

and the Minnesota community

by John R. Borchert

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TAXES and the Minnesota Community

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^{*} Figures 27-45 are maps of Minnesota comparing the eighty-seven counties.

Preface

This study is in part an outgrowth of a current project to update and revise the *Atlas of Minnesota Resources and Settlement*, which was published by the Minnesota State Planning Agency and the University of Minnesota Center for Urban and Regional Affairs in 1968 and 1969. The forthcoming revision of the atlas is also a CURA-SPA cooperative project.

A number of the maps in this study will also appear in the atlas; and the atlas will contain many maps which describe and explain the geographic variations in tax base and income which are simply assumed here. It is hoped that the atlas, once published, will stimulate more detailed examinations of other aspects of the state's physical and human geography. Meanwhile, thanks are expressed to the State Planning Agency for the privilege of using some of the maps in this study prior to their publication in the atlas.

Special acknowledgment is due also to the following people in various Minnesota state offices for their indispensable help in finding and collecting data for this study: Jay Fonquert, State Planning Agency; Francis Geisenhoff, Department of Economic Development; Kenneth Hoeschen, Department of Transportation; John Mohr, Department of Finance; David Monical, Higher Education Coordinating Board; and Linda Wallace and Zona DeWitt, Legislative Reference Library. Stimulus and refinement of ideas came from conversations with senior staff members at the State Planning Agency and colleagues at the University of Minnesota. Peter Banaszak compiled most of the basic data, and did so with extraordinary care and enthusiasm. Support for his work came from the Center for Urban and Regional Affairs, University of Minnesota.

Two Themes:

Community of Interest and High Taxes

Minnesota is a statewide community in a number of ways. Through the state government, money is taxed and pooled from a wide range of statewide sources and redistributed in response to different statewide needs.

For example, one household occupies 2,700 square feet of finished, well furnished housing in a Twin Cities suburb. Another household lives in a remodeled railroad caboose on the edge of a north central forest hamlet. Annual income of the first household is \$31,000; of the second, \$5,100. Each income is representative of its neighborhood.

Yet both neighborhoods are served by schools in modern buildings with comparable equipment and comparably trained staff. Expenditures per pupil for school operations in the low income rural area are equal to 90 percent of those in the high income suburban area. Within seventy-five miles of the first home, a state university operates at Mankato. Within seventy-five miles of the second, another state university operates at Bemidji. Average personal income in the counties around Mankato is more than 60 percent higher than in the counties around Bemidji. Yet the average costs to the students at both places are similar. And expenditures per student are about the same — slightly higher at Bemidji. The state has equalized educational opportunities for those two sharply contrasting neighborhoods through a system of statewide taxes and aids. It has done so to a greater extent than almost any of the other forty-nine states.

Take another example. An engineer living in western Hennepin County drives to and from work every day on a busy, two-lane county highway. The road is essential to her and to the whole social system of which she is a part. The traffic on an average mile of that road generates enough state gasoline tax to pay over \$30,000 a year into the County State Aid Highway Fund. The fund pays back under \$9,000 a year toward the cost of maintenance and replacement. The rest is reallocated for county roads in other parts of the state. Meanwhile, in the open plains of the corn-soybean region of the state, a farmer drives another county

highway, of equal quality and equally essential to him and to the society. Annual traffic per mile on that rural road generates \$900 for the County State Aid Highway Fund. The fund pays back \$2,300 for maintenance and replacement. The first road earns \$21,000 a mile annually for the statewide community; the second costs \$1,400 a mile. The statewide community shifts the funds geographically to keep the system running. It does so to a greater degree than most of the other forty-nine states.

Similar examples could be drawn from housing finance, medical care, parks, and other public enterprises. Clearly there is a statewide community of interest reflected in the patterns of revenues and expenditures.

Meanwhile, Minnesota has state taxes among the highest in the nation. An executive moving to the Twin Cities from the Connecticut suburbs of New York City might find her miniscule Connecticut state income tax increased twenty-fold or more. Another immigrant, from the Chicago suburbs might find his state income tax more than doubled. A telephone worker transferred to Minnesota from South Dakota leaves a state with no income tax and enters one with the nation's highest overall average rate per dollar of personal earnings. All three immigrants would find their property taxes and sales taxes down about one-fourth; but overall their state tax payments would rise by about 50 percent.

Clearly, the Minnesota statewide community does not behave like the average state in the matter of taxes and public expenditures. It taxes itself relatively heavily and it redistributes the revenue widely in a greater effort than most states to offset certain effects of unequal income and unequal population density. But there is more to the matter. The underlying forces are not peculiar to Minnesota, and they certainly are subject to rational control.

Flows of government funds help to build, manage, and maintain the nation's cities, towns, transportation systems, and communication networks. Government enterprises not only help to create, operate, and

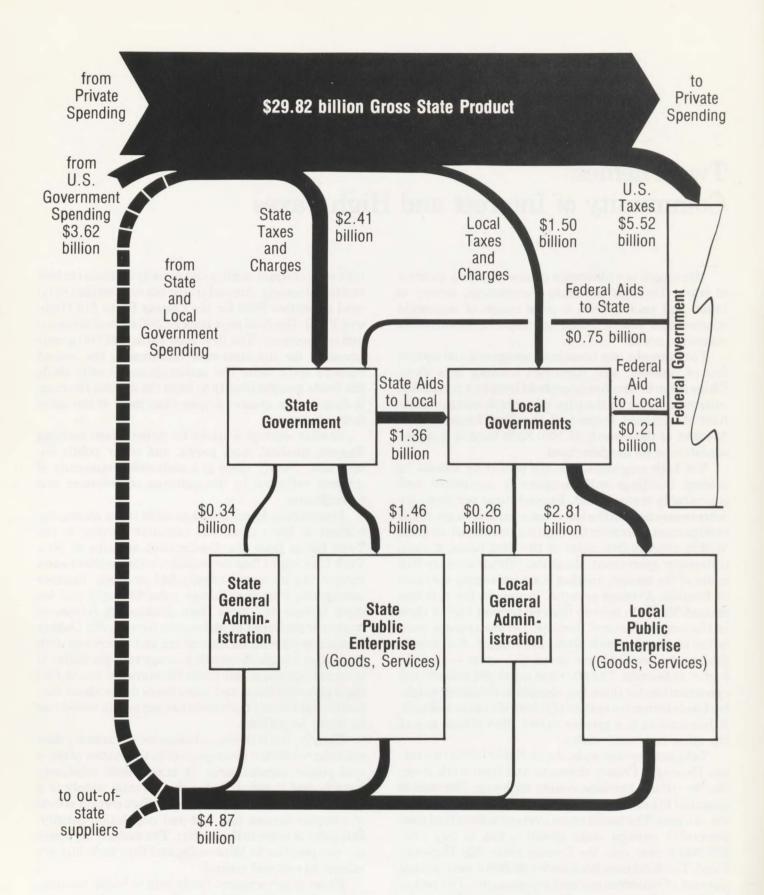


Figure 1. Diversion of money to and from the Minnesota income stream by governments, July 1975-June 1976. For data sources see *Notes on data sources for maps and diagrams* at end of report.

control the nation's settlements, they also continuously respond and adapt to changes in the settlement pattern. An understanding of what governments do where, and where they get the money to pay for what they do is essential to understanding the geographic pattern of land development and land use.

This study describes some major dimensions of the national geographic pattern of state taxes, expenditures, and federal aids with a focus on Minnesota. It then looks at the pattern of taxes and aids in Minnesota. In most of the national comparisons, government revenue and expenditure data are reported for the fiscal year from July 1, 1974 through June 30, 1976. Personal income data are taken from calendar years 1971 and 1975. The 1971 income figures were converted to 1975 dollars; and the mean was taken for the two years to avoid the effects of extreme fluctuations in farm income in the mid-1970s. Any exceptions to these dates are noted in context.

Government Enterprises in the State Economy

Maps of government revenues, expenditures, and aids are the heart of this study. But the maps are geographic expressions of a complex system of private income and public finance shown schematically in figure 1.

The gross state product (GSP), estimated by the Minnesota Department of Economic Development, is taken as an approximation of the stream of personal and corporate income which governments can tap for revenue in Minnesota. In turn, those public revenues filter through a complex of state and local government, special districts, state aids, and federal aids. Operation of public services and facilities probably absorbs 80 to 90 percent of the revenues. According to the U.S. Census, financial administration and general control required only 8.5 percent of local government budgets in 1976. Minnesota Department of Finance data indicate that perhaps 18 percent of state spending is devoted to general governance and administration.

In the 1975-76 fiscal year, federal, state, and local taxes equalled 34 percent of the GSP. Most of the

revenues — the equivalent of perhaps 32 percent of the GSP or 95 percent of the total taxes — were returned to the state income stream through government salaries and other expenditures within the state. For the nation as a whole, all state and local taxes were equal to 30 percent of the Gross National Product. Thus, government enterprises are a substantial part of the national economy, even more so in the Minnesota economy. It appears that this has been true for a long time. Francis Boddy, writing in Commercial West in 1977, noted that Minnesota's state and local government revenues were equal to 6.9 percent of personal income in 1902. In 1973-74, they equalled 17.1 percent. During the same period for the nation as a whole, state and local taxes rose from 6.0 to 14.4 percent of personal income. Thus, Minnesota's taxes were 115 percent of the national average in 1902, 119 percent in 1974. Minnesota's rank as a relatively high tax state rose somewhat during those years, but it was probably already in the top quartile in 1902.1

Minnesota in the National Pattern of Government Revenue and Spending

Comparison of Minnesota with other states on the accompanying maps brings out three major points:

- 1. Minnesota generates more federal revenue than it receives in federal outlays. This increases the tax burden in Minnesota relative to many other states.
- 2. Although the state's income tax rates in 1975 were at the top, rates were near or moderately above the average in other types of taxation. The high income tax reflected in part a deliberate shift "from almost sole dependence on the property tax to other and more equitable taxes to raise the increased revenue needs of state and local governments in our modern society."²
- 3. While taxes have grown most at the state level, spending has grown most at the local level. Increased state spending has gone mainly to grants-in-aid to local governments and school districts two-thirds to elementary and secondary education. The increased use of state aids, again, reflects deliberate policies: a) an attempt to equalize educational opportunity by shifting educational support from local to statewide resources, b) an attempt to keep school management responsibility in the local districts, and c) an historic commitment to education as a long-term investment for the community.

The first few maps in this section compare federal outlays with resident population in each state. Population is taken as a measure of the need for resources which are redistributed by the federal government for the benefit of individual citizens. On the remaining national maps, state and local tax revenues are compared with personal income. Income is taken as a measure of people's ability in each state to pay for the services and public works which they need. Thus the ratios on those maps attempt to compare taxes raised with ability to pay.

In 1975 Minnesota was one of eleven states whose citizens received less money from federal expenditures than they paid in federal taxes (figures 2, 3, 4). Relatively low defense spending and low federal government employment were the main reasons for the deficit. While 18th in population, Minnesota ranked 28th in per-capita volume of defense contracts, 47th in per-capita outlay for defense salaries, and 27th in federal government civilian employment.

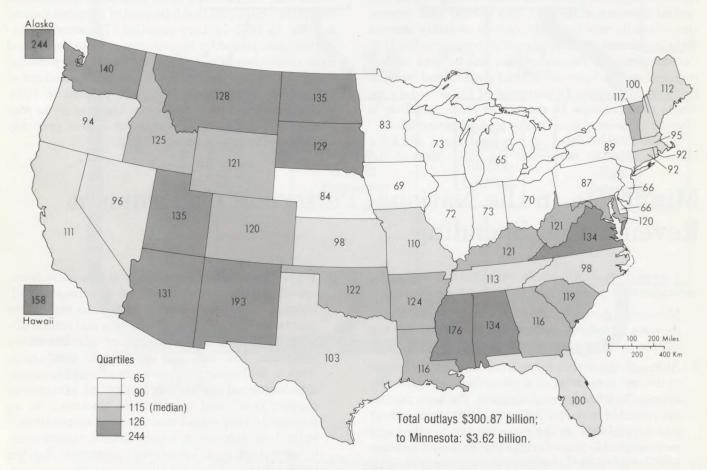


Figure 2. Federal outlays as a percent of federal taxes, 1975.

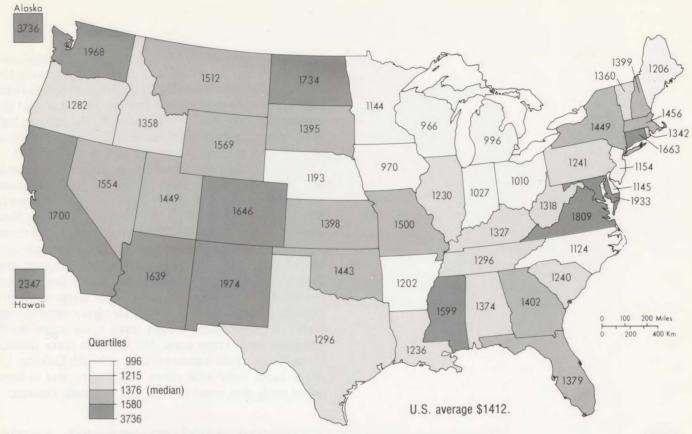
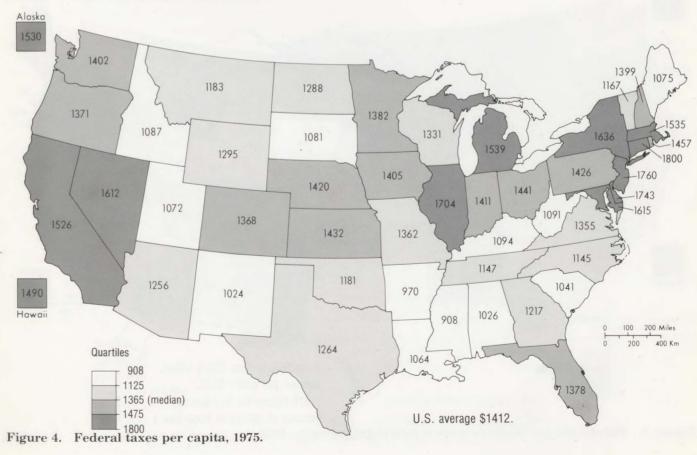


Figure 3. Federal outlays per capita, 1975.



If federal salaries and contracts were omitted, and one looked only at grants-in-aid, Minnesota was in the upper half of the states (figure 5). Highest federal aids per-capita were paid mainly to western states. But the trend since 1960 has favored states in the eastern half of the nation, especially those with large metropolitan populations and industrial employment (figure 6).

In 1975 Minnesota had the highest state income tax per dollar of personal income of all fifty states. Income tax collections per dollar of personal income in Minnesota were 60 times Connecticut, 40 times New Jersey, double California, 2.3 times Georgia, 1.8 times Virginia, 1.4 times Maryland, 2.4 times Illinois; and the state income tax was zero in Washington and Texas (figure 7). All of these are states from which management or professional people frequently migrate to Minnesota. For newcomers from neighboring states in 1975 there would have been some small changes, some large ones. Minnesota's state income tax collection rate was twice that of North Dakota, 1.7 times Iowa, only 1.06 times Wisconsin, and it compared with zero state income tax in South Dakota.

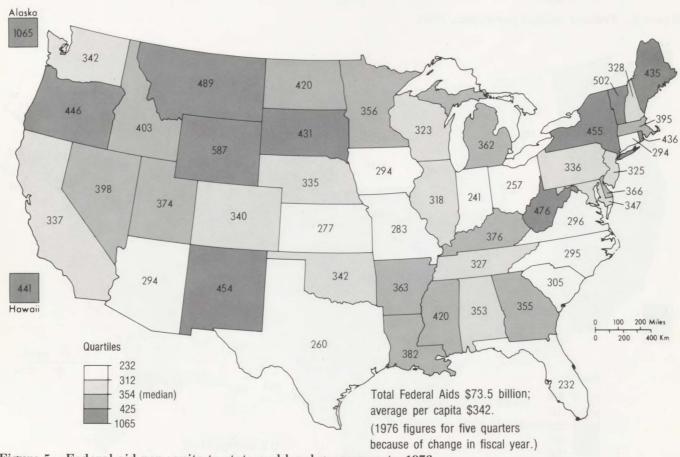


Figure 5. Federal aid per capita to state and local governments, 1976.

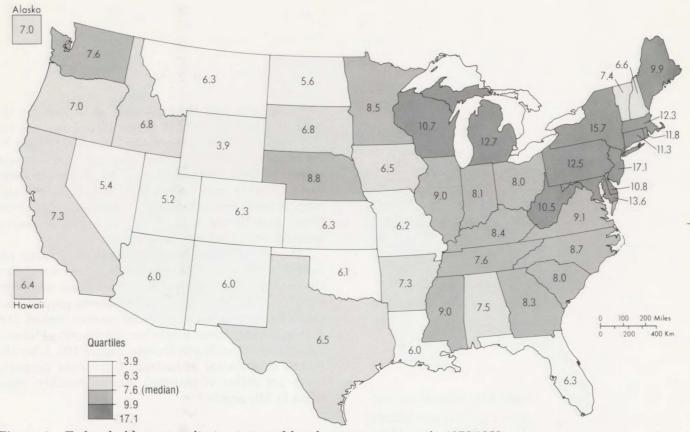


Figure 6. Federal aids per capita to state and local governments, ratio 1976/1960.

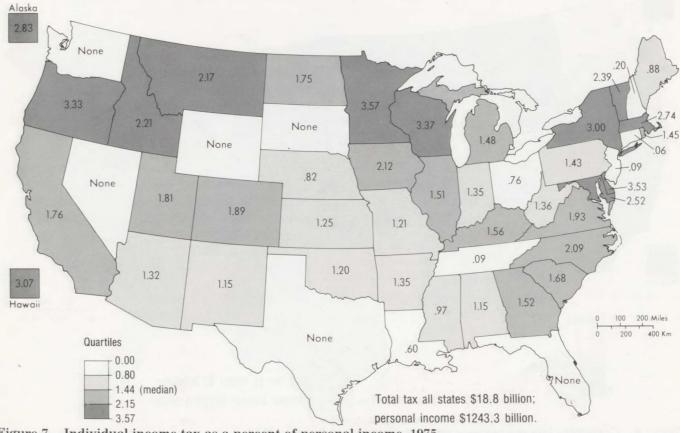


Figure 7. Individual income tax as a percent of personal income, 1975.

Minnesota and Pennsylvania were tied for the rank of fourth highest in corporate income tax collections per dollar of personal income (figure 8). Among states with important concentrations of major corporate headquarters, New York, Massachusetts, and California were comparable. Among those with a high incidence of small and medium-sized business firms and recent history as an entrepreneurial seedbed, only California was comparable.

The picture was different outside the income tax field. The state sales tax rate in 1975 was well below the national median and near or well below neighboring Midwest states (figure 9). Minnesota property tax collections per dollar of personal income ranked 21st among the fifty states and below neighboring Midwest states other than North Dakota (figure 10). After the recent sensational reduction, California property taxes per dollar of personal income roughly equal those in Minnesota.³

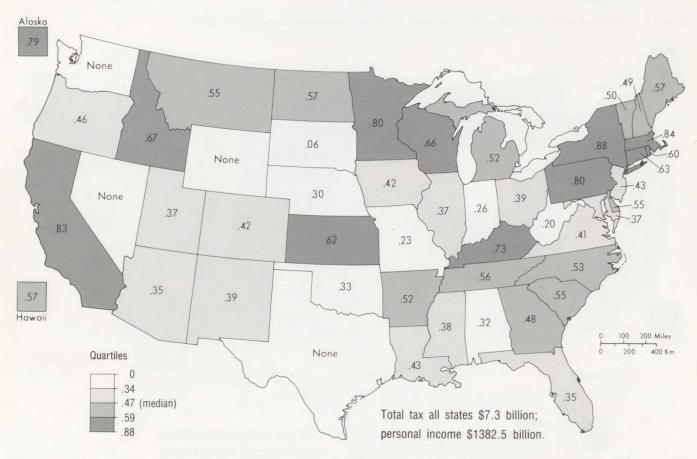


Figure 8. Corporate income tax as a percent of personal income, 1976.

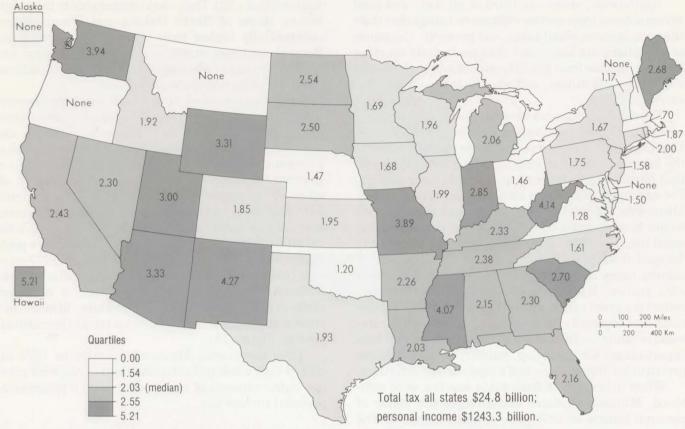


Figure 9. General sales and gross receipts taxes as a percent of personal income, 1975.

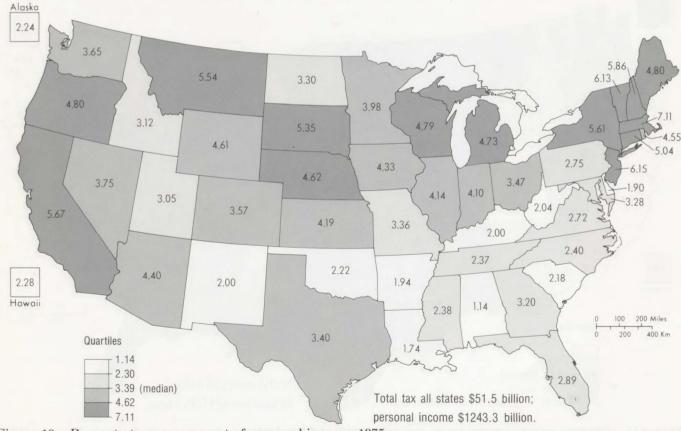


Figure 10. Property tax as a percent of personal income, 1975.

Nationwide, about one-third of all state and local revenue came from service charges or taxes other than those on income, retail sales, and property. Examples of miscellaneous taxes and charges include sporting licenses, income from publicly-owned liquor stores and recreational facilities, and special taxes on mineral extraction.

These miscellaneous revenue sources have great overall importance and vary widely from state to state. Local natural resources permit some states to tap into the national income stream by taxing mineral wealth that happens to be concentrated within their domain. For example, if taxes on iron ore had been omitted, Minnesota's miscellaneous taxes and charges rate would have dropped from 6.70 to 6.48 percent of personal income in 1975, and the state's rank would have dropped from 13th to 22nd (figure 11). The role of mining taxes in Minnesota was far greater two decades earlier. Miscellaneous taxes and charges also reflect the great range, among the states, of local traditions and ingenuity in developing sources of government revenue — differences in local attitudes and local opportunities for gambling, publicly-owned utilities, prostitution, liquor sales, and a host of other activities.

When all revenues from state sources were combined, Minnesota's taxes and charges per dollar of personal income in 1975 were seventh highest in the

nation (figure 12). They were comparable to the neighboring states of North Dakota and Wisconsin but substantially higher than other midwestern states. Several southern states — notably Mississippi and South Carolina — showed quite high levels of state taxation in relation to personal income.

Minnesota ranked 16th in all local government taxes and charges per dollar of personal income (figure 13). Immigrants from most northern, western, and even some southern states would notice only modest increases, or decreases. Yet combined state and local government tax rates were higher than those in all other states except Vermont and New York (figure 14).4 And those two states are special cases. (Vermont is small and highly centralized. New York State's fiscal affairs are overwhelmed by New York City's problems; the city's per capita expenditures in 1977 were five times as high as those of Minneapolis.) Upper Midwest states generally ranked high in combined state and local tax rates. Meanwhile, Minnesota's state and local government debt were at the national median (figure 15).

Thus the overall Minnesota picture in 1975 included high combined state and local taxes, with average indebtedness and major reliance on a progressive personal income tax.

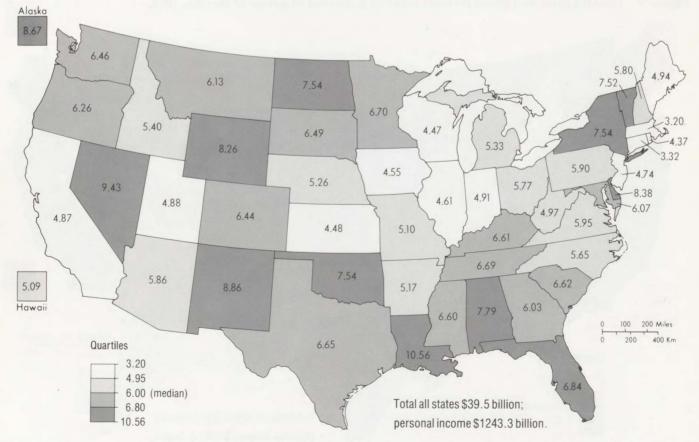


Figure 11. Charges, miscellaneous taxes, and other state and local revenue as a percent of personal income, 1975.

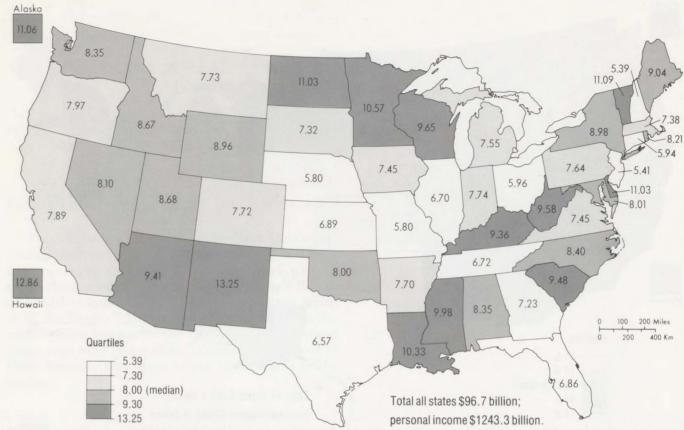


Figure 12. Revenue originated by state government as a percent of personal income, 1975.

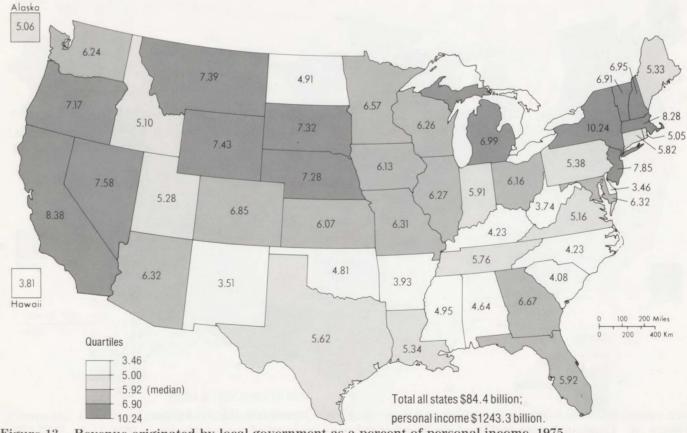


Figure 13. Revenue originated by local government as a percent of personal income, 1975.

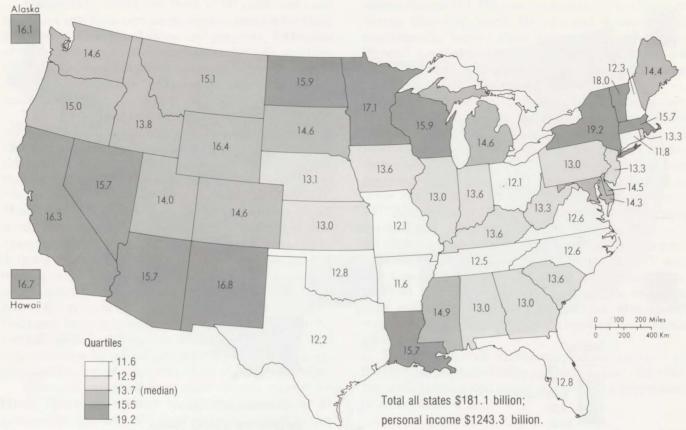


Figure 14. Combined state and local government revenue from own sources as a percent of personal income, 1975.

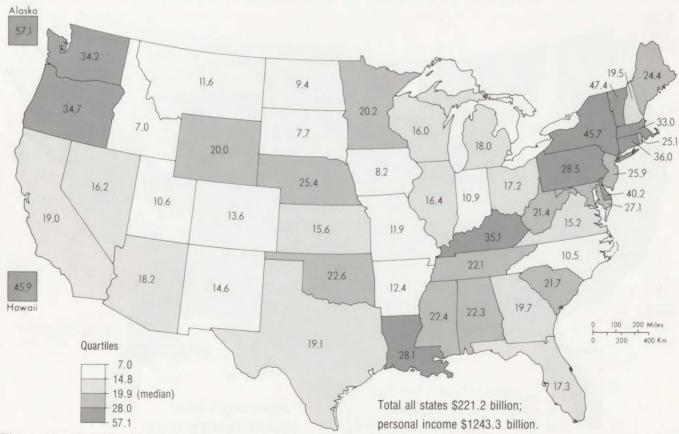


Figure 15. Combined state and local government debt as a percent of personal income, 1975.

Growth of State Taxes and State Aids

From 1960 to 1975 twenty states had higher percentage increases than Minnesota in state and local taxes per dollar of personal income. New York, with its urban fiscal runaway, and Alaska, with a new flow of oil wealth to interdict, increased taxes the most rapidly by far (figure 16). Urban-industrial states in the northeastern quarter of the nation generally raised taxes relatively faster than Minnesota, but most of them formerly had taxes at the lowest rates in the nation.

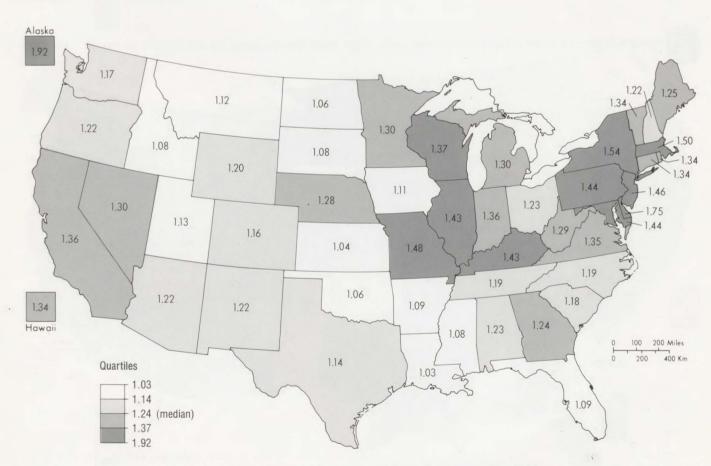


Figure 16. Combined state and local government revenue from own sources as a percent of personal income, ratio 1975/1960.

All across the country, state taxes, not local, accounted for most of the increases (figures 17, 18). State taxes rose faster than local in all except three states — two or three times as fast in many states. In a dozen states, including Minnesota, property taxes actually declined relative to income. Nevertheless, Minnesota's local governments maintained a high and increasing level of expenditures because they received a sharp increase in aid payments from the state.

In fact, total revenues of Minnesota local governments from all sources, per dollar of personal income, were third highest in the nation (figure 19). Only New York and California were higher in 1975. The reason is that local governments (including school districts) received large amounts of aid to augment what they raised from local taxes. Most of the aid came from state funds, a small share from the federal government.

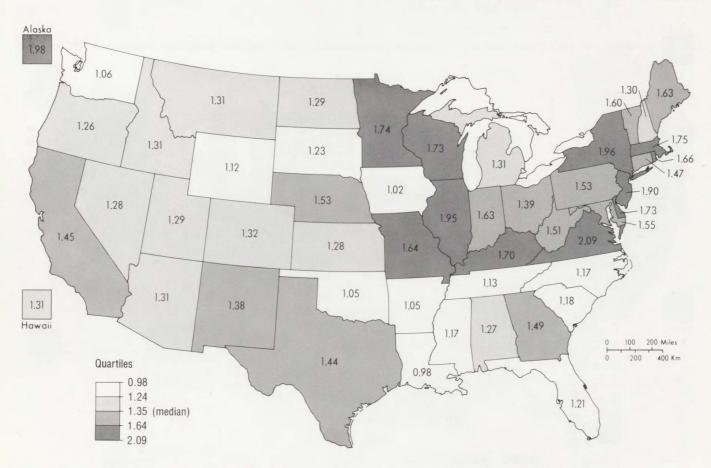


Figure 17. Revenue originated by state governments from own sources as a percent of personal income, ratio 1975/1960.

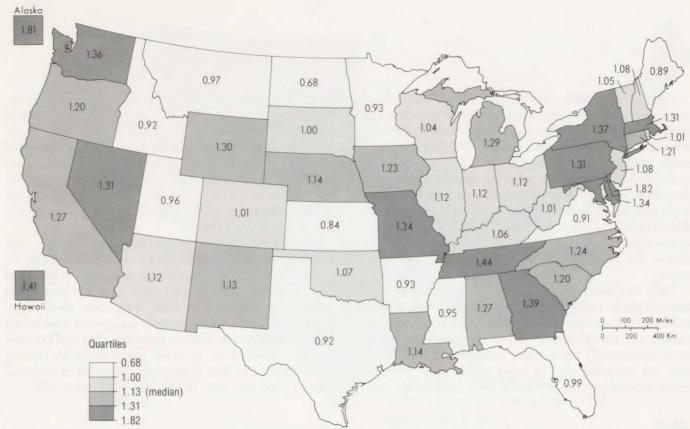


Figure 18. Revenue originated by local government from own sources as a percent of personal income, ratio 1975/1960.

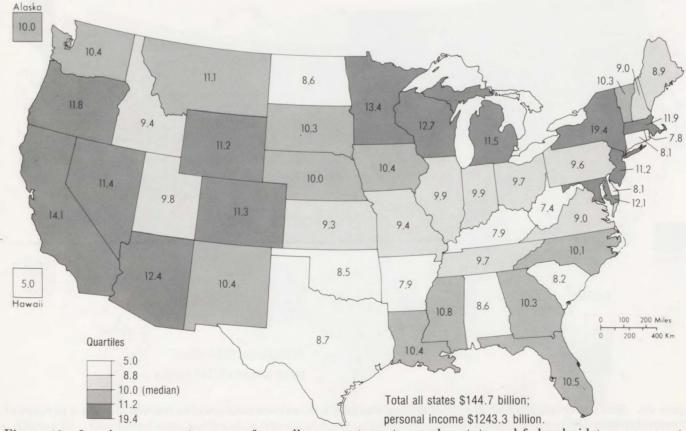


Figure 19. Local government revenue from all sources (own taxes plus state and federal aids) as a percent of personal income, 1975.

Conversely, state government's ultimate revenue — what state agencies actually spend on state government and services — in Minnesota was slightly below the national median (figure 20). The state actually ranked 26th in disposable state government revenue from all sources, after paying out state aids. Minnesota state government spent an amount equal to 75 percent of the total revenue it raised through state taxes (figure 21). (In fact, about 56 percent of state tax revenue goes to state aids, and the rest of state expenditures are paid from federal aids which the state retains.)

Only five other states retained and spent as low a share of their revenue. Half the state governments spent more than they raised from taxes and charges, making up the difference from federal aids. Most states apparently have more centralized control of state tax revenue, and in most states local governments depend more upon their own local taxes and

charges. Minnesota local governments are exceptionally dependent on the state. In 1975, if state aids had been reduced to the average rate for the other fortynine states, and other expenditure rates had remained unchanged, the Minnesota state and local tax rate per dollar of income would have been at the national median rather than very near the top. Of course, schools and other public enterprises in poorer localities would have suffered.

In 1960 Minnesota already ranked relatively high in combined state and local tax rates (figure 22). The state was ninth highest then, compared with third highest in 1975. But the shares of state and local taxes were quite different in 1960 than they were later. (State taxes are levied mainly on income and retail sales; local taxes mainly on property.) In *local* tax rate the state ranked 9th in 1960, compared with 16th in 1975 (figure 23). But Minnesota was 23rd in *state* tax rate in 1960 and rose to 7th in 1975 (figure 24).

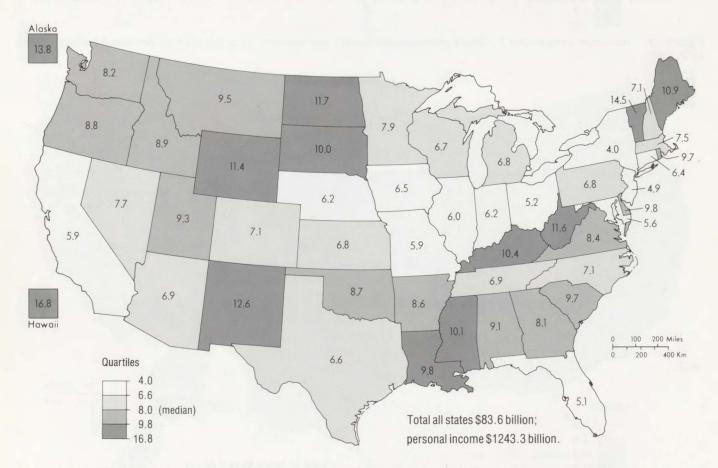


Figure 20. State government revenue after paying state aids, from own sources plus federal aids, as a percent of personal income, 1975.

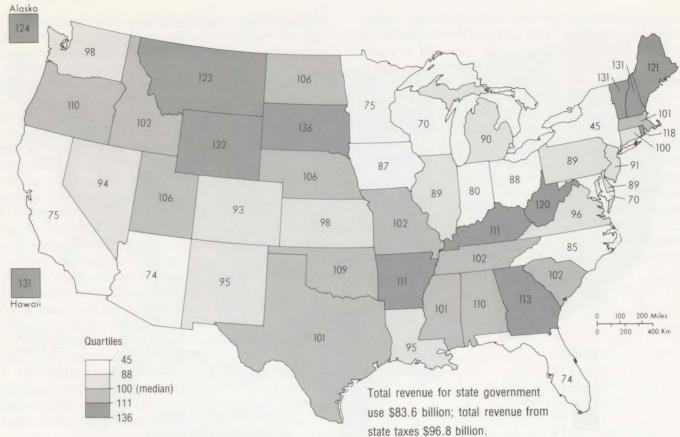


Figure 21. State government expenditures from all sources as a percent of revenue from own sources, 1975.

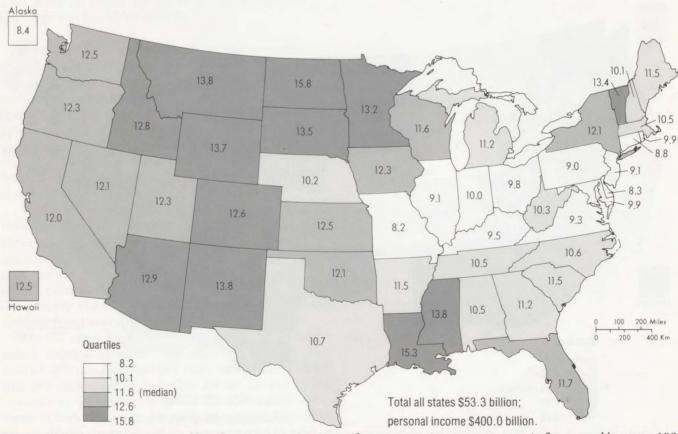


Figure 22. Combined state and local government revenue from own sources as a percent of personal income, 1960.

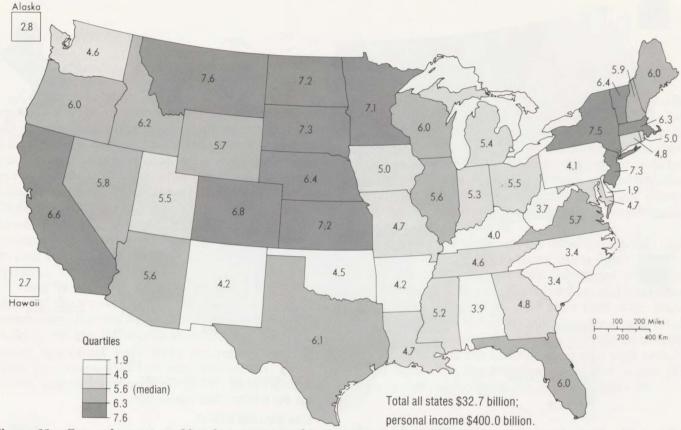


Figure 23. General revenue of local government from own sources as a percent of personal income, 1960.

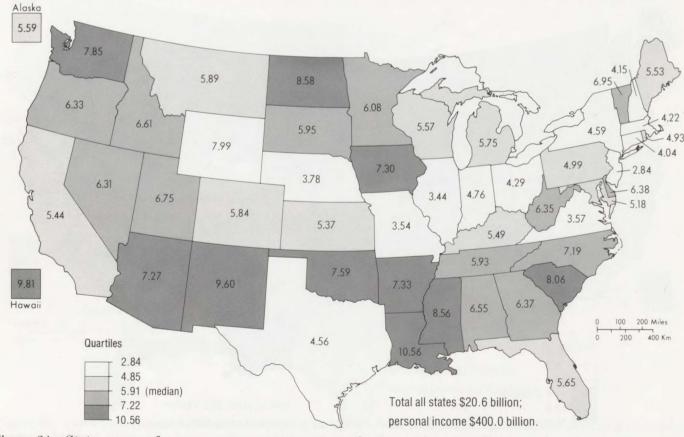


Figure 24. State revenue from own sources as a percent of personal income, 1960.

State taxes rose to pay sharply increased state aids; and local tax rates then actually declined. In fact, property taxes took a smaller share of personal income in 1974 than they did in 1902. But the decline was not enough to compensate for the rise in state aids. Or the additional state aids were not enough to meet the demands for increased local spending. In any case, the net result was an increase in the combined state and local tax rates. Several other states — notably Wisconsin, Illinois, Indiana, and California — had similar experiences. Wisconsin, Illinois, and Indiana started from lower historic tax levels than Minnesota. California state aids were similar to Minnesota's; yet, unlike Minnesota, local property taxes there continued to rise rapidly in the face of rising state aids.

The net result in every case was a large increase in the combined state and local tax rate, and Minnesota is an acute case. Thus, although *combined* state and local taxes had long been relatively high, the high *state* tax rate is a recent phenomenon. It accompanied an effort to reduce high local property taxes through increased state aids.

To understand the position of Minnesota on the national maps, then, it is important to look at state maps which describe the system of revenue, expenditures, and aids among the state's varied regions.

The Role of State and Local Government Enterprise in Minnesota

State and local governments in Minnesota use 80 to 90 percent of their revenue to run public services and facilities — to employ police, teachers, nurses, and inspectors; to build sewers, schools, hospitals, and roads; to pay for the accompanying maintenance and administration of those public enterprises. The state operates some of the public enterprises; most are operated by local governments which the legislature has created. Many operate with financial aid from the state; some do not.

Virtually all such enterprises could be run privately. In fact, they have been run privately at some times and places, and some are private today. There are — or have been — private schools, private hospitals, private roads, private police, private water works, even private fire departments. But the private firms serve clients who can afford the service, and charges cover costs.

On the other hand, government runs these enterprises because at some time citizens, through their elected officials, agreed that such services and facilities are necessary or desirable for *all* people in the community. They should not be denied to anyone because of lack of personal wealth or income. Decisions were made to share part of the community's income in

order to provide certain services and facilities even if all citizens could not pay their arithmetically equal share of the cost.⁶ Such decisions might have been either explicit or implied. But they became law.

Hence the state enterprise raises revenue to operate services and facilities where they are needed. At least that is the logically defensible aim. But the state boundaries embrace a vivid geographical variety of resources, settlements, and income potentials. The pattern of needs does not match the pattern of income. Public facilities cannot be built in unlimited numbers and locations; they must be put in only a few places. That is the basis for the geography of state expenditures and revenues and for the system of state aids. Income flows from local areas to the state government and back to the local areas (figure 25). The state redistributes the income on the way.

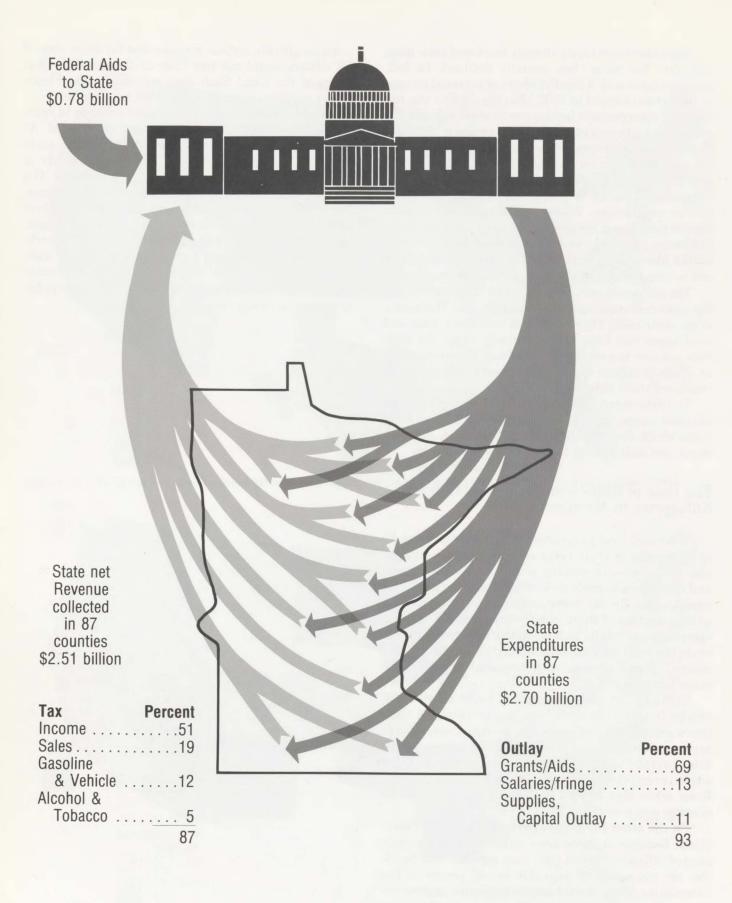


Figure 25. Revenue flow from local areas to the state government and back to local areas for Fiscal Year 1977. The state redistributes the income on the way. The following maps show the geographic pattern of redistribution.

The Geographic Pattern of Minnesota's State and Local Taxes

Individual income is the main component of the state tax base (figure 27). It is not only the direct source of income taxes but also the basis for property improvement and consumer purchases. The range by county of average incomes per capita in Minnesota is wide. For the years covered in figure 27 the lowest average, in Aitkin County, was only 42 percent of the highest average, in Hennepin. Only eight counties were above the state mean. Higher income counties are generally those with the most productive soil and the larger towns and cities — hence the most prosper-

ous agricultural lands and the main centers of business, the professions, and organized labor.

Retail trade provides the base for the sales tax and numerous excise taxes (figure 28). Even more than income, the sources of trade taxes are unevenly distributed on the map of the state. Retail trade is concentrated in a smaller number of counties where the main trade centers are located. Among these centers, per capita sales are high not only in the regions of high income but also in the places that serve large numbers of vacationers.

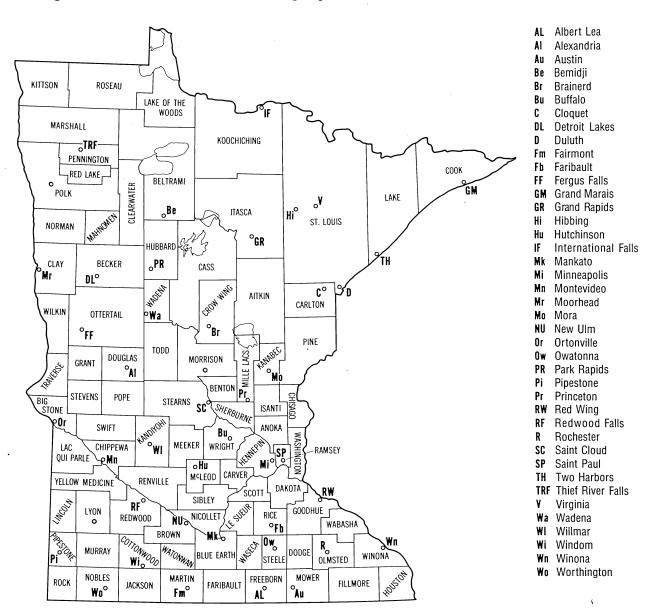


Figure 26. Base map for Minnesota data.

Land and buildings are the base for property taxes (figure 29). The pattern of assessed valuation reflects the level of investment in improvements and construction. Intensity of development declines sharply as one moves outward from the most urbanized counties. In rural areas land values decline northward as the average length and warmth of the growing season decline, and westward as the risk of summer drought increases.

Income tax collection rates reflect not only the geographic variations in personal income but also the progressive structure of the tax (figure 30). For example, Hennepin County, with 2.37 times the per capita income of Aitkin County, generated 2.95 times the per capita income tax in 1976. Corporate income tax collections, a much smaller part of the state's revenue, come even more heavily from the urban business centers — especially the Twin Cities, the main concentration of corporate headquarters in the Upper Midwest (figure 31). Sales tax collections are high in the counties with the major trade centers and those with greater vacation traffic (figure 32).

Local general governments include counties, towns, and cities. They vary widely in the taxes they collect per dollar of personal income (figure 33). The reasons for such wide variation probably are known in each individual locality but have not been analyzed

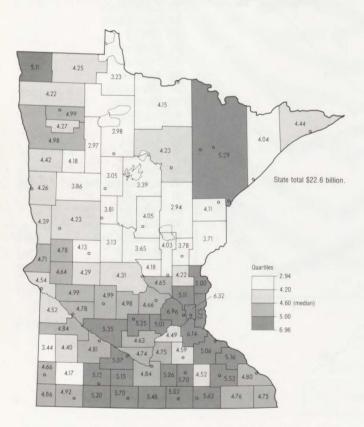


Figure 27. Income per capita, mean of 1971 and 1975 in 1975 dollars (millions of dollars).

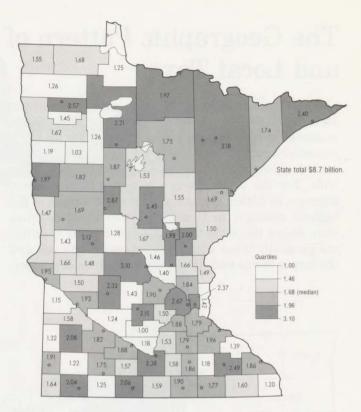


Figure 28. Retail sales per capita, 1972 (millions of dollars).

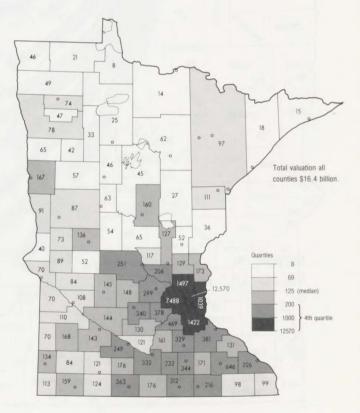


Figure 29. Equalized assessed valuation of real property, per square mile, 1975 (thousands of dollars).

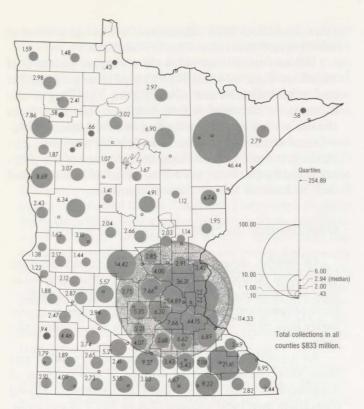
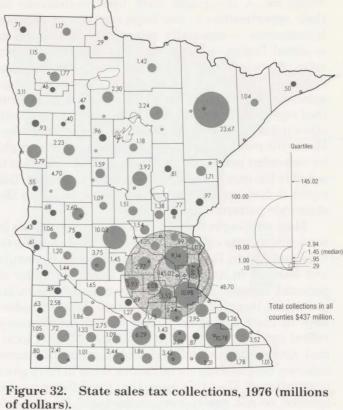


Figure 30. State individual income tax collections, 1976 (millions of dollars).



of dollars).

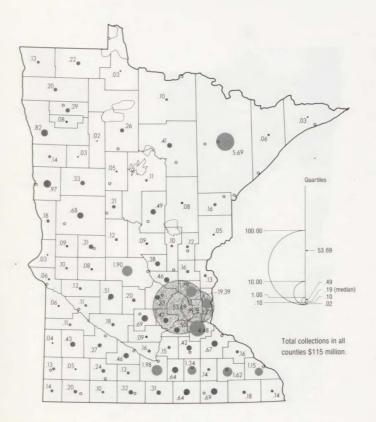


Figure 31. State corporate income tax collections, 1976 (millions of dollars).

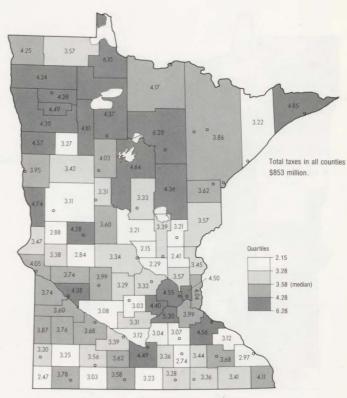


Figure 33. Local general government taxes as a percent of personal income, 1976.

statewide. A few places have been well-known for their opportunities to tax large regional or national investments — especially mines, power stations or seasonal homes — hence to enjoy relatively higher rates of local spending, lower tax rates, or both, at the expense of the outside economy. Yet those cases do not appear to be very significant on the map. It is also true that reported income tends to be lower compared with other indexes of wealth in major agricultural counties. Hence the ratio of local taxes to personal income might be somewhat overestimated in those counties. That is possibly the case in the Red River Valley counties. But again it does not appear to be a major factor in the statewide pattern of variation.

Most striking is the fact that local governments in some low income counties make high local tax efforts. Cass and Aitkin, for example, are similar to Hennepin and Ramsey in local government taxes per dollar of personal income. Meanwhile, counties with similar per capita incomes and urbanization differ considerably in their tax rates. Those variations obviously reflect complex, historically cumulative, highly localized circumstances and decisions. Large differences between neighboring communities seem to have gone unquestioned. Does this mean that the differences are ignored or not really very important? Do the dif-

ferences reflect real variations in local government services and local community standards?

School district tax rates show similar patterns of variation (figure 34). So do combined local government and school district tax rates (figure 35). Part of the differences between school districts stemmed from chance variations in the timing of new building projects and resulting differences in debt service costs. But again it is especially striking that in some of the poorest counties the local tax effort equalled or surpassed that in some of the wealthiest counties.

Dependence on State Aids and Payrolls

Of course, equal local tax efforts do not produce equal local public facilities or equal public services in poor and wealthy counties. Even with equal tax effort, local revenue per capita in the poor counties is necessarily less. State aids serve to narrow or eliminate the gaps.

As a result of variations in both local wealth and state aids, counties varied widely in the fraction of expenditures which their local governments raised from their own local sources (figure 36). For example, at the extremes of the spectrum, Goodhue County local

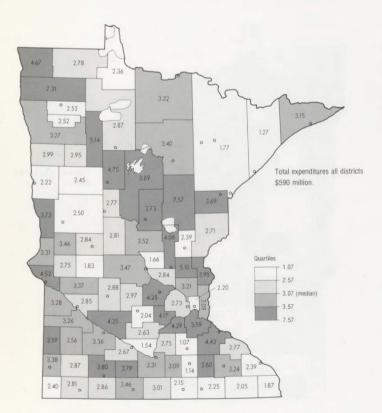


Figure 34. School district expenditures from own sources as a percent of personal income, 1976.

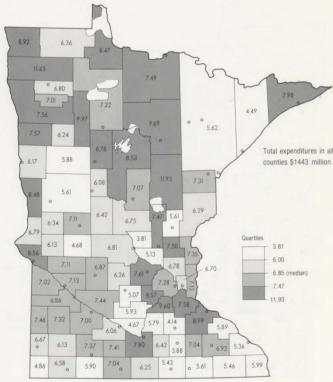


Figure 35. General local government and school district expenditures from own sources as a percent of personal income, 1976.

governments raised nearly three times as high a share of their revenue as units in Lake County in 1975. In general, the higher the personal income and the more compact the settlement pattern, the higher the local share of local government revenue. Conversely, the more sparsely settled or the lower the income, the higher the state aids (figure 37).

An important money transfer from state to local government is the County State Aid Highway (CSAH) allotment fund. The fund comes from a part of the state taxes on gasoline and motor vehicles. In the 1977 fiscal year it amounted to \$84.2 million. There were slightly more than 60,000 lane-miles of County State Aid highways on which to spend the money. Meanwhile, the actual share of highway user taxes generated in each county is not measured; but one can estimate it from the U.S. Census data on the share of the state's total gasoline service station business done in each county. One can then compare the share of the CSAH allotment fund that comes from each county with the share that goes back to each county (figure 38).

Most counties receive more of the fund than they generate. A few generate much more than they receive. The parts of the system that are *profitable* are those that serve the main urban centers and those that feed most immediately into the main transportation

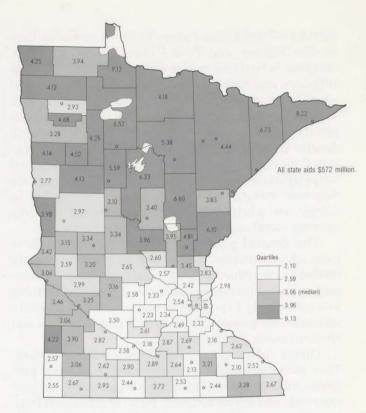


Figure 37. State aids to local general governments as a percent of personal income, 1976.

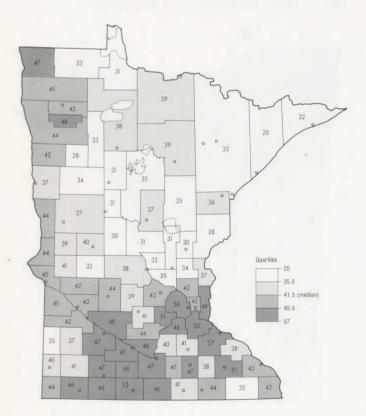


Figure 36. Local sources as a percent of all general local government and school district revenues, 1976.

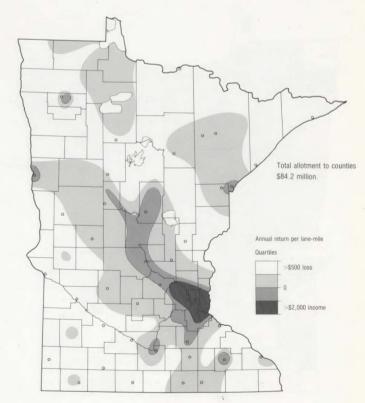


Figure 38. Estimated net return to the County State Aid Highway (CSAH) allotment fund per land-mile of CSAH road, each county, 1977 (dollars).

corridors: Twin Cities-Fargo, Twin Cities-Cedar Rapids-Des Moines, and Twin Cities-Chicago. In effect, everyone is buying access to everyone else: city to farm suppliers and markets, farmers to city markets and suppliers, and much more. The state collects revenues where the users are most numerous, then spreads expenditures across the entire system. Users in high density areas tolerate more congestion in order to sustain their connections to the hinterland. In a very real sense the state is a community, organized to integrate dispersed natural resources, concentrations of technology, and a large number of people living in widely varying social and financial circumstances.

The general pattern holds also for state aids to local school districts. Higher aids go to more sparsely settled or lower income areas, lower aids to more compact or higher income settlements. The state functions as a community to pool its resources and buy access to education for people in widely differing locations and circumstances (figure 39).

Direct federal aids supplement state transfers. They include revenue sharing as well as special programs administered through both general local governments and school districts. Federal aids equal from 5 to 25 percent of the amount of aid from the state. When they are added to the map of state aids, they sharpen and refine the pattern only slightly (figures 40, 41).

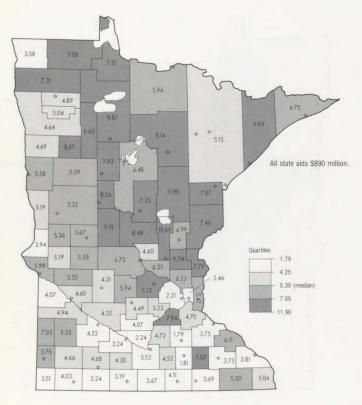


Figure 39. State aids to school districts as a percent of personal income, 1976.

The state payrolls also serve to redistribute state government revenue among the eighty-seven counties (figure 42). State payrolls are highest in absolute terms in the Twin Cities area, mainly because the state capitol and the major university campus are located there. On the other hand, those payrolls account for exceptionally large shares of personal income in some counties elsewhere in the state. State university payrolls equal 8 to 14 percent of personal income in the counties that include Bemidji, Mankato, Marshall, and Morris; about 5 percent in the counties that include Moorhead and St. Coud. State hospitals, community colleges, correctional institutions, district highway headquarters, and regional offices of other major departments also affect the map pattern. The state payroll significantly reinforces at least twothirds of the twenty-six major trade centers outside the Twin Cities area.

Combined state aids and state payroll equal or exceed 10 percent of personal income in nearly half of the counties in the state, mostly in the north (figure 43). The figure exceeds 5 percent in every county except one. Most state aid payments, along with federal aids, support jobs for professionals, tradesmen, or technicians who, in turn, provide public goods and services. Thus state aids and the state payroll are important factors in urban employment and the pattern of urban development in Minnesota.

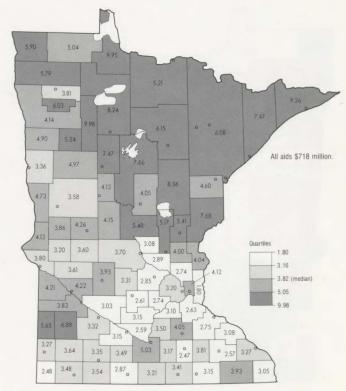


Figure 40. State and federal aids to local general governments as a percent of personal income, 1976.

People in each county generate a share of the total state government revenue, and they receive a share of the aids the state government returns. The amount returned appears to depend on need. It appears to reflect an attempt by the statewide community to compensate for differences in economic legacies between one locality in the state and another. In the per capita income data used in this study only eight counties of the eighty-seven were above the state mean. Income differences underlie both the strength of the tax base and the incidence of need. Hence a few counties get back less in aids than they contribute initially to the state funds for redistribution. In effect they are deficit counties in the state aid system. Many other counties get back more than they pay. They are surplus counties in the aid system.

The last two maps attempt to show the deficit and surplus counties (figures 44, 45). The maps use different sources of data, and they represent different years. Therefore they are hampered by the fact that the accounts they use were assembled for often disparate purposes and are not strictly comparable, and also by the fact that the pattern itself is not stable from one year to the next. The aid/contribution ratio varies from year to year in each county because of fluctuations in revenue and lags in tax collection. The maps are indicative but not definitive.

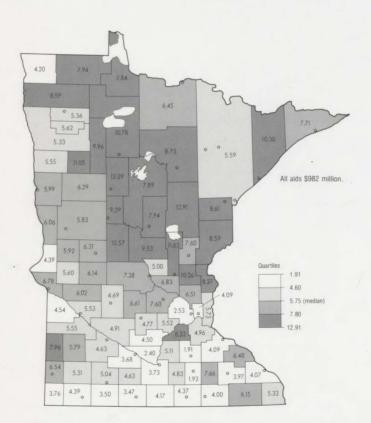


Figure 41. State and federal aids to school districts as a percent of personal income, 1976.

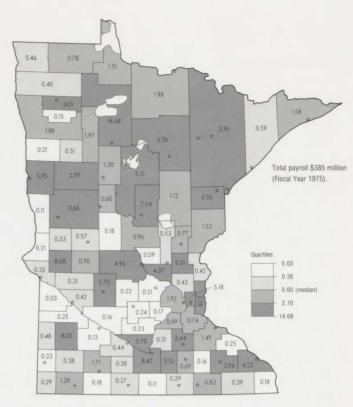


Figure 42. State government payroll, including higher education institutions, as a percent of personal income, 1976.

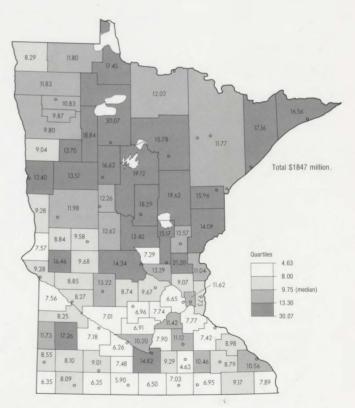


Figure 43. State aids and state payrolls as a percent of personal income, 1976.

Yet the patterns are consistent. On balance the counties that finance the state aid system are almost all in the area south of a line from the northern edge of the Twin Cities metropolitan area to St. Cloud to Rock County. That is the region of the state with the most urbanization, the most industry, and the most productive crop land. Meanwhile the net benefits flow mainly to counties in the parts of the state with some combination of sparse population and low income.

State aids obviously redistribute only a small fraction of the total income stream. They equalled about 4.5 percent of the gross state product in 1975, and the net total amount shifted among counties probably equalled less than half of one percent of the GSP. The aids are confined to selected needs; so they make up only a small, but significant, part of the income gap between low income and high income counties. For example, Clearwater County's per capita income would have had to rise about 86 percent to equal the state mean. The actual aids paid in excess of Clearwater's contribution to all state aid funds, it appears, equalled 8 to 12 percent of personal income in the county. No matter what assumptions are made, state aids close only about one-seventh to one-tenth of the gap between the county mean and the state mean in the lower income counties, except in the Iron Ranges. The aid programs aim at particular needs — mainly education, roads, and welfare.

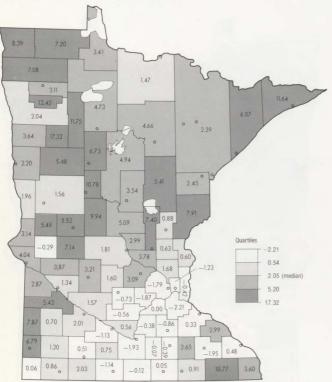


Figure 44. State aids received in excess of estimated contribution to state aid funds, as a percent of personal income, 1972.

Six northeastern counties receive additional aids through separate redistribution of certain taxes on taconite mining and milling (figure 45). Those additions put Itasca, Cook, and Lake counties at or near the highest levels in the state in total aids per dollar of local personal income. Even then net state aids close less than one-fourth of the gap between county and state mean per capita income in four of the six counties. In St. Louis and Cook counties aids appear to compensate more than half of the income gap. Their aid levels are exceptionally high.

Changing Conditions

Clearly Minnesota's high state taxes directly reflect a high average level of *local public expenditure* coupled with a high level of *state aids*. State aids are heavily dependent on the income tax. Given the progressive income tax rates and geographic concentration of above average income in a few counties, state aids benefit most of the counties and a majority of the population.

It is possible — though by no means demonstrated — that unique circumstances of location and events habituated Minnesotans to substantial statewide revenue redistribution both earlier and more strongly than citizens in many other states. Iron ore,

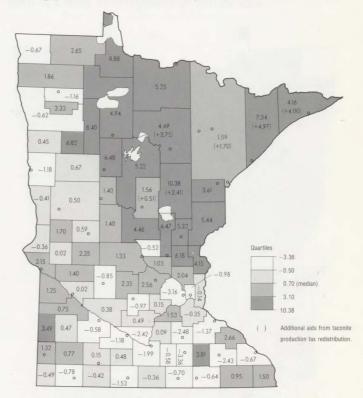


Figure 45. State aids received in excess of estimated contribution to state aid funds, as a percent of personal income, 1976.

for a long period in the state's history, provided a substantial source of taxes virtually none of which came out of the pockets of Minnesotans. Hence that revenue could be redistributed by the state government to assist local public enterprise without any other group of Minnesotans having to pay the difference. In the 1940s and early 1950s iron ore taxes provided about 10 to 14 percent of the annual state revenue available for state use or statewide distribution.⁷ By 1975 the comparable figure was 1.2 percent. Thus the mining industry was abandoned as a major source of discretionary income for state government. But during the same years, fortuitously, urban population and income boomed. The Twin Cities metropolis experienced the greatest growth in its history and a very rapid growth by national standards of the time. The rapidly growing income tax could assume the support of statewide aids. Higher taxes came with relatively little strain out of unprecedented real income growth. In the 1970s Twin Cities growth has slowed to about the national rate, and growth in real income has slowed at least as much. Under these conditions it is natural that the system of government revenue and expenditures would now come under close scrutiny.

But there is also evidence of deep public commitment to relatively high spending in certain government enterprises. The concern for public education needs little documentation. Sixty to 75 percent of state aid payments to county areas went to public education in 1976. Minnesota ranked sixth among the fifty states in per capita spending for education, ninth in percent of personal income. One might assume that the outlay per capita indicates the quality of facilities and personnel in the educational system, while the percentage of personal income indicates the intensity of community commitment. By those two measures combined, Minnesota ranks eighth in the nation.

But Minnesota is also above the mean of fifty states in its expenditures for highways and welfare, from both local sources and state aids. Many relatively poor counties pay relatively high local tax rates per dollar of personal income and apparently have done so for a long time. The basic reasons for this being a high tax state are probably deep and complicated.

Nevertheless there is a new situation. Iron ore tax levels are constitutionally limited. Urban growth has slowed. Real income growth has slowed. The Minnesota community is increasingly an integral part of the national system, competing in national markets for labor, goods, managers, and entrepreneurs. Cost of public goods and services, like all others, cannot get too far out of line; and whatever is done will require increasingly sophisticated understanding. Income, education levels, and tax levels are converging among the different states and regions of the nation. Many of

the problems of Minnesota are local, immediate versions of spreading and long-festering national questions. How much income redistribution is appropriate in the society? What is the appropriate *community*—local, state, or national—within which to pool and redistribute resources, to be sensitive to needs and extend a hand? How much should dependence be shifted from tax revenue to user charges in order to finance public enterprises? Which enterprises should the public operate in order to redistribute income, and which should it only regulate, for the same purpose? How much should a local government be able to tax a regional or national enterprise for local special benefit?

As these questions persist, state governments, as well as local and federal, will surely be developing more management controls and more careful priorities. Each is likely to exert pressure on the others for more monitoring and frequent adjustments in the operation of the public enterprise. One example has come recently from the State Planning Agency's legislature-mandated study of local government fiscal problems. The study recommends specific steps to improve the state's knowledge of the financial condition of cities. It lists three reasons why that is important to the state. All of the reasons stem from the fact that the state tax base is also the local tax bases; and each local tax base is part of the state tax base. The same people are both local citizens and state citizens.

Community or Carcass?

To the extent that the state functions as a community, through a system of state aids, each government is concerned with the efficiency of all others. All share the same total tax base. Efficient governments are penalized by inefficient neighbors; needy localities are penalized by self-indulgent neighbors. The need for wider understanding and information grows with the need for statewide consensus on the amount and allocation of tax money. To the extent that the state does not function as a community, it resembles a carcass, with agents of different localities and interest groups converging on it to tear away whatever substance they can get to carry back to their constituencies.

Sound statewide consensus and adjustments will require widespread understanding of revenues, expenditures, and trends — how much, for what, by what levels of government (public management), where? This study is an elementary exploration of the *where* question. Future versions — expanded, more accurate, and computerized — might well be part of an improved, regular reporting on the state of the state.

Notes to Text

- Francis M. Boddy, "Minnesota's Economy: 1900-1977,"
 Commercial West, 151:15 (April 10, 1976), pp. 114 115, 138. Comparative data for U.S. state and local
 government revenues and gross national product from
 Historical Statistics of the United States: Colonial Times
 to 1970, Washington, D.C.: U.S. Bureau of the Census,
 1975, pp. 226 and 1125-26, and Statistical Abstract of the
 United States 1976, Washington, D.C.: U.S. Bureau of the
 Census, 1976, table 432, p. 267 and table 643, p. 401.
- 2. Boddy, op. cit., p. 138.
- 3. Calculated from data in *Proposition 13: Prelude to Fiscal Crisis or New Opportunities?* Report of the Subcommittee on the City, Committee on Banking, Finance, and Urban Affairs, U.S. House of Representatives, Washington, D.C.: U.S. Government Printing Office, 1978, pp. 9-14. The reduction in all California property tax revenue for the year 1978-79 estimated by the Congressional Budget Office would have left total property taxes at about 57 percent of the 1975-76 level. In 1975 all Minnesota property taxes per dollar of personal income were about 70 percent of California's.
- 4. Using more sophisticated measures, Halstead ranked Minnesota eighth highest among the fifty states in state and local government *Tax Effort Index*, after New York, Massachusetts, Maine, California, Hawaii, Vermont, and Wisconsin, in that order. *Tax Effort Index* depends on the difference between taxes collected and *tax capacity*. The latter is a calculation of the taxes that would be raised in each state if the various tax bases of that state were taxed at the average rates of state and local governments nation-wide. Minnesota's rank is slightly lower on that scale because of its lesser use, compared with other states, of several tax bases other than income. Halstead's data were also for the 1975 fiscal year. See D. Kent Halstead, *Tax Wealth in Fifty States*, Washington, D.C.: National Institute of Education, 1978, ref. pp. 1-23.
- 5. Boddy, op. cit.
- In some cases operating efficiency may be greatly increased by creating a single public or franchised monopoly instead of numerous overlapping private companies.

- But that does not explain the decision not to charge each user according to the amount of services and facilities provided in other words, to use the enterprise to distribute subsidies or redistribute income. There is a very large literature on the theory of spatial allocation of costs and charges in the public economy. For recent reviews see Melville L. McMillan, "Toward the More Optimal Provision of Public Goods: Internalization of Benefits or Intergovernmental Grants?", Public Finance Quarterly 3:3 (1975), pp. 229-260, and Richard A. Musgrave, "Economics of Fiscal Federalism," Nebraska Journal of Economics and Business 10:4 (Autumn 1971) pp. 3-13. I am indebted to my former colleague, Prof. Anthony Lea, now at the University of Toronto, for his comments and references on this topic.
- 7. Percentages include only occupation and royalty taxes, which have been deposited in the state General Fund. Forty percent of that revenue is committed to distribution to school districts; 45 percent is discretionary; and the remainder is allocated to the University of Minnesota and the Iron Range Resources and Rehabilitation Board (Commission). The occupation tax became effective in 1921 and the royalty tax in 1923. The two sources accounted for about 10 to 14 percent of state general revenue in the 1940s and through the mid-1950s and about 5 percent in earlier years. Sources of data: Mining Directory of Minnesota, Minneapolis, University of Minnesota Mines Experiment Station (now Mineral Resources Research Center), published annually; Statistical Abstract of the United States, Washington, D.C.: U.S. Bureau of the Census, published annually; and The Mining Tax Structure in Minnesota, St. Paul: Minnesota Department of Revenue, August 1976.
- 8. City Financial Reporting, St. Paul: Minnesota State Planning Agency, Office of Local and Urban Affairs, 1978, 44 pp. Refs. pp. 5 and 10-32. Extensive supporting material was published in the State-Local Fiscal Study and the Minneapolis-St. Paul Study, State Planning Agency, 1978

Notes on Data Sources for Maps and Diagrams

Figure 1.

- a. Gross state product (GSP) from Minnesota Department of Economic Development. The estimated GSP for fiscal year (FY) 1976 is the mean of the department's estimates for 1975 and 1976 calendar years. Gross state product was taken as an approximation of the personal and corporate income stream which governments in Minnesota can tap for revenue. GSP for FY 1976 was equal to 1.26 times total Minnesota personal income for the same year. For the entire United States, the gross national product was 1.22 times personal income.
- b. United States tax payments for FY 1975 were obtained from Statistical Abstract of the United States 1977 (SAUS 77), Washington, D.C.: U.S. Bureau of the Census, 1977, table 420, p. 257. That amount was converted to a percentage of the gross state product for FY 1975. That percentage, in turn, was applied to the GSP for FY 1976 to estimate the total federal taxes paid in FY 1976. United States government spending in Minnesota was estimated in the same way from the same sources.
- c. Federal aid payments to Minnesota state government from SAUS 77, table 469, p. 288.
- d. Federal aid payments to Minnesota local governments from *SAUS* 77, table 470, p. 289 and table 475, p. 292.
- e. State taxes and charges from same source as note c.
- f. Local taxes and charges from SAUS 77, table 469, p. 288.
- g. State aid payments were taken as the difference between local government expenditures and combined local government revenues from own sources and federal aids. From *SAUS* 77, table 469, p. 288; table 470, p. 289; and table 475, p. 292.
- h. Share of local government expenditures for general administration is assumed to equal the percentage of all United States county government expenditures used for "Financial Administration" and "General Control" in table 481, p. 298, *SAUS* 77.
- i. Share of state government expenditures for general administration includes law-making, judicial, and executive costs. It was estimated roughly from budget data from the Minnesota Department of Finance, for FY 1977 (computer printout dated 4-13-78). The budget data covered each sub-program in each state department. A budget for a department was considered to be in the "general administration" class if more than 50 percent of it was designated for central state administration, professional work, or data support for example, Attorney General's office,

legislative committees, Governor's office, examining boards, Supreme Court — or if more than 50 percent of the department budget was designated for state-wide regulation, including regional offices and data support. Other expenditures were considered to be for direct personal services to citizens or for building, operation, and maintenance of public facilities.

Figure 2. SAUS 77, table 420, p. 257.

Figure 3. Same as figure 2.

Figure 4. Same as figure 2.

Figure 5. SAUS 77, table 465, p. 285.

Figure 6. SAUS 1962, table 552, p. 422, and SAUS 77, table 465, p. 285.

Figure 7. Tax data from *SAUS 1976*, table 440, p. 274; personal income data from *ibid.*, table 643, p. 401.

Figure 8. Tax data from SAUS 77, table 477, p. 295; personal income data from *ibid.*, table 703, p. 436.

Figure 9. Same as figure 7.

Figure 10. Tax data from SAUS 77, table 470, p. 289; income data from *ibid.*, table 703, p. 436.

Figure 11. Government revenue data from *SAUS* 77, table 470, p. 289; income data same as figure 10.

Figure 12. Government revenue data from *SAUS* 77, table 469, p. 288; income data same as figure 10.

Figure 13. Same as figure 12.

Figure 14. Same as figure 12.

Figure 15. Debt data from *SAUS* 77, table 473, p. 291; income data same as figure 10.

Figure 16. 1975 data same as figure 12; 1960 government revenue data from *SAUS 1962*, table 552, p. 422 and table 556, p. 426; income data same as figure 6.

Figure 17. Same as figure 16.

Figure 18. Same as figure 16.

Figure 19. Same as figure 16.

Figure 20. Same as figure 16.

Figure 21. Same as figure 12.

Figure 22. Same as 1960 sources for figure 16.

Figure 23. Same as 1960 data for figure 16.

Figure 24. Same as 1960 data for figure 16.

Figure 25. State of Minnesota Financial Report, Department of Finance, November 1978, pp. 22, 29, 26. "State Net Revenue" is equal to total state revenue minus refunds.

Figure 27. United States Bureau of Economic Analysis.

Figure 28. United States Bureau of the Census, County and City Data Book, 1977.

Figure 29. Property valuation data from *Update*, Minnesota Department of Education, Summer 1977. Areas from *County and City Data Book*. Valuations are totals for school districts headquartered in a given county. Therefore they are only approximate because numerous school districts cross county lines. Nicollet County valuation is significantly understated.

Figure 30. Minnesota Department of Revenue, *Minnesota Individual Income Tax Bulletin*, annual.

Figure 31. Minnesota Department of Revenue, *Minnesota State Corporate Income Tax Bulletin*, annual.

Figure 32. Minnesota Department of Revenue, *Minnesota Sales and Use Tax Bulletin*, annual.

Figure 33. County and town revenues from *Report of the State Auditor of Minnesota*, annual; city revenues from computer printout provided by the Minnesota State Planning Agency, Office of Local and Urban Affairs; income data same as figure 26 and subsequent maps.

Figure 34. Same as figure 29.

Figure 35. See figures 33 and 34.

Figure 36. See figures 33 and 34.

Figure 37. See figure 33.

Figure 38. Data on lane-miles and County State Aid Highway allotment fund provided by Minnesota Department of Transportation. County shares of state gasoline tax revenue generation are proportional to county shares of total state sales of gasoline service stations reported in 1972 U.S. Census of Business, Area Statistics: Minnesota.

Figure 39. See figure 29.

Figure 40. See figure 33.

Figure 41. See figure 29.

Figure 42. Payroll data from computer printout provided by Minnesota Department of Finance; does not include "T" category jobs except in higher education institutions. Income data same as figure 27 and subsequent maps.

Figure 43. See figures 37, 39 and 42.

Figure 44.

- a. Total state aids to all local governments, including school districts, in each county, from U.S. Census of Governments, 1972.
- b. The share of total state aid funds generated in each county was assumed to be equal to that county's share of total state personal income.
- c. Income data for 1971 from "1972 Survey of Buying Power," Sales Management 109:1 (July 10, 1972) pp. D-62, D-64.

Figure 45.

- State aids include totals paid to counties, towns, cities, and school districts, from sources cited above.
- b. Contributions from each county include individual and corporate income taxes and sales taxes as shown in preceding maps, plus estimates of motor fuel and vehicle taxes, alcoholic beverage taxes, and "all other taxes" generated in each county. The share of state motor fuel and vehicle taxes generated in each county is assumed to be equal to that county's share of state total retail sales of gasoline service stations. The share of the state total alcoholic beverage and tobacco

tax generated in each county is assumed to equal that county's share of the state total sales of eating and drinking places. (Both sets of data from the *U.S. Census of Retail Trade 1972*. Washington, D.C.: United States Bureau of the Census, 1976.) Each county's share of "all other taxes" was assumed to be equal to that county's share of state total personal income. The share of each of those major sources in the state's total revenue in FY 1976 was as follows:

Tax	\$(thousands)	Percent
Individual income	850	39
Corporate income	196	9
General sales	427	20
Motor fuel/vehicles	293	14
Alcohol/tobacco	132	6
All other (exc. ore)	261	_12_
Total (exc. ore)	2159	100

c. Data on total revenue, and redistribution of taconite production tax, from Minnesota Department of Revenue Research Office, *The Mining Tax Structure in Minnesota*, 1978.



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