Local Government Spending

March 1990

Program Evaluation Division
Office of the Legislative Auditor
State of Minnesota

Program Evaluation Division

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March 20, 1990

Senator John Brandl, Chairman
Legislative Audit Commission

Dear Senator Brandl:

In June 1989, the Legislative Audit Commission directed the Program Evaluation Division to examine local government spending. We decided to focus on city spending because we recently issued reports on county human service spending and school district spending. Also, aid to cities is a growing portion of the state's budget, and state officials have little detailed information on city spending patterns or on the impact of state aid on city spending.

This report shows that city spending is relatively high in Minnesota, although it varies significantly, depending on city size, region, and service category. The report concludes that state aid may boost city spending more than it provides local property tax relief. To control spending and strengthen accountability, the Legislature should consider limiting state aid overall and targeting it to communities whose needs are greatest.

We are grateful for the assistance of the State Auditor who supplied much of the financial information presented in this report. We also thank the city officials who responded to our inquiries and supplied additional data, and we thank numerous others for their advice and counsel.

This report was researched and written by Elliot Long (project manager), David Chein, and Dan Jacobson, with assistance from Jim Ahrens.

Sincerely yours,

James R. Nobles
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LOCAL GOVERNMENT SPENDING

Executive Summary

Concern about the state-local financial relationship has produced a number of studies in recent years, some by our office. This study focuses on spending by cities, and asks:

- **How does spending vary among Minnesota cities? What explains these differences?**

- **How do service needs and fiscal capacity vary among cities? To what extent are spending differences related to service needs and fiscal capacity?**

- **How does city spending vary among Minnesota's geographic regions? What explains these differences?**

While city services are mainly local in scope and impact, cities in Minnesota receive major state aid through Local Government Aid (LGA) and other state aid programs. Therefore, a question of high current concern is:

- **To what degree has state aid stimulated city government spending rather than reduced property taxes?**

The report uses data compiled by the State Auditor from an annual survey of cities, augmented with data we collected through personal and telephone interviews with city officials and demographic data from several Minnesota sources and the United States Census.

VARIATION IN CITY SPENDING

The determinants of city spending are numerous and their relationship complex. City government spending reflects:

- **Service Needs.** These vary regularly and predictably by size and type of community, concentration of economic and cultural activity, concentration of disadvantaged residents, age of housing and infrastructure, and other factors.

The determinants of city spending are numerous and complex.

- **Fiscal Capacity.** Capacity is higher where property wealth and personal income is high and in communities with a concentration of commercial activity. Intergovernmental aid also increases fiscal capacity.

- **Service Preferences.** Local residents can, should, and do choose to spend more or less on city amenities and services.

- **Input Costs.** Wage rates and equipment costs vary considerably across Minnesota. Cities may have to spend different amounts to obtain equivalent services.

In 1987, spending ranged from $27 to $1,700 per capita among Minnesota's 855 cities. About 80 percent spent between $100 and $500 per capita. Average city spending (weighted by population) was $502 per capita in 1987.

Our measure of city spending includes operating expenditures for 1987 and the average annual capital outlay, 1984-87, in 1987 dollars. We used a four-year average for capital outlay because these expenditures vary greatly from year to year, particularly in small cities. To permit valid comparisons among cities, we excluded expenditures for enterprise activities such as water, sewer, electric utilities, and liquor stores.

CITY SPENDING PATTERNS

We analyzed the relationship of spending and various factors relating to service needs, input costs, and fiscal capacity.

In summary, we found:

The single biggest factor is city size.

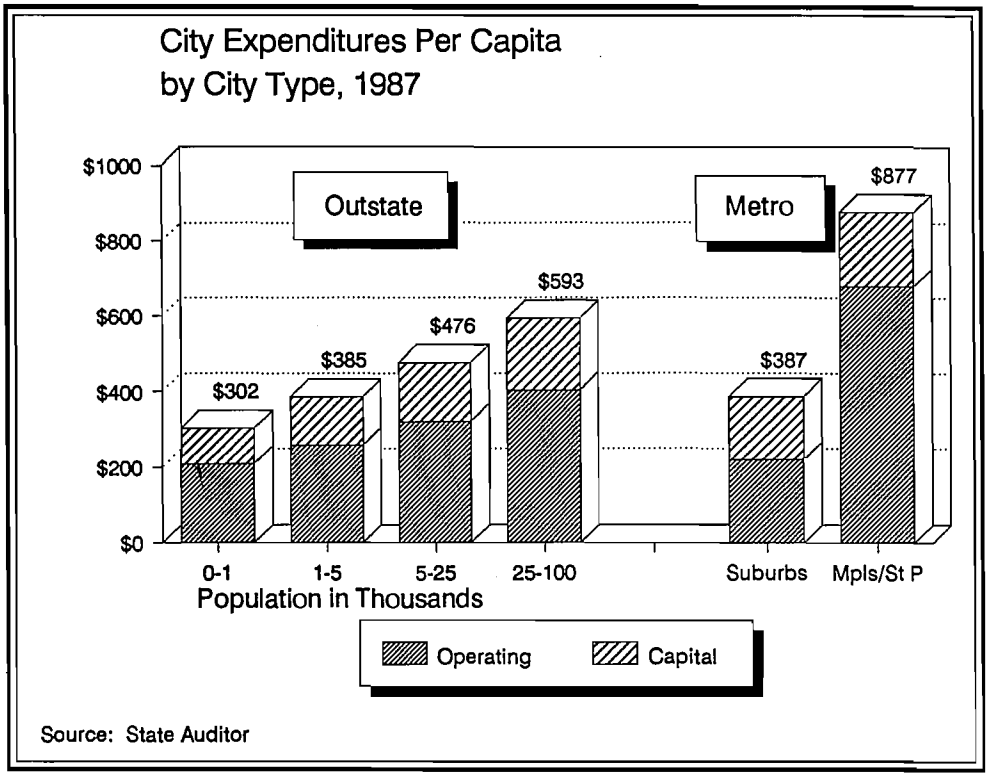
- **Spending by Minnesota cities is strongly related to whether a city is a regional center and the size of the region it serves.**

Spending increases with city size across a broad range of spending categories including police, fire, parks and recreation, housing and community development and health.

As the figure below indicates, total spending is $877 per capita in Minneapolis and St. Paul, $387 per capita in the Twin Cities suburbs, and between $302 and $593 in outstate cities of varying size.

A high proportion of commercial property, older housing and infrastructure, smaller household size, higher income or property wealth, and state aid also help explain higher city spending. In addition, a city's spending is related to its growth. Cities with high growth rates tend to have high capital expenses whereas cities with declining populations tend to have high operating expenses.

Metropolitan centers are older and have higher infrastructure costs.



We also found:

- **Spending by Twin Cities suburbs and fringe cities of outstate regional centers is substantially lower than spending by other same-size cities in Minnesota.**

Spending reflects factors other than service needs. High property wealth per capita causes higher spending.

Minneapolis and St. Paul have the oldest housing, the most commercial property, the highest crime rate, the smallest average household size, and the largest population decline. All of these service need indicators help explain why Minneapolis and St. Paul have the highest spending.

Service needs, however, do not fully explain spending differences among city types. Relatively high personal income and property wealth also help explain why Minneapolis and St. Paul spend more than outstate cities, though they do not explain why they spend more than the suburbs whose income and assessed value is as high or higher. Furthermore, it is difficult to isolate the effects of service needs from service preferences and inefficiency due to factors such as higher wages.

PUBLIC SAFETY SPENDING

We looked at the relationship between the crime rate, police expenditures and numbers of police officers for several types of cities. Minneapolis and St.

Paul have significantly higher serious crime rates than the suburbs or outstate cities. Outstate, crime rates are higher for larger cities.

Minneapolis and St. Paul spend more on police than smaller cities but not in proportion to the difference in the crime rate.

While police spending is higher in larger cities, spending is not proportional to the difference in crime rates. For example, the crime rate in Minneapolis/St. Paul is more than four times as high as outstate cities with 2,500 people or more, but spending is only twice as high as the outstate cities. To the extent that serious crime represents a "need" for law enforcement, central city spending is less adequate than spending by outstate cities.

Per capita fire damage is greater for large and small cities and is lowest for medium-sized cities between 25,000 and 50,000. Per capita spending on fire protection is higher in the central cities and in outstate cities over 25,000. Smaller cities' fire expenditures are lower even though they face a higher risk.

A factor that explains much of the variation in fire expenditures is the extent to which cities use full-time paid versus volunteer fire fighters. Minneapolis, St. Paul, four out of the five major regional centers, five suburbs and eleven other outstate cities have full-time paid fire departments. Almost all small cities have all-volunteer departments. Cities with full-time paid departments spend more than cities with combination paid-volunteer or all-volunteer fire departments. For example, outstate cities with full-time fire departments spend an average of $76 per capita, compared with $48 for combination departments and $19 for all-volunteer fire departments (considering here cities with 5,000 to 25,000 people). Thus, the decision on the type of fire department is a significant factor affecting a city's per capita expenditures.

Paid fire departments cost much more than volunteer departments.

REGIONAL VARIATION

Among Minnesota's 13 regions, city spending varies from $583 per capita in northeast Minnesota (Region 3) to $325 in east central Minnesota (Region 7E), a difference of 79 percent. The five highest spending regions include the three northern regions, the Twin Cities region and the southeast region. The southwest regions tend to have low spending.

Northeast Minnesota spent ten percent more than the Twin Cities region spent ($535). This region had the highest spending rate in the state for streets, fire, police, administration/finance, and libraries. In 1987, cities in the Northeast region spent $308 per capita for employee salaries and fringe benefits, compared to $230 in the Twin Cities area, the region with the second highest rank.

Reasons for high spending in the Northeast include: presence of the second largest metropolitan area in the state (Duluth); older housing; declining population; more frequent use of full-time fire departments; higher number of police officers per capita; and higher state aid.

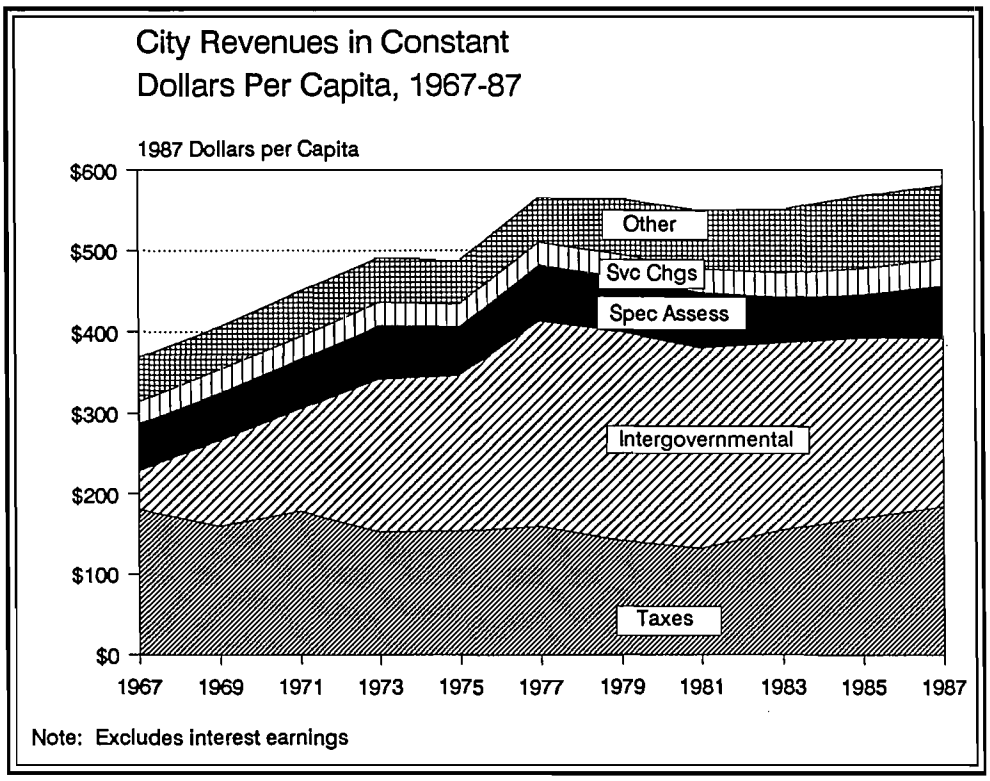
DOES STATE AID STIMULATE CITY SPENDING?

The data suggest that state aid has caused higher city spending.

As noted, concern about state aid is high because of other state spending priorities and because of concern that aid to cities has stimulated local spending. It is impossible to settle the question, but what is a reasonable conclusion about the stimulative effect of state aid? We addressed the question by reviewing the research literature, by examining city spending trends in Minnesota cities compared to increases in aid, and by comparing spending by Minnesota cities to spending by cities in other states.

Economic theory predicts and empirical studies support the generalization that intergovernmental grants will stimuate spending and that matching grant programs, like the homestead credit, will stimulate local spending more than flat grant programs like Local Government Aid (LGA). Flat grants may stimulate spending because the aid is paid to governments rather than taxpayers, and government agencies tend to find a use for funds raised elsewhere rather than pass along savings to taxpayers.

Between 1967 and 1987, intergovernmental (state and federal) aid to Minnesota cities grew more than four-fold, after adjusting for inflation. State and federal aid accounted for 13 percent of total city revenue in 1967. This grew to 44 percent in 1981, and dropped to 36 percent in 1987. Tax revenue declined from 55 percent in 1967 to 25 percent in 1981 and rose to 34 percent in 1987.

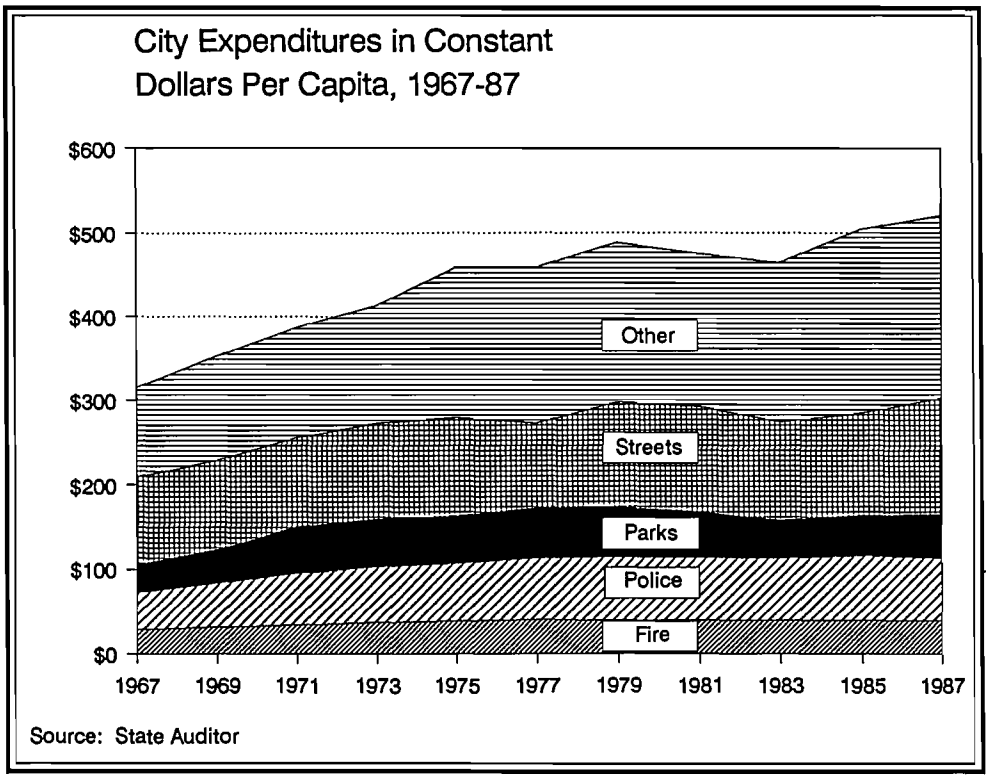


Spending by Minnesota cities went from $228 million in 1967 to $1.707 billion twenty years later. Spending rose from about $300 per capita to just over $500 in 1987 dollars. Adjusting for inflation, city expenditures grew by 65 percent between 1967 and 1987.

- **The period of fastest spending growth corresponds to the time of rapid growth of state and federal aid to cities.**

State and federal aid reached its highest level in 1979, when it equalled $249 per capita in 1987 dollars, an increase of $206 per capita over the 1967 level. During the same time period (1967-79), city spending rose by $172 per capita and city taxes declined by $38 per capita.

Between 1967 and 1979 city spending rose $172 per capita and city taxes fell by $38 per capita.



These results suggest that cities used 82 percent of the additional aid to finance increased spending and 18 percent to reduce property taxes. However, by themselves, these results do not necessarily mean that state and federal aid caused cities to increase spending by $172 per capita. City spending might have increased even without additional aid. However, to finance this much additional spending with the property tax, cities would have had to nearly double their tax levies over a twelve-year period. The fact that the Legislature passed major property tax relief programs because the 1967 property tax levies were considered high indicates that such a large increase would have been difficult to enact.

As federal aid declined and state aid leveled off after 1979, spending grew much more slowly and property taxes went back up. Whereas per-capita

spending increased by $14 per year (in constant dollars) between 1967 and 1979, it only increased by $5 per year after 1979.

Another way to estimate the effect of state aid on spending is to compare Minnesota with other states. To the extent that state aid stimulates spending and to the extent Minnesota provides more aid to cities than other states provide, Minnesota would be expected to have higher spending.

In 1986, Minnesota cities received only 35 percent of their revenue from taxes, whereas the national average was 61 percent. While property taxes contributed 30 percent of city revenues in both Minnesota and the nation, other taxes, particularly the sales tax and the income tax were used much more extensively in other states. Minnesota provided $162 per capita in state aid to cities, compared with the national average of $97. Among nearby states, only Wisconsin provided more state aid ($249 per capita). In 1986, Minnesota cities received 30 percent of their revenue from state aid, substantially higher than the U.S. average of 16 percent.

- **Minnesota's aid to cities ranks 11th highest among the states;**

- **Minnesota cities tend to spend more than the national average.**

In four out of five population categories, Minnesota cities spent between 5 and 24 percent more than the national average. For cities between 25,000 and 50,000, Minnesota cities spent 5 percent less than the national average; but, 85 percent of these Minnesota cities are Twin City suburbs, a higher proportion than are suburbs in the nation as a whole. Suburbs tend to spend much less than other cities of the same size.

Minnesota cities spend more than the national average, and more than most nearby states.

We compared Minnesota cities to cities in neighboring states and several other states of similar size and organization. For all five population categories, Minnesota cities spent more than cities in Iowa, North Dakota, Illinois, Indiana, Missouri, and Nebraska. Wisconsin and Washington cities had higher spending than Minnesota for the three smallest population categories. Oregon cities had slightly higher spending for two categories. Kansas and South Dakota cities had higher spending for one population category. Looking further:

- **Minnesota cities spent more than the national average on streets, parks and recreation, and housing and community development across all five population categories.**

- **Minnesota cities spent less than average on police.**

TRENDS OVER TIME

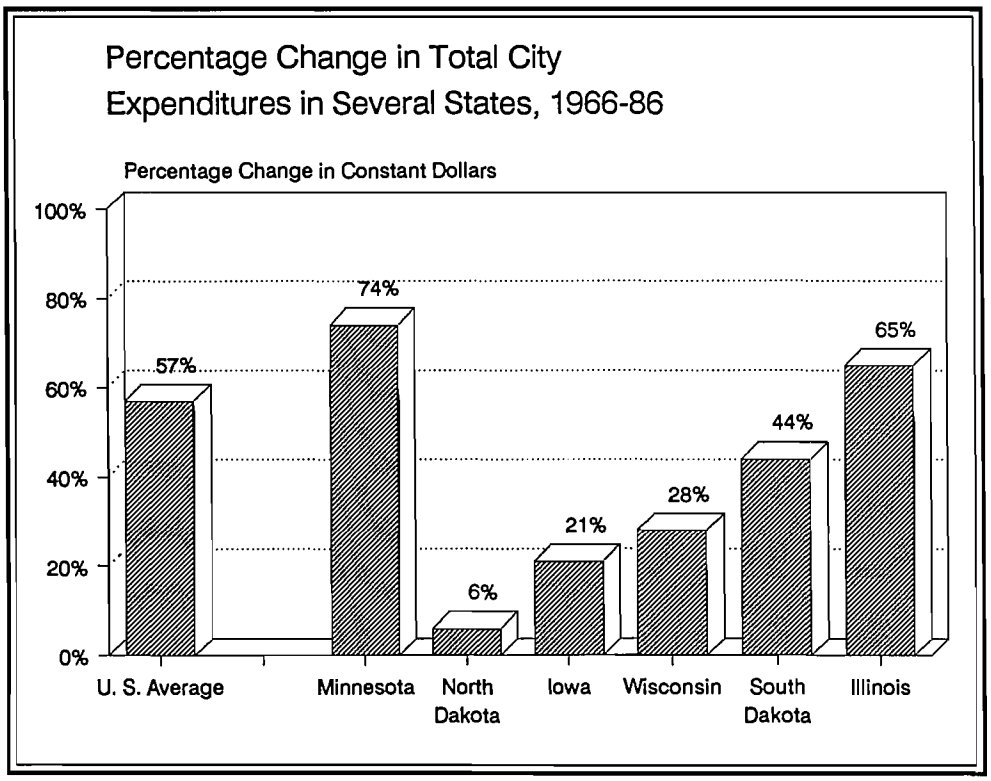
Between 1966 and 1986, most states increased aid to cities. However, U.S. Census data show that Minnesota increased aid to cities by a substantially larger amount than average.

- **Between 1966 and 1986, Minnesota increased its aid to cities from $42 to $162 per capita, an increase of $120. This increase was nearly three times the national average increase of $42 per capita (from $55 to $97 per capita).**

- **During the same 20-year interval, city spending, adjusted for inflation, rose by 74 percent in Minnesota compared to 57 percent for the nation.**

In summary, economists have consistently found that state or federal aid stimulates local spending. Minnesota's experience is consistent with the findings of previous studies. Minnesota provides more aid to cities than the national average and Minnesota cities spend more than average. Between 1966 and 1986, Minnesota greatly increased state aid to cities. During this same time period, city spending in Minnesota grew faster than the national average and faster than the growth in personal income.

Between 1966 and 1986, city spending increased rapidly in Minnesota compared to neighboring states.



STATE AID POLICY

The Legislature is preparing to take a hard look at local government aid policy in 1990. In deciding state policy, it will be useful to know what city services cost around the state, in other states, and how the cost varies across different types of cities.

Other state spending priorities--education or mental health services for example--more directly related to the unique role of state government compete with general purpose local aid for scarce budget resources. There are also signs of growing frustration with local government lobbying and dissatisfaction over the fact that local government issues compete for Legislators' time and attention.

During recent years, many of the premises of the Minnesota state-local fiscal relationship have been re-examined, and a new view taken in light of experience.

- **There is now heightened concern over the possible stimulative effect of state aid on local spending. In the 1960s and 1970s, this seemed more of an abstract possibility.**

- **Property tax relief programs succeeded in keeping taxes low only as long as major new revenues were pumped into the system. They were not permanently controlled by large but stable aid programs.**

- **The common view in Minnesota that the property tax is highly regressive and ought to be replaced by more progressive revenue sources is at odds with the view of many economists that the property tax is roughly proportional rather than highly regressive. The property tax is viewed by government finance specialists as one of three essential broad based taxes, each of which needs to be used to raise a major share of state-local revenue.**

Thus, we question some major premises on which the present system rests. In this respect, we offer advice consistent with reports published during the 1980s by the Citizens League, the (Latimer) Tax Study Commission, and the Humphrey Institute:

- **Taxes ought to be based on benefits received and ability to pay.**

- **Responsibility for spending ought to be linked to responsibility for raising revenue.**

- **Tax differences in cities are to be expected given the significant difference in the scope of government between large and small cities, but ought to reflect differences in service levels.**

- **City revenue should be reasonably stable and predictable.**
- **The public and policymakers ought to be able to understand the intergovernmental fiscal relationship.**

We believe a gradual reduction of aid to cities is possible and desirable.

Notwithstanding these general principles, there are practical problems in reforming the system. For one thing, changes are disruptive and can undermine local government budgetary decisions made in good faith. For another, the complexity of Minnesota's state-local fiscal relationship makes it difficult to change one part of the system at a time.

At a minimum, we recommend that the state not increase general purpose aid to cities or take on the job of preventing future city tax increases. In fact, aid can be reduced gradually in real and absolute terms in the future, though not without opposition and pain.

We believe reform would produce positive results. A lower level of aid can be more effectively targeted to advance specific state policy objectives, equalize resources, eliminate hardship, or compensate metropolitan centers for services of statewide impact. The major alternatives, which are not mutually exclusive, are:

- **Target aid to needy cities but more efficiently than the present system;**
- **Provide categorical aid to cities rather than general purpose aid;**
- **Provide aid to individuals, not cities;**
- **Give cities the option of using a city sales tax, income tax, or additional user fees.**

Aid to cities should be reduced in order to strengthen the relationship between local officials and their constituents, and because decisions about city streets, fire and police protection, and parks and recreation can and should be made locally.

In considering these alternatives, the Legislature should keep in mind what city services cost, and whether they would be affordable with less state aid. Many comparable states get by with much less aid to cities than Minnesota. Average city spending (weighted by population) was $502 per person in 1987. Half the cities spent $288 per capita or less. On average, it costs $80 per capita for police, $44 per capita for fire, $126 for streets, $51 for parks and recreation.

Assuming the city property tax is raised to replace 100 percent of any LGA reduction, a ten percent reduction in city aid would cost local residential taxpayers $5 per $10,000 of personal income. If local government aid were reduced 50 percent, the cost would be $25 per $10,000 of income.

The effect of aid reduction would differ across different types of cities and would be greatest where aid is now concentrated. Thus, Minneapolis and St. Paul and outstate cities, but not suburbs, would experience the largest aid reduction since suburbs now receive relatively little aid.

The basis of our recommendation that aid should be reduced is that, on average, reasonable city services are affordable with less aid, even if no assumption is made that less aid over time will result in less local spending. Individual cities may face real hardship as a result of aid reductions, but the remedy for this problem is targeted aid, not general purpose aid for all cities. Experience with aid cuts makes it reasonable to expect that city spending would, in fact, decline. Since important state programs now compete for scarce dollars, it seems appropriate that state policy makers be assured that city services are what local residents really want and are willing to pay for.

INTRODUCTION

The fiscal and administrative relationship between the state and local levels of government is a source of growing concern in Minnesota. As a result, state policy makers have received numerous recommendations over the last ten years on how to reform the state tax system and the state-local fiscal relationship.

While Legislators have received numerous tax policy studies (with a reasonably consistent message), we are aware of only one comprehensive study of city spending in the last fifteen years in Minnesota.[1] This is somewhat surprising in light of the fact that state aid is a major financing source for cities. State aid is about as important as property taxes as a city revenue source. In 1987, state aid provided 29.8 percent of city revenue; property taxes provided 30.9 percent of city revenue.

Last year, the Legislative Audit Commission requested a study of local government spending in Minnesota. In response, this study:

- **Presents an extensive description of spending on major categories of public services administered by cities.**

- **Shows how spending varies by size and type of city, by region, and in relation to measures of service, need, fiscal capacity, and other factors that have been suggested as important determinants of spending.**

- **Examines the issue of whether city spending is stimulated by state aid. This question is, however, easier to raise than to settle.**

With respect to the last issue, it is of more than passing interest to know how city spending in Minnesota has changed over time in response to growth in state aid, and how spending compares now and over time to city spending in other states. It has frequently been noted that Minnesota has a state-local aid system that is complex and characterized by high general purpose aid payments. Economic theory predicts that Minnesota's aid structure will tend to stimulate local spending, although state aid is not the only important determinant of spending. This study looks to data on city spending for an answer --

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1 Minnesota State Planning Agency, Office of Local and Urban Affairs, *Minneapolis-St. Paul Study, Final Summary Report*, June 1978.

however tentative -- to the question of whether the state-local relationship has caused city spending to go up.

To address these issues, we analyzed data reported annually to the State Auditor, and edited and adjusted the data based on a review of the financial reports of 85 cities. We used census data to compare Minnesota with other states and also statistics on demographic variables and crime rates from the State Demographer's Office and the Department of Public Safety.

Our focus is on city government spending. In Minnesota, cities receive a substantial amount of state aid, even though their role in carrying out state policy and programs is limited in comparison to counties and school districts. Cities provide services of primarily local significance and benefit.

The Legislature has tended to view aid to cities (and other local aid) as a property tax relief program whose success is measured by controlling property taxes. The fact that property taxes are increasing despite generous state aid has forced a new interest in local government spending. There is a broad legislative interest in developing a new, fairer, more efficient way of providing local aid. A desirable system would provide needed assistance without stimulating wasteful local spending or undermining the local governmental process by which people decide what kind and quality of public service they want and at what cost.

This study does not provide a blueprint for a new local government aid system. The tax bill enacted in the 1989 special session[2] directs the Legislative Commission on Planning and Fiscal Policy to conduct a study of (among other things) how to base state aid to cities on their relative service needs. It is widely understood that the current aid system is not based on expenditure need in relation to fiscal capacity.

We hope the study presented here takes a useful step in the direction called for by the Governor and the 1989 Legislature. We believe this study will help the Legislative Commission on Planning and Fiscal Policy address the issue of how to design a better system of state aid to local government.

This study is presented in the following four chapters. In Chapter 1, we present a discussion of local government organization and an overview of county, city and township revenues and expenditures. Chapter 2 discusses city spending in greater detail and analyzes the determinants of city spending. In Chapter 3, we analyze the relationship between state aid and city spending. Finally, Chapter 4 examines goals of the state aid system and policy alternatives designed to remedy weaknesses in the current system.

2 1989 Special Session, Art. 1, Sect. 2.

OVERVIEW OF THE STATE-LOCAL FISCAL RELATIONSHIP

Chapter 1

In the late 1960s Minnesota embarked on a concerted, multi-year effort to reduce local property taxes and achieve greater equity in the resources available to finance education and local government services. Two noteworthy milestones in this effort were the enactment of the homestead credit and a state sales tax in 1967 and the reforms known as the Minnesota Miracle in 1971. The 1971 reforms included a new aid formula and major new money for schools; general purpose aid to cities, towns, and counties; and a system of levy limits designed to keep local jurisdictions from raising taxes.[1]

From the beginning, it was recognized that there were risks associated with these structural changes in the state-local fiscal relationship. In particular, state aid might stimulate local spending rather than reduce local (property) taxes. It was also recognized, at least as a theoretical possibility, that raising revenue at the state level and spending it at the local level could obscure the connection between taxing and spending decisions, thus reducing the accountability of local government officials to local residents.

The state-local fiscal relationship reflects historic concern about high property taxes.

In the late 1960s, the property tax was the source of a high level of public irritation and political ferment. Programs such as school aid, local government aid (LGA) and the homestead credit were primarily intended to reduce, or at least control, the growth in property taxes. It was assumed that the benefits of financing local services with state revenue raised through state tax sources outweighed the danger of increased local spending or any loss of accountability.

The major reforms of 1967 and 1971 were followed by regular increases in the homestead credit and other tax credits, LGA, and education aid through the 1970s. In large part, these aid increases were financed by state revenue generated by the (non-indexed) state income tax during a period of high inflation. Growing state revenue financed both intentional increases in property tax relief programs, and increases caused by rising real estate values.

A turning point was reached in 1979 when the state income tax was indexed to inflation at the same time the homestead credit was further enriched. These structural changes along with a down-turn in the national economy led to severe budgetary problems in the early 1980s, and a clear indication that state

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1 For a more complete account of fiscal reform during this period, see a recent report of the Hubert H. Humphrey Institute of Public Affairs, *Minnesota Property Tax and Local Government Aids: How Do the System and the 1988 Reforms Add Up?* April 1989.

aid to localities could not increase at the same rate it did during the 1970s, if at all. By the early 1980s, it was reasonably clear that:

- **The growth in aid to local governments would not continue indefinitely; and,**

- **state aid -- much of it general purpose aid with no policy purpose except to reduce reliance on local revenue sources -- was a major part of the state budget, and one that could grow even in the absence of deliberate legislative action.**

By the late 1980s, other state spending priorities directly related to the unique role of state government captured attention. These spending alternatives competed with general purpose local aid for scarce budget resources. There were signs of growing frustration with local government lobbying and concern that legislative involvement in local government issues was competing for time and attention with state policy concerns.

Finally, during recent years, many of the premises of the reforms of the last two decades have been re-examined, and a new view taken in light of experience.

- **There is now heightened concern over the possible stimulative effect of state aid on local spending. In the 1960s and 1970s, this seemed more of an abstract possibility.**

The effect of state aid on local spending is now a paramount concern.

- **Property tax relief programs succeeded in keeping local taxes low only as long as additional state revenues were pumped into the system.**

- **The common view in Minnesota that the property tax is highly regressive and ought to be replaced by more progressive revenue sources is at odds with the dominant view of economists that the property tax is not highly regressive, and is one of three essential broad-based taxes, each of which need to be used to raise a major share of state-local revenue.**

The remainder of this chapter will discuss these points and others in an effort to set the context for a detailed examination of city spending and the role of state aid in stimulating spending.

- First we look at how local governments are organized in Minnesota. States differ greatly on this point. Inter-state comparisons of taxes and spending often ignore important differences. A feasible administrative relationship among levels of government in a small compact state with few local units of government is not necessarily practical in a larger state with many separate administrative units.

- We look at the relative size of the federal, state and local government sectors. Nationally, and in Minnesota, the local government sector

(including school districts) is by far the largest. Local government programs paid for by the state are surely worth more attention from state policymakers than they have received.

- We review a few important facts about Minnesota state and local revenues and expenditures compared to other states. Minnesota spends more in relationship to needs than all but a few states. Its taxes are also among the highest in the nation.

- We review some data on what might well be the single most important trend precipitating concern about the state-local relationship: growth in property taxes in spite of high state aid to local government.

- We review county and township spending and revenue in order to clarify the functions, responsibilities and inter-relationship of local governments to each other. With more time we would have analyzed variation in spending by these local government units as well. We end the chapter with an explanation of why we focus on cities.

LOCAL GOVERNMENT ORGANIZATION

Minnesota has more counties, cities, and towns than any state except Illinois.

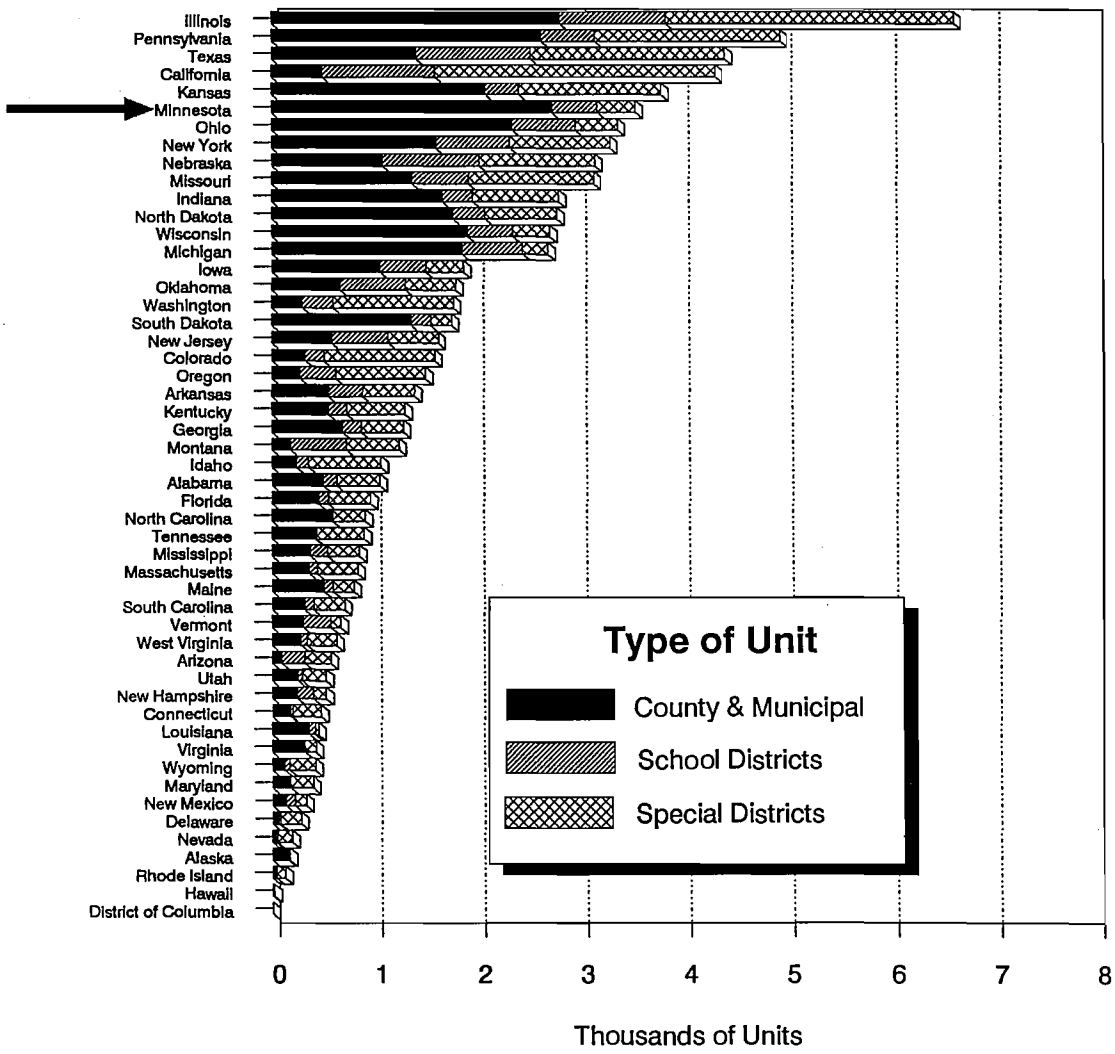
According to the 1987 Census of Governments, local government in Minnesota consists of 87 counties, 855 cities, 1,798 townships, 441 school districts and 374 special districts -- a total of 3,555 local government units. Data comparing Minnesota to other states is presented in Figure 1.1 and Table 1.1.

Only a few states have more separate governmental units. Illinois, Pennsylvania, Texas, California and Kansas have more total governmental units. Only Illinois has a greater number of counties, cities and towns -- 2,808 -- compared to 2,740 in Minnesota.

Midwestern states have a large number of cities, towns and counties. Kansas, Nebraska, Missouri, Illinois, and Ohio all have over 3,000 separate units of government. Many populous states, including California and New York, have fewer cities and towns than Minnesota, as Figure 1.1 shows.

There is no correct number of local governments, but a large number of counties (as in Minnesota) makes a health, welfare and corrections system difficult to administer; and a large number of municipalities limits the ability of the state to oversee what goes on in cities and towns. As we argue in the final chapter, a high degree of autonomy is appropriate for cities and towns, and even detailed information on local spending will not support successful man-

Figure 1.1: Number of Governmental Units by State, 1987



Source: US Dept. of Commerce 1987 Census of Governments

Table 1.1: Number of Government Units by State, 1987

	Total	Counties	Cities	Townships	School Districts	Special Districts
United States	83,186	3,042	19,200	16,691	14,721	29,532
Alabama	1,053	67	436	–	129	421
Alaska	172	9	149	–	–	14
Arizona	576	15	81	–	227	253
Arkansas	1,396	75	483	–	333	505
California	4,331	57	442	–	1,098	2,734
Colorado	1,593	62	266	–	180	1,085
Connecticut	477	–	31	149	16	281
Delaware	281	3	57	–	19	202
District of Columbia	2	–	1	–	–	1
Florida	965	66	390	–	95	414
Georgia	1,286	158	532	–	186	410
Hawaii	18	3	1	–	–	14
Idaho	1,065	44	198	–	118	705
Illinois	6,627	102	1,279	1,434	1,029	2,783
Indiana	2,806	91	567	1,008	304	836
Iowa	1,877	99	955	–	451	372
Kansas	3,803	105	627	1,360	324	1,387
Kentucky	1,303	119	437	–	178	569
Louisiana	452	61	301	–	66	24
Maine	800	16	22	471	88	203
Maryland	401	23	155	–	–	223
Massachusetts	836	12	39	312	82	391
Michigan	2,699	83	534	1,242	590	250
Minnesota	3,555	87	855	1,798	441	374
Mississippi	853	82	293	–	171	307
Missouri	3,147	114	930	325	561	1,217
Montana	1,243	54	128	–	547	514
Nebraska	3,152	93	534	454	952	1,119
Nevada	197	16	18	–	17	146
New Hampshire	524	10	13	221	160	120
New Jersey	1,625	21	320	247	551	486
New Mexico	331	33	98	–	88	112
New York	3,302	57	618	929	720	978
North Carolina	916	100	495	–	–	321
North Dakota	2,787	53	366	1,355	310	703
Ohio	3,377	88	940	1,318	621	410
Oklahoma	1,802	77	591	–	636	498
Oregon	1,502	36	240	–	350	876
Pennsylvania	4,956	66	1,022	1,548	515	1,805
Rhode Island	125	–	8	31	3	83
South Carolina	707	46	269	–	92	300
South Dakota	1,762	64	309	984	193	212
Tennessee	904	94	334	–	14	462
Texas	4,415	254	1,156	–	1,113	1,892
Utah	530	29	225	–	40	236
Vermont	673	14	55	237	272	95
Virginia	430	95	229	–	–	106
Washington	1,779	39	266	–	297	1,177
West Virginia	630	55	230	–	55	290
Wisconsin	2,719	72	580	1,268	433	366
Wyoming	424	23	95	–	56	250

Source: U.S. Department of Commerce, 1987 Census of Governments.

agement of local government from the State Capitol. While this perspective can be debated, such a large number of units makes a high degree of local autonomy a practical necessity.[2]

The number of local governments in the nation has declined sharply over the years from 155,000 in 1942 to 83,000 in 1987. In Minnesota the number has gone from 10,348 in 1942 to 3,556 in 1987. The decline nationally and in Minnesota ended in 1972, and the number of units has since grown. The number of municipal governments has increased slightly while the number of special districts increased somewhat more in the last several decades. School districts are now half as numerous nationally as they were in the 1950s. These trends reflect the growth and redistribution of the nation's population in urban and suburban areas.

THE TREND IN STATE AND LOCAL SPENDING

Local government is larger than either the state or federal government.

Local government is a sizeable part of the public sector both nationally and in Minnesota. Local government in the United States is bigger in terms of payroll or number of employees than either the state or federal government. The total expenditures of local governments in 1981-82 totaled $311 billion, compared to total state direct spending of $212 billion. While federal direct spending is larger, $710 billion in 1981-82, federal spending on government operations (excluding interest, insurance benefits and subsidies) is $266 billion, plus an additional $63 billion in capital outlays.

Federal employment has grown only slowly between 1962 and 1982. State and local employment has approximately doubled. State and local educational and non-educational employment grew at about the same rate between 1962 and 1982.

These statistics serve to emphasize the importance of local government programs and policies to the lives of all Americans. The government services that people experience most directly are likely to be local, even if they are substantially financed by the state and federal governments.

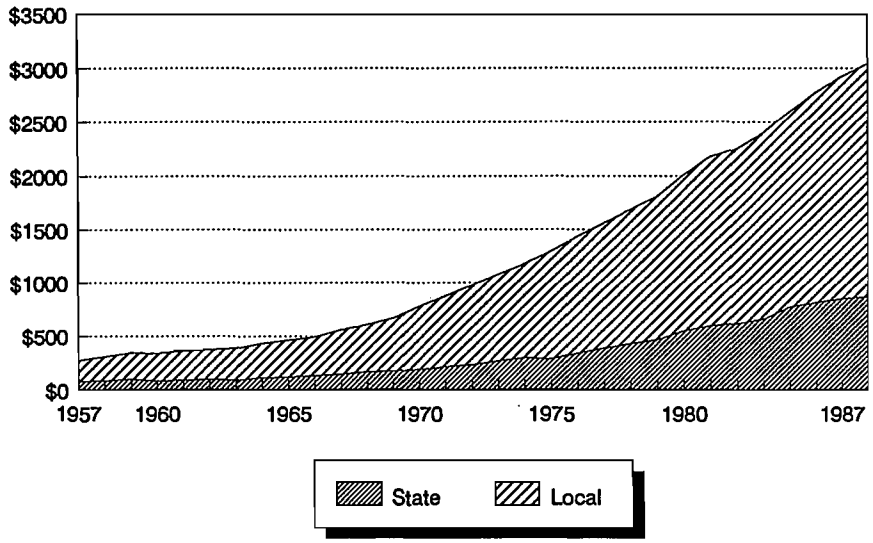
In Minnesota, as in the nation, government spending (and program administration) is largely local. Figures 1.2 and 1.3 show, first in current dollars, then in constant dollars (adjusted to eliminate the effect of inflation) that:

- **Local spending is over three times as great as state direct spending; and,**

2 Comparing Minnesota to other states without recognizing how governmental organization varies can lead to erroneous conclusions. Comparing aid to localities and local spending across the nation is difficult for this reason. Maryland, for example, has more people (4.5 million) but 23 counties and 155 total municipalities. Massachusetts has 5.9 million people, 12 counties and 351 municipalities. Hawaii has one municipal government, three counties and one school district. The state-local relationship that is best for one state may not work in another.

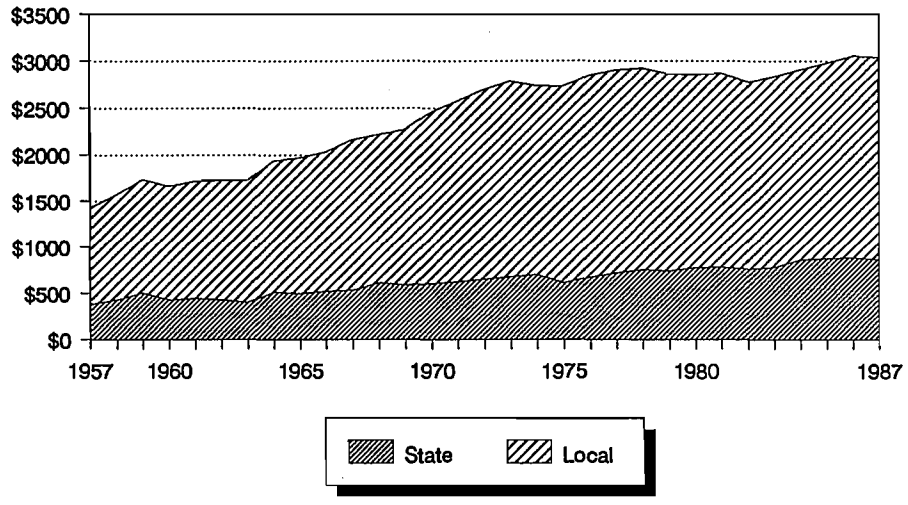
- **Total state and local per capita spending continued to rise in real terms during the 1980s, although not as rapidly as between 1957 and 1980. Since 1957, the annual rate of growth in state spending was 9.5 percent and in local spending was 9.3 percent.**

Figure 1.2: State and Local Spending in Current Dollars per Capita, 1957 - 87



Source: 1986 Economic Report to the Governor

Figure 1.3: State and Local Spending in Constant (1987) Dollars Per Capita, 1957 - 87



Source: 1986 Economic Report to the Governor

STATE-LOCAL REVENUES AND EXPENDITURES COMPARED TO OTHER STATES

States vary in population composition, economic activity, extent of urbanization, and other factors which determine the level and type of government spending at the state and local level. Accordingly, interstate comparisons of local revenues and expenditures must be undertaken with caution. It is nevertheless useful to look at how the state compares with others in total state and local revenue and spending.

The key points emerging from this comparison are:

- **Minnesota spends more on most types of government services than other states. Only a few states have higher combined state-local spending and these are states with atypical circumstances.**

- **Minnesota's expenditure needs are average or below average.**

Minnesota ranks fourth among the states in general expenditures and in general revenue per capita.

According to the 1987 Advisory Commission on Intergovernmental Relations (ACIR) rankings (based on census data), Minnesota per capita state-local general expenditures are fourth highest in the nation.[3] Alaska, Wyoming and New York are higher. Alaska and Wyoming enjoy substantial severance tax revenues which permit their taxes to be exported to oil and gas consumers across the nation. Alaska's cost-of-living is unusually high. New York contains a large a city with exceptional social problems, cost of living, and cost of government. States more like Minnesota rank lower in spending. For example, Iowa and Illinois rank 26th and 27th in general expenditures per capita. Wisconsin ranks 13th, North Dakota 11th, and South Dakota 25th.

Minnesota also ranks high among the states in taxes collected per capita or in relation to personal income. According to ACIR, Minnesota ranks fourth in general revenue per capita, ninth in total taxes, sixteenth in the property tax, fourth in the individual income tax, tenth in the corporation income tax, twenty-seventh in general sales taxes, thirteenth in selective sales taxes, and fourteenth in motor fuel taxes. Minnesota is also fourth among the states in user charges.[4]

Minnesota spends more than most other states on most major categories of state and local spending. Table 1.2 presents United States, Minnesota and other midwestern state spending as a percent of the United States' average. Minnesota's state-local spending is 122.2 percent of the United States' average, compared to 105.9 percent for Wisconsin, 93.6 percent for Iowa, 107.9 percent for North Dakota, and 94.7 percent for South Dakota. Minnesota's state-local spending is above the national average for every category shown except police. Spending is especially high for highways, (typical among sparsely

3 Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, Washington D. C., August 1989, p. 144.

4 ACIR, *Significant Features of Fiscal Federalism*, pp. 137-143.

Table 1.2: State and Local Spending as a Percent of the U.S. Average

	U.S.	Minnesota	Wisconsin	Iowa	North Dakota	South Dakota
Total	100.0%	122.2%	105.9%	93.6%	107.9%	94.7%
Primary & Secondary Education	100.0%	116.5%	107.8%	90.9%	101.5%	87.9%
Higher Education	100.0	135.5	134.1	150.0	157.9	95.0
Public Welfare	100.0	145.7	148.0	91.9	106.8	66.3
Health & Hospitals	100.0	110.4	73.4	107.0	70.7	51.8
Highways	100.0	146.9	121.4	146.7	156.8	161.8
Police & Corrections	100.0	82.1	101.5	68.5	52.5	61.3
Other	100.0	115.7	86.9	67.9	103.4	108.7

Source: Advisory Commission on Intergovernmental Relations.

populated states) and public welfare (due to Minnesota's relatively high benefits rather than a high rate of welfare dependency).

Minnesota state-local spending is 122 percent of the national average, while its expenditure needs are 97 percent of the national average.

The Advisory Commission on Intergovernmental Relations has recently published a new statistical series designed to permit better comparison of state-local spending across the nation.[5] The ACIR approach is based on the idea that a state's spending on education, highways, welfare or other programs reflects not only spending effort, but the extent to which spending is required because of the magnitude of the underlying problems that need to be addressed. For example, education spending requirements are higher in states with a large school-age population and welfare spending requirements are high in states with a high concentration of poverty-level households. ACIR has examined workload measures for six areas of state-local spending: primary and secondary education, higher education, public welfare, health and hospitals, and police and corrections.[6]

Table 1.3 shows the ACIR index of expenditure requirements for these six areas and for state spending as a whole. Minnesota and Wisconsin have spending needs below the national average of 100. Minnesota's "Representative Expenditure System Index" is 96.7; Wisconsin's is 94.6. If Minnesota made an average effort, its spending would be below average. However, Minnesota's actual spending is 122.2 percent of the national average as Table 1.2 showed. Since its need for spending (as measured by ACIR) is only 96.7 percent of the national average, actual spending as a percent of this index is 126.3 percent of the national average (122.2 divided by 96.7).

Table 1.4 shows actual expenditures divided by representative expenditures for Minnesota and neighboring states. As noted, Minnesota's spending by this

5 Rafuse, Robert W. Jr., *Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity*, ACIR, Washington, D. C., May 1989.

6 There are no workload resources for other spending categories, so the need for all other types of spending is assumed not to vary across the states.

Table 1.3: Representative Expenditure Indices[a]: State-Local Expenditures Per Capita, 1986-1987

	U.S.	Minnesota	Wisconsin	Iowa	North Dakota	South Dakota
Total	100.0%	96.7%	94.6%	98.1%	111.7%	116.2%
Primary & Secondary Education	100.0	96.9	94.3	100.7	107.0	109.8
Higher Education	100.0	100.0	100.7	97.9	100.4	98.1
Public Welfare	100.0	84.9	78.0	90.6	112.1	150.5
Health & Hospitals	100.0	89.0	85.6	90.9	96.0	112.0
Highways	100.0	121.7	113.2	121.8	232.2	205.8
Police & Corrections	100.0	77.1	81.2	74.2	72.7	73.7
All Other	100.0	100.0	100.0	100.0	100.0	100.0

Source: Advisory Commission on Intergovernmental Relations.

[a]Expressed as a percent of the U.S. average (100 percent). Based on the workload measures used by ACIR, Minnesota would spend 96.7 percent of the U.S. average if it made an average effort in relation to spending needs as defined by ACIR workload measures.

Table 1.4: Actual Spending as a Percent of Representative Expenditures, 1986-1987

	U.S.	Minnesota	Wisconsin	Iowa	North Dakota	South Dakota
Total	100.0%	126.3%	111.9%	95.4%	96.6%	81.5%
Primary & Secondary Education	100.0	120.2	114.4	90.2	94.8	80.0
Higher Education	100.0	135.5	133.2	153.1	157.3	96.8
Public Welfare	100.0	171.7	189.9	101.5	95.3	44.0
Health & Hospitals	100.0	124.1	85.8	117.7	73.7	46.2
Highways	100.0	120.7	107.2	120.4	67.5	78.6
Police & Corrections	100.0	99.8	107.2	84.2	62.2	78.2
All Other	100.0	119.4	88.6	69.1	108.9	113.3

Source: Advisory Commission on Intergovernmental Relations.

measure is 126.3 percent of the national average, higher than any of the four adjacent states.

Minnesota spending is about average (in relation to ACIR's measure of need) for police and corrections, but well above average for all other categories. Minnesota's welfare spending in relation to need is 171.7 percent of the national average. Wisconsin, with a similar welfare benefit structure, has even higher spending in this category. Minnesota's spending on primary, secondary, and higher education, while above the national average, is closer to spending by other states -- including neighboring states.

ACIR regards the representative expenditure method as a promising but experimental approach, still under development as a way to compare state spending across the nation. The method may also be used to examine local government spending within a state, and could provide a method for directing state aid to localities with relatively high expenditure needs or requirements.

ACIR is conducting studies of this method in a couple of states and has proposed such a study as the basis for improving the distribution of Minnesota's aid to local government.

Most people agree that aid should go to local units with relatively high spending needs in relation to revenue raising ability.[7] Measuring revenue raising capacity is more straight-forward. The problem has been how to measure need. The ACIR measures education needs by the school-age population, welfare needs by the number of poverty-level households, police spending needs by crime or victimization rate statistics, and so on. In theory this is a better way to measure expenditure needs than the method currently used in Minnesota, which rests strongly on an actual spending. We return to a discussion of alternative aid approaches in Chapter 4.

PROPERTY TAX TRENDS 1960-1988

State aid to local government grew steadily from the 1950s to the 1970s and now accounts for over half of state spending. Despite the steady growth of aid to localities, property taxes are now approaching the levels of the late 1960s when they were a source of serious political controversy.

Figure 1.4 and Table 1.5 show that property taxes (in 1987 dollars) were $656 per capita in 1988. This is higher than property tax levels in the early 1970s, although lower than the $729 per capita (in 1987 dollars) reached in 1966. As the figure shows, property taxes generally declined from 1967 to 1981, but have increased (in real dollars per capita) since then. In current dollars, property taxes went from about $187 per capita in 1967 to $685 per capita in 1988, a much larger apparent increase than real. Of course, not everyone's ability to pay taxes increased as fast as inflation during the 1970s and 1980s.

STATE AID AND PROPERTY TAX RELIEF

Local property taxes reflect trends in local government spending and, of course, trends in state aid, federal aid, and the use of local non-tax revenue sources. Although the usually stated purpose of state aid and property-tax relief programs is to reduce property taxes, policy analysts and politicians are

7 While there is agreement on this point, there is wide debate over the proper level of local government aid, whether aid should go to individuals rather than government, and whether aid should be provided for general use or specific purposes.

Table 1.5: Net Property Taxes in Current and Constant Dollars, 1960-1988

Year	Current Dollars	Current Dollars Per Capita	Constant (1987) Dollars	Constant Dollars Per Capita
1960	$ 437,737	$128.22	$2,140,048	$626.84
1961	469,493	135.30	2,233,264	643.59
1962	508,917	144.87	2,348,261	668.45
1963	545,929	154.61	2,454,688	695.18
1964	575,432	161.73	2,531,901	711.61
1965	611,452	170.23	2,615,656	728.19
1966	646,372	178.70	2,636,855	729.02
1967	685,135	187.25	2,637,770	720.90
1968	589,439	159.18	2,142,150	578.49
1969	703,894	187.31	2,388,974	635.70
1970	804,350	211.34	2,527,957	664.20
1971	957,567	248.59	2,815,567	730.94
1972	890,500	230.28	2,470,937	638.98
1973	914,467	235.38	2,356,953	606.68
1974	946,895	242.92	2,209,422	566.81
1975	1,100,689	280.36	2,333,991	594.50
1976	1,144,296	289.18	2,273,827	574.63
1977	1,279,682	321.53	2,385,126	599.28
1978	1,332,915	332.81	2,309,636	576.69
1979	1,408,293	348.76	2,232,969	552.99
1980	1,420,523	348.42	2,030,260	497.98
1981	1,479,913	359.90	1,952,091	474.73
1982	1,830,684	442.94	2,255,403	545.71
1983	2,040,915	492.50	2,401,535	579.52
1984	2,297,866	551.97	2,575,952	618.77
1985	2,363,448	563.67	2,534,176	604.38
1986	2,510,309	595.85	2,614,286	620.53
1987	2,694,364	634.57	2,694,364	634.57
1988	2,933,846	685.48	2,806,287	655.68

Source: Minnesota Department of Revenue.

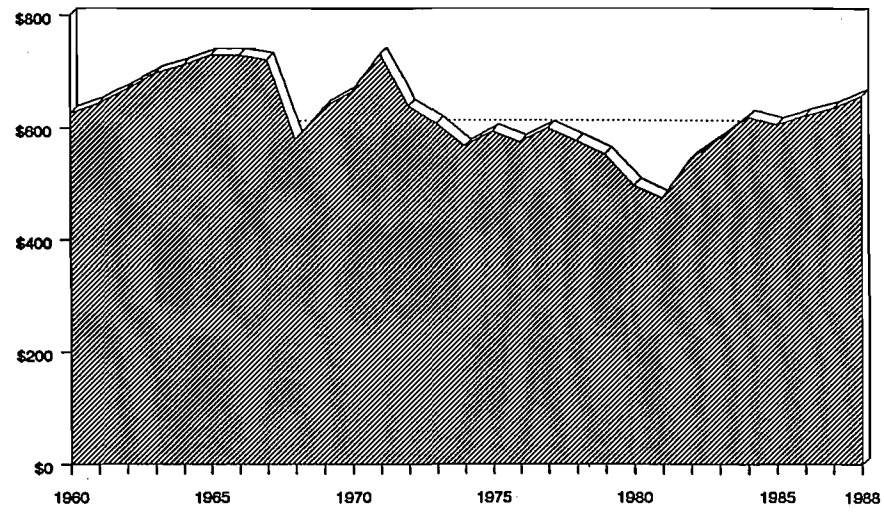
Property taxes have been rising (in constant dollars) since 1981.

well aware of the possibility that state aid can stimulate (and, some argue, even ought to stimulate) local spending, rather than reduce taxes.

Figure 1.4 showed a reversal of a long-term decline in property taxes in the early 1980s. The reasons this reversal occurred are:

- **Local spending increased faster than inflation and population growth (see Figure 1.3 for the long-term trend in spending);**
- **State aid, while growing, did not grow fast enough to keep up with the growth in local spending; and**

Figure 1.4: Net Property Taxes Per Capita in Constant (1987) Dollars, 1960 - 88



Source: MN Dept. of Revenue

- **Federal aid also did not grow fast enough to maintain the same relationship to other local revenue sources it achieved by the mid-1970s.**

Figures 1.5 and 1.6 show the components of local government revenue, first in current dollars per capita, then in constant dollars. Figure 1.5 shows growth in virtually all sources of local revenue, but as Figure 1.6 shows, when the ef-

Figure 1.5: Components of Local Revenues in Current Dollars Per Capita, 1957 - 87

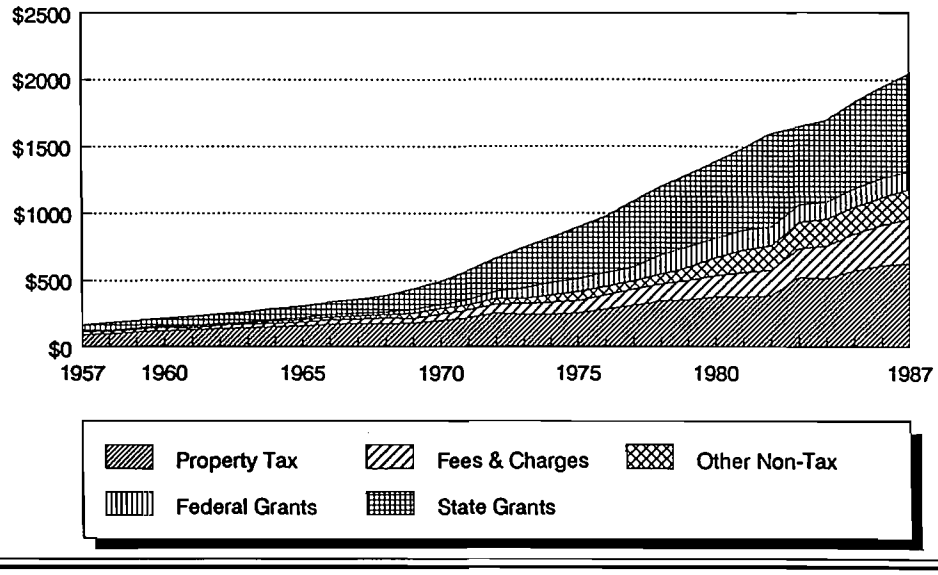
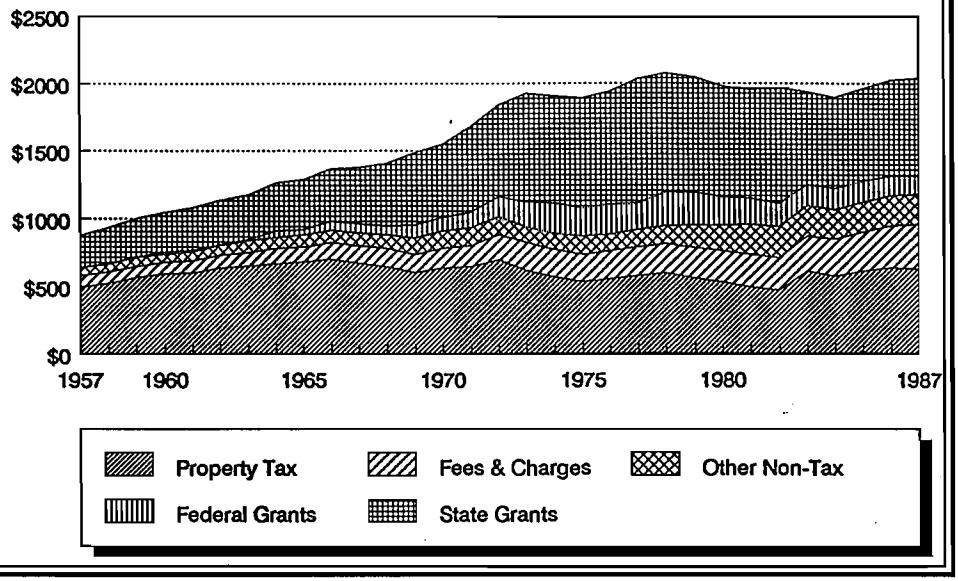


Figure 1.6: Components of Local Revenues in Constant (1987) Dollars Per Capita, 1957 - 87



fects of inflation and population growth are held constant, total revenue has changed little since the late 1970s. Federal aid has declined in real terms since the mid 1970s. State grants grew rapidly through the 1970s, and since have declined as a local revenue source. Property taxes declined as a source through the early 1980s, then increased. Fees and other non-tax sources together made up about one-fourth of local revenue in 1987.

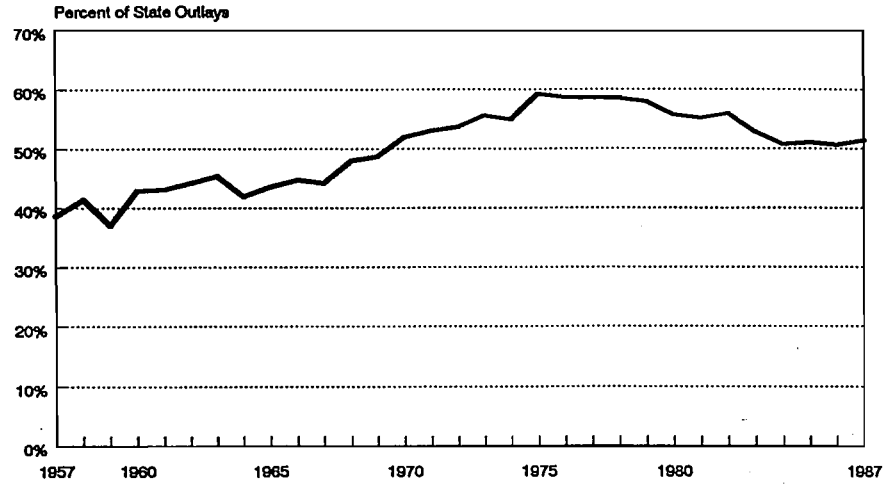
In the 1980s, the Legislature learned that there was a limit to what it could provide in aid to local government, and that buying down property taxes with growing injections of state aid was not sustainable into the future.

Figure 1.7 suggests that a limit has been reached in state aid to local governments. State grants (including local government aid, the homestead credit and other tax credits, welfare, highway funding and other aids) grew until the late 1970s but peaked at 50 to 60 percent of state outlays. Given other important state priorities, it is questionable whether transfers to local government can or will grow in the forseeable future.

Figures 1.8 and 1.9 show that intergovernmental grants, including education, welfare, highway aids and general purpose aids began to decline in the late 1970s in real spending per capita, although nominal amounts continue to increase.

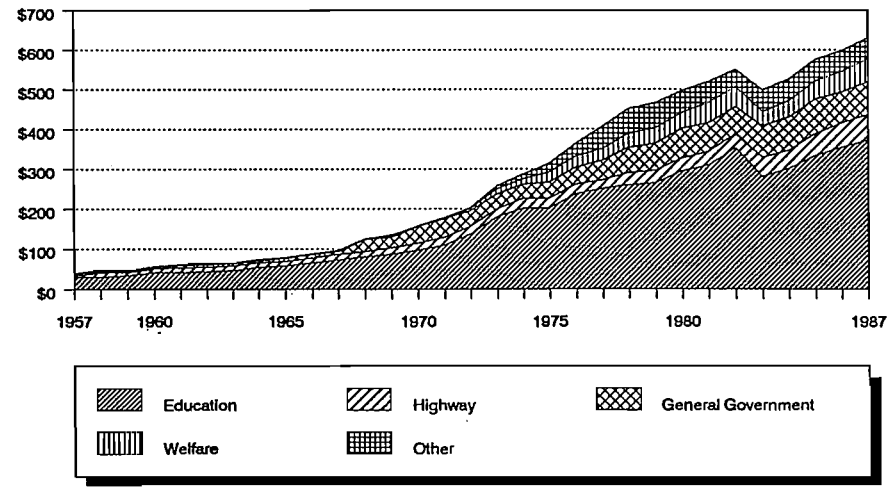
State aid to local governments is a major component of state spending.

Figure 1.7: State Aids and Property Tax Relief as Percentage of State Outlays 1957 - 87



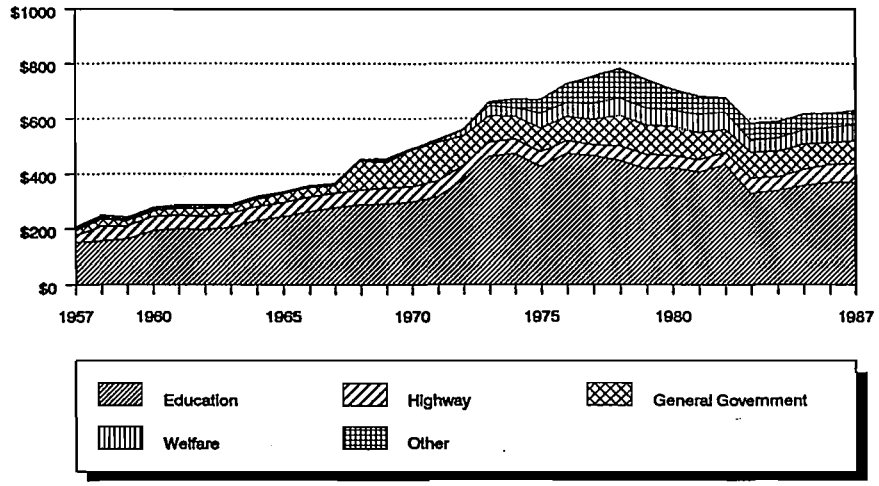
Source: 1986 Economic Report to the Governor

Figure 1.8: State Grants to Local Governments in Current Dollars Per Capita, 1957 - 87



Source: 1986 Economic Report to the Governor

Figure 1.9: State Grants to Local Governments in Constant Dollars Per Capita, 1957 - 87



Source: 1986 Economic Report to the Governor

MINNESOTA TAX MIX

Aid to Minnesota localities is high because the decision has been made over the years to raise money at the state level and spend it at the local level. This section compares Minnesota's tax mix to other states. In 1987, according to census data compiled by the Advisory Commission on Intergovernmental Relations, Minnesota's property tax per capita was $572 compared to the United States' average of $498.[8] This places Minnesota 16th among the 50 states plus the District of Columbia. Minnesota ranks 19th in property tax per $1,000 of personal income. Thus:

- **Despite Minnesota's aggressive effort to finance education and local government through state aid, Minnesota has a property tax that is clearly above the average for the nation.**

In 1987 Minnesota's individual income tax, according to the ACIR compilation of census data, was $545 per capita -- fifth highest among the 44 states with an income tax. Minnesota's rank was seventh highest in 1967, and second in 1983 and 1984.

Minnesota's sales tax is 27th among 46 states with a sales tax.[9] In 1987 Minnesotans paid $348 per capita compared to a $398 per capita national average.

8 ACIR, *Significant Features of Fiscal Federalism*, pp. 138-143.

9 ACIR, *Significant Features of Fiscal Federalism*, pp. 86-87.

Per capita sales tax collections have increased considerably in Minnesota over the 1968-87 period.

Total state and local tax collections equalled $1,904 per capita in 1987,placing Minnesota ninth among the states plus the District of Columbia. The national average is $1,666. Minnesota's state and local tax burden relative to personal income places the state sixth. Minnesotans pay $128 per $1,000 of personal income, compared to the U.S. average of $115.

The Advisory Commission on Intergovernmental Relations argues that local capacity should be measured by applying a "representative tax system" to each state's sales, income, property and other tax bases.[10] The metholodology is analogous to the representative expenditure system discussed earlier.

Minnesota's tax effort is higher than the national average, although in recent years Minnesota taxes have moved more in line with other states.

Minnesota's tax effort is higher than the national average. On the whole Minnesota's tax capacity is 102 percent of the U.S. average. Tax effort in 1986 was 108 percent of the U.S. average. Revenue derived from the personal income tax in Minnesota is much higher than Minnesota's income tax capacity, which is close to the national average. ACIR shows that Minnesota's sales tax is the only major state-local revenue source that is relatively under-utilized. Minnesota's overall tax effort has been higher than the national average for years according to the ACIR figures, and is actually closer to average in 1986 than any year between 1975 and 1986.

According to the study by The Humphrey Institute cited earlier, state tax systems in general have become more similar in recent years because of competitive pressures. The ACIR recommends a balanced system that raises at least 20 percent of state-local revenue from each broad-based tax (sales, income and property) and 10 to 40 percent from user fees and other sources. Minnesota comes close to meeting this standard. Its property tax in 1987 brought in just under 19.7 percent compared to the national average of 21.2 percent. Its income tax brought in 22.2 percent compared to the national average of 18.6 percent and the Minnesota sales tax yielded 19.9 percent compared to 25.3 percent nationally.[11]

Based on this standard there is no urgent reason to increase state taxes in order to further bring down local property taxes. In fact, data in this and subsequent chapters suggest that property tax reductions have not, and will not, necessarily result from increased state aid to localities.

LOCAL GOVERNMENT FUNCTIONS

This section briefly examines the functions of cities, counties and towns (also called townships) in Minnesota and the division of responsibility among them and between them and the state.

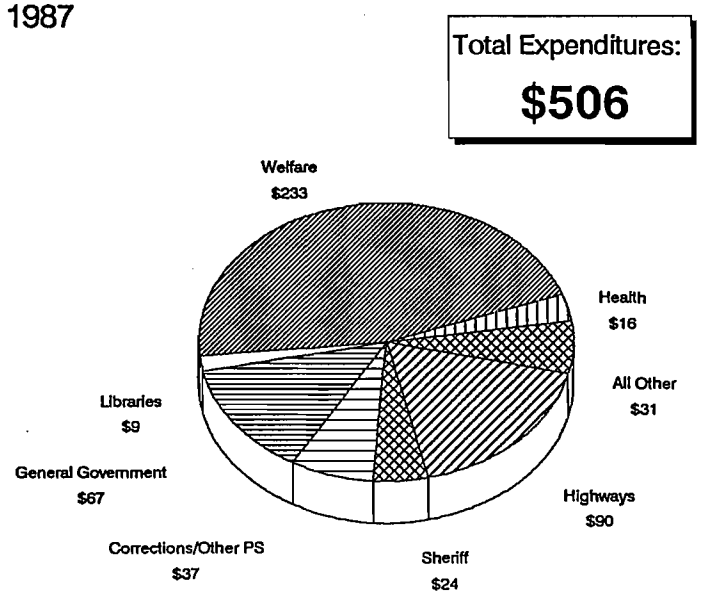
10 ACIR, State Fiscal Capacity and Effort, ACIR Washington D. C., 1986, p. 74.

11 Humphrey Institute, *Minnesota Property Tax and Local Government Aids*, p.38.

Counties

Counties in Minnesota administer health, human services, courts and corrections, law enforcement and highway programs. Figure 1.10 presents a broad view of county spending. Total expenditures in 1987 equalled $506 per person. Nearly half of county spending , $233 per person, was for welfare programs. Highway spending accounted for about $90 per capita. General administration, welfare, highways and public safety programs together account for about 84 percent of county spending.

Figure 1.10: County Expenditures Per Capita, 1987



Source: State Auditor

Counties, unlike cities, administer programs of state-wide impact.

County government is responsible for local administration of programs, facilities and services of direct interest to state policymakers. The state and federal governments, for example, set welfare policy and benefits. As Table 1.6 shows, counties raise 51.3 percent of the money they spend; state and federal government grants provide 48.7 percent of county revenue. Most state money given to counties goes for welfare, although highway grants are sizable too. General purpose aid is 9.1 percent of county revenue, not the dominant source of aid that it is for cities.

Because counties administer state and federal human service programs and receive major state financing (and federal financing through the state), they have evolved into something resembling administrative sub-units of state government. There is a lot of state and federal regulation and reporting required. This point is raised to contrast county relationships with the state to that of cities and towns.[12]

12 School districts, not discussed here, resemble counties in that they administer programs of high state interest, with major state funding aimed at achieving clear state policy objectives.

Table 1.6: County Revenues Per Capita, 1987

	Revenue Per Capita		Percent
Own Source Revenues			
Taxes		$180.82	35.7%
Charges for Services		31.34	6.2
Interest Earnings		16.39	3.2
Fines and Forfeits		4.46	0.9
Special Assessments		3.91	0.8
Licenses and Permits		1.48	0.3
Other		21.84	4.3
Total Own Source Revenues		$260.24	51.3%
Intergovernmental Revenues			
State Grants		$161.23	31.8%
Welfare	$58.73		11.6%
General Support	45.93		9.1
Highway	42.34		8.3
Other	14.23		2.8
Federal Grants		80.96	16.0
Local Grants		4.76	0.9
Total Intergovernmental Revenue		$246.95	48.7%
Total Revenue		$507.19	100.0%

Municipalities

Cities and towns in Minnesota are general purpose governments. The 855 cities generally consist of population concentrations; towns, with a few exceptions, are organized in rural areas. As our previous discussion pointed out, the scope and type of municipal government reflects the size and type of population centers they serve. Thus, with a few exceptions, township spending is far less than city spending. As Figure 1.11 shows, towns in Minnesota spent $99 per capita in 1987. About $56 per capita of this goes to maintaining township roads.

Figure 1.12 shows total city spending per capita, exclusive of enterprise activities. Cities spent $502 per capita, over five times the level of township spending. Cities have governmental functions that towns either do not have or do not have to pay for. Law enforcement in towns is provided and paid for by county government. Cities spend $56 per capita on housing and redevelopment while towns generally spend nothing.

In addition to the expenditures reported in Figure 1.12, cities spend $331 per capita on enterprise funds that provide gas, water, electricity, sewer, garbage collection and other municipal services. These enterprises raise revenues

Figure 1.11: Township Expenditures Per Capita, 1987

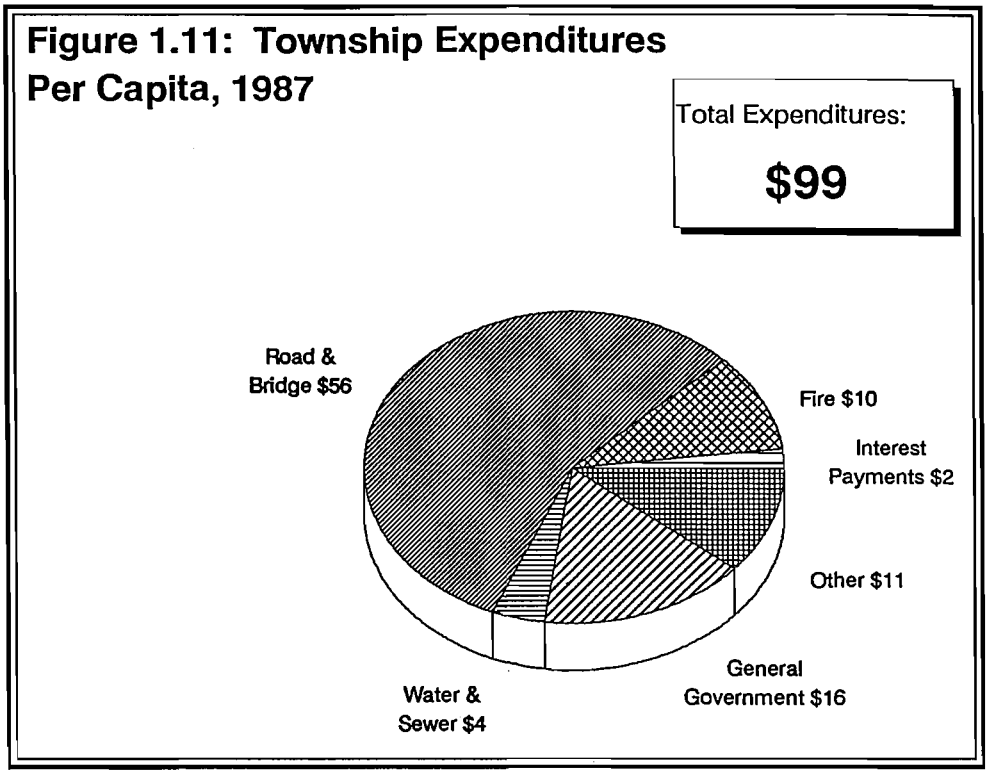
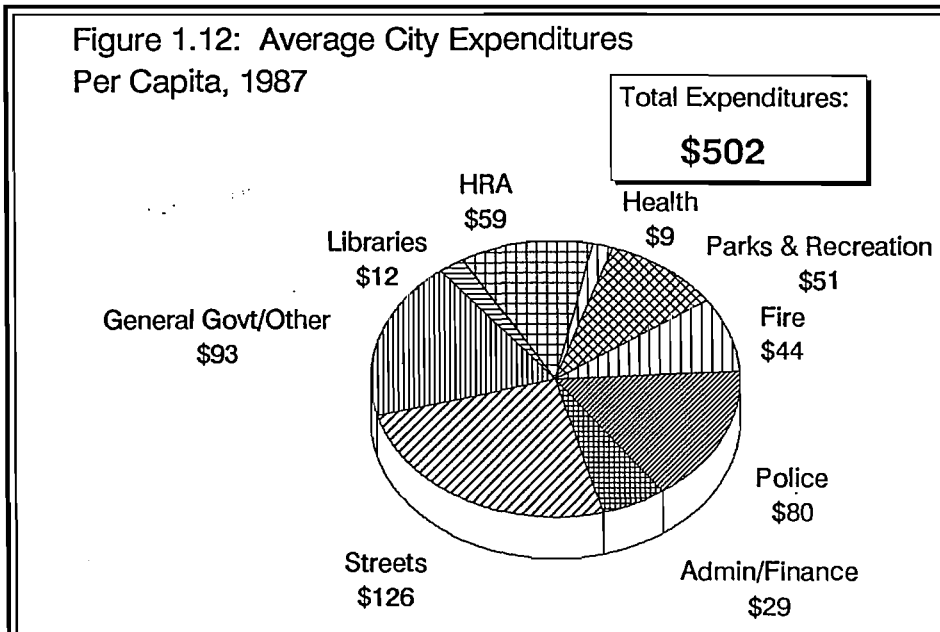


Figure 1.12: Average City Expenditures Per Capita, 1987



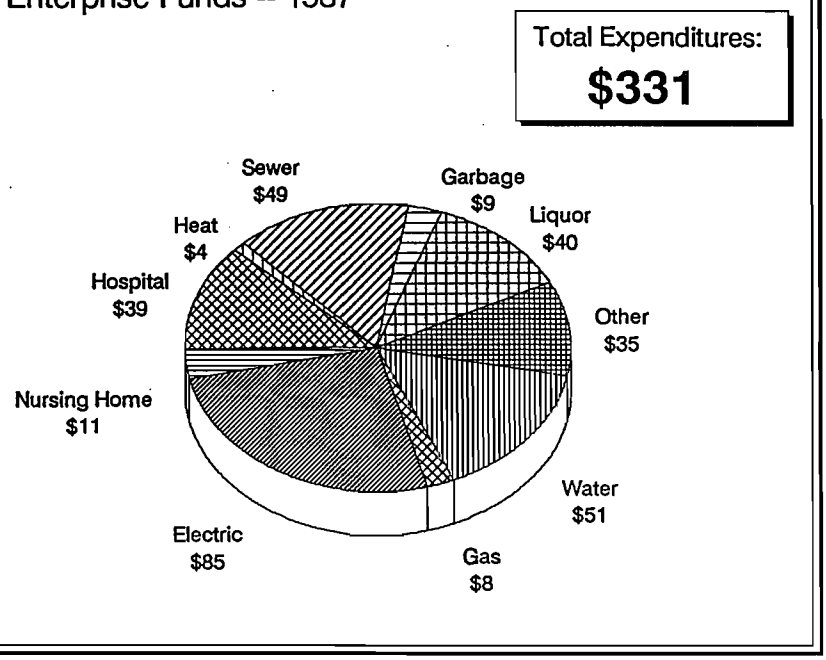
Includes 1987 operating expenditures and four year average capital outlays, excludes enterprise fund spending.

through users fees and are approximately self-sufficient. Figure 1.13 shows enterprise fund expenditures. Towns have little enterprise fund spending. City spending is analyzed in detail in Chapter 3.

Larger cities serve as regional centers. These centers provide significant services for people who live elsewhere.

One point should be stressed here, however. Rural residents often work in cities, shop in cities, seek recreation or entertainment, and even look for trouble in cities. The same generalization holds true for residents of smaller cities who work or shop in larger places. State policy makers can use state aid and state authority over local taxing authority (for example, the use of a local sales tax) to enhance the city's ability to finance services characteristic of metropolitan or regional centers.

Figure 1.13: City Expenditures Per Capita in Enterprise Funds -- 1987



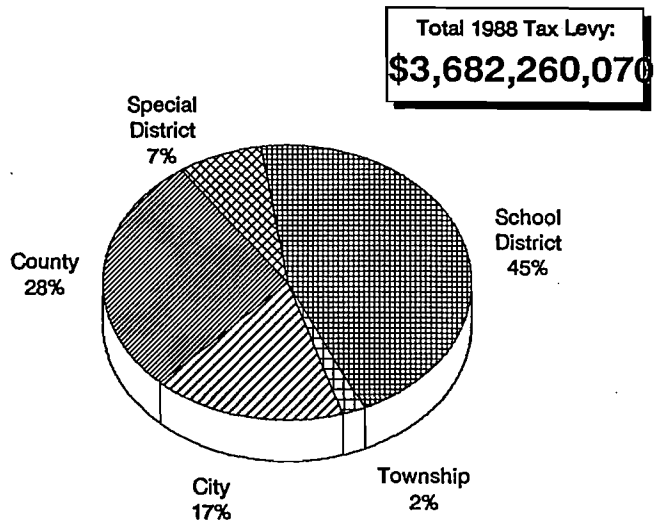
Special Districts

Nationally and in Minnesota, there has been substantial growth in special districts. Most special districts in Minnesota are housing and redevelopment authorities. In addition, there are soil and water conservation districts, watershed districts, hospital districts, port authorities, recreation districts and others. Spending by special districts totalled $135 million in 1986.

FOCUS ON CITY GOVERNMENT

The primary focus of this report is city spending. As Figure 1.14 shows, city government accounts for about 17 percent of revenues raised from property taxes, not including special assessments. School districts account for more than twice this amount, and counties about 28 percent.

Figure 1.14: Property Tax Levies Payable in 1988 by Subdivision



Source: MN Department of Revenue

City spending accounts for 24 percent of local government spending, as Figure 1.15 shows. In terms of spending or taxes, cities are third in magnitude after school districts and counties.

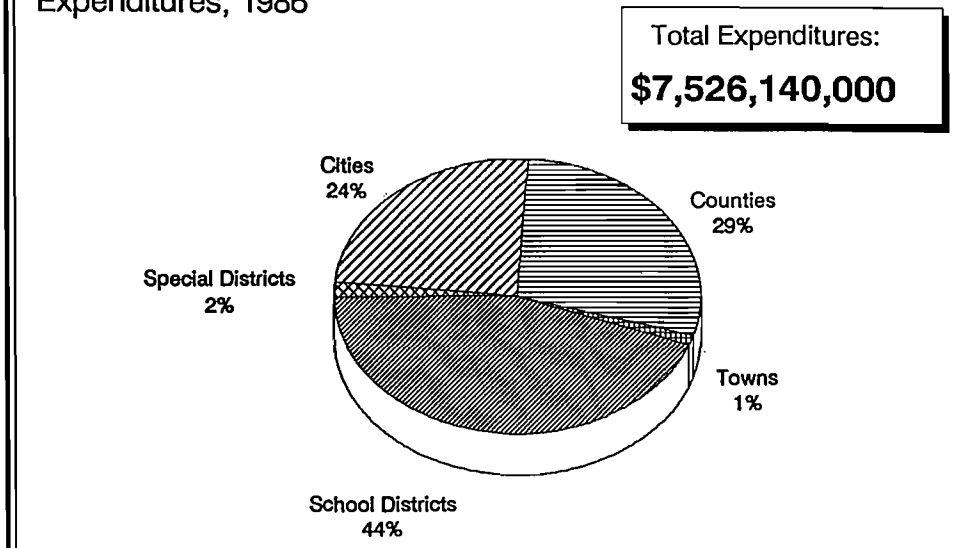
Why, then, focus on cities? The reason this report focuses on cities is partly practical. One study cannot do justice to all types of local government spending, and we previously published a study of county human services spending and have recently published a separate school district spending study.[13]

But the stronger reasons are that:

- **Cities offer a good opportunity to examine the effect of the state-local fiscal relationship on local spending. There are enough cases for a proper analysis of variations in spending; and there is enough data of sufficient (though not perfect) quality.**

13 Office of the Legislative Auditor, *Financing Country Human Services*, February 1987; Office of the Legislative Auditor, *School District Spending*, February, 1990.

Figure 1.15: Total Local Government Expenditures, 1986



Sources: State Auditor, State Dept. of Education
Excludes Enterprise Operations

There are compelling reasons to study the effect of state aid by looking at cities.

- **Cities (compared to schools or counties) administer programs and services of primarily local benefit such as city streets, and police and fire protection. Within broad limits, there is no correct amount to spend or way to organize these services other than what local residents decide is best.**

Partly as a result of concern with the effect of various other property tax aids and credits, local government aid to cities has grown over the years. Cities now receive through LGA and the homestead credit a substantial amount of general purpose aid. Whatever benefits ensue from this level of state support, there are disadvantages:

- **City officials lobby the Legislature for more aid when they should perhaps be persuading their residents of the need for new spending on city programs and services.**

- **Because of the high level of state aid, local residents may not always see the consequences of local government spending decisions in their property tax bills. Therefore, local residents may lose interest in local government, thus inviting inefficiency or waste in city government.**

- **City spending may be higher than it otherwise would be or needs to be in light of local preferences for public services and competing priorities.**

Legislators have a natural interest in all policy issues that affect the well-being of constituents, but their attention is inevitably going to gravitate to issues where the state is uniquely able or best able to solve problems or meet important challenges. The types of services that cities and towns provide are not high on this list. Education, higher education, human services, transportation, environmental protection, and other issues are going to have priority over police, fire, parks and recreation, city streets and sidewalks, city water and sewer, snow removal and other local services.

However, these services are not unimportant. They are the most tangible government services that most people see and benefit from. Police, fire protection or enforcement of engineering standards can literally be a matter of life and death. In subsequent chapters, we discuss in more detail whether the existing financial relationship between the state and cities enhances the likelihood that city services are provided effectively and efficiently.

VARIATION IN CITY EXPENDITURES

Chapter 2

State aid to cities is based on the premise that otherwise property tax burdens would be too high, that the distribution of tax burdens would be inequitable, or that financially distressed cities would not devote sufficient resources to public services. Minnesota's major aid programs for cities are largely based on past spending decisions by cities. As we said in Chapter 1, state policy makers need to know more about the function and cost of city services in order to make decisions about state aid to cities. This chapter focuses on city spending. It addresses the following questions:

- **How does spending vary among Minnesota cities? What explains these differences?**
- **How do service needs and fiscal capacity vary among cities? To what extent are spending differences related to service needs and fiscal capacity?**
- **How does city spending vary among Minnesota's geographic regions? What explains these differences?**

CONCEPTUAL FRAMEWORK FOR ANALYZING CITY SPENDING

Many studies of metropolitan structure and function have been conducted over the years. Investigators have concluded that the commercial and cultural life of a city is determined by its size and its relationship to other cities.[1] Larger cities, and those with relatively large regional dominance, have a diverse economic base, a concentration of commercial activity, and highly developed cultural and educational sectors.

The clear positive relationship between size and complexity is reflected in the public as well as private sector. The scope and organizational complexity of city government as well as spending are closely tied to size. There is a growing literature on the determinants of local government spending. This literature

1 Brian J. L. Berry and Frank E. Horton, *Geographic Perspectives on Urban Systems*, (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1970).

is of more than academic interest, since policy makers in Minnesota and elsewhere recognize the need to provide aid to local government and seek to provide aid efficiently and for specific purposes.

For much of the 1970s when state revenue shortfalls were not a problem in Minnesota, it was enough to say that the purpose of state aid is to reduce local property taxes. It was accepted without much debate that state revenue sources were fairer and more efficient than the property tax. During the 1980s, in light of experience, policy makers were re-examining the purposes of local government aid, and indeed questioning some of the premises on which Minnesota's state-local fiscal relationship is based, including the premise that the property tax is unfair. We discuss the findings of our study in relation to this debate in Chapter 4.

State aid should be based on service needs in relation to revenue raising capacity.

For now, it is sufficient to say that state aid should go to localities based on service needs and revenue-raising capacity. That is, aid should help communities with relatively high expenditure or service needs and relatively low revenue-raising capacity. While this is conceptually simple, there are complexities in actually developing a state aid program that achieves this result. For one thing, service or expenditure needs are not easy to define or measure; for another, service (or input) costs vary across the state; for a third, local spending partly depends on local preferences for government services of one kind or another.

Figure 2.1 graphically represents the major determinants of city spending. As noted, there are four categories: service needs, fiscal capacity, service preferences, and input costs. This conceptual map is drawn from several recent studies.[2]

Service Needs

City government spending steadily increases with city size, as Figure 2.2 shows. Nationally, city spending ranges from $874 per capita for cities with more than 300,000 residents to $300 for cities with less than 10,000 residents.[3] These figures exclude spending for education, welfare, and hospitals because although they are city functions in some cities, they are normally county or state functions. They also exclude expenditures for debt service, liquor stores, sewer, water, and other utilities.

The positive relationship between population size and spending is due to several factors. First, big cities and even smaller regional and sub-regional centers provide public services to a broader region.

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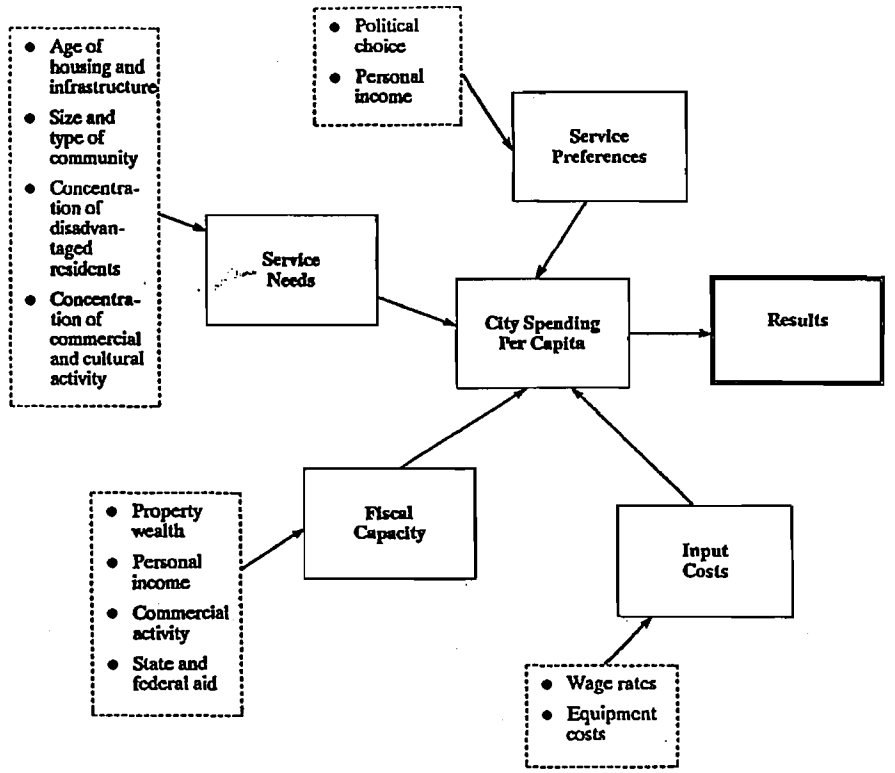
2 Helen F. Ladd and John Yinger, *America's Ailing Cities: Fiscal Health and the Design of Urban Policy*, (Baltimore: The Johns Hopkins University Press, 1989); Katherine L. Bradbury, Helen F. Ladd, Mark Perrault, Andrew Reschovsky, and John Yinger, "State Aid to Offset Fiscal Disparities Across Communities," *National Tax Journal* 37 (June 1984), 151-70; and Robert P. Inman, "The Fiscal Performance of Local Governments: An Interpretive Review," in N. Walzer and D. L. Chicoine, eds., *Financing State and Local Governments in the 1980s*, (Cambridge, Mass.: Oegelschager, Gunn and Hain, 1979), 175-201.

3 *Finances of Municipal and Township Governments, 1987 Census of Governments*, Vol 4, No. 4, U.S. Department of Commerce, Bureau of the Census (Washington D.C., 1990).

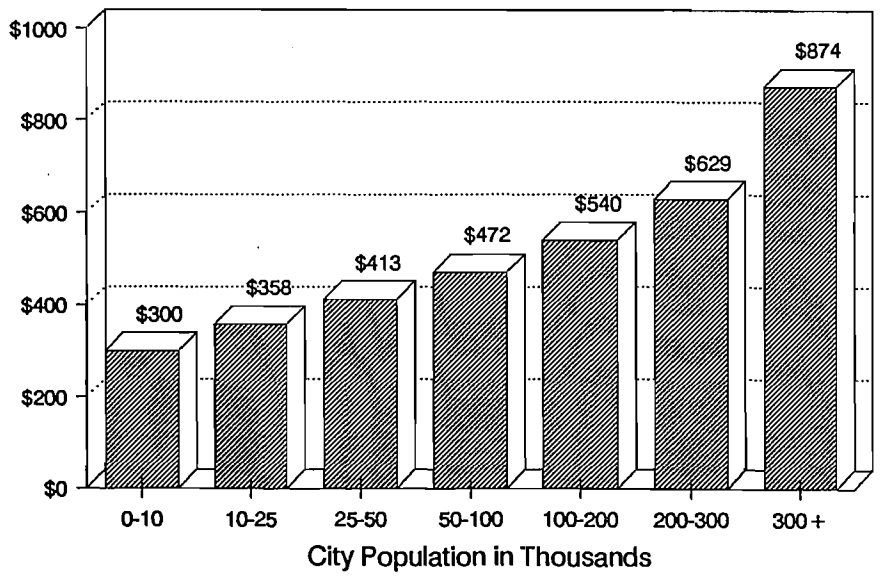
The determinants of spending are numerous and complex.

Figure 2.1: Determinants of City Spending



Larger cities tend to spend more.

Figure 2.2: Per Capita Expenditures of U.S. Cities, 1986-87



Source: U.S. Census Bureau

Larger cities spend more because they are commercial centers, they contain a concentration of disadvantaged residents, and they have to maintain an older infrastructure.

Second, larger cities also are where disadvantaged population groups are concentrated. Cities have limited responsibility for social service programs, but crime rates are higher and police and fire costs are clearly higher in cities with a concentration of disadvantaged residents. For example, one study found that among 86 medium to large cities nationally, police costs are two and one-half times higher in cities with per capita incomes in the lowest fifth, than in cities where per capita income is in the highest fifth.[4] Fire protection costs are nearly twice as high. Other city services are roughly the same in the highest and lowest income cities.

Third, the extent of commercial and cultural activity--the extent to which a city has a large employment base, and daytime population--also requires high government spending for many types of city services. Public safety and infrastructure costs are higher in commercial centers. Related to this is the fact that infrastructure costs are higher in larger, densely settled places. These tend to be older cities and also the same places with high costs for other reasons. The bulleted items next to the box labeled "Service Needs" on Figure 2.1 are intended to represent various important determinants of service or expenditure needs.

In summary, service needs have been found to be related to the age of a city and its infrastructure, the size and type of city, the concentration of disadvantaged residents, and the level of economic activity in the city. Suburbs and fringe communities use central city services without paying through their own municipal budgets. Their spending needs are inherently lower as a result, although suburbs themselves vary greatly in service needs, fiscal capacity, and local preferences. And suburbs or suburban residents can pay for city services in a variety of other ways, such as user fees, or county, town, and state taxes.

Fiscal Capacity

Figure 2.1 suggests that personal income, commercial activity, property wealth, and government aid are the major components of local fiscal capacity.

In Minnesota, cities are almost exclusively limited to the property tax if they want to raise tax revenue. Over 90 percent of city tax revenue comes from the property tax. The sales and income tax bases are primarily reserved to the state. (Cities elsewhere in the U.S. use these other tax sources to a greater extent.)

Personal income contributes to local fiscal capacity because it provides the means for paying other taxes and privately financed services that can substitute for city services. It is a potential tax base as well. Commercial activity could also be taxed through a retail sales tax. Whatever their other disadvantages, Minnesota's high property tax rates on commercial property enhance the fiscal capacity of cities with a high concentration of such property, offsetting the typically higher service costs of such places.

4 Ladd and Yinger, *America's Ailing Cities*, 94.

Input Costs

Public services do not cost the same amount across the state or nation. Wage rates, personal income and the cost of living vary considerably. Since government programs are labor-intensive, labor market wage rates are perhaps the best indication of input costs. As a rough guide, median income in the North Central Region of the state is about half of the Twin Cities level. In the lowest cost outstate regions, teacher salaries are 75 to 80 percent of Twin City area salaries. And, the cost of living is about 11 percent lower in 26 outstate communities than the Twin Cities metro area, according to a recent study.[5]

Service Preferences

Cities will differ over a fairly wide range on how much to spend on streets and sidewalks, fire or police equipment and services, parks and recreation programs, and other municipal services. For many service categories, the right level of spending is what local residents decide it ought to be (assuming they take a reasonable level of interest in city budget decisions). Most city services benefit primarily local residents unlike health, welfare, or education programs administered by counties and school districts and paid for substantially by the state and federal government.

Some research studies show that relatively affluent communities have higher levels of service because affluent households tend to demand more public services (for the same reasons they consume more services in general). Some researchers make a strong distinction between costs that are locally controllable and uncontrollable. Service preferences are, in their view, a matter for local choice, not something to subsidize through state aid.[6]

City Development

In summary, city spending per capita is highest in big cities, and in cities that serve as regional and metropolitan centers. Concentration of disadvantaged residents is another factor that induces high spending, especially on public safety. Old housing and infrastructure also costs more to operate and maintain. Older cities also tend to be larger and tend to be occupied by lower-income residents.

There is an evolutionary process that cities go through both in terms of physical development and social organization. Over time cities grow, generally from the center out. The value of land--higher at the center--causes waves of development and redevelopment to occur that usually results in intensive uses

5 Office of the Legislative Auditor, *Statewide Cost of Living Differences*, (St. Paul, 1989).

6 Bradbury, et. al., "State Aid to Offset Fiscal Disparities Across Communities", The objective of the study reported by Bradbury is to develop a local aid formula that separately identifies the impact of uncontrollable factors on city spending, then to distribute aid accordingly. Other aspects of this study are discussed in Chapter 4.

of real estate in close-in areas either for high density residential or commercial uses. In time, the physical city requires expensive redevelopment.

Over time, cities tend to evolve from entities that rely on part-time volunteer, and contracted services, to cities with formally organized departments and divisions, and employee organizations that develop some or even a lot of political power. Over time, wage rates tend to go up, fringe benefits become more expensive, and city workers develop greater influence. There are many other factors that influence this organizational process, and of course, many small cities retain a lot of flexibility and economy in their operations. But as a generalization, older cities develop more formal organizational units, and for this reason, spend more on police, fire, or street maintenance than newer cities.

The influence on spending of variables such as per capita income, city size, economic activity and input costs is complex. Simultaneous contradictory effects are predicted from the theoretical concepts presented here and in the literature. For example, cities with a concentration of upper-income households will demand more public services, have relatively high capacity to finance services, and tend to have relatively high wage rates and a high cost of living.

The effect of these forces will be to produce higher city spending per capita. But an affluent community is often a suburb, spared high redevelopment costs and expensive public employee wages and work rules. Affluent communities also typically have relatively low crime and fire safety problems. These effects tend to lower service needs and thus spending per capita.

The above discussion has provided a conceptual framework for viewing city spending. In the remainder of this chapter, we discuss data sources and analyze how spending varies among Minnesota cities.

DATA SOURCES AND METHODOLOGY

Cities are required to file financial reports with the State Auditor's Office.

Cities are required to report basic data on revenues, expenditures, and debt each year to the State Auditor. We used the computer data base and published summaries compiled by the State Auditor's Office as our basic source of data for city revenues and spending. We focused our analysis on 1987 revenues and operating expenditures because it was the most recent year of computerized data. However, because of fluctuations in capital expenditures ("capital outlay"), we used a four-year average (1984-87) stated in 1987 dollars. We obtained comparative data on other states from the U.S. Census Bureau and demographic data from the Census Bureau and the State Demographer's Office.

The State Auditor requires all cities to annually report their revenues and expenditures on standard forms, and to provide a copy of their annual financial reports. The financial reporting forms require cities to allocate their expendi-

tures to general spending categories. These reports allow the State Auditor to compile summaries of city revenues and spending. However, our review of the data on city expenditures and subsequent discussions with city officials and State Auditor's Office staff indicated some inconsistencies among cities in the way they report expenditures.

In general, cities are allowed considerable discretion in how they assign expenditures to categories. For example, street construction is a capital outlay category that is supposed to apply to large atypical projects, such as extending streets to a new city subdivision or development. Street maintenance, on the other hand, is an operating expense that applies to routine ongoing expenses. However, the actual decisions on how to allocate individual expenditures, such as a major repaving of an existing street, is left to the cities, and cities are not consistent in the way they allocate those expenditures.[7]

Data compiled for accounting purposes are not ideal for economic analysis.

We also found that while the State Auditor provides expense categories for most types of expenses, some expenses do not fit into those categories. For example, there is no category for planning and engineering or for general maintenance of city buildings. These functions are often assigned to the category "general government - other" or to the category "all other current expenditures". In reviewing these two expense categories, we found no consistent pattern to distinguish them from each other so we combined them in our analysis.

We found other reporting problems centered on the "all other current expenditures" category. First, some cities lump expense items into the "all other" category that could have been allocated to specific categories. Employee fringe benefits are a common example. Second, some items in the "all other current expenditures" category are related to construction projects that, for our purpose, are more accurately assigned to capital outlay categories. Third, some items listed as current expenditures are not really city expenditures at all but are treated as such because of accounting conventions or requirements. For example, some cities refunded part of their outstanding debt in 1987 and were required to place money into an escrow account to pay future interest and principal. No expenditures were actually made but the refunded debt was recorded as an expenditure. In some instances, a city serves as a conduit for funds between two parties (e.g., a developer and a contractor). When the city forwards the funds, it records the transaction as an expenditure although it is not city funds that are being spent.

To determine the magnitude of these reporting problems, we sampled 85 cities where "all other current expenditures" constituted ten or more percent of their total 1987 operating expenditures. We reviewed the actual financial reports of these cities and contacted the city clerk or treasurer when we needed clarification. As a result, we were able to allocate 53 percent of the expenditures in the "all other current expenditures" category to other categories or, in some cases, remove items entirely. We then used the results of our sample to make adjustments to the remainder of the data base. These adjustments do not significantly alter the overall pattern of spending reported by the State Au-

7 State Auditor staff review the financial reporting forms and in some cases move expenditures from one category to another to better reflect their true nature. However, many inconsistencies remain.

ditor nor do they affect our conclusions. Rather, they improve the quality of the data and reassure us that the expenditure patterns we report are accurate.

In addition to adjustments to the "all other" category, we also reviewed individual expenditures that fell well outside the norm of typical spending patterns for that type of city. In some cases, we made adjustments on the basis of our review. For example, one small city had an unusually high per capita health expenditure. This turned out to be a private bequest from a deceased citizen to construct a nursing home. The funds were held by the city pending court approval of the plan, but the funds did not constitute a city expenditure. In this and similar cases, we adjusted city expenses to remove expenditures made from non-city funds.

We adjusted the State Auditor's data so that it was better suited to policy analysis.

Our analysis of city spending excludes enterprise funds and debt service. Enterprise funds such as water and sewer utilities, electricity distribution and municipal liquor stores are for the most part self-supporting. They charge fees from customers on the basis of use rather than charging general taxpayers. In addition, cities do not all have the same city-owned enterprises. Inclusion of enterprise revenues and expenses would significantly alter the revenue and spending profiles of cities with municipal power plants, hospitals or liquor stores and make it difficult to compare city spending on the basic services which they all provide.

We excluded debt service because it would result in double counting of large capital expenditures. Cities record capital expenditures ("capital outlay") at the time they are incurred, regardless of whether they pay for them with savings or proceeds from borrowing. Debt service, on the other hand, refers to the payment of principal and interest related to past capital expenditures. By reporting capital outlay, our analysis properly focuses on the cost of current capital projects.

Finally, we found some inconsistencies in the way cities handle sanitation expenses. Some cities provide for garbage collection from the general city budget; others set up an "enterprise fund" and charge residents for the cost of garbage collection; and others provide no garbage collection but require residents to contract with private haulers. Because of this lack of uniformity in the way cities provide for garbage collection, we determined that comparisons among cities would be more meaningful if we removed all garbage handling expenses from our analysis.

After making these adjustments, we used the State Auditor's data to analyze spending patterns and determine the factors that relate to city spending. Figure 2.3 summarizes the factors we examined in order to explain city spending in Minnesota. We included factors that reflect service needs, input costs, and fiscal capacity. Service need factors include city type, age of housing (percent built prior to 1940), percent of property that is residential, household size, crime rate, and household growth rate.

We grouped cities into six categories in order to examine spending: Minneapolis/St. Paul, their suburbs, and four outstate groups based on population. As we discussed earlier in this chapter, city size and relationship to other cities re-

Figure 2.3: Factors That May Explain City Spending

Factor	Source	Description
SERVICE NEEDS:		
Type of City	State Auditor's Office	Cities grouped into six categories: Minneapolis-St. Paul, Twin City suburbs, and four outstate categories based on 1987 population.
Age of Housing	U.S. Census Bureau	Percent of houses built prior to 1940.
Percent of Property that is Residential	Department of Revenue	Percent of 1987 assessed value that is residential.
Household Size	U.S. Census Bureau	Average number of persons per household.
Serious Crime	Bureau of Criminal Apprehension	Serious crimes per 100,000 population (murder, rape, aggravated assault, robbery, burglary, auto theft and arson).
Household Growth Rate	U.S. Census Bureau	Percentage change in household population between 1980 and 1987.
FINANCIAL CAPACITY:		
Per Capita Income	State Demographer's Office	1985 per capita income of city residents.
Assessed Property Value	Department of Revenue	1987 assessed property value per capita adjusted for differences in the sales ratio.
Local Government Aid	State Auditor's Office	1987 local government aid per capita.
INPUT COSTS:		
Cost of Living	Legislative Auditor's Office	Cost of living for county in which city is located (based on 1989 cost-of-living study).

flect a variety of social and physical characteristics of cities that affect spending.

Age of housing is related to spending because it reflects the age of the city's infrastructure and need for expensive maintenance or redevelopment. It may also reflect the organizational complexity of city governments. As we discussed earlier in this chapter, older cities may have higher spending because they tend to have developed a more bureaucratic organization and rely less on volunteer, part time, or contracted services.

The indicator of commercial activities we used is the percent of property classified as non-residential. Limitations of this measure include (1) it omits tax-exempt property and (2) it does not distinguish between non-residential uses requiring intensive city services and those requiring relatively little city services.

Crime rate may be related to city spending because it reflects the need for police protection. The crime rate measure used here is based on the number of murders, aggravated assaults, rapes, robberies, arson, auto thefts, and burglaries. We included only serious crimes because they require more attention from police than do minor crimes. Also, the data for serious crimes is probably better than the data for other crimes because serious crimes are more likely to be reported to the police in a uniform fashion around the state.

The number of persons per household affects per capita spending because the cost of many city services depends on households served rather than people served. For example, the cost of providing fire protection for a six-person house is not twice as high as for a three-person house.

Population changes may affect spending in different ways. Fast-growing cities require high capital investment to support needed infrastructure. Large population losses may also increase per capita spending because the cost of maintaining a city's infrastructure does not go down as population declines. If spending remains level but population declines, per capita spending goes up.

Fiscal capacity factors we used include per capita income, assessed property value per capita, and local government aid per capita. Input cost factors include cost of living.

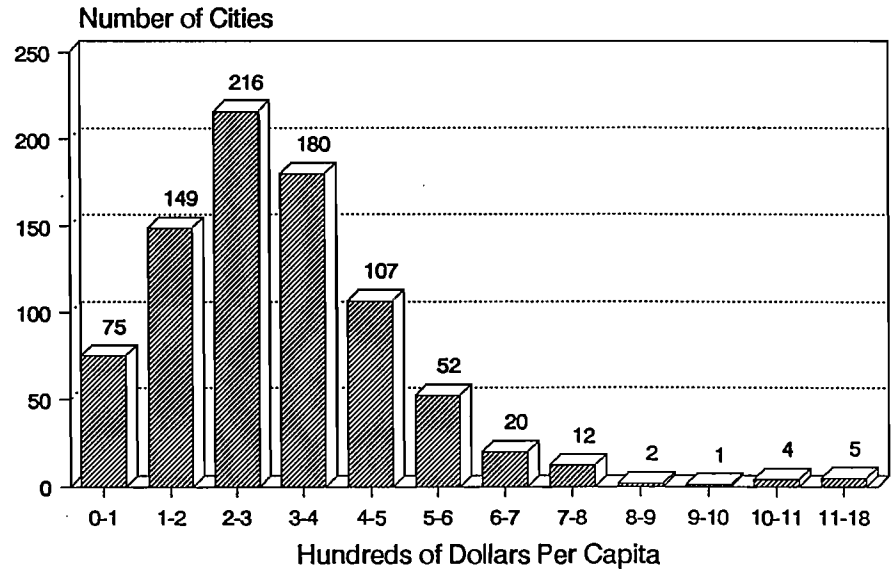
For most of these factors, we collected data for Minnesota's 855 cities. For input cost factors and crime rate, we did not have data for small cities. In the remainder of this chapter, we use these factors to analyze city spending patterns.

VARIATION IN SPENDING BY MINNESOTA CITIES

Spending varies widely among Minnesota's 855 cities, ranging from $27 to $1,700 per capita. Out of 823 cities for which data were available, 652 cities (79 percent) spent between $100 and $500 per capita. Ninety-six cities spent more than $500 per capita and 75 cities spent less than $100. The median was $288 per capita. Figure 2.4 shows this distribution graphically.[8]

Most cities annually spend between $100 and $500 per capita.

Figure 2.4: Cities Classified by Total Expenditures Per Capita, 1987



Source: State Auditor

The nine cities which spent more than $1,000 per capita are all small cities. Most of these cities had unusually large one-time capital projects. Over a longer time period, there would be fewer cities at this spending level.

In the remainder of section, we analyze how spending varies by city type and the other factors listed in Figure 2.3. Since many of these factors are inter-related, we also used regression analysis, a statistical technique designed to measure the independent effect of specific factors. In summary, we found:

- **Spending by Minnesota cities is strongly related to whether a city is a regional center and the size of the region it serves.**

A high proportion of commercial property, older housing and infrastructure, smaller household size, higher income or property wealth, and state aid also help explain higher city spending. A city's growth rate also is related to city

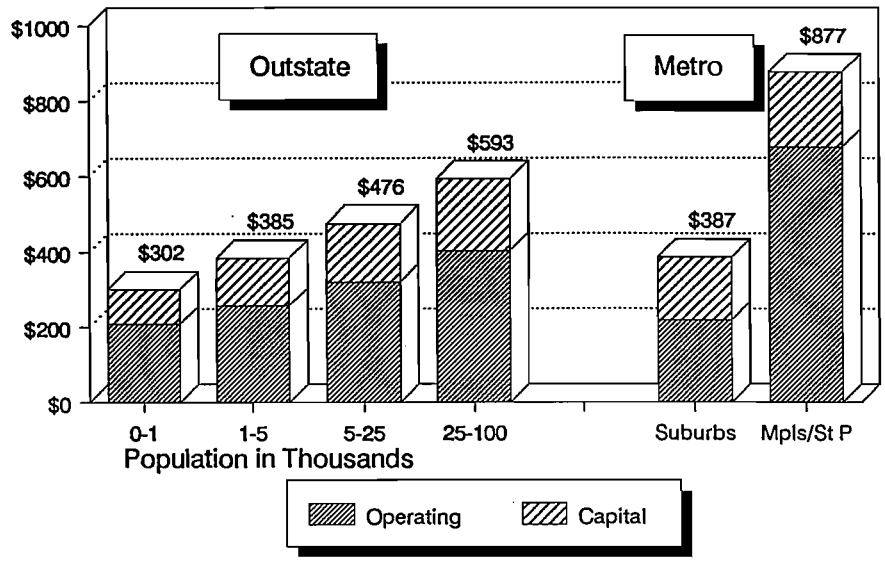
8 Our measure of city spending includes operating expenditures for 1987 and the average annual capital outlay, 1984-87, in 1987 dollars.

spending. Cities with high growth rates tend to have high capital expenditures whereas cities with declining populations tend to have high operating expenditures. In the following sections, we discuss how these factors are related to city spending in greater depth.

Variation by City Type

Figure 2.5 shows that city spending increases with population and that Twin City suburbs spend substantially less than Minneapolis and St. Paul. Total spending ranges from $877 per capita in Minneapolis/St. Paul to $302 in cities with populations less than 1,000.

Figure 2.5: City Expenditures Per Capita by City Type, 1987



Source: State Auditor

Regional centers spend more than suburbs or smaller outstate cities.

There is a large gap between spending by the Twin Cities and the other city types. Spending by Minneapolis/St. Paul was more than 2.5 times as high as its suburbs and 56 percent higher than the next highest type -- the five major regional centers (Duluth, Rochester, St. Cloud, Moorhead, and Mankato). This corresponds to differences in the size of the region served. Minneapolis/St. Paul directly serve a region of over two million people, about ten times as many as Minnesota's next largest metropolitan area. In some respects, the region served by Minneapolis/St. Paul encompasses a multi-state area because the cities serve as a commercial and cultural center for a large part of the north central United States.

Outside the Twin Cities metropolitan area, city spending steadily decreases as city size declines. The five large regional centers spend more than twice as much as cities with less than 1,000 residents. Again, this corresponds to differ-

ences in the size of the region served. Except for suburban or fringe cities, population reflects the size of the region a city serves and the economic and cultural functions it performs for the region.[9] Regional centers attract employees, shoppers, and other visitors from nearby cities. These functions require additional services.

Both operating and capital expenditures increase with the size of the region served. However, this relationship is much stronger for operating expenditures.

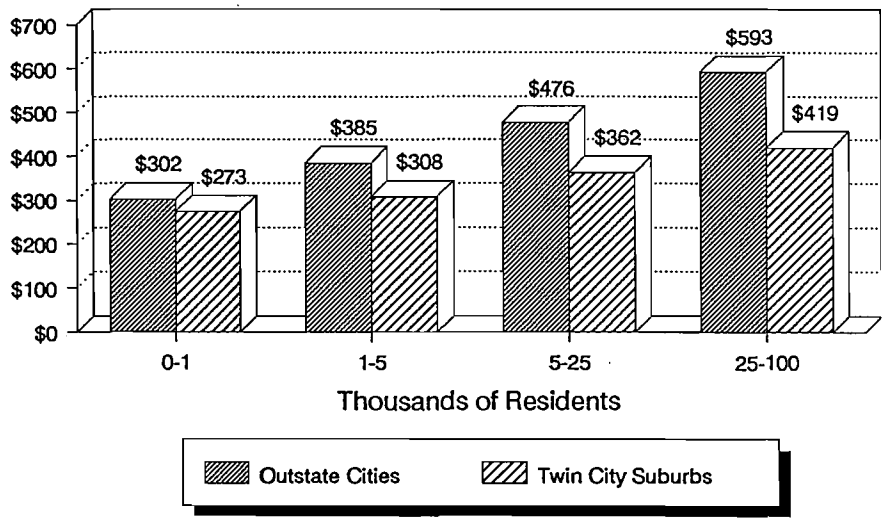
Operating expenditures for Minneapolis/St. Paul were $678 per capita, more than three times as large as spending by suburbs ($221 per capita). In contrast, capital expenditures for the center cities were just 68 percent higher than the suburbs. Similarly, the spending difference between the Twin Cities and the five major outstate cities was 68 percent for operating expenditures, but just 9 percent for capital expenditures.

We also found that:

- **Spending by Twin City suburbs and fringe cities of outstate regional centers is substantially lower than spending by other same-size cities in Minnesota.**

Figure 2.6 shows that for all four size categories, Twin City suburbs spend less than other Minnesota cities. About 90 percent of the suburban population lives in cities from the largest two size categories -- (1) over 25,000 or (2)

Figure 2.6: Twin Cities Suburbs vs. Outstate Cities - Total Expenditures Per Capita, 1987



Source: State Auditor

9 Berry and Horton, *Geographic Perspectives on Urban Systems.*

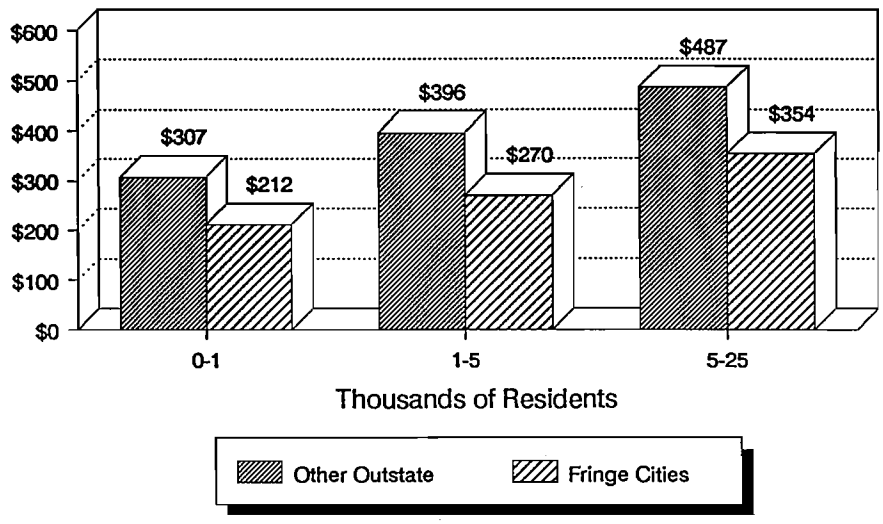
5,000 to 25,000. The five outstate cities with over 25,000 residents spent $593 per capita, 42 percent higher than suburbs in the same size category. Similarly, for the 5,000 to 25,000 category, outstate city spending exceeded Twin City suburb spending by 31 percent.

We found similar results when we compared spending by fringe cities with other cities of the same size. We classified cities as fringe cities if they were within a certain distance of a regional center. This distance varied from 12 miles for regional centers with over 25,000 residents to 6 miles for regional centers between 10,000 and 15,000.

For each of the three size categories shown in Figure 2.7, outstate cities spent between 38 and 47 percent more than fringe cities. For example outstate cities with between 5,000 and 25,000 residents spent $487 per capita, compared to $354 for fringe cities, a difference of 38 percent.

Outstate fringe cities spend less than other outstate cities.

Figure 2.7: Fringe Cities vs. Other Outstate Cities: Total Expenditures Per Capita, 1987



Source: State Auditor

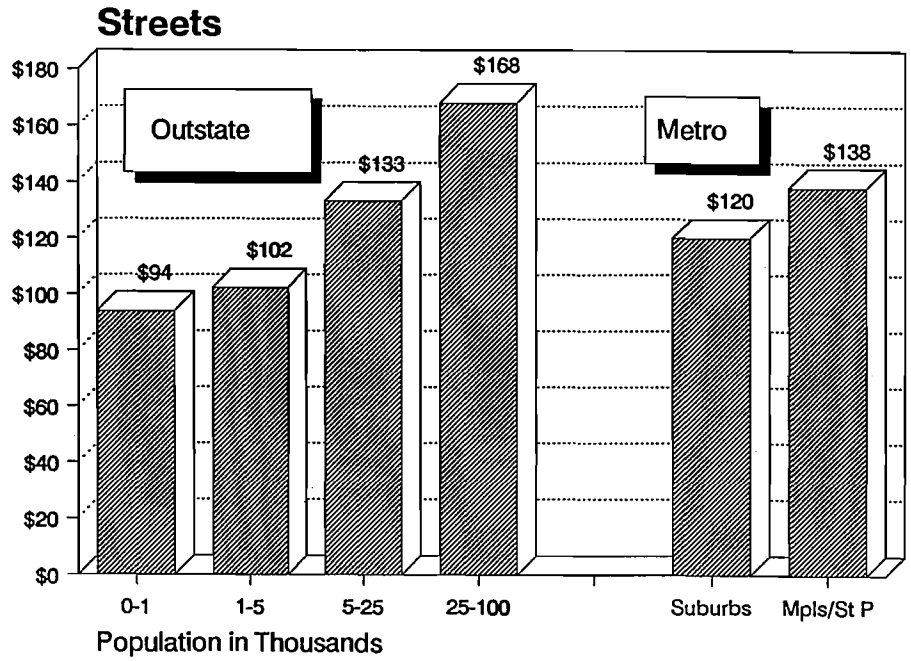
These results indicate that a city's functional role significantly affects its spending. Twin City suburbs and outstate fringe cities are less likely to be commercial centers than outstate regional centers. One indication of this is the fact that residential property constitutes a higher percentage (65 percent) of suburban property value than it does for regional centers (59 percent). Suburbs are also newer, so they are likely to spend less on redevelopment and infrastructure maintenance. Whereas 35 percent of the housing in large outstate cities (over 5,000 residents) was built prior to 1940, only seven percent of the housing in the Twin City suburbs is that old. There are other factors that may explain these spending differences, including service preferences and how efficiently services are provided.

Variation in City Spending by Expenditure Category and City Type

Table 2.1 and Figure 2.8 illustrate how expenditures vary by city type for twelve spending categories. Except for suburbs, whose spending is affected by proximity to central cities and each other, we found that:

Spending is proportional to city size for most service categories.

Figure 2.8: Selected City Expenditures Per Capita, 1987



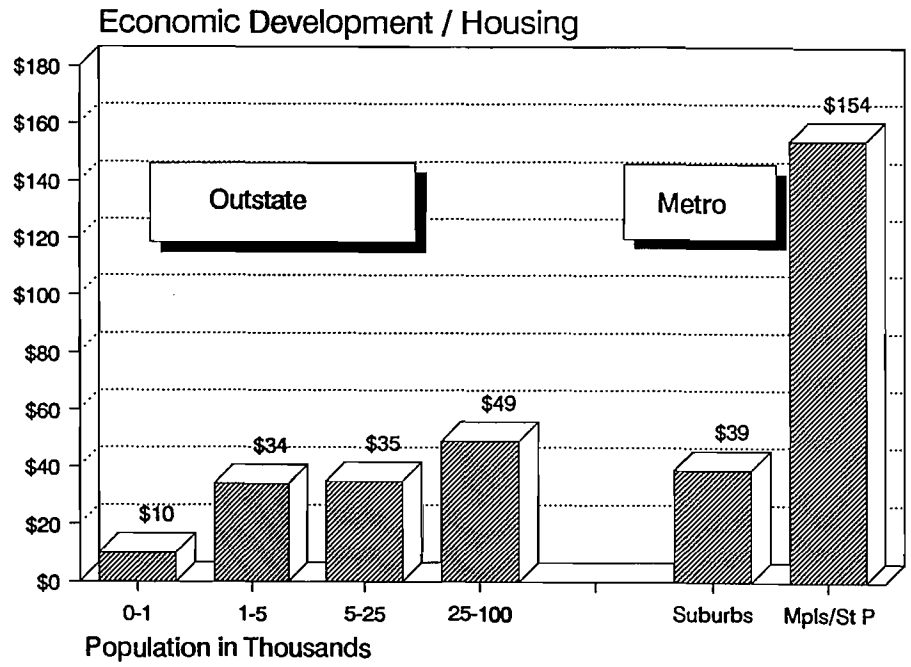
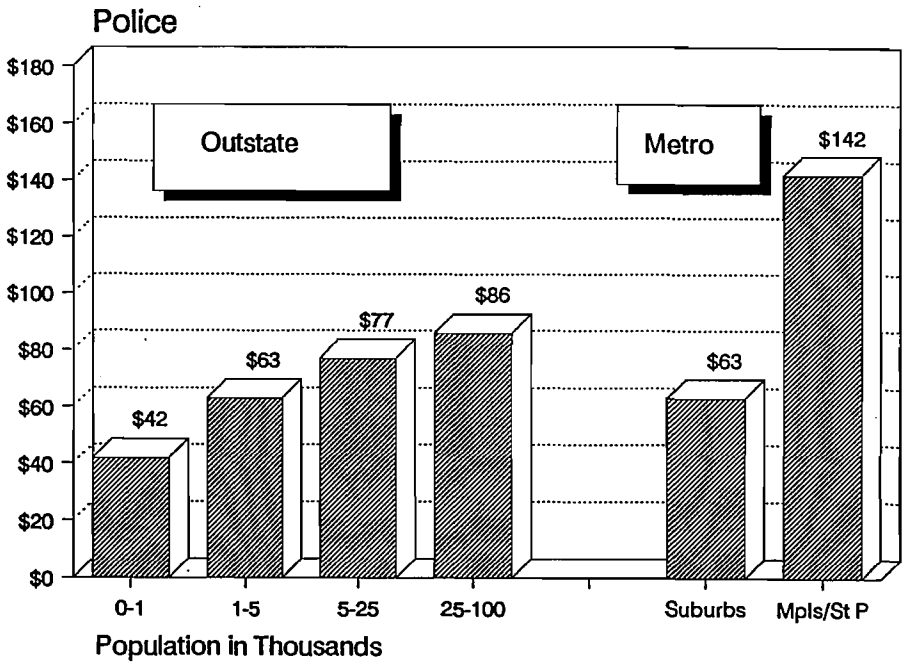


Figure 2.8: Selected City Expenditures Per Capita, 1987, continued



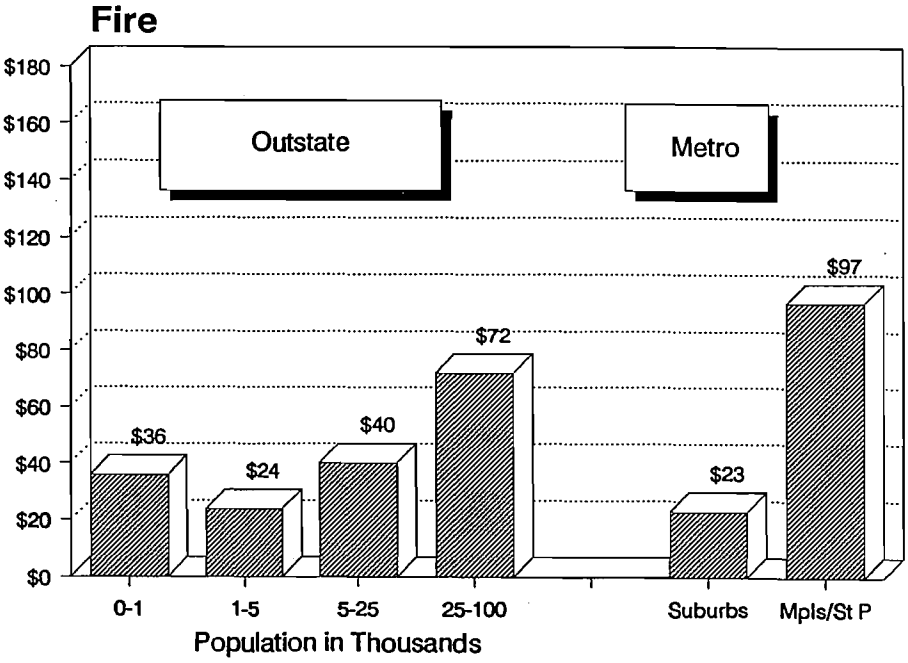
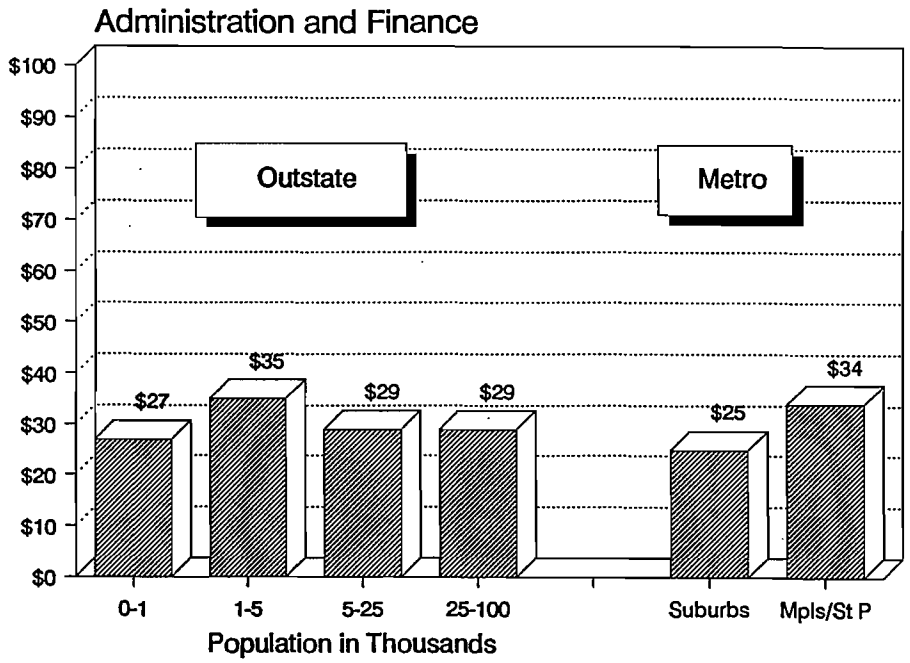


Figure 2.8: Selected City Expenditures Per Capita, 1987, continued



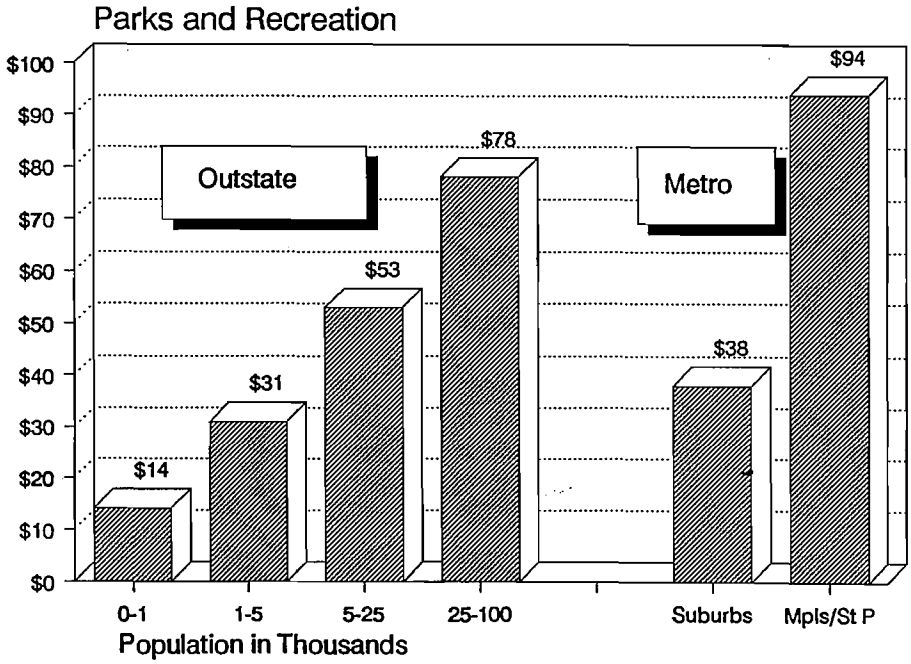


Table 2.1: City Expenditures (Dollars Per Capita)

Type of City	Administration/ Finance	Police	Fire	Other Public Safety	Streets	Sanitation[a]	Health	Libraries[b]	Parks and Recreation	Housing and Development	Airports	General Government/ Other	TOTAL
Twin Cities Metro Area:													
Minneapolis-St. Paul	$33.83	$141.80	$96.50	$24.00	$138.33	$7.97	$41.89	$30.81	$93.66	$153.74	$.00	$114.20	$876.73
Suburbs	25.25	63.18	23.38	7.31	120.22	.57	1.31	1.22	37.72	38.84	.06	68.40	387.40
Outstate:													
Over 25,000	28.92	86.45	72.27	14.35	168.11	.39	1.65	19.86	77.95	49.34	6.51	67.09	592.89
5,000-25,000	29.17	76.80	40.11	5.97	133.10	2.98	1.23	20.31	53.09	35.15	11.63	66.91	476.45
1,000-5,000	35.02	62.64	23.93	2.36	101.51	3.04	1.27	8.65	30.84	34.02	8.83	72.42	384.53
Under 1,000	27.23	41.70	35.90	1.07	93.84	1.42	.06	1.65	13.79	9.80	.60	75.13	302.19
All Cities	$28.83	$80.39	$43.70	$9.97	$125.56	$2.58	$8.96	$11.55	$51.36	$58.90	$3.01	$77.59	$502.40

Note: Figures presented are 1987 operating expenditures plus the average annual capital outlay, 1984-87, in 1987 dollars. They exclude expenditures for enterprise activities such as water, sewer, electric utilities, and liquor stores.

[a]Excludes garbage collection and disposal.

[b]Twin City suburbs are served by county libraries. Minneapolis and St. Paul residents do not pay the library portion of the county tax levy.

- **Spending increases with city size across a broad range of spending categories.**

Minneapolis/St. Paul spend the most per capita among the six city types for every category shown except streets, administration/finance, and airports. Most of the spending difference between the Twin Cities and other cities occurs in housing/community development, police, fire, health, and parks and recreation. For example, these five categories together explain 84 percent of the difference between Minneapolis/St. Paul and the five regional centers. Housing and community development alone explains 37 percent of this difference. Outside the Twin Cities metropolitan area, most of the spending variation occurs in streets, parks and recreation, police, fire, and housing and community development.

Health is a significant expense category for only Minneapolis and St. Paul. A few suburbs and outstate cities also run health programs on a smaller scale. Health expenditures tend to be low because health is primarily a county function in Minnesota. In cities which operate health programs, officials we interviewed said that their programs meet health needs not met by county programs or offer higher quality services.

Street expenditure patterns differ from the usual spending pattern. One difference is that suburban street expenditures are not much lower than other cities because of high capital expenses for new development. Suburbs have more new development because they are growing much faster than other cities. Another difference is that Minneapolis/St. Paul spend less on streets than the five outstate regional centers.

Aministration/finance expenditures do not vary much among city types. Each of the city types spend between $25 and $35 per capita on administration and finance.

Demographic and Financial Factors

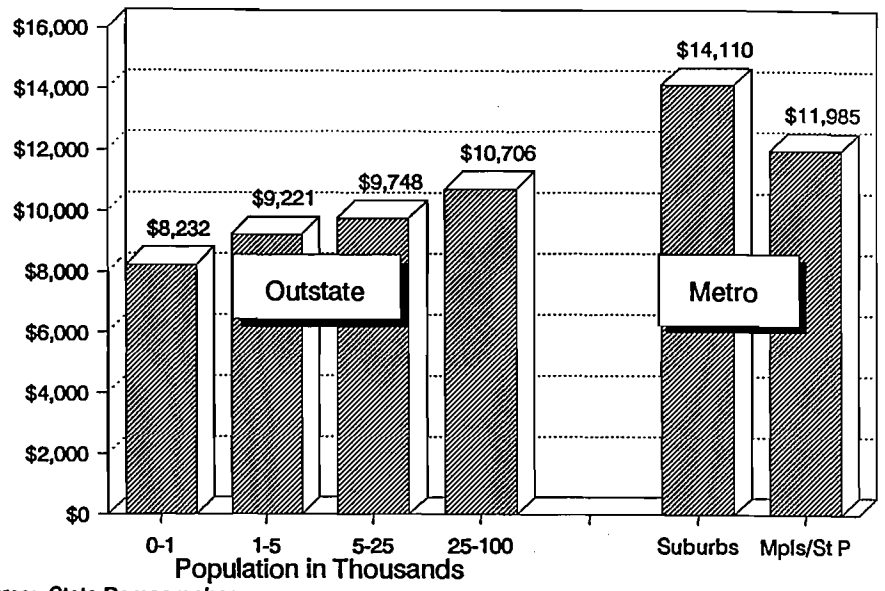
Table 2.2 presents indicators of service needs, fiscal capacity, and input costs for each city type. Minneapolis and St. Paul have the oldest housing, the most commercial property, the highest crime rate, the smallest average household size, and the largest population decline. All of these service need indicators help explain why Minneapolis and St. Paul have the highest spending.

Personal income and property wealth also help explain why Minneapolis and St. Paul spend more than outstate cities, but they do not explain why they spend more than the suburbs. Figures 2.9 and 2.10 show that, compared to outstate cities, Minneapolis and St. Paul have higher property wealth and higher personal income per capita (though outstate cities with over 25,000 residents have higher household income than Minneapolis and St. Paul). Twin City suburbs have the highest personal income in the state, and have nearly the same property wealth as Minneapolis and St. Paul. Outside the Twin Cit-

Table 2.2: City Spending Indicators By Type Of City

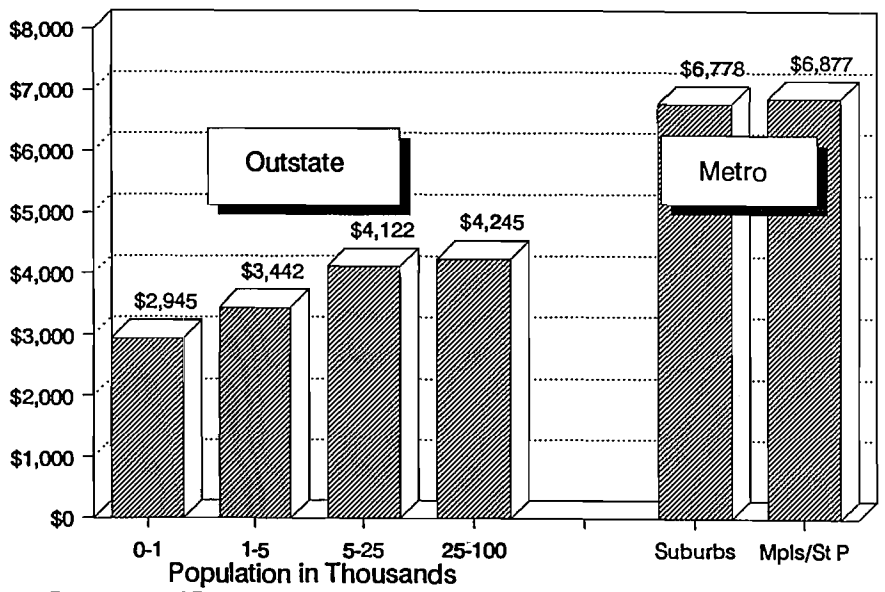
Type of City	Service Needs					Fiscal Capacity/Demand For Service			Input Cost
	Housing: Percent Built Prior to 1940	Assessed Property Value: Percent Non-Residential	Serious Crime Rate (Per 100,000 Residents)	Persons Per Household	Percent Change In Number Of Households (1980-88)	Assessed Property Value Per Capita (Equalized)	Per Capita Income (1985)	Local Government Aid Per Capita	Cost of Living Index
Twin Cities Area:									
Mpls/St.Paul	52	44	4,820	2.28	3	6,877	11,985	159	100
Suburbs	7	35	1,265	2.76	34	6,778	14,110	43	100
Outstate:									
Over 25,000	35	41	1,391	2.67	7	4,245	10,706	122	91
5 - 25,000	36	41	993	2.63	7	4,122	9,748	117	89
1 - 5,000	37	34	710	2.58	9	3,442	9,221	105	87
Under 1,000	46	35	N/A	2.53	4	2,945	8,232	100	N/A
All Cities	27	38	1,965	2.62	18	5,689	12,032	90	

Figure 2.9: 1985 Per Capita Income
By City Size



Source: State Demographer

Figure 2.10: Assessed Value Per Capita
By City Size



Source: Department of Revenue

ies area, property wealth and income per capita may explain spending differences since they tend to be higher in larger cities.

Local government aid also can help explain spending differences among city types. Minneapolis and St. Paul received $159 per capita, more than any other city type. Aid received by outstate cities ranged from $122 per capita for the five major regional centers to $100 per capita for cities with less than 1,000 residents. Twin City suburbs received much less aid than any other type ($43 per capita).

Minneapolis and St. Paul receive much more local government aid per capita than the suburbs.

To estimate how strongly each of these factors is related to spending, we used regression analysis to examine spending variation among Twin City suburbs and among outstate cities. The results presented in Table 2.3 show how spending changes with a specified change in each demographic factor. For example, as population doubles, spending per capita goes up $60 in outstate cities.

The last two columns of Table 2.3 reflect the relative importance of each factor in explaining city spending variation. To compare how well different factors explain spending variation, we calculated the effect of a typical variation for each factor on city spending. That is, if one factor has twice as much

Table 2.3: Relationship Of Demographic Variables To Spending

Variable	If Variable Changes By:[a]	Suburban Cities Per Capita Spending Changes By:	Outstate Cities Per Capita Spending Changes By:
Population	doubling	+ $33.77	+ $60.20
Decrease in Household Population Since 1980	- 2.9%	N.S.[b]	+ 13.88
Increase in Household Population Since 1980	+ 8.1%	+ 8.60	N.S.[b]
Persons per Household	+ .18	- 9.87	- 21.15
Percent of Households Built Before 1940	+ 10.4 percentage points	+ 24.48	N.S.[b]
Percent of Assessed Value that is Residential	+ 7.2 percentage points	- 17.55	- 7.22
Assessed Property Value Per Capita	+ $3,305	+ 23.06	N.S.[b]

Note: Results are based upon separate multiple regression analyses for suburban and outstate cities.

[a]The changes listed here are one-half of each variable's standard deviation from its mean.

[b]No Significant Relationship

variation among Minnesota's cities as a second factor, we would want to compare the effect of a change in the first factor with the effect of two times that change in the second factor. To do this, we defined a typical variation as one half of the factor's standard deviation. Our results, presented in Table 2.3, show:

- **Population explains more of the variation in city spending than any other factor, particularly among outstate cities.**

Spending is highest in cities with large population, a low percentage of residential property, and small household size.

For both groups of cities (Twin City suburbs and outstate cities), high city spending was related to large population, low percentage of residential property, and small household size. In addition, suburban cities with large population growth tended to have high capital spending and outstate cities with declining population tended to have high operating costs per capita. High property wealth and older housing were related to high spending in the Twin City suburbs but not in outstate cities. We obtained similar results when we substituted per capita income for property wealth. Since property wealth and per capita income are highly correlated, we cannot distinguish between the two. Crime rate was not significantly related to spending for either group of cities.

Among Twin City suburbs, age of housing and the percent of property value that is residential rank second and third behind population in explaining spending variation. However, among outstate cities, household size and population change rank second and third respectively.

These results are generally consistent with results reported by studies in other states. One difference is that we did not find a significant relationship between crime rate and city spending. Other studies have found a relationship between crime rate and total city expenditures or police expenditures. In the following section, we look in more detail at the relationship between crime rates and police expenditures.

While we found that several service need indicators help explain differences in city spending, the results do not provide a precise measure of the effects of service needs on spending (as opposed to inefficiencies such as higher than average wages). One reason that it is difficult to isolate the effect of service needs is that a large portion of the variation is explained by city size. To the extent that larger cities provide services less efficiently than other cities, this would show up in our results as an effect of city size. Thus we cannot distinguish between the effects of higher service needs of larger cities and inefficiencies that are characteristic of larger cities.

Public Safety Spending

So far in this chapter, we have examined what factors explain variation in total city spending. In this section, we analyze police and fire activities in greater depth to see how the need for police and fire protection varies among cities

and to determine whether spending is proportionate to need. We used crime rates and fire losses as indicators of need for police and fire protection.

For this analysis, we used data on 1988 criminal activity in Minnesota cities compiled by the Bureau of Criminal Apprehension and regional data on fire incidents and damage compiled by the National Fire Protection Association.

Police

Table 2.4 presents the serious crime rate, police expenditures and numbers of police officers for several types of cities. Table 2.4 shows that the central cities (Minneapolis and St. Paul) have significantly higher serious crime rates than the suburbs or outstate cities. Outstate, crime rates are higher for larger cities.

Table 2.4: Crime Rates And Police Spending

Type Of City	Serious Crimes Per 100,000 Residents[a]	Per Capita Police Expenditures	Number of Police Officers Per 1,000 Residents
Twin Cities Area:			
Mpls.-St. Paul	4,820	$141.55	2.0
Suburbs:	1,265	63.15	1.1
Outstate:			
Over 25,000	1,391	86.33	1.4
5 - 25,000	993	76.62	1.5
1 - 5,000	710	62.41	1.6
Under 1,000	N/A	48.41	N/A

[a]Includes murder, rape, aggravated assault, robbery, burglary, auto theft, and arson.

Source: Department of Public Safety, Bureau of Criminal Apprehension, Minnesota Crime Information, 1988.

Police spending is higher in large cities, but not nearly in proportion to the higher crime rates of larger cities.

While police spending is higher in larger cities, it is not nearly in proportion to the difference in crime rates. Whereas the serious crime rate in the central cities is about 3.8 times as high as the suburbs (4,820 vs. 1,265), per capita spending in the central cities is only 2.2 times as high ($141.55 vs. $63.15) and the number of police officers per 1,000 residents is only 1.8 times higher in the central cities than the suburbs (2.0 vs. 1.1). To the extent that serious crime represents a "need" for law enforcement, central city spending is less sufficient to meet the need than suburban spending. Outside the Twin Cities area, the crime rate for cities over 25,000 is almost double the rate for cities with between 1,000 and 5,000 people (1,391 vs. 710), but per capita spending is only 38 percent higher ($86.33 vs $62.41) and the number of police officers per 1,000 residents is actually slightly higher in the smaller cities.

Police do other things besides preventing and responding to serious crimes. However, we suspect that the central cities have greater needs in these areas

as well. Traffic management and enforcement of parking regulations are relatively important functions for central city police. Social problems such as vagrancy, drug trafficking, public drunkenness, prostitution and domestic disputes are predominant in large urban settings.

Fire Protection

Table 2.5 reports incidents and property losses from fires for the North Central region of the U.S. according to community size.[10] The table shows that per capita fire damage is greater for large and small cities and is lowest for medium-sized cities between 25,000 and 50,000. Fire safety experts we spoke with suggest that the higher per capita rate of fires in small communities is due to difficulties in fighting fires in sparsely populated areas and to inadequate fire prevention efforts in rural areas. There may also be a greater proportion of older homes not built to meet current fire safety codes and a reliance on wood stoves or kerosene for heating. On the other hand, national research has shown that fires are more frequent in areas characterized by low income, poorly educated and single parent households, features common to sections of many large cities. Large cities also have a higher proportion of older homes than most suburbs.

Table 2.5: Average Annual Fire Damage For Different Size Cities

Community Size	Number of Fires Per 1,000 Residents	Average Annual Property Loss Per Capita[a]
Over 250,000	10.8	$23.60
100,000 - 250,000	8.1	22.00
50,000 - 100,000	7.6	21.20
25,000 - 50,000	7.3	17.80
10,000 - 25,000	7.8	23.20
5,000 - 10,000	8.1	25.60
2,500 - 5,000	9.0	37.90
Under 2,500	11.7	49.30

Source: National Fire Protection Association, "The Fire Experience by Region", Quincy, Massachusetts, 1989.

Note: Figures are five-year averages, 1984-1988, for North Central United States.

[a]Stated in 1984 dollars.

10 We were unable to obtain reliable data on fire incidents and losses for Minnesota. The State Fire Marshall compiles such data but not all fire departments report and the accuracy of reports are not verified. Also, fire department jurisdictions are often not coterminous with city boundaries, making comparisons with city spending difficult. However, the data reported to the Fire Marshall is consistent with the regional data reported in Table 2.5.

Earlier (Table 2.2), we showed that per capita spending is higher in the central cities and in outstate cities over 25,000. Smaller cities' fire expenditures are lower even though they face a higher risk.[11]

Cities with full-time paid fire departments spend considerably more on fire protection than cities with volunteer fire departments.

A factor that explains much of the variation in fire expenditures is the extent to which cities use full-time paid versus volunteer fire fighters. Table 2.6 shows fire expenditures for full-time paid, all volunteer and combination fire departments. Volunteer fire fighters do receive payments each time they respond to a call and for periodic training. They also typically receive some retirement benefits. Full-time fire fighters receive a regular salary plus fringe benefits regardless of how many fires they respond to. Cities with combination departments have some full-time fire fighters and a back-up of volunteers on call.

Table 2.6: Fire Expenditures by Type of Fire Department

	Per Capita Expenditures Type of Fire Department		
Type of City	Full-Time Paid	Combination	All Volunteer
Minneapolis/St. Paul	$96.50	–	–
Suburbs Over 25,000	40.33	$29.68	$18.14
Suburbs 5,000-25,000	59.02	35.59	17.76
Suburbs 1,000-5,000	–	–	22.54
Suburbs Under 1,000	–	–	34.13
Outstate Over 25,000	72.83	68.09[a]	–
Outstate 5,000-25,000	75.51	47.55	19.29
Outstate 1,000-5,000	81.97[a]	–	23.17
Outstate Under 1,000	–	–	35.90

[a]Only one case.

Minneapolis, St. Paul, four out of the five major regional centers, five suburbs and eleven other outstate cities have full-time paid fire departments. Almost all small cities have all-volunteer departments. Table 2.6 clearly shows that cities with full-time paid departments spend more than cities with combination paid-volunteer or all-volunteer fire departments. For example, among outstate cities with between 5,000 and 25,000 residents, full-time fire departments spend an average of $76 per capita, compared with $48 for combination departments and $19 for all-volunteer fire departments. Thus, the decision on the type of fire department is a significant factor affecting a city's per capita expenditures.

Among cities with all-volunteer departments, larger cities tend to spend less on fire protection per capita than smaller cities. Furthermore, medium-size

11 The experts we talked to suggest that relatively inexpensive fire prevention and education efforts such as smoke detectors and regular professional chimney cleaning is a much more cost effective way to reduce fire incidents and damage than costly equipment or full-time paid fire fighters.

cities in outstate Minnesota with full-time fire departments have spending levels closer to Minneapolis and St. Paul than to same-size cities with volunteer fire departments. These results indicate how the type of fire department used by a city explains much of the variation in fire expenditures.

Conclusion

To the extent that crime rates and fire incidents represent a need for city services, our analysis indicates that current spending patterns do not reflect the pattern of need. The central cities and large outstate cities per capita spending on police, while greater than smaller communities and suburbs, is not commensurate with their higher crime rates. In the case of fires, small cities have the greatest danger on a per capita basis but spend less than larger cities. For most cities between 5,000 and 100,000, spending on fire protection is related more to a city's preference (or need) for a paid versus volunteer fire department than to the incidence of fires.

Geographic Variation

Figure 2.11 and Table 2.7 summarize how city spending varies among geographic regions of the state. As can be seen:

- **Region 3 (northeast Minnesota) has the highest per capita spending in the state, followed by the Twin Cities area. Region 7E (east central Minnesota) has the lowest spending rate.**

Among Minnesota's 13 regions, city spending varies from $583 per capita in northeast Minnesota (Region 3) to $325 in east central Minnesota (Region 7E), a difference of 79 percent. The five highest spending regions include the three northern regions, the Twin Cities region and the southeast region. The southwest regions tend to have low spending.

Northeast Minnesota cities spend more per capita than other Minnesota cities.

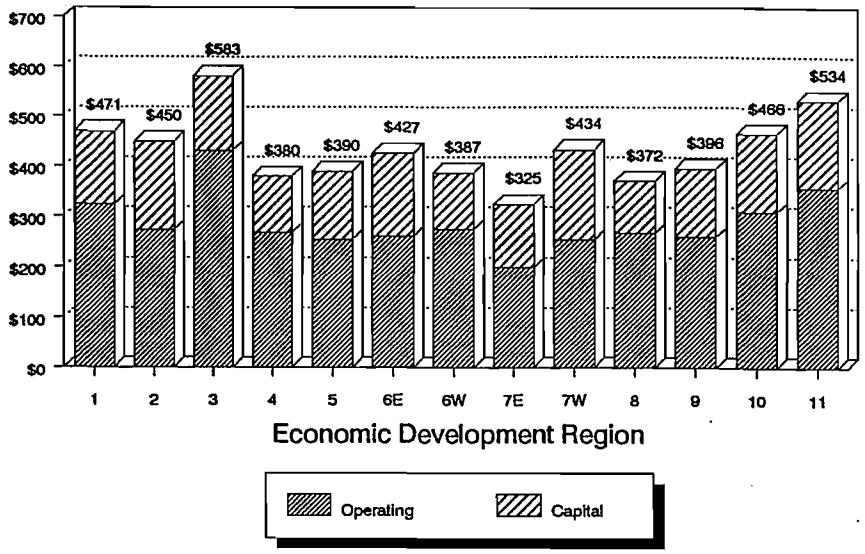
Region 3 spent ten percent more than the Twin Cities region spent ($535). Region 3 had the highest spending rate in the state for streets, fire, police, administration/ finance, and libraries. As Figure 2.11 shows, the difference between Region 3 and other regions is explained by operating expenditures rather than capital expenditures. In fact, Region 3's capital spending is below the state average.

In 1987, cities in Region 3 spent $308 per capita for employee salaries and fringe benefits, compared to $230 in the Twin Cities area, the region with the second highest rank.

Reasons for Region 3's high spending include the following:

- presence of the second largest metropolitan area in the state
- older housing

Figure 2.11: Average City Total Expenditures Per Capita, 1987



Source: State Auditor

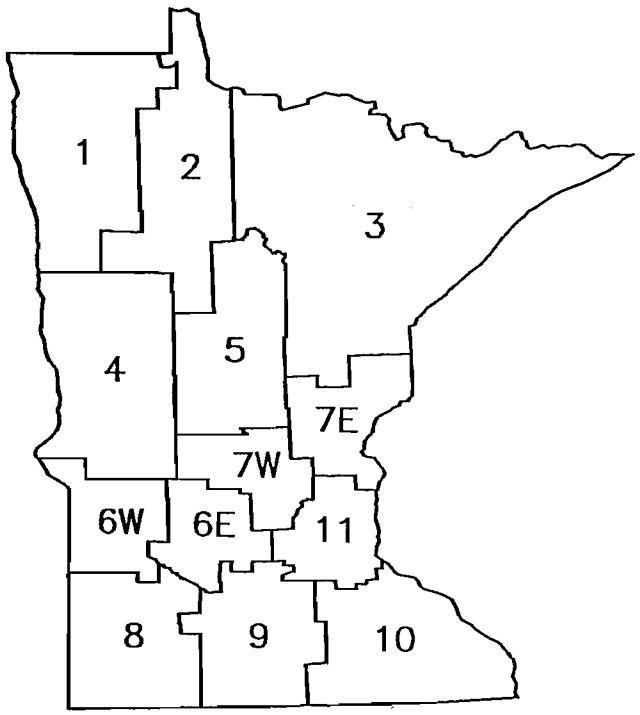


Table 2.7: City Spending by Region (dollars per capita)

Region	Admin./ Finance	Police	Fire	Other Public Safety	Streets	Sanitation	Health	Libraries	Parks & Recreation	Housing & Development	Airports	General Government/ Other	TOTAL
1	$34.52	$62.58	$36.69	$4.99	$130.46	$3.96	$ .23	$9.86	$58.52	$39.70	$5.05	$84.23	$470.79
2	39.56	75.32	31.60	2.21	107.30	.41	1.78	5.90	27.53	69.93	33.12	55.08	449.74
3	40.74	89.52	63.19	9.90	161.59	2.63	1.48	23.36	47.32	40.61	4.29	98.08	582.71
4	26.58	64.06	31.72	3.40	87.30	3.19	.03	15.51	38.66	41.50	9.35	58.97	380.27
5	29.03	67.16	33.03	2.40	100.74	1.49	.17	12.81	16.49	16.11	20.04	90.33	389.80
6E	33.97	64.11	25.21	5.65	134.87	1.64	–	9.06	46.31	18.13	13.02	74.73	426.70
6W	31.19	55.26	24.23	3.49	104.64	3.15	.25	7.82	33.84	28.33	16.29	78.65	387.14
7E	29.72	47.52	27.11	4.32	79.85	1.24	–	1.34	12.87	35.91	6.84	78.76	325.48
7W	34.24	62.17	40.92	6.70	132.13	1.66	2.84	5.33	25.15	40.72	4.47	77.41	433.74
8	35.16	60.70	24.26	.97	112.46	.87	4.19	13.82	34.71	27.10	6.99	50.81	372.04
9	25.10	59.31	28.66	2.96	148.70	3.85	.63	9.03	39.26	19.04	7.01	52.46	396.01
10	22.42	74.89	52.08	8.42	113.54	1.46	.78	18.33	74.63	36.85	7.34	55.39	466.13
11	27.84	86.79	45.35	12.32	125.62	2.79	13.51	10.12	54.55	73.39	.04	82.13	534.45

- declining population
- more frequent use of full time fire departments
- higher number of police officers per capita, and
- higher state aid.

Since Duluth is the second largest metropolitan area in the state, it is not suprising that its spending is well above average. However, this does not explain why Region 3 spends more than the Twin Cities region. Furthermore, when we compared spending by Region 3's cities with other outstate cities of the same size, Region 3's cities had higher spending.

A second reason that Region 3 has high spending rates is that it has the highest percentage of housing built prior to 1940. Old housing is associated with higher fire rates and thus may contribute to higher fire expenditures. Old housing can also indicate that the city's infrastructure is old and needs more repairs than average. This may help explain why street expenditures are high. The same argument could be made for sewer and water expenditures, but these enterprise activities are not included in the above data.

Large population declines may also help explain Region 3's spending. Population losses can increase per capita spending because the cost of maintaining the city's infrastructure does not go down as population declines. If spending remains level but population declines, per capita spending goes up. Between 1980 and 1987, the population of Region 3's cities declined by 9.7 percent, whereas no other region's city population declined by more than 3 percent.

Previously, we showed that having a full-time fire department greatly increases fire expenditures. Five cities in Region 3 have full time fire departments, compared to six in the rest of outstate Minnesota, and seven in the Twin Cities area. These five cities serve 62 percent of Region 3's city population, nearly twice the percentage served by full-time fire departments in the rest of the state[12].

Northeastern cities spend more on police despite a below average crime rate.

A fifth reason that Region 3 has higher spending is that Region 3 cities employ 1.63 sworn police officers per 1,000 residents, 16 percent higher than the rest of the state (1.41). Higher police spending by Region 3 cities is not explained by higher crime rates. In fact, Region 3's serious crime rate (1,210 per 100,000 residents) is below the state average (1,965 per 100,000 residents). Compared to other outstate cities in the same size category, Region 3's cities still employ more police officers. For example, among cities with populations between 5,000 and 25,000, Region 3 cities employ 20 percent more police officers than other outstate cities. We do not have comparative data on other types of city employees, but the greater payroll for Region 3 suggests that this pattern may be characteristic of other city functions besides police.

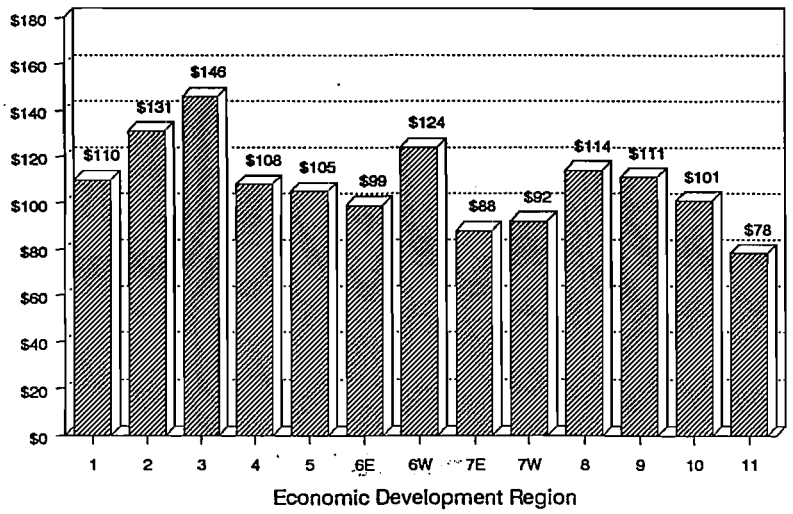
12 Combination full-time and volunteer fire departments serve an additional ten percent of the state's population

Finally, high state aid, combined with past economic prosperity, help explain the high spending by Region 3's cities, particularly iron range cities. The region, particularly the mining cities, were prosperous for much of this century and were able to export much of their tax burdens to other areas by taxing mining property. These financial factors allowed the iron range cities to support a high spending level compared with other cities around the state.

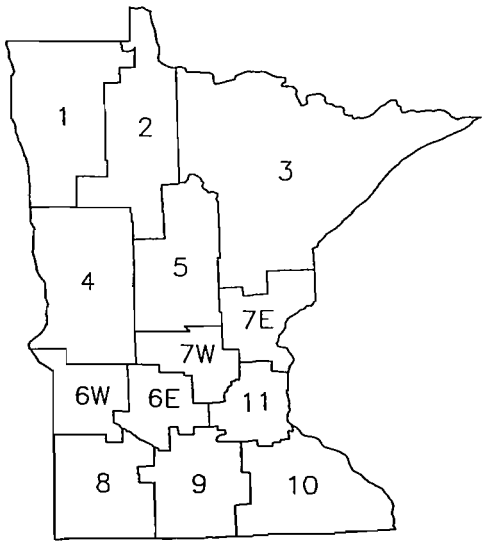
Northeast Minnesota receives more local government aid than other regions.

Now, high state aid, both taconite aid and local government aid, allow high spending to continue without property taxes reaching excessive levels. During the 1970's, taconite production taxes replaced property taxes on mining property and taconite aids funded through these production taxes are now distributed to cities as well as other jurisdictions in the iron range area. Homeowners in the area also receive the taconite homestead credit in addition to the regular homestead credit. In addition, as Figure 2.12 shows, Region 3 receives more local government aid per capita than any other region.

Figure 2.12: Average City Local Government Aid Per Capita, 1987



Source: State Auditor



These results are consistent with the argument advanced earlier in this chapter that older cities tend to rely more on full-time employees and are less likely to take advantage of less expensive alternatives such as part-time workers, volunteer help, or contract services.

RELATIONSHIP BETWEEN STATE AID AND CITY SPENDING

Chapter 3

The major purposes of state general purpose aid to cities are (1) to reduce property taxes generally and (2) to improve the equity of the overall tax system. Some critics of state aid to cities argue that state aid stimulates city spending rather than achieving its intended effect on property taxes. Many critics also question the equity of the current system. We examine the latter issue in Chapter 4. This chapter focuses on the question:

- **To what extent does state aid stimulate city spending?**

We address this issue in several ways. First, we look at estimates made by national studies of how intergovernmental aid affects local government spending and tax levels. Second, we examine how spending in Minnesota has changed since the state expanded its local government aid and homestead credit programs. We also compare revenues and expenditures for cities in Minnesota with cities in other states. Finally, we explore the possibility that cities may use state aid to build up excessive fund balances.

NATIONAL STUDIES

Nationally, many studies have examined how state and federal aid to local governments affect local spending and taxes. Robert Inman and Edward Gramlich, economists with backgrounds in public finance, each reviewed these studies.[1] Gramlich divided grants into three categories: (1) open-end matching grants, under which the federal or state government pays a fixed fraction of the cost of specified local services with no restriction on the quantity; (2) closed-end lump-sum grants, which transfer a fixed amount of money to local governments with no restrictions on their use; and (3) closed-end categorical grants, which provide limited amounts of money for specific programs.

Economic theory predicts that matching grants would stimulate local spending by lowering the price of city services. When the federal or state government pays part of the cost of local services, local governments would likely buy

1 Robert P. Inman, "The Fiscal Performance of Local Governments: An Interpretive Review," in N. Walzer and D.L. Chicoine, eds., *Financing State and Local Governments in the 1980s*, (Cambridge, Mass.: Oegelschager, Gunn, and Hain, 1979) 175-201; and Edward M. Gramlich, "Intergovernmental Grants: A Review of the Empirical Literature," in Wallace E. Oates, ed., *The Political Economy of Fiscal Federalism*, (Lexington, Mass.: D.C. Heath and Co., 1977) 219-239.

more services because of the lower price just as consumers would buy more raspberries if the price of raspberries dropped.

Lump-sum grants do not have the "price effect" associated with matching grants because they do not provide additional aid as local governments increase their spending. However, critics of intergovernmental aid argue that lump-sum aid programs stimulate local spending for other reasons. They argue that public opposition to raising taxes constrains spending by public officials. But since state and federal aid usually go directly to city governments rather than taxpayers, city officials can increase spending without raising taxes whenever their aid increases. As a result, critics argue that state aid makes it easier to increase spending.

Minnesota's homestead credit program and local government aid program (LGA) have some characteristics of matching grant programs as well as some characteristics of lump-sum programs. The local government aid program distributes most of its aid based on past aid levels. In this respect, it is like a lump-sum program. However, as we discuss in Chapter 4, some of the credit is based on city spending. In other words, the more a city spends, the more LGA it is likely to receive. In this respect, it is similar to a matching grant program.

Under the homestead credit program the state paid a certain percentage (54 percent in 1989) of each homeowner's property tax levy up to a maximum credit amount ($725 in 1989).[2] In some cities, particularly the suburbs of the Twin Cities, most homeowners received the maximum credit, so that the homestead credit was similar to a lump-sum transfer. In rural areas, however, the homestead credit was closer to a matching grant program because few homeowners were at the maximum. In 1989, the Legislature replaced the homestead and agricultural credits with a new aid program called the homestead and agricultural aid program. This program was designed to remove the effect that local spending had on the homestead credit. Under this program, the Legislature set future aid levels equal to the 1989 level plus increases for population growth. If this program does not change, it will be a lump-sum program. However, if the Legislature changes the program in response to rising tax levels, it could retain some of the matching grant characteristics.

The studies cited by Inman and Gramlich used time series and cross sectional analysis of federal or state aid to local governments, local spending and local taxes. The studies used econometric techniques to separate effects of aid from income and other factors that may influence local spending. These studies found that:

- **Federal lump-sum aid increases city spending by between 20 cents and one dollar for every dollar given to cities.**

Inman's interpretation of the wide range in these estimates is that as the amount of aid received by cities goes up, the fraction of additional aid that is spent goes down. Studies with low estimates were based on large cities that al-

2 The credit was applied only to the levy on the first $68,000 of a home's value.

ready received large amounts of aid, whereas studies with high estimates included more cities receiving relatively small amounts of aid.

Gramlich compared the effects of different types of grant programs. He found that:

- **Matching grant and categorical aid programs tend to stimulate spending more than lump-sum programs.**

Inman examined how city spending responds to an increase in aid compared with an increase in residents' income. Based on his review of the literature, he found:

- **Federal lump-sum aid to cities affects city spending by a greater amount than does an equivalent increase in residents' income.**

Inman estimated that for every dollar increase in residents' income, local spending, including education, rises between five and ten cents. This is less than the lowest estimate of the effect of state or federal aid on local spending (20 cents per dollar of aid).

National studies found that federal aid to cities stimulates city spending.

A study prepared for the Minnesota Tax Study Commission examined how the homestead credit and local government aid programs affect city spending.[3] It concluded that both programs stimulate city spending and that the homestead credit stimulates spending about three times as much as does local government aid.

We do not believe that the analysis presented in this study supports this conclusion. The study's conclusions are based on the finding that cities with larger amounts of state aid tend to spend more than other cities. The study used regression analysis to control for other demographic factors that affect spending.

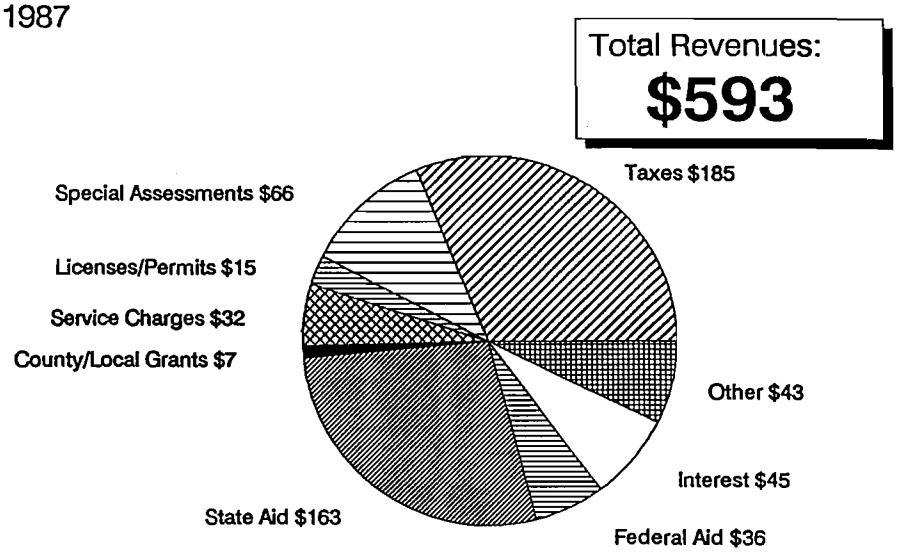
The problem with this analysis is that one can not tell whether higher city spending causes higher state aid or higher state aid causes higher spending. Both the homestead credit and local government aid are designed to provide more aid to cities that have higher spending. Thus, even if state aid did not stimulate spending, higher spending would be correlated with higher state aid.

CITY REVENUES

Cities in Minnesota use a variety of revenue sources to finance city services. Figure 3.1 and Table 3.1 present city revenues for 1987.

3 Michael E. Bell and John H. Bowman, "Property Tax Differences Among Minnesota Cities: The Effects of Property Tax Relief Programs," in *Report of the Minnesota Tax Study Commission*, Volume 2, (St. Paul: Butterworth Legal Publishers, 1986) 349-360.

Figure 3.1: City Revenues Per Capita, 1987



Source: State Auditor's Office

Table 3.1: 1987 City Revenues

Revenue Source	Revenues ($ 000s)	Per Capita Revenues	Percent of Total Revenues
Taxes	$605,292	$184.82	33.7%
Property Tax	555,775	169.70	30.9%
Other Taxes	49,517	15.12	2.8
Intergovernmental Revenue	676,739	206.64	37.7
State Aid	534,960	163.35	29.8
Local Government Aid	295,929	90.81	16.6
Homestead Credit[1]	115,712	35.33	6.4
Highway Grants	46,981	14.35	2.6
Other	76,338	23.31	4.3
Federal Aid	118,629	36.22	6.6
County/Local Grants	23,150	7.07	1.3
Special Assessments	216,090	65.98	12.0
Service Charges	106,336	32.47	5.9
Licenses and Permits	48,932	14.94	2.7
Fines and Forfeits	23,952	7.31	1.3
Miscellaneous	118,481	36.18	6.6
Subtotal	$1,795,822	$548.34	100.0%
Interest	146,496	44.73	
TOTAL	$1,942,318	$593.07	

Note: Table includes revenues for 843 out of 855 cities.

Source: State Auditor.

[1]Includes taconite homestead credit and mobile home credit.

- **The largest city revenue source was intergovernmental revenue, totaling $207 per capita, or 38 percent of city revenue. Most intergovernmental revenue was state aid which provided $163 per capita, more than four times as much as federal aid.**

- **The second largest category was city taxes, which provided $185 per capita, or 34 percent.**

- **Other significant revenues were special assessments (12 percent) and service charges (6 percent).**

Federal and state aid can be divided into two basic types: general purpose aid and categorical aid. Cities may use general purpose aid to reduce property taxes or spend it on whatever activity they choose. In Minnesota, most state aid for cities is general purpose aid, including local government aid and the homestead credit. In 1987, general purpose aid from the state amounted to $412 million, or 77 percent of total state aid. The federal government also provided general purpose aid through its Revenue Sharing Program, but has not funded this program since 1986.

In Minnesota, most state aid to cities is general purpose aid.

Categorical aid must be spent for specific activities. Some programs such as the federal community development grant program are designed to finance projects that otherwise would not be undertaken. In such cases, the city's only choice is to accept the grant and spend the money or do nothing. Reducing property taxes is not an option. However, in other cases, a city can finance existing programs with categorical aid programs. In these cases, the program has the same effect as a general purpose aid program.

Cities receive 92 percent of their tax revenue from the property tax. Some cities also collect a city sales tax, franchise tax, or hotel-motel tax.

Special assessments usually finance capital improvements that benefit particular property owners, such as curb and gutters and street improvements. Special assessments allow the city to charge the owners that benefit from the improvement rather than all property owners in the city.

CITY REVENUES AND EXPENDITURES: 1967-87

City Revenue Trends

In Minnesota, city revenues (excluding enterprise activity revenues) grew from $243 million in 1967 to $1.942 billion in 1987. Much of this growth was due to intergovernmental revenue, which went from $34 million to $677 million over this period. Figure 3.2 and Table 3.2 show the growth of city

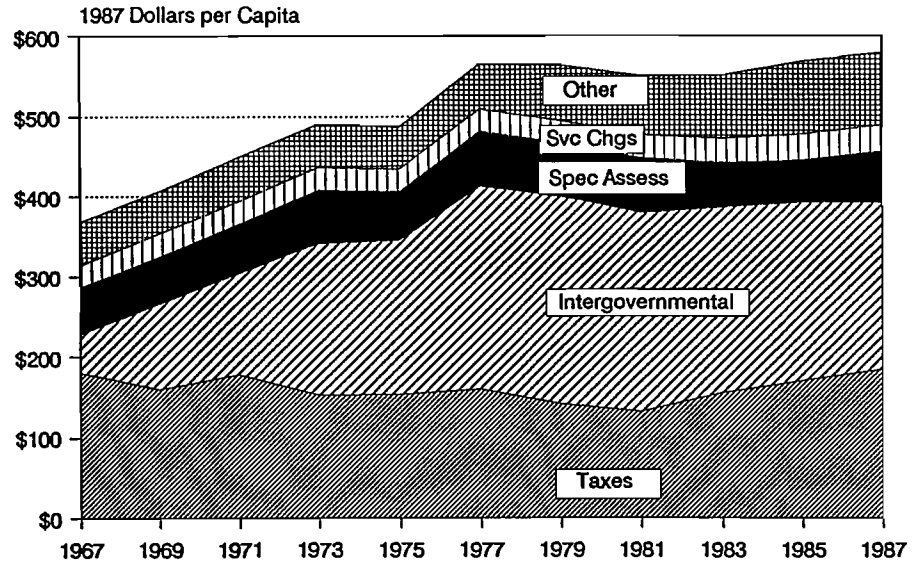
Table 3.2: Revenues of Minnesota Cities, 1967-1987 (in 1987 dollars per capita)

	1967	1969	1971	1973	1975	1977	1979	1981	1983	1985	1987
Taxes	$179.78	$159.39	$177.84	$152.00	$152.81	$159.15	$141.40	$131.94	$155.41	$169.46	$184.82
Property Tax	179.78	159.39	177.84	152.00	152.81	144.07	126.40	117.11	139.05	152.93	169.70
Other Taxes	0.00	0.00	0.00	0.00	0.00	15.09	15.01	14.84	16.37	16.53	15.12
Intergovernmental Revenue	47.60	105.53	126.01	189.61	191.82	252.81	258.20	247.21	230.22	222.01	206.64
State Aid	33.76	87.24	93.18	119.65	115.20	148.88	165.70	163.69	160.48	156.53	163.35
General Purpose	13.38	65.28	78.65	94.69	91.01	109.43	125.69	122.43	120.18	122.75	125.69
LGA	0.00	0.00	0.00	60.98	65.17	82.92	97.18	90.07	86.37	87.90	90.81
Other	13.38	65.28	78.65	33.71	25.84	26.51	28.51	32.36	33.81	34.85	34.88
Highway Grants	16.70	16.97	10.91	18.17	13.86	17.23	14.97	15.23	17.02	14.63	14.35
Other	3.68	4.99	3.62	6.79	10.33	22.22	25.03	26.03	23.28	19.14	23.31
Federal Aid	8.79	14.00	29.13	68.12	65.03	89.20	82.81	66.76	60.53	56.89	36.22
Revenue Sharing	0.00	0.00	0.00	33.45	23.36	21.53	18.96	15.04	11.52	11.21	0.00
Other	8.79	14.00	29.13	34.67	41.67	67.67	63.85	51.73	49.01	45.68	36.22
County/Local Grants	5.04	4.00	3.61	1.85	11.60	14.72	9.69	16.76	9.21	8.60	7.07
Special Assessments	59.30	60.51	62.79	67.48	62.06	70.64	67.68	69.28	58.26	54.53	65.98
Service Charges	14.79	19.41	19.63	23.72	24.38	24.59	32.90	26.94	28.59	31.99	32.47
Licenses and Permits	13.77	13.04	10.87	10.04	9.08	11.31	11.55	10.26	11.69	12.57	14.94
Fines and Forfeits	7.41	7.75	8.02	6.41	5.20	4.56	4.78	5.48	6.32	6.80	7.31
Miscellaneous	4.76	5.57	8.95	9.82	10.41	10.90	23.59	28.63	31.01	38.17	36.18
Subtotal	$327.41	$371.19	$414.11	$459.08	$455.76	$533.95	$540.11	$519.74	$521.51	$535.52	$548.34
Interest/Rent	8.79	11.09	13.52	17.67	20.97	16.50	34.16	51.23	41.94	46.88	44.73
TOTAL	$336.20	$382.28	$427.63	$476.75	$476.73	$550.46	$574.26	$570.98	$563.45	$582.41	$593.07

Source: State Auditor's Office.

Note: Revenues are adjusted for inflation based on gross national product price deflators for state and local governments.

Figure 3.2: City Revenues in Constant Dollars Per Capita, 1967-87*



*Excludes interest earnings

revenues in constant dollars (holding the effects of inflation constant). As can be seen,

- **Intergovernmental revenue was the fastest growing category. Between 1967 and 1987, both federal and state aid grew more than four-fold.**

- **Both federal and state aid grew rapidly during the late 1960's and the 1970's. After 1980, state aid leveled off and federal aid declined.**

- **Most of the growth has been due to state aid, particularly local government aid and the homestead credit.**

In 1967, most state aid consisted of state highway grants and taxes that were shared with the state. The state established the Homestead Credit program in 1967 (effective 1968) and replaced the shared tax program with the Local Government Aid program in 1971 (effective 1972). The growth in state aid has been almost entirely due to the growth of these two programs. As the state expanded these two programs, general purpose aid went from $13 per capita in 1967 to $126 in 1987. During this twenty year period, state general purpose aid accounted for 87 percent of the growth in state aid, and 51 percent of total city revenue growth.

A major purpose of state aid to cities was to hold down property taxes. As state and federal aid expanded, city property taxes per capita declined by about 35 percent between 1967 and 1981, but by 1987, property taxes re-

turned to within 6 percent of their 1967 level. If all city taxes are included, 1987 taxes exceeded 1967 taxes.

Special assessments did not change significantly during this twenty year period. Service charges doubled, but they remain a small percentage of total city revenues.

Between 1967 and 1981 state and federal aid grew rapidly as a fraction of city revenue.

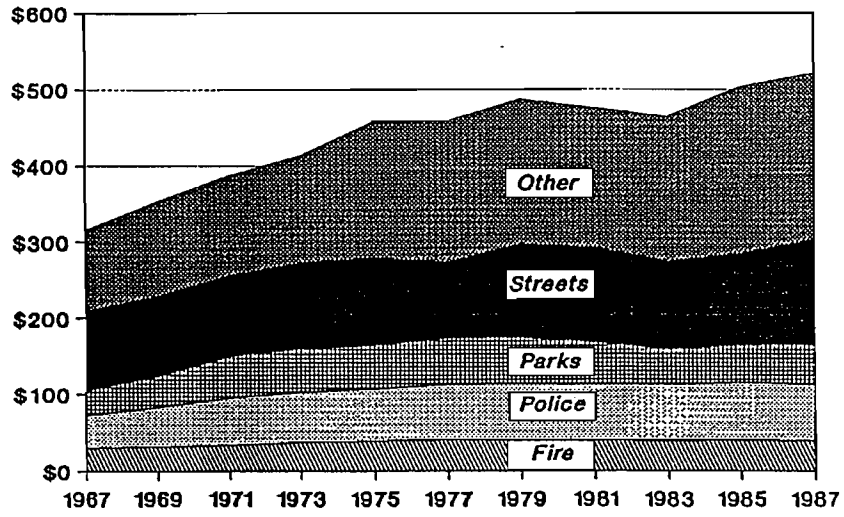
State and federal aid have also grown as a fraction of total city revenue. In 1967, state and federal aid accounted for 13 percent of city revenue, but grew to 44 percent in 1981, and dropped to 36 percent in 1987. Meanwhile, tax revenue declined from 55 percent of city revenue in 1967 to 25 percent in 1981, and rose to 34 percent in 1987.

City Expenditure Trends

Spending by Minnesota cities went from $228 million in 1967 to $1.707 billion twenty years later. Table 3.3 and Figure 3.3 present city spending in constant dollars from 1967 through 1987.[4] They show:

- **Between 1967 and 1987, city expenditures, after adjusting for inflation, grew by 65 percent.**
- **The period of fastest spending growth corresponds to the time of rapid growth of state and federal aid to cities.**

Figure 3.3: City Expenditures in Constant Dollars Per Capita, 1967-87



Source: State Auditor

4 To adjust for inflation, we used the gross national product implicit price deflator for state and local government purchases.

Table 3.3: City Expenditures: 1967-87 (In 1987 dollars per capita)

	1967	1969	1971	1973	1975	1977	1979	1981	1983	1985	1987
Police	43	50	61	65	68	72	73	72	73	75	73
Fire	30	32	34	37	39	41	40	40	40	40	40
Other public safety	6	10	7	8	9	9	8	9	8	8	15
Streets	104	106	106	114	116	100	124	125	116	122	139
Parks & recreation	33	40	54	57	56	60	60	55	45	48	52
General government	31	36	36	40	57	50	53	55	53	59	61
Housing & community development[1]	N/A	N/A	N/A	N/A	N/A	34	41	39	62	70	55
Sanitation	10	10	13	12	11	13	10	7	7	7	7
Health	5	7	7	7	15	10	7	6	7	10	9
Libraries	12	11	11	10	10	12	12	11	10	11	12
Unallocated & other	42	50	58	63	75	58	59	55	42	54	59
Total Expenditures	315	353	387	413	458	459	487	475	464	504	521

Source: Minnesota State Auditor's Office.

Note: Data was adjusted for inflation based on the gross national product price deflator for state and local governments.

[1]Housing and community development did not become a separate category until 1977.

State and federal aid reached its highest level in 1979, when it equalled $249 per capita in 1987 dollars, an increase of $206 per capita over the 1967 level. During the same time period (1967-79), city spending rose by $172 per capita and city taxes declined by $38 per capita.

These results suggest that cities used 82 percent of the additional aid to finance increased spending and 18 percent to reduce property taxes. However, by themselves, these results do not necessarily mean that state and federal aid caused cities to increase spending by $172 per capita. City spending may have increased even without additional aid. However, to finance this much additional spending with the property tax, cities would have had to nearly double their tax levies over a twelve year period. The fact that the Legislature passed major property tax relief programs because the 1967 property tax levies were considered high indicates that such a large increase in property taxes would have been difficult for cities to pass. Later in this chapter, we present interstate comparisons of city revenues and spending as additional evidence that state aid has stimulated city spending.

As federal aid declined and state aid leveled off after 1979, spending grew much more slowly and property taxes went back up. Whereas per capita spending increased by $14 per year between 1967 and 1979, it only increased by $4 per year after 1979.

Table 3.3 shows that city spending increased for all of the major spending categories, including police, fire, parks and recreation, streets, housing and community development, and general government. Between 1967 and 1987, spending increased the most for general government (97 percent), followed by police (70 percent), parks and recreation (58 percent), fire (33 percent), and streets (34 percent). Housing and community development expenditures were not available for years prior to 1977. However, this category grew by 62 percent between 1977 and 1987, making it one of the fastest growing spending categories.

Housing and community development is one of the fastest growing spending categories.

Spending declined for libraries and sanitation. One reason for the decline in library spending may be the expansion of county library systems, particularly in Hennepin and Ramsey counties. Reasons for the decline in sanitation spending are that cities now rely more on private garbage collection or treat it as an enterprise activity.

INTERSTATE COMPARISONS

Another way to estimate the effect of state aid on spending is to compare Minnesota with other states. To the extent state aid stimulates spending and to the extent Minnesota provides more aid to cities than other states provide, Minnesota would be expected to have higher spending. However, drawing conclusions from this type of comparison can be difficult because state aid is only one of many factors that affect spending. For example, Minnesota may spend more because its citizens demand a higher level of public services and

are willing to pay more for it. Nevertheless, city spending in other states is one standard by which to assess spending by Minnesota cities. The greater the difference between city spending in Minnesota compared with other states, the more reason there is to ask why.

To reduce the distortion caused by other factors, we also compared changes in spending by Minnesota cities with changes in other states over a 20 year time period. Again, to the extent state aid stimulates spending, we would expect city spending to grow more in Minnesota than in states which did not increase aid as much as Minnesota. The advantage of this approach is that many factors which affect spending tend to be relatively stable over time. For example, to the extent Minnesota's cold climate affects street maintenance costs, it would apply during the 1960s as much as the 1980s. Furthermore, changes in Minnesota's economic prosperity generally follow national trends. Minnesota's per capita income increased by 52.8 percent between 1966 and 1986, compared with the national average of 45.2 percent.

Revenue Sources

The mix of revenue sources used by Minnesota cities differs greatly from other states. Table 3.4 compares 1986 city revenues in Minnesota with the national average based on U.S. Census data. The table shows that:

Minnesota cities receive more state aid than the national average.

Table 3.4: Per Capita 1986 Revenues of U.S. and Minnesota Cities

	U.S.		Minnesota	
	Dollars Per Capita	Percent	Dollars Per Capita	Percent
Taxes	$370.53	61.29%	$187.85	35.25%
Property Taxes	181.80	30.07%	158.37	29.72%
Sales Taxes	104.39	17.27	15.39	2.89
Income Taxes	53.73	8.89	0.00	0.00
Other Taxes	30.61	5.06	14.08	2.64
Intergovernmental Revenue	172.21	28.49	216.37	40.60
State Aid	96.63	15.99	162.27	30.45
General Purpose	50.30	8.32	124.05	23.28
Highway	17.47	2.89	13.94	2.62
Other	28.87	4.78	24.29	4.56
Federal Aid	55.95	9.26	44.26	8.30
Revenue Sharing	7.80	1.29	7.63	1.43
Other	48.15	7.97	36.62	6.87
County/Local	19.63	3.25	9.84	1.85
Special Assessments	8.06	1.33	56.28	10.56
Service Charges	53.71	8.88	72.44	13.59
Subtotal	$604.51	100.00%	$532.93	100.00%
Interest	49.73		77.86	
TOTAL	$654.24		$610.79	

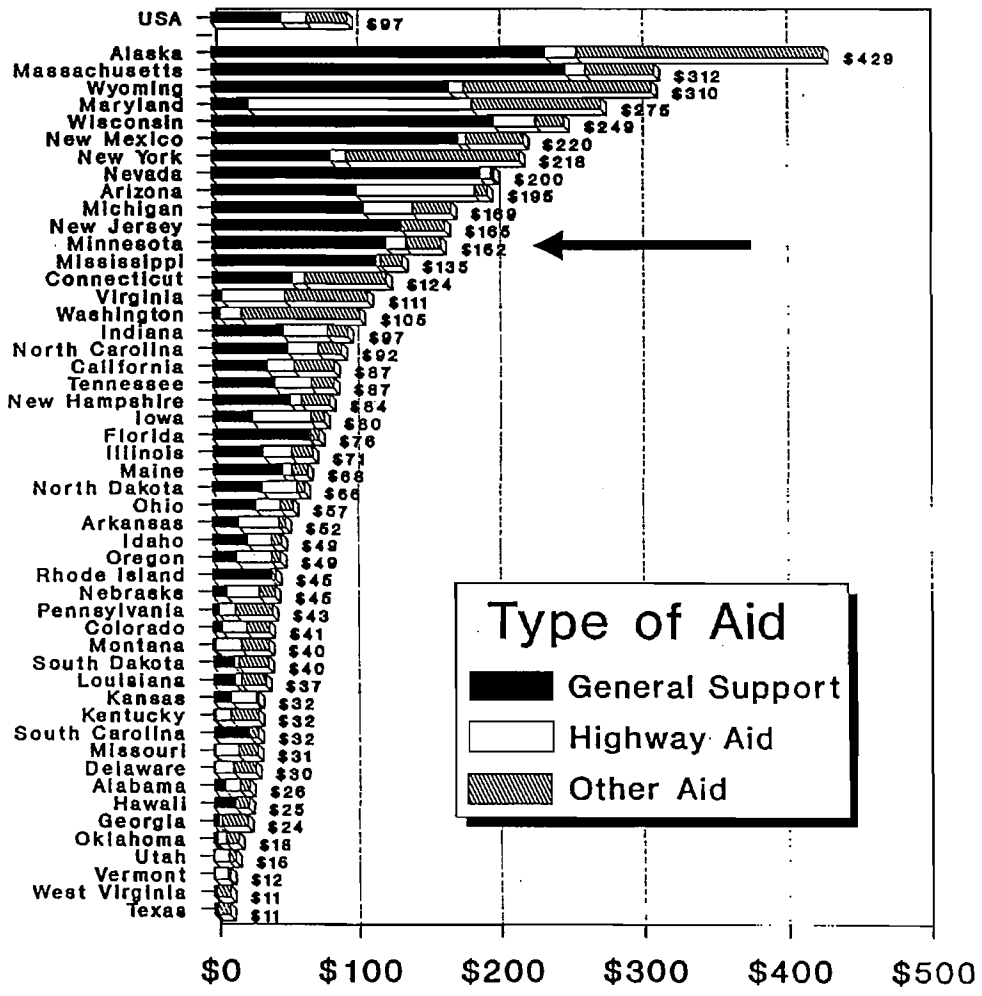
Soource: U.S. Census Bureau.

- **State aid, special assessments, and service charges are used much more by Minnesota cities than the national average.**

- **Taxes as a whole and sales and income taxes in particular are used much less by Minnesota cities.**

In 1986, Minnesota cities received 30 percent of their revenue from state aid, substantially higher than the U.S. average of 16 percent. Minnesota cities also relied more on special assessments (11 percent compared with 1 percent) and service charges (14 percent compared with 9 percent).

Figure 3.4: Selected State Aids to Cities in Dollars per Capita, 1987



Source: US Census Data
Note: Excludes state aids for education, welfare, health, and hospitals.

In contrast, Minnesota cities receive only 35 percent of their revenue from taxes, whereas the national average was 61 percent. While property taxes contributed 30 percent of city revenues in both Minnesota and the nation, other taxes, particularly the sales tax and the income tax were used much more extensively in other states.

Figure 3.4 shows how Minnesota's aid to cities compares with other states. This figure is based on U.S. Census data for 1986 and excludes aid for education, welfare, health, and hospitals. As can be seen:

- **Minnesota's aid to cities ranks 11th highest in the nation.**

State aid to cities varies widely among the states, ranging from $429 per capita in Alaska to $11 in Texas. Minnesota provided $162 per capita, compared with the national average of $97. Among nearby states, only Wisconsin provided more state aid ($249 per capita).

Expenditures

Table 3.5 presents city expenditures in 1986 by population category for Minnesota and other states. We included the national average, nine nearby states, and two states with similar demographic profiles (Oregon and Washington).

- **Minnesota cities tend to spend more than the national average.**

Cities in Minnesota, Wisconsin, and Washington tend to spend more than the national average.

Table 3.5: Interstate Comparison of City Expenditures by City Population, 1986 (in dollars per capita)

	City Size				
State	Over 100,000	50,000-100,000	25,000-50,000	10,000-25,000	Under 10,000
U.S.A.	$772	$472	$412	$357	$300
Minnesota	814	585	390	403	369
Wisconsin	631	529	495	463	405
Iowa	548	485	355	331	284
South Dakota	N/A	467	354	439	244
North Dakota	N/A	326	368	264	205
Illinois	732	374	340	328	264
Indiana	471	321	348	279	190
Missouri	753	358	314	325	235
Nebraska	376	N/A	299	283	306
Kansas	505	451	469	357	259
Oregon	636	598	399	321	294
Washington	795	546	543	465	465

Source: U.S. Census Bureau.

In four out of five population categories, Minnesota cities spent between 13 and 24 percent more than the national average. For cities between 25,000 and 50,000, Minnesota cities spent 5 percent less than the national average. This is because in Minnesota this population bracket included a higher proportion of suburbs than the national average. As we showed in Chapter 2, suburbs tend to spend much less than other cities of the same size.

For all five population categories, Minnesota cities spent more than cities in Iowa, North Dakota, Illinois, Indiana, Missouri, and Nebraska. Wisconsin and Washington cities had higher spending than Minnesota for the three smallest population categories. Oregon cities had slightly higher spending for two categories. Kansas and South Dakota cities had higher spending for one population category.

In Minnesota, city spending substantially exceeds the national average for streets, parks and recreation, and housing and community development.

Table 3.6 compares expenditures by Minnesota cities with the national average for different spending categories. The table shows that:

- **Minnesota cities spent more than the national average on streets, parks and recreation, and housing and community development across all five population categories.**

- **Minnesota cities spent less than average on police and sanitation.**

Fire expenditures were below average for Minnesota's three middle population categories and slightly above average for Minneapolis/ St. Paul and Minnesota's small cities. Health expenditures by Minnesota cities were close to the national average for all size categories. Government administration expenditures are also close to the national average except that Minneapolis/St. Paul were below average. Similar comparisons among selected states are shown in Table 3.7.

Trends Over Time

Between 1966 and 1986, most states increased aid to cities. However, U.S. Census data show that:

- **Minnesota increased aid to cities by a substantially larger amount than average.**

Between 1966 and 1986, Minnesota increased its aid to cities from $42 to $162 per capita, an increase of $120. This increase was nearly three times the national average increase of $42 per capita (from $55 to $97 per capita).[5] It is also higher than the increase of any nearby state. While Wisconsin provided more aid to cities than did Minnesota, it has provided a high level of aid to cities for over 20 years.

5 These figures exclude state aid for health, education, and welfare.

Table 3.6: City Expenditures Per Capita for Selected Items, Minnesota Versus United States Average, 1986

	Police	Fire	Other Public Safety	Streets	Parks & Rec.	Housing/ Cmty. Devel.	Govt. Admin.	Health	Sanitation (excl. Sewer)	Libraries	Transpor-tation	Other
Over 100,000 Residents												
USA	$133	$71	$32	$72	$54	$68	$74	$26	$41	$15	$64	$123
Minnesota	111	73	18	95	97	121	55	21	38	28	26	132
50,000-100,000 Residents												
USA	90	59	10	70	43	30	52	5	24	10	15	64
Minnesota	80	48	9	132	93	35	57	6	1	12	51	63
25,000-50,000 Residents												
USA	81	52	8	64	34	18	50	4	23	9	8	61
Minnesota	59	28	7	114	52	30	47	2	6	1	2	43
10,000-25,000 Residents												
USA	74	39	6	63	28	12	47	3	23	7	5	52
Minnesota	62	28	5	95	44	41	47	2	12	9	4	53
Less Than 10,000 Residents												
USA	61	19	2	63	18	7	52	3	20	5	4	47
Minnesota	54	21	2	99	28	19	59	2	11	6	8	61

Source: U.S. Census Bureau.

Table 3.7: City Expenditures Per Capita for Selected States by City Size, 1986

	Police	Fire	Other Public Safety	Streets	Parks & Rec.	Housing/ Cmty. Devel.	Govt. Admin.	Health	Sanitation (excl. Sewer)	Libraries	Transpor-tation	Other
Over 100,000 Residents												
USA	$133	$71	$32	$72	$54	$68	$74	$26	$41	$15	$64	$123
Minnesota	111	73	18	95	97	121	55	21	38	28	26	132
Illinois	166	64	7	91	10	47	42	20	31	14	144	93
Indiana	77	41	15	53	28	52	51	22	11	0	41	79
Iowa	91	59	14	85	74	62	32	10	26	18	52	24
North Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oregon	138	98	14	46	91	93	78	4	6	3	9	54
South Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Washington	118	92	23	49	81	34	147	19	55	32	1	144
Wisconsin	143	74	22	78	28	54	54	24	58	26	9	61
50,000-100,000 Residents												
USA	90	59	10	70	43	30	52	5	24	10	15	64
Minnesota	80	48	9	132	93	35	57	6	1	12	51	63
Illinois	78	57	4	68	16	11	39	4	16	23	8	50
Indiana	56	52	0	36	26	22	26	4	26	0	3	70
Iowa	82	61	8	115	33	53	30	8	18	16	27	33
North Dakota	57	49	5	48	3	10	28	21	22	10	32	41
Oregona	93	64	7	79	36	164	57	0	0	18	12	67
South Dakota	57	53	5	98	69	9	54	9	10	13	57	33
Washington	100	83	17	51	56	6	94	11	3	15	0	110
Wisconsin	102	87	5	123	42	24	38	17	28	23	7	31
25,000-50,000 Residents												
USA	81	52	8	64	34	18	50	4	23	9	8	61
Minnesota	59	28	7	114	52	30	47	2	6	1	2	43
Illinois	72	46	4	59	10	6	39	3	16	15	3	66
Indiana	61	55	1	40	29	24	31	3	27	0	6	72
Iowa	60	42	1	71	36	27	35	14	18	16	7	28
North Dakota	55	38	3	51	9	3	29	7	22	12	66	73
Oregon	78	69	8	59	22	13	72	0	1	15	3	59
South Dakota	49	41	3	53	57	0	29	6	11	12	64	29
Washington	85	66	12	91	61	11	65	6	32	16	5	94
Wisconsin	95	75	6	110	34	17	57	11	25	23	5	36

Table 3.7, continued

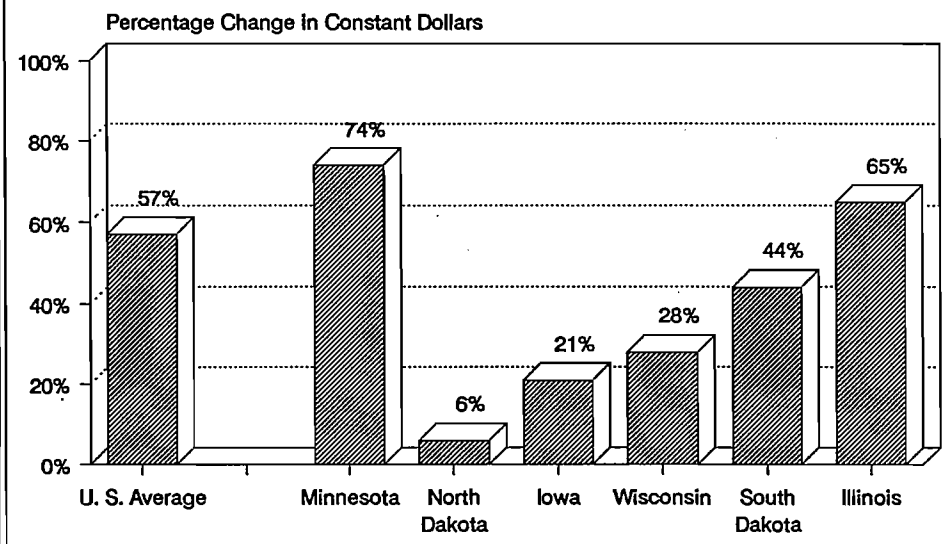
	Police	Fire	Other Public Safety	Streets	Parks & Rec.	Housing/ Cmty. Devel.	Govt. Admin.	Health	Sanitation (excl. Sewer)	Libraries	Transportation	Other
10,000-25,000 Residents												
USA	74	39	6	63	28	12	47	3	23	7	5	52
Minnesota	62	28	5	95	44	41	47	2	12	9	4	53
Illinois	79	31	2	63	19	2	43	2	14	10	3	60
Indiana	52	41	0	40	23	6	24	1	9	0	5	78
Iowa	60	30	7	73	32	15	30	11	18	16	3	36
North Dakota	57	14	5	54	5	0	33	3	26	8	5	55
Oregon	80	49	4	49	23	8	49	0	1	13	12	34
South Dakota	55	28	3	83	55	19	44	3	23	16	33	77
Washington	83	53	9	104	55	2	53	1	26	11	1	66
Wisconsin	85	54	5	125	31	17	44	11	26	19	4	41
Less than 10,000 Residents												
USA	61	19	2	63	18	7	52	3	20	5	4	47
Minnesota	54	21	2	99	28	19	59	2	11	6	8	61
Illinois	61	14	1	59	18	0	49	4	9	5	1	43
Indiana	28	14	0	36	12	6	20	0	6	0	1	67
Iowa	41	13	1	88	25	7	29	9	23	14	5	27
North Dakota	31	4	1	52	7	5	36	1	19	2	1	46
Oregon	66	21	2	52	16	4	64	1	5	9	5	49
South Dakota	42	7	1	71	16	0	39	2	11	6	0	49
Washington	90	36	4	123	33	10	70	3	25	11	3	66
Wisconsin	72	37	2	116	31	8	49	7	29	16	3	36

Source: U.S. Census Bureau.

Across the nation, city expenditures grew between 1966 and 1986. Figure 3.5, based on U.S. Census data, shows that:

- **Between 1966 and 1986, after adjusting for inflation, city spending rose by 74 percent in Minnesota, compared with 57 percent for the nation.**

Figure 3.5: Percentage Change in Total City Expenditures in Several States, 1966-86



Among nearby states, Illinois had the next highest spending increase (65 percent), followed by South Dakota (44 percent), Wisconsin (28 percent), Iowa (21 percent), and North Dakota (6 percent).

Figure 3.6 and Table 3.8 show that Minnesota cities increased spending faster than average in all four major expenditure categories: police, fire, streets, and parks and recreation.

MUNICIPAL FUND BALANCES

Some legislators have expressed concern that cities had large fund balances that exceeded their needs. We explored this concern by reviewing the fund balances obtained from the State Auditor's financial data base and selecting a sample of cities for more extensive examination.

The State Auditor reports end-of-year balances for all government funds for all cities with over 2,500 people and for those cities under 2,500 that use a

Minnesota cities increased spending faster than the national average for police, fire, streets, and parks and recreation.

Figure 3.6: Percentage Change in City Items of Expenditure, Minnesota vs. United States Average, 1966-86

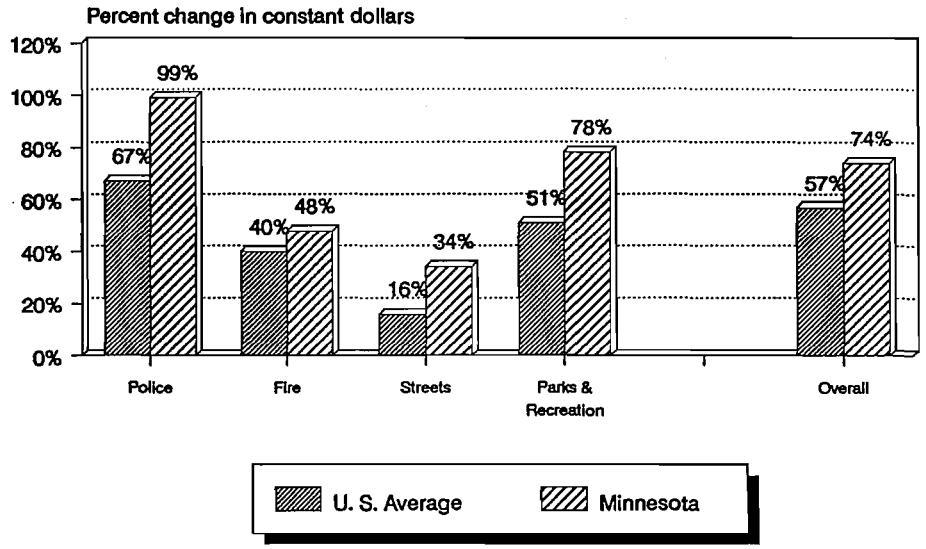


Table 3.8: Interstate Comparison of Changes in City Expenditures, 1966-86 (percent change in constant dollar expenditures)

	Items of Expenditure					
State	Police	Fire	Streets	Parks & Recreation	Other	Overall
U.S.A.	67%	40%	16%	51%	73%	57%
Minnesota	99	48	34	78	100	74
Wisconsin	78	43	7	29	20	28
Iowa	93	32	-11	48	21	21
South Dakota	66	62	44	85	29	44
North Dakota	54	9	-21	12	7	6
Illinois	60	54	34	106	85	65

Source: U.S. Census Bureau.

modified accrual basis for accounting. As a general indicator of the adequacy or excessiveness of the fund balance, we calculated the unreserved undesignated end-of-year fund balance as a percent of annual expenditures for 1987. We did this for all government funds as a percent of current expenses and for the general fund as a percent of operating expenses.

Smaller outstate cities have larger fund balances than metro and larger outstate cities.

As shown in table 3.9, smaller outstate cities tend to have larger fund balances relative to expenditures than do metro and larger outstate cities. We know of no absolute standard as to what constitutes an adequate fund balance. However, Table 3.9 shows that, on average, only cities with fewer than 1,000 people have fund balances exceeding one year's (100 percent) annual expenditures. Our discussions with city clerks and treasurers in smaller cities indicated that these cities are less likely to incur debt to finance large capital projects and that they feel more comfortable with large contingency reserves.

Table 3.9: City Fund Balances, 1987

Type of City	Average Total Fund Balance as Percent of Current Expenses[a]	Average General Fund Balance as Percent of Operating Expenses
Twin Cities Metro Area		
Minneapolis-St. Paul	9.8%	3.3%
Suburbs	57.2	39.6
Outstate		
Over 25,000	42.6	30.2
5,000-25,000	48.8	39.0
1,000-5,000	73.6	61.7
Under 1,000	121.6	121.8
All Cities[b]	47.7%	34.7%

Source: State Auditor's Office.

[a]Includes debt service.

[b]Includes only 357 cities that report on an accrual basis.

The analysis was more difficult for cities with fewer than 2,500 people that used cash accounting methods. Fund balances reported to the State Auditor include enterprise funds (sewer, water, garbage, etc.) but expenditures do not. Thus, what appears at first glance to be very large fund balances (an average of 300 percent of annual expenditures for cities under 500) is actually the result of mis-matching more inclusive fund balances with less inclusive expenditures. To make proper comparisons, we selected a sample of 25 cities with above average fund balances (using the mis-matched method) and examined their financial reports. When we compared total fund balances to total expenditures (including enterprise funds), we found that the median fund balances of these cities was 168 percent of annual expenditures. When we excluded enterprise funds, we found that the median general fund balance

was 155 percent of general fund operating expenses. However, because we sampled cities with higher than average fund balances, the actual percentage of fund balance to expenditures for most cities is even lower.

Ten cities in our sample had general fund balances exceeding 200 percent of annual operating expenditures. We were able to contact the city clerks in nine of these cities. All of them said that they needed the reserves for future anticipated or unanticipated projects, such as street repair, water tower repair, city hall renovation, and fire station replacement or renovation. These cities expressed a preference for using cash reserves to pay for capital projects rather than issuing bonds. None of the clerks felt that the city could use the reserves to reduce their tax levy. Despite the reserves, most of the clerks felt that their cities had insufficient revenues to meet all their needs. In their minds, the above average reserves represented prudent financial management rather than an attempt to hoard taxpayer money.[6]

Our analysis indicates that cities vary greatly in the size of their fund balances, based on their spending needs and their philosophy of financial management. While some cities may have more reserves than they need, we believe that the appropriate fund balance for a city must be determined by its elected officials.

CONCLUSIONS

In several national studies, economists have found that state or federal aid stimulates local spending. Minnesota's experience is consistent with the findings of these national studies. Minnesota provides more aid to cities than the national average and Minnesota cities spend more than average. Between 1967 and 1987, Minnesota greatly increased state aid to cities. During this same time period, city spending in Minnesota grew faster than the national average and faster than the growth in personal income. After adjusting for inflation, city spending increased by about 66 percent during this 20 year period.

6 Several city administrators were also concerned that if they reduced taxes now, levy limits would restrict their ability to raise taxes for future needs.

STATE AID POLICY

Chapter 4

The basic purpose of this study has been to examine city spending and how it varies across the state, in Minnesota compared to other states, and over time. The reason for interest in spending is that state aid to cities is a major state expenditure and a major source of financing for cities. Concern about the purpose and effect of state aid has increased because of other state spending priorities, and because of concern that state aid to cities has promoted local spending rather than property tax relief. In this chapter, we address the following questions:

- **How do city tax burdens vary among different city types? How does the local government aid program affect city tax burdens?**
- **How well does the current state aid system meet standards of equity, efficiency, and accountability?**
- **What are the advantages and disadvantages of alternatives to the current state aid program?**

We begin this chapter by discussing the local government aid (LGA) program. Next, we examine tax burdens for different types of cities and the effect LGA has on those burdens. We discuss the goals of the state aid system, drawing upon principles in the public finance literature. We then examine how well the current state aid system meets these goals in light of the findings of this and other studies. We also discuss alternatives to the current system, including reductions in state aid to cities, targeted aid based on service needs and fiscal capacity, categorical (rather than general purpose) aid, aid to individuals, realignment of state and local responsibilities, and alternative taxes.

In summary, we find that important premises underlying the Minnesota state-local relationship are not supported by national and local evidence. First, Minnesota's property tax is not a highly regressive tax. Second, additional state aid does not always result in property tax relief. We conclude that to improve accountability at the local level, the state aid system should be scaled back and state resources should be more effectively targeted to services of state or regional significance.

LOCAL GOVERNMENT AID PROGRAM

The local government aid program (LGA) was enacted in 1971 as part of the reforms known as the Minnesota Miracle. As Table 4.1 shows, in 1972, when the program became effective, cities received $64.1 million, counties received $24.6 million, and towns received $9.6 million. Aid to cities has grown over the years. City LGA is projected to total $351.8 million in 1990.

Most local government aid now goes to cities.

Table 4.1: Distribution of Local Government Aid, 1972-1990

Calendar Year	Local Government Aid Amounts ($ millions)				
	Counties	Cities	Towns	Special Districts	Total
1972	$24.6	$64.1	$9.6	$0.6	$98.9
1973	26.3	70.5	9.2	0.6	106.6
1974	30.9	89.7	13.9	0.6	135.1
1975	31.3	93.0	13.9	0.6	138.9
1976	19.9	125.2	14.2	0.6	159.2
1977	19.9	136.4	14.4	0.6	171.3
1978	19.9	162.6	14.8	0.6	197.9
1979	19.9	189.8	15.5	–	225.2
1980	22.0	208.3	15.4	–	245.7
1981	22.3	213.2	14.3	–	249.9
1982	20.3	201.4	13.5	–	235.2
1983	24.2	231.0	15.5	–	270.7
1984	14.5	250.2	9.2	–	273.9
1985	14.5	264.9	9.4	–	288.8
1986	14.5	285.8	10.8	–	311.1
1987	15.4	297.4	11.2	–	324.0
1988	15.4	297.4	11.2	–	324.0
1989	15.4	376.2	11.9	–	403.5
1990	14.2	351.8[a]	2.2	–	368.2

Source: House Research.

[a]Includes equalization aid as well as LGA payments to cities.

Over the same period, aid has been discontinued for special districts and reduced for counties and towns. LGA has become mainly a city aid program. In 1987, cities received $297.4 million in LGA and other jurisdictions received only $26.6 million. Total state aid to cities was $535 million, including $116 million from the homestead credit program, another general purpose aid program.

Prior to the 1971 reform, local government aid was primarily a shared tax system, with communities receiving approximately the share of taxes they

contributed. The 1971 reforms recognized the concept that cities should receive aid in proportion to need, but the operational measure of need (continuing to this day) is strongly dependent on spending.[1] Throughout the history of the LGA program, cities were usually assured of getting at least the aid they received in prior years.

Since spending reflects service preferences in addition to need, the present aid system may be criticized because it does not sufficiently target aid to needy communities. Later in this chapter, we discuss alternatives to the current system that are designed to better target aid to communities with relatively high needs.

The LGA formula has been changed over the years, but historical aid flows have been frozen in place.

The 1990 LGA formula defines need in a somewhat different fashion. The formula recognizes that population strongly affects city spending and larger cities get a bigger aid allocation. But, as in previous years, cities are guaranteed the previous year's allocation. A one-time equalization aid program further protects cities other than first class cities by assuring minimum increases.

CITY TAX BURDENS

The city tax burden (the portion of a property owner's tax bill that goes to the city) depends on city spending, property wealth, the level of state and federal aid, and the use of other revenue sources such as user charges. As we showed in Chapter 2, large cities spend more than small cities, but they also have a larger commercial and industrial tax base to finance city services. This raises the question of to what extent higher property wealth in larger cities compensates for higher spending? In this section, we examine city tax burdens faced by residents of different types of cities. Since policymakers are discussing what level of state aid should be provided to cities, we also examine how state aid affects tax burdens in different types of cities. Our discussion focuses on the city portion of the property tax, about one-fourth of the total property tax bill on average.

Tax Burdens in Different Types of Cities

Table 4.2 reports three different measures of city tax burden. The first, tax per $10,000 of assessed value, is a measure of general property tax burden. This measure is often used to compare property tax burdens because a city's ability to finance city services depends largely on its property tax base. A city with high property wealth per capita can usually afford to raise more taxes per capita than a city with low property wealth.

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1 See House Research Information Brief, "State Revenue sharing with Local governments: The Local Government Aids Program" (revised January 1990) for a good description of the current program and its historical development.

Table 4.2: Tax Burdens for Different Types of Cities

Type of City	Tax Per $10,000 of Assessed Value	Residential Tax Per Capita	Residential Tax Per $10,000 of Income
Twin Cities Metro Area			
Minneapolis-St. Paul	$498	$145	$120
Suburbs	264	80	57
Outstate			
Over 25,000	482	79	74
5,000-25,000	485	68	70
1,000-5,000	517	60	65
Under 1,000	466	44	53
All Cities	$392	$87	$73

Source: State Auditor, Department of Revenue, House Research.

The second measure we used is residential property taxes per capita. This is the simplest measure of residential property taxes and does not take into account ability to pay.

For residential property, we also used residential taxes per $10,000 of personal income as a measure of city tax burden. This measure is useful because residential property value by itself can be a misleading indicator of a city's ability to pay. For example, consider two cities which have the same average income, but one city has substantially higher house prices than the other. The city with high house prices could have much greater property wealth even though its residents are no better off financially than residents of the second city. In this situation, income appears to be a better ability-to-pay indicator than property value.

All three tax burden measures incorporate the homestead credit and other state aid to cities, but not property tax refunds given directly to individuals. As a result, actual tax burdens are somewhat lower than those shown.

Table 4.2 shows that property tax burdens based on property value do not vary much by city size. Average city tax burdens in Minneapolis/St. Paul and the four outstate size categories range from $466 to $517 per $10,000 of assessed property value, a difference of only 11 percent. However, the tax burden was much lower in the Twin City suburbs ($264) than any other category. This reflects both low spending and high property values in the suburbs.[2]

2 Again, these figures refer to the city portion of the property tax, not total tax burdens. Many suburbs have high educational tax burdens and as a result, total taxes in some suburbs are higher than taxes in Minneapolis. In the Citizen's League 1989 property tax survey, St. Paul had the highest property tax burden on an $80,000 home and Minneapolis ranked 27th out of 95 cities in the Twin Cities metropolitan area with a population of at least 2,500. See The Citizens League, *Minnesota Journal*, (July 11, 1989) 4-7.

Residential tax burdens as a fraction of personal income follow a much different pattern. Residential property tax burdens steadily decline with city size, ranging from $120 per $10,000 of income in Minneapolis/St. Paul to $53 in small outstate cities. Tax burdens in Minneapolis/St. Paul were 62 percent higher than in the five regional centers, the second highest ranking category. Suburban tax burdens were lower than all categories except the small outstate cities.

The Effect of Local Government Aid on Tax Burdens

To better understand the effect of local government aid on city tax burdens, we determined what the tax burdens would be under three scenarios: reduction of local government aid by 10, 50, and 100 percent. These scenarios are depicted in Table 4.3.

Table 4.3: Effect of Reducing Local Government Aid on Tax Burdens, 1987

		If LGA Reduced by 10%		If LGA Reduced by 50%		If LGA Eliminated	
Type of City	As Is	Amount	Increase	Amount	Increase	Amount	Increase
TAX PER $10,000 OF ASSESSED VALUE							
Twin Cities Metro Area							
Minneapolis-St. Paul	$498	$521	$23	$614	$116	$729	$231
Suburbs	264	272	8	301	37	337	73
Outstate							
Over 25,000	482	514	32	641	159	801	319
5,000-25,000	485	516	31	643	158	802	317
1,000-5,000	517	554	37	703	186	888	371
Under 1,000	466	507	41	672	206	879	413
All Cities	$392	$413	$21	$494	$102	$596	$204
RESIDENTIAL TAX PER $10,000 OF INCOME							
Twin Cities Metro Area							
Minneapolis-St. Paul	$120	$128	$8	$157	$37	$194	$74
Suburbs	57	59	2	68	11	79	22
Outstate							
Over 25,000	74	81	7	109	35	144	70
5,000-25,000	70	77	7	105	35	141	71
1,000-5,000	65	73	8	104	39	142	77
Under 1,000	53	61	8	94	41	134	81
All Cities	$73	$78	$5	$98	$25	$124	$51

Note: These figures assume that cities would not have changed their spending levels.

Source: State Auditor, Department of Revenue, House Research.

The amounts in Table 4.3 assume that cities will continue to spend the same amount if their aid is cut. However, cities may reduce spending or raise user charges as well as raise taxes. The figures reported in Table 4.3, therefore, represent the maximum possible impacts on tax burdens.

Table 4.3 shows that local government aid reduces tax burdens by greater than average amounts in Minneapolis/St. Paul and each of the outstate city size categories. However, it reduces suburban taxes much less than any other city type.

When measuring tax burdens as a fraction of assessed value, LGA reduces tax burdens in smaller cities by a much larger amount than it does for larger cities. Tax reductions range from $413 per $10,000 of assessed value for the smallest city category to $231 for Minneapolis/St. Paul. The reduction for Twin City suburbs is $73.

LGA reduces tax burdens in suburbs less than in other cities.

In contrast, LGA's effect on residential tax burdens (as a percent of income) does not vary much among different city-size categories. LGA gives the largest residential tax reductions to outstate cities with less than 1,000 residents ($81 per $10,000 of income), slightly more than cities between 1,000 and 5,000 ($77), Minneapolis/St.Paul ($74), and larger outstate cities ($71 and $70). Again, suburbs receive the smallest tax reduction ($22).

GOALS OF THE STATE AID SYSTEM

Our analysis of Minnesota's state aid system is based upon the following goals:

- **Equity**: Taxes should be based upon benefits received and ability to pay.
- **Accountability**: Responsibility for spending should be linked to responsibility for raising revenue.
- **Efficiency**: Tax differences among cities should reflect differences in service levels.
- **Efficient Allocation of Resources**: To ensure that cities provide an adequate level of services, cities should not pay the full cost of services that largely have a regional or state benefit.
- **Stability and Predictability**: City revenues should be reasonably stable and predictable so that city officials can develop sound financial budgets. Taxpayers should be able to depend on reasonably stable tax levels.

- **Simplicity:** The public should be able to understand the tax system in order to make informed decisions.[3]

PREMISES FOR MINNESOTA'S EXISTING STATE AID SYSTEM

Minnesota's complex system of property tax aids and credits and the high level of general purpose aid to cities was originally conceived to serve several goals. It was argued that state aid was needed because the property tax was regressive and unfair and local services should be substantially financed by state revenue sources.

Some assumptions on which the aid system is based should be reexamined.

A second reason for state aid is that some city services have a regional or statewide effect. Advocates argue that state aid is necessary to ensure that cities provide an adequate amount of such services and to ensure that property taxes are reasonably related to benefits received.

Another reason for state aid is that cities vary greatly in property wealth and personal income. Cities with low property wealth and low incomes cannot afford to provide a reasonable level of city services without financial hardship. State aid can reduce the financial burden in these cities.

Critics of state aid, however, counter that the property tax is not as unfair as is commonly thought, that state aid reduces accountability of city government, and that the objectives of state aid can be met with scaled down programs that are better targeted at cities with high service needs in relation to their financial resources. In the following sections, we examine these arguments in greater depth.

THE EQUITY OF THE PROPERTY TAX

The argument that the property tax is unfair directly affects the debate over the level of state aid that should be provided. To be equitable, local taxes should be based on the ability to pay and benefits received. We discuss each of these principles below.

Ability to pay: Is the Property Tax Regressive?

Critics of the property tax contend that the property tax is unfair because it is regressive--that is, higher income households pay a smaller percentage of their income for property taxes than do lower income households. However,

3 Hubert H. Humphrey Institute of Public Affairs, *Minnesota's Property Tax and Local Government Aids: How do the System and the 1988 Reforms Measure Up?* (Minneapolis, 1989).

since the 1970s, economists have advanced a different view of the property tax which has come to represent the majority view among specialists in government finance.[4]

The difference between the old view and the new view involves who pays the tax on business property. Under the old view, most of the tax on rental and commercial property is assumed to be passed on to renters and consumers in the form of higher prices.[5] Since low-income households pay a larger percentage of their income for rent and consumer goods than do high-income households, the non-residential portion of the property tax was considered regressive.

However, the new view of the property tax questions the traditional assumption that most of the property tax on business property is shifted to renters and consumers. Instead, the tax is primarily borne by the owners of capital (the landlords and the business owners) because the property tax reduces the rate of return on capital and cannot easily be shifted to consumers. Since landlords, business owners and other owners of capital tend to have high incomes, the property tax is likely to be progressive. Proponents of the new view also argue that the property tax appears more regressive than it is because it is viewed in relation to current annual income rather than life-time income. But people buy housing in light of their longer-term income prospects.

Although the debate is far from settled, the predominant view today is that a property tax is slightly regressive to slightly progressive. This is a departure from the premise on which the Minnesota property tax system is based.

Studies in Minnesota note the emergence of the new view of the property tax, but also show that even under the old view, the property tax in Minnesota is not highly regressive. We summarize the findings of the national and Minnesota studies below.

National studies conclude that the property tax is roughly proportional.

A national study by the Brookings Institution analyzed the incidence of the property tax under eight assumptions.[6] Figure 4.1 graphs the relationship between property tax and income under the study's most regressive and most progressive assumptions. Presumably, these bracketing assumptions capture the property tax's true incidence. As Figure 4.1 shows, under the most progressive assumptions, the property tax is moderately progressive over annual family incomes of $5,000. Under the least progressive assumptions, the tax is roughly proportional over annual family incomes of $10,000.

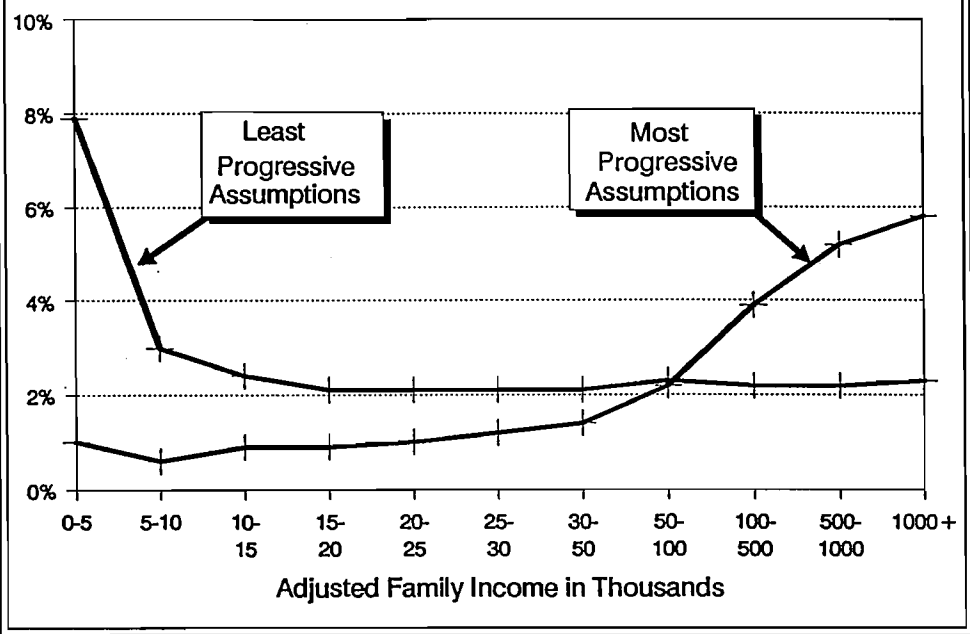
These findings are based on nationwide data. Minnesota's property tax is characterized by favorable assessment of owner-occupied residential property, graduated assessment rates on residential property, a homestead credit, and an income-adjusted payment for low and moderate income renters and home-

4 This view is summarized by Henry Aaron, a Brookings Institution economist in *Who Pays The Property Tax? A New View,* (Washington: Brookings Institution, 1975). A more recent source is Joseph A. Pechman, *Who Paid The Taxes 1966-85?* (Washington: Brookings Institution, 1985).

5 Landlords and business owners only bear the tax on land.

6 Joseph A. Pechman, *Who Paid The Taxes 1966-85?*, 56.

Figure 4.1: Property Tax as Percentage of Adjusted Family Income; U.S. 1980



The homestead credit and property tax refund program made Minnesota's residential property tax more progressive.

owners. These Minnesota features probably make the property tax on residential property in Minnesota more progressive than in most other states. Thus, national estimates probably underestimate the progressivity of the property tax in Minnesota.

Recent studies in Minnesota show that even under the old view, the property tax in Minnesota is not highly regressive. These studies included the effects of the homestead credit and the property tax refund programs which help make the property tax more progressive. For example, a study done for the 1985 Minnesota Tax Study Commission (the Latimer Commission) looked at how the property tax as a percent of income varies across the income range.[7] The study concludes that the property tax is roughly proportional over most income classes. The vast majority of homeowners pay approximately the same proportion of their income in property taxes as the statewide average. The study points out that the circuit breaker is far more effective in reducing the regressivity of the property tax than the homestead credit or classification structure.[8]

A 1983 study by the Legislative Auditor's Office looked at the relationship between property taxes and income using income tax return and property tax refund data.[9] This study found that the property tax was close to proportional

7 Thomas F. Stinson and Kathleen M. Vanderwall, "The Impact of Existing Property Tax Relief Programs on Taxes Paid on Owner-occupied Housing in Minnesota" in *Final Report of the Minnesota Tax Study Commission*, Volume 2, (St. Paul: Butterworth Legal Publishers, 1986), 374.

8 This study employed no new view assumptions. It examined the property tax against annual income and looked only at the tax on owner-occupied property.

9 Office of the Legislative Auditor, *Evaluation of Direct Property Tax Relief Programs*, (St. Paul, 1983).

for homeowners and progressive for renters, as shown in Table 4.4. Overall, this table shows that:

- **The property tax was proportional or progressive for incomes above $3,000.**

Table 4.4: Property Tax as a Percent of Income, 1980-82

	Homeowners		Renters		All Residents
Income	Number	Property Tax as a Percent of Income	Number	Property Tax as a Percent of Income	Property Tax as a Percent of Income
$0-3,000	9,800	16.2%	42,487	0.5%	3.4%
3,000-5,000	27,310	2.5	62,948	0.7	1.2
5,000-10,000	81,810	2.6	119,799	1.0	1.7
10,000-15,000	76,070	2.6	93,380	1.5	2.0
15,000-20,000	75,000	2.5	50,915	1.5	2.1
20,000-25,000	79,140	2.5	24,026	1.7	2.3
25,000-30,000	81,340	2.5	9,193	2.0	2.5
30,000-35,000	63,840	2.8	N/A	N/A	N/A
35,000-40,000	43,170	2.9	N/A	N/A	N/A
40,000-45,000	24,480	3.0	N/A	N/A	N/A
45,000-50,000	12,200	3.2	N/A	N/A	N/A

Note: Figures are net taxes after the circuit breaker. Renter taxes are for 1980 and assume that rental property taxes equal 23 percent of rent (excluding utilities). Homeowner taxes are for 1982. Figures include only those households that filed for a curcuit breaker refund between 1978 and 1980. As a result, property taxes may be less than those shown here.

Source: Office of the Legislative Auditor, Direct Property Tax Relief Programs, (St. Paul, 1983), 107-109.

These results include the effects of the homestead credit and the property tax refund programs. The study showed that these programs, particularly the property tax refund program, made the tax substantially more progressive.

Table 4.4 shows that the property tax (as a percent of income) was much higher than average for homeowners with incomes under $3,000. However, the number of homeowners in this income range was small. In addition, income may not be the most appropriate indicator of ability to pay for these homeowners. Income fluctuates from year to year and does not always reflect property wealth.

One feature of this study was the use of four years of income data in an effort to more closely measure permanent income. When four years of income data were used, the property tax was slightly more progressive than when income was measured with one year of data. This analysis also made no "new view" assumptions about how the tax burden is shifted. Thus these estimates tend to exaggerate the regressivity of the tax.

To determine how local government aid affects the overall incidence of the state-local tax system, the incidence of the property tax should be compared with the incidence of the state revenue sources used to finance LGA. State revenue sources include a progressive income tax, a regressive sales tax, and a variety of other fees and taxes. Since the property tax is neither highly regressive nor highly progressive, it is not clear whether local government aid makes the overall tax system more or less progressive.

In conclusion, several studies conducted during the 1970s and 1980s call into question the premise that the property tax is highly regressive and that major general purpose aid programs are needed to keep property taxes low. As the Humphrey Institute report puts it: "The (property) tax is likely to be nearly proportional and not the very regressive tax it has always been thought to be.[10]

Benefits Received

The city property tax is roughly proportional to benefits received.

The second criterion for evaluating the equity of the property tax is how well the tax is related to benefits received. The extent to which the property tax is proportional to benefits received depends on where the tax revenue is raised and where the benefits of spending are received. Education or human service programs, as discussed earlier, benefit the state or nation as a whole; the benefits of these programs spill over the boundaries of the immediate communities in which the services are delivered. Communities may under-invest in services with spill-over benefits if they are totally responsible for financing them. Thus education and welfare are generally considered to be state or national responsibilities, requiring significant non-local financing.

City services, on the other hand, are basically local in character. Public safety, street maintenance and parks and recreation primarily benefit local residents. As a result, local residents are in the best position to judge the costs and benefits of most city services. Pursuing this logic, the right level of public spending is what local residents are willing to pay for. To the extent that city services are regional or state-wide in character, state programs specifically designed to meet state policy objectives would make more sense than simply replacing a city property tax with a state revenue source.

The degree to which a tax meets the benefit principle also depends on how closely the tax is related to the benefits received by individual property owners. Within a city, households benefit from fire and some police services roughly in proportion to the market value of the house. The more valuable the property, the more value there is in having protection against fire, burglary, and vandalism. This argument does not apply to all city services. But to improve the relationship between what a homeowner pays and the benefits received, cities would need to rely more on user charges or special assessments rather than on a state revenue source. While user charges have this advantage over the property tax, they may not reflect ability to pay as well as the property tax. Cities must weigh the tradeoff between the ability-to-pay and

10 Humphrey Institute, *Minnesota's Property Tax and Local Government Aids*, 25.

benefit principles as well as consider any practical difficulties in charging users for services received.

In summary, the fact that most city services are primarily local in character suggests that a local tax should provide most of the city's tax revenue. In chapter 3, we showed that cities rely on state and federal aid about as much as local property taxes. This suggests that the amount of state aid exceeds the degree of state interest in city affairs.

ACCOUNTABILITY

In large measure, the "right" level of city services is what local residents decide they want and are willing to pay for.

To help ensure that public resources are effectively spent, it is important to hold public officials accountable for spending decisions. Since city residents are in the best position to judge the costs and benefits of most city services, they are the key to holding city officials accountable for spending decisions. The state cannot effectively oversee local decisions by 855 cities and 1,798 towns in Minnesota. To the extent that the state pays for the cost of local services, it reduces the apparent cost of these services. This weakens the link between local services and taxes. A loss of local accountability may lead to a higher level of spending than would otherwise occur, wasteful or inefficient spending, and higher public employment and salaries. It also may diminish public interest in local government.

As we discussed in Chapter 3, state aid appears to stimulate city spending. The only way to know if a given level of spending--high or low--is what local residents want is to strengthen the relationship between local taxing and spending decisions. We believe that both local and state spending priorities and decisions will be improved if the state-local fiscal relationship is disentangled. Cities, now the recipients of high levels of general purpose aid, are the place to start because (unlike counties and school districts) there is relatively little state policy governing city services. Therefore, as a start, we recommend that:

- **The state should freeze general purpose aid to cities at current levels.**

We think general purpose aid can be reduced gradually in real and absolute terms in the future. We believe this would produce positive results. Improved accountability would provide more assurance that spending is in line with community desires and that public resources are efficiently utilized.

Gradually reducing state aid to cities is consistent with the stability and predictability principle for property taxes. City officials and taxpayers need time to adjust to changes in city revenues without undue disruption.

REFORM OF STATE AID TO CITIES

We are critical of Minnesota's general purpose aid because it is not targeted to communities whose needs are high in relation to resources and because the aid is not designed to achieve clear state policy purposes. In reviewing the literature and following the continuing debate on state fiscal policy, we think the major policy alternatives, which are not mutually exclusive, are:

- **target aid to needy cities, but more efficiently than the present system;**
- **provide categorical aid to cities rather than general purpose aid;**
- **provide aid to individuals, not cities; and**
- **give cities the option of using a city sales tax, income tax, or additional user fees or assessments.**

CATEGORICAL AID

Categorical aid should be used where the state wants to induce local spending for a particular purpose.

Categorical aid is one way to ensure that reasonable city services are available without inducing undue hardships on local taxpayers. Unlike general purpose aid, categorical aid must be spent on services the state designates. It is a way to induce city spending for specific state objectives. General purpose aid can alleviate financial hardship, but it does not ensure that city spending is consistent with state objectives.

While cities and towns are not the government level at which most state and federal policies are administered, there are some programs that cities carry out that are either mandated by the state or nation or are directly in the interest of the state and nation. For example, just as the state has an obligation to ensure that all residents have access to quality education, one could argue that it also has an obligation to ensure that all residents have a reasonable level of public safety. In chapter 2, we showed that serious crime rates were strongly related to city size. The serious crime rate in Minneapolis/St. Paul is nearly four times as high as it is in Twin City suburbs and more than four times as high as the average rate for outstate cities. But police spending and the number of police officers are not commensurate with this measure of need. For example, the number of officers per 1,000 residents in Minneapolis/St. Paul is only 1.8 times higher than in the suburbs and only 1.3 times higher than in outstate cities. A categorical aid program for police services based on the need for public safety could reduce this discrepancy.

Another advantage of categorical aid is that it may be easier to enlist general understanding and support for this type of aid than to significantly change the distribution of local government aid.

A limitation of categorical aid is that it does not necessarily help cities with low property wealth and low income households. These cities may not be able to provide basic services without placing hardship on their taxpayers. General purpose aid targeted at these cities would be more effective than categorical aid.

TARGETED AID

As we discussed earlier in this chapter, the LGA program does not target aid to communities with high service needs in relationship to fiscal capacity. Two approaches have recently been developed in other states to better target aid to local governments: the "Ladd" approach and the representative expenditure approach.

The Legislature ought to consider other ways of targeting aid to cities with high needs in relation to fiscal capacity.

Under the Ladd approach, state aid would be based on spending needs and financial resources. Need estimates would be based on spending differences due to demographic and other environmental factors beyond the control of the city governments but not on spending differences caused by local preferences or inefficiencies.

Ladd used a statistical regression model to estimate spending needs of local governments.[11] First, Ladd identified environmental factors that affect per-capita spending and are beyond the control of local government (such as population density, crime rate, age of housing, and poverty rate). She also identified other factors which affect demand for services, such as state and federal aid, property wealth, and income. Spending differences due to the environmental factors are presumed to measure differences in need. Spending differences due to other factors are presumed to reflect local preferences or financial resources rather than need. She then used regression analysis to determine how much each factor separately affects spending. These results were then used to estimate what each city would need to spend if it had average spending preferences and average financial resources.

We believe that this approach would improve how well state aid is targeted at cities with high needs in relation to their financial resources. However, if cities of a particular type systematically spend much less than their needs, then the Ladd approach may underestimate the cities needs. For example, to the extent that crime rate reflects need for police services, Minneapolis and St. Paul spend much less on police than their high crime rate would justify. Assuming crime rate is a valid measure of police needs, the Ladd approach would underestimate police needs in Minneapolis and St. Paul.

The representative expenditure approach also attempts to base state aid on a city's service needs in relation to its financial resources. This approach differs from the Ladd approach in that it attempts to directly measure each city's relative service needs based on various workload measures. The value of this

11 Bradbury, *et al.*, "State Aid to Offset Fiscal Disparities Across Communities".

approach depends on whether the workload indicators are valid measures of city needs.

AID TO INDIVIDUALS

Some analysts recommend providing aid to individuals rather than local governments, even if the purpose of the aid is to finance public services.[12] Consistent with this view is the view that aid to cities should be used only when its purpose is to promote spending (not tax relief).

Minnesota has a property tax refund provision for renters and homeowners that pays a benefit to those whose taxes (or imputed taxes) are high in relationship to income. This program could protect low and moderate income taxpayers from property tax increases that would result from a cut in general purpose aid to communities.

The advantage of this approach is that it efficiently targets aid to correct perceived inequities of the property tax. General purpose aid can only indirectly make the tax structure more progressive -- by replacing part of the property tax with a presumably more progressive state tax. Since aid to individuals is more efficient, it requires less total state aid, and thus would give local governments less incentive to spend excessively.

Aid to individual programs have several limitations. For example, Minnesota's property tax refund program does not help commercial property owners nor middle and upper income households in high tax cities. Large tax differences between cities that do not reflect differences in service benefits distort economic incentives to invest for business owners and may accelerate urban decline in poorer cities.

Another disadvantage of the aid to individuals approach is that needed public services will not necessarily be purchased with increased aid to individuals. This approach does not ensure that cities will adequately invest in services with important regional or state benefit.

In summary, aid to individuals can alleviate the need for large scale general purpose aid programs but does not take the place of state aid programs designed to meet state objectives.

ALTERNATIVE REVENUE SOURCES

Chapter 2 analyzed variations in city spending, and showed that spending was highest in cities that serve as metropolitan or regional centers. One reason

12 The Citizens League, *A First Class Property Tax System*, (Minneapolis: 1987); and Michael Stutzer, "Improving Intergovernmental Finance," *Federal Reserve Bank of Minnesota Quarterly Review*, 11, (1987) 2-13.

for this is that the commercial and cultural activities of a city require an investment in infrastructure and higher operating costs as well.

Cities can finance services through user fees, but an argument can also be made that they should have greater freedom than they now have to raise revenue through other taxes and fees. The question of how much tax-exempt property should pay for city services could be reconsidered. Many cities in the nation raise substantial revenue through a local option sales tax. The Twin Cities and regional centers around the state are retail centers. It is abundantly clear that cities provide services to a broader region; the bigger the region served, the higher is city spending. To the extent that user fees and property taxes do not appropriately charge the daytime users for their use of city services, a sales tax, income tax, or other tax or fees could restore the proper balance. The state could still maintain controls that assure that such taxes or fees are not excessive.

SELECTED PROGRAM EVALUATIONS

Board of Electricity, January 1980	80-01
Twin Cities Metropolitan Transit Commission, February 1980	80-02
Information Services Bureau, February 1980	80-03
Department of Economic Security, February 1980	80-04
Statewide Bicycle Registration Program, November 1980	80-05
State Arts Board: Individual Artists Grants Program, November 1980	80-06
Department of Human Rights, January 1981	81-01
Hospital Regulation, February 1981	81-02
Department of Public Welfare's Regulation of Residential Facilities for the Mentally Ill, February 1981	81-03
State Designer Selection Board, February 1981	81-04
Corporate Income Tax Processing, March 1981	81-05
Computer Support for Tax Processing, April 1981	81-06
State-sponsored Chemical Dependency Programs: Follow-up Study, April 1981	81-07
Construction Cost Overrun at the Minnesota Correctional Facility - Oak Park Heights, April 1981	81-08
Individual Income Tax Processing and Auditing, July 1981	81-09
State Office Space Management and Leasing, November 1981	81-10
Procurement Set-Asides, February 1982	82-01
State Timber Sales, February 1982	82-02
Department of Education Information System,* March 1982	82-03
State Purchasing, April 1982	82-04
Fire Safety in Residential Facilities for Disabled Persons, June 1982	82-05
State Mineral Leasing, June 1982	82-06
Direct Property Tax Relief Programs, February 1983	83-01
Post-Secondary Vocational Education at Minnesota's Area Vocational-Technical Institutes,* February 1983	83-02
Community Residential Programs for Mentally Retarded Persons,* February 1983	83-03
State Land Acquisition and Disposal, March 1983	83-04
The State Land Exchange Program, July 1983	83-05
Department of Human Rights: Follow-up Study, August 1983	83-06
Minnesota Braille and Sight-Saving School and Minnesota School for the Deaf,* January 1984	84-01
The Administration of Minnesota's Medical Assistance Program, March 1984	84-02
Special Education,* February 1984	84-03
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Evaluation reports can be obtained free of charge from the Program Evaluation Division, 122 Veterans Service Building, Saint Paul, Minnesota 55155, 612/296-4708.

*These reports are also available through the U.S. Department of Education ERIC Clearinghouse.