air and water quality is generally left up to state implementation plans which provide for implementation, maintenance, and enforcement of limits on emissions and effluent from pollution sources. Only in instances where a state fails to set adequate limits is the EPA likely to step in to enforce its standards. In Colorado, the state has set adequate limits for air and water pollution and has opted to operate its own permit system for discharges of pollutants into its territorial waters.

FEDERAL ENERGY ADMINISTRATION (FEA)

The Federal Energy Office, established late in 1973, became the Federal Energy Administration on May 7, 1974. At the time of this writing it is not clear what effect this agency will have upon oil shale development in western Colorado.

In the Declaration of Purpose of the Federal Energy Administration Act of 1974 (Public Law 93-275) it is stated that the FEA is being formed to ". . . promote the expansion of readily usable energy sources, and to assist in developing policies and plans to meet the enrergy needs of the nation." To this end the energy administrator is required to establish a comprehensive national energy plan within 6 months of the date of the Act, implement energy conservation programs, assure that energy programs are designed and implemented in a fair and efficient manner in order to minimize hardship and inequality while assuring the priority needs of the nation are met, and develop effective arrangements for the participation of state and local governments in the resolution of energy problems.

MINING ENFORCEMENT AND SAFETY ADMINISTRATION (MESA)(Department of Interior)

MESA inspects domestic mines and enforces health and safety standards. It devises and enforces necessary health and safety standards, carries on mine inspections, field investigation, safety education programs, and technical assistance programs in eliminating hazards. Cooperation with state mine safety agencies is encouraged.

OFFICE OF PIPELINE SAFETY (Department of Transportation)

The Office of Pipeline Safety is responsible for the preparation and enforcement of safety standards for petroleum or gas pipelines which are in interstate commerce. Such standards pertain to design, installation, inspection, testing, construction, extension, operation, replacement, and maintenance. Provision is made in the original Act for gas pipelines being turned over to state enforcement. However, the Transportation of Explosives Act, which authorizes the regulation of oil pipelines, has no provision for state assumption of responsibility.

CORPS OF ENGINEERS (CE)(Department of the Army)

The Corps of Engineers provides civil functions in water resources development such as the construction of dams, reservoirs, and other flood protection structures; supplying water for municipal and industrial use; generation of hydroelectric power; and providing recreational opportunities. The CE also administers a number of regulatory programs for development and management of water and related land resources that do not involve structural measures.

The CE administers navigable water of the United States and prohibits activities that would reduce the value of such waters to the nation. (None of the waters of Colorado have been so designated.) To this end, permits are issued for the withdrawal of water from or the discharge of water into navigable streams and rivers when the course, location, condition, or capacity of the navigable waters would be affected. The CE is responsible for reviewing discharge permits issued by the EPA to determine effects upon navigation. It is also providing valuable flood plain study and management help to local governments.

BUREAU OF SPORT FISHERIES AND WILDLIFE (SFW)(Department of the Interior)

The SFW provides leadership for the preservation of land and water environments and the protection of birds, fish, mammals, and other wild animals and vegetation upon which wildlife is dependent. The Bureau conducts surveys and investigations to determine means of preventing loss or damage to living national resources.

Unlike the other agencies discussed in this section, SFW has no direct regulatory authority over energy development. However, the Bureau has been mandated to become the biological arm of the federal government and will play an important advisory role in many aspects of oil shale development. SFW will make recommendations to BLM concerning stipulations to be included in oil shale leases and concerning permits granted for rights-of-way; to the Corps of Engineers for stipulations to be included in permits for disposal into navigable waters; to the EPA for permit stipulations; and to the USGS concerning the enforcement of oil shale leases.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)(Department of Labor)

OSHA develops occupational safety and health standards and conducts investigations and inspections to insure compliance. Such regulations apply to oil shale facilities, except in situations where responsibility for health and safety standards was vested in other federal agencies at the time of passage of the Occupational Safety and Health Act of 1970. As a result, OSHA will coordinate its activities with the Office of Pipeline Safety and the Mining and Enforcement and Safety Administration.

FEDERAL ASSISTANCE AGENCIES[3]

Included under this category of federal agencies are such departments as Housing and Urban Development (HUD); Health, Education and Welfare (HEW); Farmers Home Administration (FHA); Office of Economic Opportunity (OEO); and others which fund and administer assistance programs to state, regional, and local governments and special districts.

Agency Programs

In response to a request for assistance from Governor John D. Vanderhoof, The Mountain Plains Federal Regional Council (MPFRC) has undertaken the development of a federal, state, and local planning and coordination system for the socioeconomic impact of oil shale development in Colorado Planning

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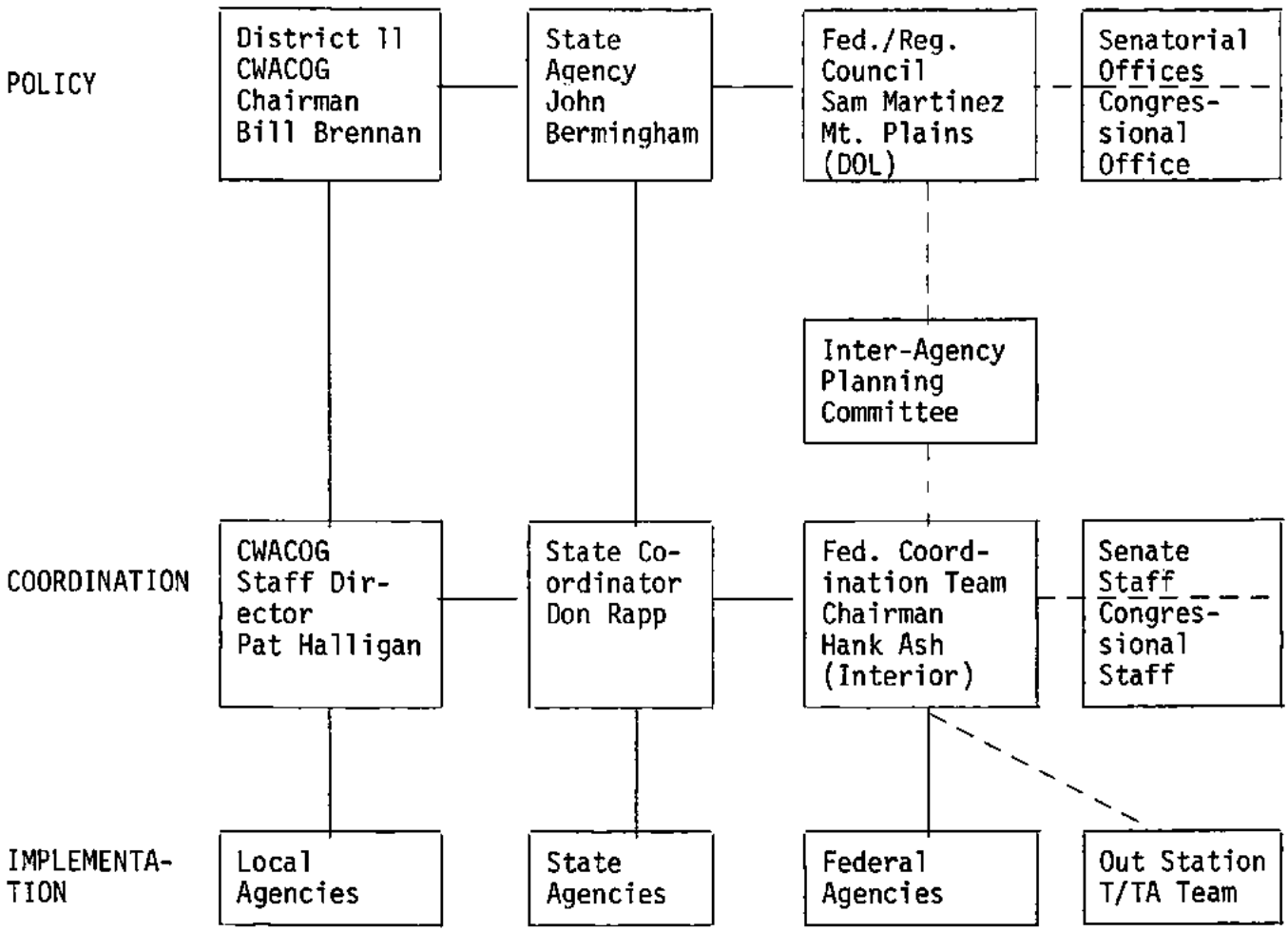
[3]Mr. Lorin Hunt in the Community Planning and Management Division of the Region VIII HUD office prepared the content of the following review of federal involvement in providing assistance to the state, region, and local governments which anticipate the socioeconomic impact of oil shale development.

MOUNTAIN PLAINS FEDERAL REGIONAL COUNCIL

Phase 1. Colorado Federal-State Management Plan

Planning District 11



District 11. The Interagency Planning Committee for the Federal Regional Council was originally charged with the responsibility of facilitating the development of a viable planning management system in Planning District 11 in order to cope with the impact of oil shale development. The responsibility has now been transferred to the newly created National Resources Committee.

As an initial step, the Interagency Planning Committee recommended the adoption of the "Rapid City Disaster Model" for the coordination of federal, state, and local government activities. This Phase I Management Plan was adopted by the MPFRC and accepted, in principle, by the state and the Colorado West Area Council of Governments. The Oil Shale Subcommittee of the Interagency Planning Committee (IPC) was formed to facilitate the implementation of this phase. The subcommittee's goal was to coordinate the delivery of federal planning programs to the substate district and to strengthen the district's planning capabilities. It has undertaken the following tasks:

1. To facilitate the implementation of the "Planning Management System."
2. To identify federal resources available to help meet socioeconomic planning needs.
3. To coordinate training and technical assistance from federal agencies to local government.
4. To encourage elimination of duplicative efforts by federal agencies and improve utilization of available federal resources in the impacted area.

On April 3, 1974, the IPC met with officials of Planning District 11 in Rifle to identify the current needs of the community. As a result, it was determined that initial federal assistance should be concentrated on increasing the planning capabilities of the District. Concern was expressed by the Colorado West Area Council of Government and federal planners over the lack of a regional comprehensive plan to coordinate local development. As an interim measure, a "concept plan" was proposed to provide a framework through which the land use and development policy decisions for the region might be enforced until a regional comprehensive plan can be developed.

Funding for this project was obtained from the Office of Economic Opportunity and coordinated by the IPC. In addition, funding was solicited by the IPC to provide the Colorado West Area Council of Governments with the additional staff required to handle the increased planning demands resulting from energy development. A human resources planner has been added to the staff through the auspicies of OEO and a request for $150,000 over a two-year period is currently being processed by the Economic Development Agency. This money will be used to provide additional staffing for the Council of Governments. Additional 701 planning funds are also being sought.

A full-time federal representative, Mr. Carroll Goodwin, is stationed in Rifle to facilitate local requests for federal assistance. The office intends to provide current information on available funds, programs, and application procedures. Governor Vanderhoof appointed Mr. John Bermingham to the MPFRC as his representative on the policy level. In addition, the state legislature appropriated $80,000 to establish an Oil Shale Planning and Coordination Committee. It is anticipated that the state's participation in this joint effort to coordinate oil shale development will increase considerably through this committee.

DECLARATION OF INTENT

A "Declaration of Intent for Northwest Colorado" was drafted by the Federal Regional Council staff. The purpose of the declaration was to clarify the responsibilities of each level of government in implementing the management plan for socioeconomic needs related to the development of energy sources in Northwest Colorado. It identified individual responsiblities and policies of the organizations involved. The desire was to provide a coordinated federal grant program with emphasis on cutting red tape and response time as well as integrating the federal effort with state efforts to avoid duplication and confusion.

CONCLUSIONS

Federal funding and review agencies are making a concerted effort to streamline their internal relationships in order to expedite assistance to the state and the oil shale region. It is recognized that the usual federal procedures are difficult to apply in an area where response time is vital.

Furthermore, while the federal and state agencies are putting their house together, they are requesting that local governments and region residents do the same. Rather than a multitude of separate requests, an overall plan for the region is being requested. This will permit priorities to be set locally with coordinated requests made to federal and state agencies.

Financial assistance is to be provided immediately for increasing the management capabilities of local staffs. The initial thrust is to increase the Colorado West Area Council of Governments staff which, in turn, will provide staff assistance to other local governments.

The intention of the Federal Regional Council is excellent. This is the type of assistance local governments need most in a rapid growth situation; i.e., cutting of red tape on aid requests, technical guidance on how to apply for assistance; guidance as to what is available and financial resources to increase local management and planning staffs. With the state and federal government agencies working in unison, a unique opportunity has been created for local governments to maximize the use of intergovernmental aid. The test of the program will be to see if the red tape is actually reduced and the funds and assistance made available as needed.

State agency coordination is just as critical as federal. Only if local governments receive support in an efficient manner from state agencies can they hope to receive decisive action from the state legislature when it is needed. This is particularly true with regard to the decisions on how to utilize state controlled oil shale lease funds.

SECTION VI. CONCLUSIONS AND RECOMMENDATIONS

The time for local governments in the oil shale region to prepare specific inventories, budget analysis, policies and strategies for their implementation is now. Once the individual governments have established their policies and goals, they should compare them with those of other governments in the region and resolve any conflicts. Strength in dealing with the lead time problem, whether with industry or state and federal governments, lies in the region acting as a unit.

INTRODUCTION

In compiling the potential fiscal problems and the alternatives available to local governments to deal with them, we have reached a number of conclusions for financial strategies and actions. Since solutions to the tax lead time problem will greatly influence the achievement of community and regional goals for many years to come, strategies need to be localized to meet the specific needs of each city, county, and school district in the oil shale region. It is not within the scope of this study to accumulate and analyze this type of data, but it is essential that those steps be taken on the local level and that in-depth discussions be held with local leaders to set needs, actions, and priorities for the communities involved. Lacking this detailed data, the recommendations of this report reflect general needs and opportunities in the region which will bear on all governmental units.

As stressed throughout this report, the major revenue concerns of local government are having sufficient funds available in the early stages of new development with equitable distribution of those funds to areas impacted most heavily by that development. Fiscal policy and management decisions should seek responsive, efficient actions related to revenue flow. The degree of success in interrelating fiscal policy with land use development policy and operational management decisions will determine overall costs and operational efficiency. The success of fiscal strategies in achieving short- and long-range goals will be greatly affected by the degree of participation by citizens, industry, and governmental agencies in the decision-making process. This participation should be actively sought.

In developing fiscal policy for local government, officials should weigh their decisions against the information contained in this report, bearing in mind that this study, by necessity, utilizes a number of assumptions which may not hold true over an extended period of time since the near term projections of oil shale industry development may not be realized and technology, economics, environmental constraints, national policy, and world politics weigh heavily on this as yet commercially unproven industry. The duration of the industry, once developed, is another question that must be considered. Development delay will not affect the scope of the task of local governments; it will simply give them more time to prepare a course of action.

GOALS AND OBJECTIVES

As a result of this study, we, as consultants, feel that the following goals and objectives should be accorded highest priority in developing fiscal action programs in the oil shale region:

1. Communities should predetermine the manner in which they wish to develop, giving appropriate weight to quality, location, and phasing of development as well as efficiency in providing public services.
2. Adequate public facilities and services must be provided when and where needed at minimal cost.
3. Cost of providing public facilities and services should be equitably shared among present residents, new residents, industry, energy consumers, and state and federal governments with each community determining its own concept of equity in this regard.
4. A diversified tax base should be established or preserved in order to avoid long-term dependence upon a single industry for revenues in the region.
5. Local control of government and public decision-making on local issues should be maintained, especially with regard to revenue and expenditure decisions.

PRIORITIES OF ACTION

The following actions are recommended for local governments and school districts in the region:

1. The highest continuing priority for action is the strengthening of collective efforts of all governmental entities in the region acting as a single unit when dealing with industry and state and federal governments.
2. Each local government and school district should inventory its facilities according to the following: size, specifications, quality, and expansion requirements. A detailed base information system collected and kept current in a uniform manner is not only essential to good planning practices, but will minimize delays when it comes time for action.
3. Each local government should develop community goals and policies with regard to desired development patterns, then review them on a regional basis with other local governments to avoid conflicts and alleviate concerns.

4. The local government should then develop generalized plans indicating where such development should occur, then measure the plans against the ability to provide public services to these areas and the regional affect such development might have. These plans would then be submitted for review by all concerned governments in the region.

5. As a representative of all of its members, the Colorado West Area Council of Governments should develop a monitoring system which would systematically record the type, location, and extent of all new development and redevelopment in the region. These figures would provide a base for checking the projections and signalling points in time when public actions will become necessary to keep pace with growth.

6. The Colorado West Area Council of Governments should develop seminars with its members to discuss various social, physical, economic, environmental, and governmental issues facing the region, thereby increasing awareness of the decisions which will have to be faced by administrators and legislative bodies.

7. Each local government should establish fiscal management strategies and measure them against their effect on the region as a whole. Each local government should decided if a pay-as-you-go philosophy is to be used or phased into and take the necessary steps to implement such a philosophy.

8. Each local government should analyze its budget and make five-year revenue/expenditure projections to know precisely what the trends are and what the sensitivity of each item is to growth impact.

9. As a result of the above procedures, each local government should use its accumulated data base, its goals and objectives, and its comprehensive plan to develop a five-year capital improvements program.

10. Through the Colorado West Area Council of Governments, local governments should act in concert to analyze and prepare ideas for desired state legislation, discuss them with area legislators, and present them to the Strang and Dittemore legislative committees prior to January 1, 1975.

SPECIFIC RECOMMENDATIONS

School Districts

Because of the special revenue sources and laws pertaining to school districts, they are treated here as an independent funding problem. The following recommendations should aid school districts in meeting the lead time requirements and in achieving the recommended goals and objectives.[1]

1. Temporary facilities, leased or purchased, should be used to meet immediate classroom needs. This would permit a quick response with minimum investment in the location of greatest demand. It would also allow for a permanent settlement pattern to develop before capital funds are committed to new permanent facilities.

2. Local land use regulations should require that new developments dedicate land or pay fees in lieu thereof for public facilities, including schools. School districts should encourage city and county governments to make such amendments to their regulations.

3. Where permanent housing is proposed, including new towns, school sites should be designated and dedicated before plan approval is given by the local government. Such a requirement should be based on land area and location determinations by the school district. Districts should maintain continuous input with city and county planning efforts and not wait until plans are formulated.

4. Joint taxing districts or a consolidated school district for limited purposes should be considered. Individual school districts would retain responsibility for curriculum, personnel, textbooks, innovations, and administration; but purchasing, taxing, and specialized personnel would be shared by contract under the Intergovernmental Relations Act.

5. Amendment of the 1973 School Finance Act should be sought immediately to allow some form of periodic rather than annual reporting of enrollment. This would make state funds more readily available for rapid growth areas. School boards should work with their state representatives in seeking this amendment.

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[1] These suggestions were identified for the Bureau of Educational Field Services of the University of Colorado as they developed their Oil Shale Impact Study for the Colorado Department of Education.

6. Federal impact funds under Public Law 81-814 and 81-815 should be sought as soon as impact begins.

7. A State Building Authority similar to California or New York authorities should be considered as a mechanism to lower bond interest rates over those available to local districts. (The Colorado Housing Finance Authority has set a precedent in this area.) Local requests to the state legislature for such considerations will be necessary. Support from other agencies such as the Municipal League and County Commissioners Association should be sought.

8. School bond guarantees under the School Bond Guarantee Loan Program (H.B. 1035, 1974) should be used by the school districts whenever bonds are used.

9. School districts should seek legislative authority to lease equipment for more than one year.

Cities and Counties

Revenue Sources

Our review of revenue sources indicates that, with the exception of federal and state funds in the form of grants or loans, there are no sources immediately available in sufficient magnitude to meet rapid growth needs. Such intergovernmental funds are being sought now and this effort should continue. The problem for local governments, if additional funds prove necessary, is how to safely borrow from anticipated revenues or build facilities with minimal local government financing. The following recommendations, either singly or in combination, may assist local governments in meeting the needs of the oil shale region:

1. Bonding (Borrowing):

    a. Commitments to long-term debt should be made only after careful consideration of alternative financing methods and only after the issuing city, county, or district is satisfied that the risks involved are appropriate in light of its ability to repay the debt; its right to bear the obligation to underwrite the risks; its ability to finance the continuing operation of the facility or service financed; and the impact on other government finances as a result of the project.

b. Local governments should work together on a regional basis to obtain industrial or federal or state guarantee of debt payment to assure an equitable distribution of the risks involved in financing based on repayment from oil shale associated development and, in particular, to assure against bankruptcy if the anticipated tax revenue is not realized. Without such guarantees, local government should wait for the growth to occur before borrowing—if at all possible.

c. Local governments should consult a fiscal advisor immediately upon consideration of debt financing to assure that all alternatives are considered and the one selected is the one that best serves local needs.

d. Early bond issues should be structured to allow early refunding.

e. Bonding should not be undertaken until a capital improvements program has been established with total costs, both operating and capital, and revenue producing potential of all projects identified.

f. General obligation bonds should be avoided when revenue producing projects are being considered.

g. Industrial revenue bonds and non-profit corporation financing should be considered as debt financing methods to reduce the risk to local governments.

h. Bond insurance should be considered a necessity for any issue backed solely by local government.

2. Cities and counties should consider lease or use installment purchase of facilities to avoid capital expenditures when such an approach is consistent with fiscal policy.

3. Cities and counties should assure that they are charged rates that reflect tax exempt borrowing for construction of capital facilities that they will lease from private companies.

4. Non-profit corporations, special districts, as well as industry, may provide some necessary facilities and services. However, creation of numerous quasi-governmental units should be avoided. "Self-destruct" clauses

requiring quasi-governmental units to phase into general purpose government should be mandatory for all new units seeking approval from the county commissioners.

Distribution

Geographic imbalance of anticipated tax revenues and population impact is clearly a problem for the oil shale region. Two of the following recommendations have been authorized by state legislation; the other two would probably require enabling legislation. We recommend that the local government in the region develop a system for county collected-city shared property taxes before it becomes necessary for the state to step in and collect taxes for local redistribution.

1. A regional service authority (RSA) may be the most comprehensive answer to the regional problems arising from oil shale development. Schools are not addressed in the RSA approach, but legislation could change the existing enabling legislation to include them. Local governments should consider, collectively, the appropriatness and desirability of suggesting an RSA to the local electorate.

2. Intergovernmental agreements are used in the area at present. A single taxing district could be established on a regional basis with funds redistributed to participating governments. The enabling legislation for such contracts provides that participation is voluntary which may cause some problems on a regional basis. To be most effective, such an agreement should be multi-county, encompassing all governmental entities.

3. A third voluntary alternative would be that the counties would levy property taxes as usual, but the revenues would be returned to all local governments and school districts in proportion to population impact, not just assessed valuation.

4. A regional revenue distribution method similar to that used in the Minneapolis-St. Paul region would require enabling legislation, but would make property tax sharing mandatory among all levels of local government based on statutory criteria related to population impact and need.

5. If local efforts to achieve equitable distribution fail, the state should

consider collecting property taxes from the region and redistributing them to local governments of the region based on population impact and need.

Management

1. Management techniques for capital improvement programming should be established quickly to meet the anticipated impact of oil shale development.
2. Management decisions should be based on a comprehensive fiscal policy related to achievement of community goals.
3. Management decisions should be directed toward making facilities and services financially self-perpetuating.
4. The real cost of expanding public systems should be determined and assessed to each new user consistent with community goals.
5. Management decisions should relate to maintaining and expanding the existing economic base and avoiding dependence upon one industry.

SUMMARY RECOMMENDATIONS

Local efforts to prepare for the expected impact of oil shale development have been started and should be continued. The wisest investment for the area, even if oil shale development does not materialize, is to use currently available planning monies for inventorying public facilities, reviewing budgets, analyzing management decisions, and developing comprehensive plans. Energy development is far broader than just oil shale and this region is one of the prime storehouses of the nation's energy resources. Therefore, this effort will benefit the region regardless of when, why, or how growth occurs.

It is essential that the citizens of the area be kept informed and involved in governmental planning activities. When time for action comes, there will be informed discussion without the loss of time involved in educating the electorate. Also, the multiplicity of private and public interests must be dealt with and should be kept involved throughout the planning and implementation processes. These special interest groups are not going to change.

Continue to think regional!

APPENDIX A

TABLE A-1. POPULATION CHARACTERISTICS OF A TYPICAL OIL SHALE PLANT

Year	Construction			Mine and Plant			Indirect			Total Population (Induced)
	Employment	Population Factor	Total Population	Employment	Population Factor	Total Population	Employment	Population Factor	Total Population	
1	1500	80%-1:1	2100	70	3:1	210	489	$\frac{w \times 3.0}{1.5}$	978	3288
2	2400	80%-1:1 20%-3:1	3360	220	3:1	660	774	"	1548	5568
3	400	"	560	820	"	2460	876	"	1752	4772
4	0	"	0	1040	"	3120	1012	"	2024	5144

Basic Assumptions Used in Developing Oil Shale Industry Induced Population Table.

1. Employment (and population characteristics) was analyzed for 3 categories of industry induced activity: (a) construction, (b) mine and plant, and (c) indirect (support).
2. Number and timing for construction and mine and plant employees was obtained from industry supplied data. Principal source was from characteristics of the Colony facility.
3. Typical oil shale plant construction runs over a 4-year period with construction employment peaking at approximately 2400 workers during peak construction periods.
4. Typical oil shale plant facilities will result in a gradual build-up of permanent mine and plant employees to the level of approximately 1040 workers at full production level.
5. Basic assumptions on indirect (support) employment is that each new permanent mine and plant job will generate 0.8 additional indirect jobs and each new construction job will generate 0.4 additional indirect jobs.
6. Population assumptions are (1) 80% of construction work force will be single workers and 20% will be family units with 3.0 persons per unit; (2) 100% of the permanent mine and plant employment will be family units with an average of 3.0 persons per unit; and (3) indirect population is based upon a typical 3.0 person per family unit with an average of 1.5 workers per household.

REVENUE/EXPENDITURE ASSUMPTIONS

The following assumptions were used to plot the individual county monetary impact charts:

1. Revenue Assumptions:
   a. A typical 50,000 barrel-per-day oil shale plant (Colony data) will have a capital cost of $435 million. The schedule for property tax purposes is as follows:

      Portion on tax roles at the end of Year 1 . . . $ 69 million
      Year 2 . . . 335 million
      Year 3 . . . 435 million

      Assessments will be on the basis of 30% of cost and a 75 mill levy will be used to standardize the examples. Property tax revenues from the plants will reach local government for use on a two-year time lag basis.

   b. Revenues from existing composite tax sources will be $428 per capita per year (THK data). From the $428, $241 will accrue to local government immediately and $187--the property tax increment--will lag two years.

   c. Mineral deposit revenues will flow from an estimated $27.4 million assessed valuation for the typical production plant at a 75 mill rate with a two-year time lag for funds to reach local agencies.

2. Expenditure Assumptions:
   a. An annual operating allocation of $500 per capita will be required to deliver a desirable level of urban services. (Basic data from THK.)

   b. A one-time capital requirement for all new population of $3008 per capita is assumed. (Basic data from THK.)

3. Population levels and oil shale industry activity are estimated at the levels indicated herein for computing the individual county impacts.

TABLE A-2. MESA COUNTY IMPACT FROM INDIVIDUAL PLANT DEVELOPMENT (Capital Construction Costs, Induced Population, and Taxes from Mineral Deposits

Plant	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
1. Gulf Oil	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population[2]											
2. Parahoe	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
3. Union Oil (Demo.)											
Capital Constr.	0	0	0	0	0	0	0	0	0	0	0
Population	0	33	58	48	52	52	52	52	52	52	52
4. Union Oil (Prod.)											
Capital Constr.	--	--	--	0	0	0	0	0	0	0	0
Population	--	--	--	0	329	557	477	514	514	514	514
5. Occidental Oil											
Capital Constr.	0	0	0	0	0	0	0	0	0	0	0
Population	0	210	315	945	1,260	1,260	1,260	1,260	1,260	1,260	1,260
6. Superior (Demo.)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
7. Superior (Prod.)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
8. Phillips-Sun	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
9. Colony (#1)											
Capital Constr.	0	0	0	0	0	0	0	0	0	0	0
Population	0	329	557	477	514	514	514	514	514	514	514
10. Colony (#2)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
Capital Constr. Total	0	0	0	0	0	0	0	0	0	0	0
Population Total	0	572	930	1,470	2,155	2,383	2,303	2,340	2,340	2,340	2,340

[1]Capital Construction=Cost in millions of dollars. [2]Population=Numbers added to County from plant development.

TABLE A-3. RIO BLANCO COUNTY IMPACT FROM INDIVIDUAL PLANT DEVELOPMENT (Capital Construction Costs, Induced Population, and Taxes from Mineral Deposits)

Plant	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
1. Gulf Oil											
Capital Constr.[1]	--	--	0	69	335	435	435	435	435	435	435
Population[2]	--	--	0	3,288	5,568	4,772	5,144	5,144	5,144	5,144	5,144
Mineral Deposits[3]	--	--	--	--	--	--	40	40	40	40	40
2. Parahoe Oil	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
3. Union Oil (Demo.)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
4. Union Oil (Prod.)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
5. Occidental Oil	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
6. Superior (Demo.)											
Capital Constr.	--	--	0	7	34	44	44	44	44	44	44
Population	--	--	0	169	301	433	514	514	514	514	514
7. Superior (Prod.)											
Capital Constr.	--	--	--	--	--	0	69	335	435	435	435
Population	--	--	--	--	--	0	1,688	3,088	4,332	5,144	5,144
Mineral Deposits	--	--	--	--	--	--	--	--	--	40	40
8. Phillips-Sun (Utah)											
Capital Constr.	--	--	--	--	--	--	--	--	--	--	--
Population	--	--	0	493	835	716	772	772	772	772	772
9. Colony (#1)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
10. Colony (#2)											
Capital Constr.	--	--	--	--	--	0	69	335	435	435	435
Population	--	--	--	--	--	0	1,644	2,784	2,386	2,572	2,574
Mineral Deposits	--	--	--	--	--	--	--	--	--	40	40

TABLE A-3. RIO BLANCO COUNTY IMPACT FROM INDIVIDUAL PLANT DEVELOPMENT (Continued)

Plant	1974	1975	1976	1977	1978	1979	1980	1981	1981	1983	1984
TOTALS											
Capital Constr.	0	0	0	76	369	479	617	1,149	1,349	1,349	1,349
Population	0	0	0	3,950	6,704	5,921	9,762	12,222	13,148	14.146	14,146
Mineral Deposits	0	0	0	0	0	0	40	40	40	40	40

[1]Capital Construction=Cost in millions of dollars

[2]Population=Numbers added to County from plant development

[3]Mineral Deposits=Millions of dollars in taxes

TABLE A-4. GARFIELD COUNTY IMPACT FROM INDIVIDUAL PLANT DEVELOPMENT (Capital Construction Costs, Induced Population, and Taxes from Mineral Deposits

Plant	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
1. Gulf Oil	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.[1]											
Population[2]											
2. Parahoe Oil											
Capital Constr.	0	7	34	44	44	44	44	44	44	44	44
Population	0	329	557	477	514	514	514	514	514	514	514
3. Union Oil (Demo.)											
Capital Constr.	0	7	34	44	44	44	44	44	44	44	44
Population	0	296	501	429	463	463	463	463	463	463	463
4. Union Oil (Prod.)											
Capital Constr.	--	--	--	0	59	285	370	370	370	370	370
Population	--	--	--	0	2,959	5,011	4,295	4,630	4,630	4,630	4,630
Mineral Deposits[3]	--	--	--	--	--	--	--	34	34	34	34
5. Occidental Oil											
Capital Constr.	0	13	62	80	80	80	80	80	80	80	80
Population	0	90	135	405	540	540	540	540	540	540	540
6. Superior (Demo.)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
7. Superior (Prod.)	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
8. Phillips-Sun	--	--	--	--	--	--	--	--	--	--	--
Capital Constr.											
Population											
9. Colony (#1)											
Capital Constr.	0	69	335	435	435	435	435	435	435	435	435
Population	0	2,959	5,011	4,295	4,630	4,630	4,630	4,630	4,630	4,630	4,630
Mineral Deposits	--	--	--	--	40	40	40	40	40	40	40
10. Colony (#2)											
Capital Constr.	--	--	--	--	--	0	0	0	0	0	0
Population	--	--	--	--	--	0	1,644	2,784	2,386	2,572	2,572

TABLE A-4. GARFIELD COUNTY IMPACT FROM INDIVIDUAL PLANT DEVELOPMENT (Continued)

Plant	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
TOTALS											
Capital Constr.	0	96	465	603	662	888	973	973	973	973	973
Population	0	3,674	6,204	5,606	9,106	11,158	12,086	13,561	13,163	13,349	13,349

[1]Capital Constr.=Cost in millions of dollars

[2]Population-Numbers added to County from plant development

[3]Mineral Deposits=Millions of dollars in taxes

APPENDIX B

PUBLIC FACILITY PROGRAM MANAGEMENT

In a rapid growth situation, many of the public facilities required to support new development can be created as an integral part of that growth. Using a "pay-as-you-go" approach can free the general revenue and borrowing capacity of local government for major community facilities and maintain or reduce the tax level for existing residents. Only those who directly benefit from the new facilities will pay for them. In some cases, the pay-as-you-go concept can be applied to the operation and depreciation aspects of the system as well, thus avoiding penalizing existing residents. By building the unit cost as well as operating costs and depreciation into the rate structure, facility expansion costs as well as actual service costs will be charged directly to the users.

New facilities or extension of existing facilities should be based on the local or regional comprehensive plan. In implementing the pay-as-you-go concept within the scope of the comprehensive plan, the following elements should be included:

1. The area to be served.
2. The location and concentration of activities.
3. The location and types of land uses.
4. The intensity or density of use.
5. Potential physical problems or hazards.
6. Phasing of development.

These elements are not all inclusive of what a comprehensive plan should be, but they do identify the essential elements for advance planning of public facilities and services. Planning for such services should be based on at least a 20-year lead time to allow for logical pattern development of service areas.

Assuming that the physical systems will be based on a comprehensive plan and related policy decisions, the following steps are vital for proper development of a facilities management program whether that program concerns water, sewer, roads and highways, solid waste, gas, electricity, telephone service, fire and police protection, or parks and recreation facilities:

1. Identify service area and demand.
2. Determine how much of the development costs are paid by whom.
3. Establish development standards and criteria.
4. Identify operation and service costs, including maintenance and costs of perpetuity.
5. Determine who is responsible for providing services and facilities under various circumstances.
6. Establish regulations and policies to control development and avoid potential problems; e.g., flood plain regulations.

The following example of a water utility financing and management system illustrates the steps necessary for establishing a proper facilities management system.

An Approach to Water Utility Financing and Management

1. Advanced Planning Requirements

a. The comprehensive plan serves as a guide for community development.

b. A Water Service Area is established in support of the comprehensive plan, defining the limits of the area in which water will ultimately be served. The Water Service Area and the comprehensive planning area should generally coincide. The service area should be projected with not less than a 20-year lead time to assure the provision of quality service at reasonable rates over the duration.

c. A Water Facilities Master Plan is developed in conjunction with the service area plan in order to project principle hardware and commodities that will be needed to serve new growth as it occurs in the area.

2. Policy Decisions

The governing body of the water utility will need to make policy decisions to establish the framework within which the utility will function. It is assumed that those decisions will enable the facility to become a self-sustaining, semi-independent entity operating within the framework of the overall comprehensive plan of the community. It is further assumed that the water utility will pursue a pricing philosophy which

will enable it to become completely self-supporting with internal financial integrity. Revenues for such a utility usually come from the following sources: (a) tap fees (PIFs), (b) water service rates, and (c) miscellaneous service charges. These various sources of revenue should be so designed that tap fees would approximately equal the capital demands placed on the system by new customers. Water rates would offset all maintenance, operation, and administration costs of the system as well as debt service; and miscellaneous service charges would be based on actual cost.

3. Utility Extension Policies

Utility extension policies will guide service extension to new customers by establishing conditions under which services will be extended and determining new user costs and requirements. These policies should cover the following elements:

a. City contracts required for new service.
b. Bond requirements for contractual relationships.
c. Obligation of developers to pay for new service and/or extensions.
d. City participation in constructing oversized mains.
e. Reimbursements to developers.
f. Connecting loop responsibilities.
g. Main installation options by the city.
h. Replacement of private mains with city mains.
i. General engineering and design requirements.
j. Special system requirements and review procedures.
k. City acceptance of main extensions.
l. Plant investment fee (PIF) payments for water tap rights.

4. Summary

The objective of a proper water utility financing and management system is to assure that the facility can cope with a rapid growth situation and acheive the following goals: (1) financial independence; (2) growth will pay its own way; and (3) all utility users will be treated equitably with regard to cost. Appropriate legislative guidance and effective management can make these goals become realities.

OTHER CONCERNS

The following items must be considered when establishing any public facility program:

1. Inflation: Monies collected on an incremental basis related to current costs will be inadequate if construction or extension of facilities is not expected for several years. Annual review of such costs is necessary to stay even close to parity.

2. Unit Cost: In some instances defining individual unit costs is difficult.

3. Exclusionary Aspects: By assessing new development costs directly to new growth, housing costs are increased more than when the community at large bears a substantial portion of development costs. This can affect low income housing to the point of exclusion. Early recognition of the need for subsidizing low income units can resolve this problem.

4. Uniform Application: Competition among communities could destory the effectiveness of a sound management program unless its application reflects regional concerns.

CAPITAL IMPROVEMENT PROGRAMS

In order to maximize the finances available and to permit a comprehensive overview of the capital additions to a community, a capital improvements program should be utilized. This is particularly important where a community is experiencing rapid growth with numerous demands on its resources. The following briefly outlines a typical capital improvements program.

I. Financial Analysis--review of the community's present and anticipated capacity to pay for its needs.
   - A. Study and projection of revenues.
   - B. Study and projection of expenditures.
   - C. Establishing a fiscal policy.

II. Estimate of Community Needs.
   - A. Inventory of existing facilities.
   - B. Development of standards for scope of services.
   - C. Comprehensive plan/projected amount, type, and direction of growth.
   - D. Identification of needs, existing and projected.
   - E. Establishing priorities.

III. Individual Project Review.
   - A. Capital construction requirements.
     1. Construction costs.
     2. Architectural and legal fees.
     3. Consultant fees.
     4. Inflation factors.
     5. Feasibility report.
   - B. Operational requirements (annual).
     1. Operation.
     2. Maintenance.
     3. Depreciation.
   - C. Funding alternatives.
     1. Fees.
     2. General fund.
     3. Bonding.

4. Grants.
5. Lease.
6. Special levies.

D. Economic feasibility.

IV. Capital Improvement Program.

A. Community needs.
B. Project definition.
C. Financial alternatives.
D. Priorities.
E. Recommendations for five-year period.

The first year of a capital improvements program is generally considered integral to the annual budget. This is particularly true when a community has moved from a line budget to a program budget. Excellent sources of further information are the Colorado Municipal League, Colorado Association of County Commissioners, American Society of Planning Officials, and the International City Managers' Association.

TABLE B-1. EXAMPLES OF REQUIRED DEVELOPMENT FEES AND IMPROVEMENTS

Area	Public Land, Parks, and School Fees	Water and Sewer Investment Fee	Annexation Fee	Street and Sidewalk Improvemts.	Water and Sewer Mains (Urban Den.)	Storm Sewers	Street Lights	Land-scaping	Fire Hydrants	Under-ground Utilities	Street Right-of-Way
Arapahoe County	10% of gross acreage or cash	N/A district control	--	X	X	X	--	--	--	X	X
Boulder County	5% public land, 12% private park, or cash	Districts	--	X	X	--	--	--	--	--	X
Boulder, City of	5% in existing subdivisions; $150 per unit for parks; 1% of building value for commercial and industrial	$1700 combined for single family	Filing fee	X	X	X	X	X	X	X	X
Arvada	6% of gross acreage or cash	$265-$365	--	X	X	X	X	X	X	X	X
Broomfield	Gross density x 2 + 5 = % of open space	$1200	Expansion fee: $.925/ $100 of building permit value	X	X	X	X	X	X	X	X
Jefferson County	9.5 acres/100 people or cash	--	--	X	--	X	--	--	--	--	X
Littleton	10% land or cash	$325	--	X	X	X	--	--	X	X	X
Louisville	25¢/sq. ft. res. building value 50¢/sq. ft. com., ind. building value	$1500	25¢ per sq. ft. of floor area	X	X	X	X	X	X	X	X

APPENDIX C

SUMMARY OF COLORADO MINERAL TAXATION

(Property, Income, and Severance Taxes)

The mineral industry in Colorado is subject to property taxes, income taxes, sales and use taxes, a form of severance tax on oil and gas included in the income tax, and various relatively minor fees and levies for licenses and support of the administration of the oil and gas conservation act. Various provisions of property, income, and severance taxes are summarized here.

For property tax purposes Colorado may be considered a cash or actual value state which recognizes classification of property although the classifications are not ordered in numerical sequences as are classifications in several states.

All real and personal property, not expressly exempt from tax under Article 137-2, CRS (65 Supp.)(no exemption being provided for any property specifically associated with the mineral industry), is subject to valuation and taxation for property tax purposes. Sections 137-1-1, 137-1-3, and 137-1-5, CRS (65 Supp.), CRS (67 Supp.), and CRS (71 Supp.). Most property is valued by appraisal and "actual value" is determined by considering the following factors: location and desirability; functional use; current replacement costs, new, less depreciation; comparison with other properties of known or recognized value; market value in the ordinary course of trade; and earning or productive capacity. Section 137-1-3(5), CRS (Laws 73, Ch. 408, Sec. 1). An assessment ratio of 30% is applied to actual value of most properties to reach assessed valuation against which the tax levy is applied. Sec. 137-1-4(1)(a), CRS (71 Supp.).

Certain types of mineral property and certain other properties are handled differently in the nature of separate classes as indicated in the following table which summarizes the application of Colorado's property tax. The assumption underlying Colorado's property tax system is that most property is to be assessed at 30% of actual value. Although no assessment ratio is applied to the valuation of producing mines and oil and gas wells, it is believed that the manner in which the product value method is employed to determine value is intended to produce a valuation for assessment equivalent to the 30% of actual value employed for most other properties. Valuation approaches similar to Colorado's are found in several mineral producing states with respect to valuing producing mineral properties for tax purposes.

Severed mineral interests	As other real property, but if not readily ascertainable or no market activity in like property, a minimum valuation for assessment of $1 per acre category of interest	30% of actual value, or $1 per acre category of interest	§137-1-4 C.R.S. (Laws 73, Ch. 409, §1)
Surface except agricultural lands	Actual value by appraisal	30%	§137-1-3, C.R.S. (71 Supp.)
Agricultural lands, excluding improvements	Actual value by capitalizing earning or productive capacity at 11½%	30%	§137-1-3, C.R.S. (67 Supp.), C.R.S. (71 Supp.), and C.R.S. (Laws 73, Ch. 408, §1)
Equipment and improvements except in mine excavations	Actual value by appraisal	30%	§§137-6-6 and 137-1-3, C.R.S. (67 Supp.)
Public utilities including pipeline companies	Actual value of all its property in Colorado as a unit by special determination of the Colorado Property Tax Administrator	30%	§§137-4-1, 137-4-2, and 137-4-6, C.R.S. (65 Supp.) and C.R.S. (71 Supp.)
Freeport merchandise	Actual value by appraisal	5%	§137-1-4, C.R.S. (67 Supp.)
Stock of merchandise held for resale (inventory)	Average investment during calendar year preceding assessment date	5%	§§137-1-1 and 137-5-9, C.R.S. (67 Supp.)

Property Category	Method of Determining Actual Value	Assessment Ratio	Reference
Mine and Mineral (1):			
Producing mines, except coal and nonmetallic mines (2)	Greater of net proceeds or 25% of gross proceeds (3)	None (4)	§137-6-5
Non-producing mines, except lands containing non-producing oil shale mines	Actual value by appraisal at the same value as surrounding land and other real property	30%	§137-6-10, C.R.S. (71 Supp.)
Lands containing producing coal and nonmetallic mines (2)	Actual value by appraisal (5)	30%	§137-6-10, C.R.S. (71 Supp.)
Lands containing non-producing oil shale mines	Actual value by appraisal of surface based on surface use plus additional value by appraisal of undeveloped oil shale not to exceed surface use value	30%	§137-6-10 C.R.S. (71 Supp.)
Exploration and drainage tunnels	Actual value by appraisal	30%	§137-6-11, C.R.S. (65 Supp.)
Oil or gas leaseholds and lands capable of production	87½% of gross value or selling price at well head of oil or gas produced, saved and sold during preceding calendar year	None (4)	§§137-7-1 and 137-7-2, C.R.S. (65 Supp.) and C.R.S. (69 Supp.)

Stockpiled ore	Market value	30%	Assessors' Handbook §VII, pp. 12-13 (Div. of Property Taxation, Colo. Dept. of Local Affairs, 1974)

(1) Mine and mineral for this discussion includes the surface land unless severed from the mineral interest, all excavations (except drilled sulfur or hydrocarbon wells), mining improvements in excavations, and appurtenant rights and privileges, §137-6-1, C.R.S. (65 Supp.), and tunnels giving access to the mine to those actually excavating it, §137-6-11, C.R.S. (65 Supp.)

(2) Producing mines are mines whose gross proceeds during the preceding calendar year exceed $5,000, §137-6-4, C.R.S. (65 Supp.), but excludes mines worked or operated primarily for coal, asphaltum, rock, limestone, dolomite, or other stone products, sand, gravel, clay, or earths (in this discussion called "coal and nonmetallic mines"), §137-6-3, C.R.S. (65 Supp.)

(3) "Gross proceeds" means gross value of ore immediately after extraction and excludes all costs of treatment, reduction, transportation, and sale of ore or products derived from it; "net proceeds" means gross proceeds less extracting costs. §137-6-5, C.R.S. (65 Supp.)

(4) The assessed value is determined directly without applying an assessment ratio. Royalty interests are chargeable with their proportional share of taxes. See §137-10-6, C.R.S. (71 Supp.)

(5) Where there are no established market prices or values for the property, a formula

> is applied based on capitalization of expected proceeds and the present value of the lands after mining activity ceases. Assessors' Handbook, Div. of Property Taxation Colo. Dept. of Local Affairs, §VII, pp. 5-8 (1974)

The possessory interest of a producing unpatented mining claim is subject to taxation as a mine. See §137-6-5(4), C.R.S. (65 Supp.); Rummel v. Musgrave, 142 Colo. 249, 350 P.2d 825 (1960).

Colorado imposes an annual income tax on individuals and corporations. The tax on domestic and foreign corporations is 5% of net income from Colorado sources, except a corporation only making sales in Colorado can pay ½ of 1% of its annual gross receipts from sales in or into Colorado. §138-1-35, C.R.S. (67 Supp.). Net income is based on federal taxable income subject to certain adjustments. §138-1-38, C.R.S. (65 Supp.).

Such an adjustment is made in the case of the percentage depletion allowance for oil shale. For Colorado income tax purposes the taxpayer may reduce his federal taxable income (on which Colorado net income is based) by an amount equal to the difference between (a) the depletion allowance permitted under the federal Internal Revenue Code of 1954 for oil shale, and (b) an amount which would be permitted as the depletion allowance for oil shale under the Internal Revenue Code

if: the percentage depletion rate under the Code were 27½%; and the crushing, retorting, condensing and other processes by which oil, gas or both are removed from oil shale, were deemed to be treatment processes considered as mining. §138-1-38 and 138-1-10, C.R.S. (65 Supp.).

In addition to income taxes, Colorado imposes a special tax in the nature of a severance tax on the "gross income of every person which is derived from the production or extraction of crude oil, natural gas or both crude oil and natural gas" from petroleum deposits located within the State. Oil or gas produced from oil shale is not subject to this tax. §138-1-60(1)(a), C.R.S. (65 Supp.).

The base against which the tax is applied is "gross income" from the indicated activities. This is defined as the amount realized from the sale or other disposition of all crude oil and natural gas produced or extracted from petroleum deposits located within the State. §138-1-60(1)(b), C.R.S. (65 Supp.). The amount realized excludes amounts received for factors such as transportation or refinement outside the State. See California Co. v. State, 141 Colo. 288, 348 P.2d 382, 398 (1959), upholding the constitutional validity of the tax under the federal Constitution's Commerce Clause as a tax on the extraction of raw materials

from Colorado rather than on any out-of-state activity.

The tax rate is graduated depending on the amount of gross income as follows, §138-6-60(1)(a), C.R.S. (65 Supp.):

Gross Income	Tax Rate (%) of Gross Income
Under $25,000	2%
$25,000 - $100,000	3%
$100,000 - $300,000	4%
$300,000 and over	5%

However, a credit is permitted against the tax for ad valorem property taxes paid on crude oil, natural gas, oil and gas leasehold interests and oil and gas royalty interests except those paid on equipment and facilities. §138-1-60(2), C.R.S. (65 Supp.).

From Vermont Revised Statutes, Chapter 236, Public Acts 1973.

Chapter 236. Tax on Gains From the Sale or Exchange of Land

§ 10001. Tax imposed

There is imposed, in addition to all other taxes imposed by this title, a tax on the gains from the sale or exchange of land in Vermont.

§ 10002. Land

Land means all land, whether or not improved, but does not include land, not exceeding one acre, necessary for the use of a

dwelling used by the taxpayer as his principal residence. Buildings or other structures are not included in this definition of land.

§ 10003. Rate of tax

The tax imposed by section 10001 of this title shall be based upon the years held at the following rates on the gain, as gain is determined under section 10005 of this title:

Years land held by transferor	**Gain, as a percentage of basis (tax cost)*		
	0–99%	100–199%	200% or more
Less than 1 year	30%	45%	60%
1 year, but less than 2	25%	37.5%	50%
2 years, but less than 3	20%	30%	40%
3 years, but less than 4	15%	22.5%	30%
4 years, but less than 5	10%	15%	20%
5 years, but less than 6	5%	7.5%	10%

§ 10004. Sale or exchange

(a) As used in this chapter "sale or exchange of land" shall mean any transfer of title to land for a consideration. As used in this chapter "transfer" and "title" shall have the same meaning as "transfer" and "title to property" as used in section 9601 of this title, except as modified or enlarged by explicit provisions of this chapter and as limited herein to land. The transfer of an option for the sale or exchange of land shall be considered a transfer of title to land for the purposes of this chapter.

(b) Contracts for the sale of land constitute sales or exchanges of land for all purposes of this chapter. However, contracts shall not constitute sales or exchanges until some consideration has passed thereunder to or for the benefit of the seller or exchanger. The sale or exchange is considered to take place at the time any consideration whatsoever, of whatever nature, first passes under the contract. A mere promise to purchase, and amounts paid as earnest money, or amounts paid in deposit or amounts paid in escrow to which the seller has no immediate right, do not constitute the passing of consideration for the purposes of this chapter.

(c) Any sale or exchange of shares in a corporation or other entity, or of comparable rights or property interests in any other form of organization or legal entity, which effectively entitles the

* Gain, as percent of basis, shall be rounded to the next highest whole percentage.

purchaser to the use or occupancy of land constitutes a sale or exchange of land.

§ 10005. Basis, gain and holding period

(a) The provisions of the Federal Internal Revenue Code shall determine the basis (tax cost) of land sold or exchanged.

(b) The amount realized from the sale or exchange shall be the full actual consideration therefor, paid or to be paid, including the amount of any liens or encumbrances on the land existing before the sale or exchange and not removed thereby. The amount realized from the sale or exchange shall be the gross amount thereof, reduced by any expenses of sale and commissions. In the event that a sale includes land and buildings or other structures, the amount realized shall be allocated between the land and the buildings or other structures on the basis of fair market value.

(c) The taxable gain from the sale or exchange is the amount realized minus the basis (tax cost) of the land as determined under subsection (a) of this section. No gain shall be recognized in cases where gain is not recognized under the Federal Internal Revenue Code, as amended, in relation to the sale or exchange of capital assets.

(d) The land sold or exchanged shall be deemed to have been held as determined under the Federal Internal Revenue Code for the same length of time that the seller or exchanger thereof has had actual and recorded title thereto in his own name, and shall include the time the land was so held prior to the effective date of this chapter. If a husband and wife are tenants by the entirety there may be added to the holding period the amount of time the land was held by one spouse alone before that spouse created the tenancy by the entirety. In the case of a gift, the holding period of the donee shall include the time that actual and recorded title was held by the donor.

(e) The taxable gain under this chapter from the sale or exchange of land shall not be reduced by any losses incurred in other transactions.

§ 10006. Liability for tax

The person liable for the tax is the transferor (which includes the owner, seller, or other exchanger) of the land sold or exchanged.

§ 10007. Withholding at source; payment

(a) The buyer or transferee of any land held by the seller or transferor for less than six years, shall withhold ten per cent of all consideration paid to the seller or transferor for such land, including ten per cent of all partial payments made pursuant to installment sales under section 10008 of this title. At the time any payment is made to the seller or transferor, the amounts withheld shall be remitted to the commissioner of taxes.

(b) Within 30 days of the sale or exchange of land, for which withholding is required under this section, the seller or transferor shall file a return with the commissioner of taxes setting forth the amount of the tax due pursuant to section 10003 of this title and the amount withheld by the buyer or transferee pursuant to subsection (a) of this section. The seller shall either remit with the return the balance of the tax due or make claim for a refund. Any refund not made by the commissioner within 15 days of receipt by him of a valid claim shall accrue interest at the rate of one-half of one per cent per month. For good cause shown and upon conditions set by him, the commissioner may extend the time for filing the return and paying the tax required by this chapter.

(c) Notwithstanding either subsection (a) or (b) of this section, the seller or transferor may, in advance of the sale or exchange, pay the tax imposed by this chapter or obtain a written ruling from the commissioner of taxes that no tax is due under this chapter. In either case the commissioner shall certify to the seller or transferor that such payment has been made or that no tax is due. Upon receipt by the buyer or transferee of such certification from the seller or transferor, the buyer or transferee shall not be required to withhold under subsection (a) of this section.

(d) All taxes required to be paid or withheld under this chapter shall constitute a personal debt of the person liable to pay or withhold the same to the state of Vermont to be recovered in an action on this statute.

(e) An action may be brought to recover the amount of the taxes to be paid or withheld in the manner prescribed for recovering amounts owed for taxes under chapter 151 of this title. The amount of taxes to be paid or withheld shall be a lien in favor of the state of Vermont upon all property and rights to property, whether real or personal, belonging to the person liable for the tax

or for the withholding. The lien shall be enforced in the manner prescribed by section 5895 of this title.

§ 10008. Installment sales

(a) For the purpose of this section "installment sale" means sale or exchange of land as defined in section 10004 of this title for which the total tax due under this chapter is greater than $2,000.00 and in which the parties agree in advance that payments shall be received by the seller or transferor in more than one installment on a date or dates other than the date of closing. A sale financed by a mortgage, deed of trust, or other financing arrangement in which the seller or transferor is paid in full on the date of the sale or exchange shall not be considered an installment sale. A lease-purchase agreement under which any part of the rental payments constitute a portion of the purchase price of the land shall be considered an installment sale, and for the purposes of this chapter the end of the holding period with respect to the sale or exchange shall be determined as of the date of the agreement.

(b) Notwithstanding any provision of law to the contrary, the tax under this chapter on any installment sale shall be due within 30 days of the date of payment of each installment paid to the seller or transferor. However, except for the first installment the seller or transferor may elect to file his return as part of his Vermont income tax return for any year in which subsequent installments are paid or due, and to pay the balance of such tax as part of such income tax; provided that, if the seller or transferor elects to file annual returns no interest shall accrue on any withholding as provided by section 10007(b) of this title.

(c) In an installment sale, the total amount of taxes due under this chapter shall be the amount that would have been due had the total purchase price been paid on the date the sale or exchange took place. The amount of taxes due on each separate installment, including the first installment, shall bear the same proportion to the total amount of taxes due as the amount of that installment bears to the total consideration.

§ 10009. Administration of tax

(a) The commissioner of taxes shall administer and enforce this chapter and this tax. He may issue, amend, and withdraw from time to time, reasonable regulations to assist such administration and enforcement.

(b) All the administrative provisions of chapter 151 of this title, including those relating to the collection and enforcement by the commissioner of the withholding tax and the income tax shall apply to the tax imposed by this chapter.

§ 10010. Criminal penalties

(a) Any person who wilfully defeats or evades or attempts to defeat or evade the tax imposed by this chapter shall be imprisoned not more than one year or fined not more than $10,000.00 or five times the amount of the tax defeated or evaded or attempted to be defeated or evaded, whichever is larger, or may be both thus imprisoned and fined. A corporation or other taxable entity not being a natural person shall be subject to the fine provided by this section.

(b) Any officer, employee, director, trustee or other responsible person of a corporation or other taxable entity, and any other person, who counsels, aids, abets, participates in, or conceals the defeat or evasion of tax, or the attempt thereat, shall be subject to the penalties of subsection (a) of this section.

(c) The form for the payment of the tax under this chapter shall set forth in large type the penalties provided by this section.

Sec. 9. 32 V.S.A. § 5966 is repealed.

Sec. 10. Preparation of property maps

The first $500,000.00 of revenues collected during each fiscal year commencing July 1, 1973 and thereafter from the tax on gains from the sale or exchange of land under chapter 236 of Title 32 shall be used by the commissioner for the preparation of property maps required by section 3409 of Title 32.

Sec. 11. This act shall take effect May 1, 1973; except that sections 1 through 7 shall apply only to property taxes assessed and paid for the calendar year 1973 and thereafter.

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