
Expenditures

CHAPTER 2

Policy makers and the public frequently debate how fast government spending should grow in the future. To assess spending needs in the future, it is useful to understand how and why spending changed in the past. Our report provides some context for current budget debates by examining how fast government spending has grown in the past 35 years and what factors drive this growth. This chapter is an overview of spending trends by state and local governments in Minnesota and how they compare with the national averages. In 1992, state and local governments in Minnesota spent about \$20.1 billion, or \$4,500 per capita. This chapter addresses the following research questions:

- **How has spending by Minnesota’s state and local governments changed since 1957? How has spending changed in comparison with inflation and personal income?**
- **What type of expenditures account for the growth in spending?**
- **How does state and local government spending in Minnesota compare with national averages?**

To answer these questions, we used data from the census of governments conducted by the U.S. Bureau of the Census. Our analysis focuses on general expenditures, a Census category that includes operating and capital expenditures, and excludes spending on government operated utilities (electric, gas, water, and transit), liquor stores, and insurance trust funds. The Census Bureau data is the most comprehensive data available on government spending. We collected expenditure data from 1957 through 1992, the most recent year for which Census data were available.

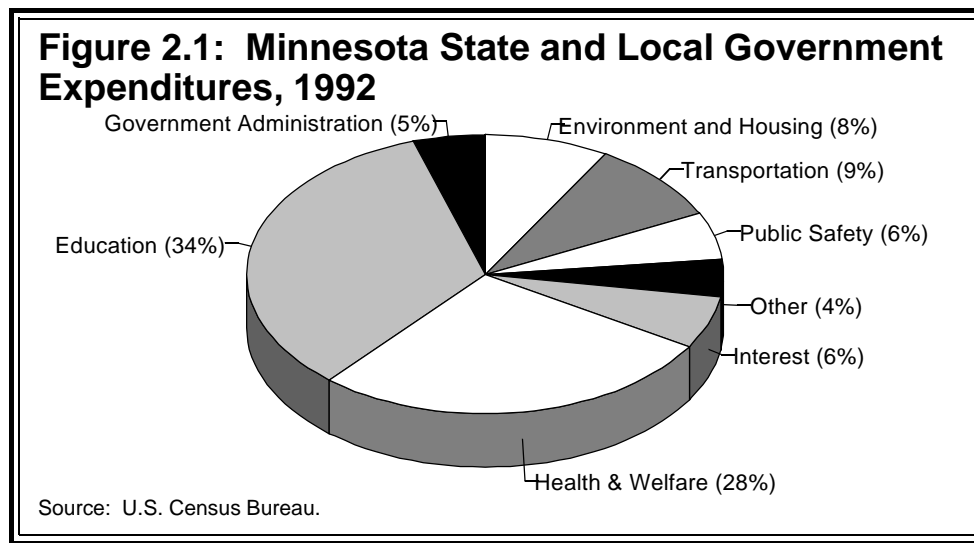
MINNESOTA STATE AND LOCAL GOVERNMENT SPENDING IN 1992

In 1992, state and local governments spent \$20.1 billion in Minnesota, including \$2.7 billion in capital outlay and \$17.5 billion in operating expenditures.¹ State government spent \$7.6 billion and local governments spent \$12.5 billion. The Census Bureau counts local expenditures that are financed by state aid as local government expenditures. To avoid double counting, state government expenditures do not include \$4.7 billion in state aid to local governments.

These Census figures do not measure the same expenditures as the commonly reported state general fund expenditures, which were \$7.0 billion in fiscal year 1992. There are major expenditure categories included in each data source that are not included in the other source. Some expenditure categories included in Census data, but excluded from the state's general fund are (1) state spending financed by federal revenues under such programs as Medical Assistance and Aid to Families with Dependent Children (AFDC), (2) trunk highway expenditures, (3) capital expenditures, and (4) interest payments. State General Fund expenditures that are not counted by the Census as state expenditures include state aid for local governments.

In 1992, education, health, and welfare accounted for 62 percent of state and local government spending.

As Table 2.1 and Figure 2.1 show, in 1992 state and local governments spent most of their money on education, health, and welfare. The largest spending category was education, which accounted for 34 percent of total spending, followed by health and welfare (28 percent), transportation (9 percent), environment and housing (8 percent), interest on general debt (6 percent), and public safety (6 percent). General government administration was 5 percent of state and local government spending.



¹ These figures are based on direct general expenditures in fiscal year 1992 for state government and school districts, and calendar year 1991 for most other governments, including city and county governments. They exclude \$1.0 billion in government utility expenditures, \$0.1 billion in liquor store spending, and \$1.3 billion in insurance trust expenditures such as unemployment compensation payments and employee retirement benefit payments.

Table 2.1: Expenditures by Minnesota State and Local Governments, 1992

	Expenditures (in Millions of Dollars)			Percent Share State and Local
	<u>State</u>	<u>Local</u>	<u>Total</u>	
Education				
Higher Education	\$1,535	\$129	\$1,664	8.3%
K-12 Education	0	4,753	4,753	23.6
Other	<u>282</u>	<u>100</u>	<u>382</u>	<u>1.9</u>
Subtotal	1,817	4,981	6,798	33.8
Health and Welfare				
Public Welfare	2,491	1,134	3,625	18.0
Hospitals	543	772	1,315	6.5
Health	263	292	555	2.8
Other	<u>85</u>	<u>0</u>	<u>85</u>	<u>0.4</u>
Subtotal	3,381	2,198	5,579	27.7
Transportation	724	1,159	1,883	9.4
Public Safety				
Police	59	450	510	2.5
Fire	N/A	171	171	0.8
Corrections	163	135	298	1.5
Protective Inspection	<u>94</u>	<u>28</u>	<u>122</u>	<u>0.6</u>
Subtotal	317	784	1,101	5.5
Environment and Housing				
Natural Resources	259	45	304	1.5
Parks and Recreation	61	344	404	2.0
Housing and Community Development	10	407	416	2.1
Sewerage	3	356	359	1.8
Solid Waste Management	<u>6</u>	<u>208</u>	<u>213</u>	<u>1.1</u>
Subtotal	338	1,359	1,697	8.4
Government Administration	351	639	990	4.9
Interest on General Debt	295	932	1,226	6.1
Other	<u>366</u>	<u>493</u>	<u>859</u>	<u>4.3</u>
Total	\$7,588	\$12,545	\$20,133	100.0%

Source: U.S. Census Bureau.

OVERALL SPENDING TRENDS

Spending by Minnesota state and local governments increased from \$0.9 billion in 1957 to \$20.1 billion in 1992.² In per capita terms, it grew from \$264 to \$4,500. We analyzed Minnesota's spending trends in two ways. First, we adjusted the expenditures for population and inflation based on annual population estimates by the U.S. Census Bureau and a price deflator for state and local governments. Second, we examined the change in spending as a percentage of personal income in Minnesota.

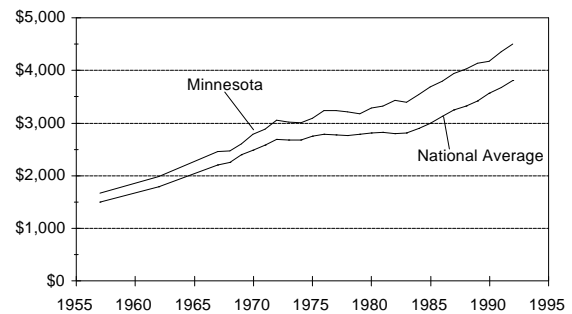
Per Capita Spending Trends Adjusted for Inflation

Minnesota's state and local government spending has grown slightly faster than the national average.

Figure 2.2 shows per capita spending trends for state and local governments in Minnesota and the nation from 1957 to 1992. To adjust for inflation, all expenditure figures in this section are expressed in constant fiscal year 1992 dollars. Minnesota's state and local government expenditures per capita grew from \$1,680 in 1957 to \$4,500 in 1992, an increase of 168 percent.

This increase is slightly more than the national average increase of 153 percent.

Figure 2.2: State and Local Government Expenditures per Capita (in Constant 1992 Dollars), 1957-92



Source: U.S. Census Bureau.

Tables 2.2 and 2.3 show spending trends by functional category between 1957 and 1992. Throughout this time period, the three largest spending categories have been: (1) education, (2) transportation, and (3) health and welfare. The fastest growing major category has been health and welfare, which grew by 319 percent between 1957 and 1992, after adjusting for both inflation and population. Education grew by 130 percent, and transportation grew by only 18 percent. As a result, health and welfare went from 18 percent to 28 percent of total spending. Meanwhile, education grew from 39 percent of total spending in 1957 to a high of 45 percent in 1972, but fell to 34 percent in 1992. Transportation fell from 21 percent to 9 percent of total spending over this 35 year period.

² The Census data include employer contributions for employee retirement as a general expenditure only if they are made to an agency that is not part of the same government. This can affect spending trends in Minnesota because prior to fiscal year 1988, the state made employee retirement contributions to the Teachers Retirement Fund on behalf of school districts. As a result, in most school districts, employer contributions for employee retirement were not included in general expenditures prior to 1988, but were included thereafter. We estimate that the Census Bureau method of classifying employer contributions for employee retirement causes it to overstate overall spending increases over time periods spanning 1988 by about 2 percent.

Table 2.2: Minnesota State and Local Government Expenditures per Capita, 1957-92 (in Constant 1992 Dollars)

	<u>1957</u>	<u>1962</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>1982</u>	<u>1987</u>	<u>1992</u>	Percent Change <u>1957-92</u>
Education									
K-12 Education	\$520	\$619	\$800	\$926	\$854	\$827	\$907	\$1,062	104%
Higher Education	121	164	269	412	318	311	406	372	208
Other Education/Libraries	<u>19</u>	<u>21</u>	<u>27</u>	<u>48</u>	<u>66</u>	<u>58</u>	<u>73</u>	<u>85</u>	<u>345</u>
Subtotal	660	805	1,097	1,386	1,238	1,196	1,386	1,519	130
Health and Welfare	298	327	381	540	694	835	895	1,247	319
Transportation	356	401	452	415	361	375	423	421	18
Public Safety									
Police	37	47	48	66	81	92	100	114	207
Fire	22	25	23	25	31	33	36	38	76
Corrections	<u>21</u>	<u>24</u>	<u>24</u>	<u>25</u>	<u>38</u>	<u>43</u>	<u>56</u>	<u>67</u>	<u>217</u>
Subtotal	80	96	95	115	150	168	192	219	174
Environment and Housing									
Natural Resources	43	47	50	50	56	57	72	68	58
Parks and Recreation	25	27	34	42	72	78	81	90	261
Housing and Community Development	8	22	32	47	46	59	73	93	1,064
Sanitation	<u>56</u>	<u>58</u>	<u>83</u>	<u>100</u>	<u>129</u>	<u>128</u>	<u>104</u>	<u>128</u>	<u>129</u>
Subtotal	132	154	198	239	302	321	330	379	187
Government Administration	83	79	90	117	149	164	189	221	167
Interest on General Debt	31	60	74	127	119	170	311	274	772
Other General Expenditures	<u>40</u>	<u>63</u>	<u>76</u>	<u>122</u>	<u>232</u>	<u>202</u>	<u>213</u>	<u>219</u>	<u>445</u>
Total	\$1,680	\$1,984	\$2,462	\$3,061	\$3,244	\$3,431	\$3,939	\$4,500	168%

Note: Prior to 1977, the Census data included protective inspection expenditures with other general expenditures. To be consistent, we also included protective inspection expenditures from 1977 to 1992 with other expenditures.

Source: U.S. Census Bureau.

Table 2.4 summarizes how much each category contributed to the overall growth in spending between 1957 and 1992.

- **Most of the growth in state and local government spending has been due to the growth in spending on education, health, and welfare. Very little growth was due to transportation.**

The amount of growth that was explained by a category depends both on how big the category was initially as well as how fast it grew in percentage terms. Health and welfare explained more growth (34 percent) than any other category because it was a large category that grew much faster than average. Education grew at a slower than average rate, but because it was the largest spending category, it still explained 30 percent of the overall spending growth. Transportation was the sec-

Table 2.3: Distribution of Minnesota State and Local Government Expenditures, 1957-92

	<u>1957</u>	<u>1962</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>1982</u>	<u>1987</u>	<u>1992</u>
Education								
K-12 Education	31%	31%	33%	30%	26%	24%	23%	24%
Higher Education	7	8	11	13	10	9	10	8
Other Education/Libraries	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
Subtotal	39	41	45	45	38	35	35	34
Health and Welfare	18	16	15	18	21	24	23	28
Transportation	21	20	18	14	11	11	11	9
Public Safety								
Police	2	2	2	2	2	3	3	3
Fire	1	1	1	1	1	1	1	1
Corrections	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
Subtotal	5	5	4	4	5	5	5	5
Environmental and Housing								
Natural Resources	3	2	2	2	2	2	2	2
Parks and Recreation	1	1	1	1	2	2	2	2
Housing and Community Development	0	1	1	2	1	2	2	2
Sanitation	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>3</u>	<u>3</u>
Subtotal	8	8	8	8	9	9	8	8
Government Administration	5	4	4	4	5	5	5	5
Interest on General Debt	2	3	3	4	4	5	8	6
Other General Expenditures	<u>2</u>	<u>3</u>	<u>3</u>	<u>4</u>	<u>7</u>	<u>6</u>	<u>5</u>	<u>5</u>
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: U.S. Census Bureau.

Spending grew faster between 1957 and 1972 than since 1972.

ond largest spending category in 1957, but since it was the slowest growing category, it explained only 2 percent of the overall growth.

Interest on general debt accounted for 11 percent of the spending growth due to its very rapid growth rate. Housing and community development was the fastest growing category, but because it was very small in 1957, it explained only 3 percent of the overall growth in spending.

Between 1957 and 1992, the average annual rate of growth in state and local government spending (in constant dollars) was 2.9 percent. As Table 2.5 shows, the fastest growth occurred between 1957 and 1972, when spending grew by 4.1 percent annually. Between 1972 and 1982, spending growth tapered off to 1.2 percent per year, then increased to 2.8 percent per year between 1982 and 1992.

- **The main reason that spending has grown at different rates during the past 35 years is the uneven growth in education spending.**

Table 2.4: Percent of Overall Spending Growth Attributable to Functional Spending Categories, Minnesota, 1957-92

Education	
K-12 Education	19%
Higher Education	9
Other Education/Libraries	<u>2</u>
Subtotal	30
Health and Welfare	34
Transportation	2
Public Safety	
Police	3
Fire	1
Corrections	<u>2</u>
Subtotal	5
Environment and Housing	
Natural Resources	1
Parks and Recreation	2
Housing and Community Development	3
Sanitation	<u>3</u>
Subtotal	9
Government Administration	5
Interest on General Debt	9
Other General Expenditures	<u>6</u>
Total	100%

Note: Spending growth is measured in constant dollars per capita, based on the price deflator for state and local governments.

Source: U.S. Census Bureau.

Spending growth rates for non-education categories were relatively stable between 1957 and 1992.

State and local government expenditures per capita (in constant dollars), excluding K-12 and higher education, grew at average annual rates of 3.4, 2.9, and 2.9 percent during the three time periods 1957-72, 1972-82, and 1982-92 respectively. For example, health and welfare spending per capita grew by 4 to 4.5 percent per year during each of these three periods. However, education expenditures per capita grew at an annual rate of 5.1 percent between 1957 and 1972, declined by 1.5 percent per year between 1972 and 1982, and then grew by 2.4 percent per year over the next ten years. These large changes in growth rates correspond with changes in public school enrollment as the "baby boom" generation moved through the school system. Public school enrollment as a percentage of population grew by 1.5 percent per year between 1957 and 1972, declined by 2.9 percent per year between 1972 and 1982, and declined by 0.3 percent per year from 1982 to 1992. In addition, capital expenditures for higher education reached a peak in the early 1970s. Other factors that affected education spending growth rates include student/staff ratios and average salaries and benefits. We examine these factors more closely in Chapters 5 and 7.

Table 2.5: Average Annual Growth Rates for State and Local Government Spending per Capita, After Adjusting for Inflation, Minnesota, 1957-92

	<u>1957-72</u>	<u>1972-82</u>	<u>1982-92</u>	<u>1957-92</u>
Education				
K-12 Education	3.9%	-1.1%	2.5%	2.1%
Higher Education	8.5	-2.8	1.8	3.3
Other Education/Libraries	<u>6.4</u>	<u>1.8</u>	<u>4.0</u>	<u>4.4</u>
Subtotal	5.1	-1.5	2.4	2.4
Health and Welfare	4.0	4.4	4.1	4.2
Transportation	1.0	-1.0	1.2	0.5
Public Safety				
Police	3.9	3.5	2.1	3.3
Fire	0.9	3.0	1.4	1.6
Corrections	<u>1.2</u>	<u>5.4</u>	<u>4.6</u>	<u>3.3</u>
Subtotal	2.5	3.8	2.7	2.9
Environment and Housing				
Natural Resources	1.0	1.3	1.8	1.3
Parks and Recreation	3.6	6.3	1.5	3.7
Housing and Community Development	12.6	2.2	4.7	7.3
Sanitation	<u>3.9</u>	<u>2.6</u>	<u>-0.0</u>	<u>2.4</u>
Subtotal	4.0	3.0	1.7	3.1
Government Administration	2.4	3.4	3.0	2.8
Interest on General Debt	9.8	2.9	4.9	6.4
Other General Expenditures	<u>7.7</u>	<u>5.2</u>	<u>0.8</u>	<u>5.0</u>
Total	4.1%	1.1%	2.7%	2.9%

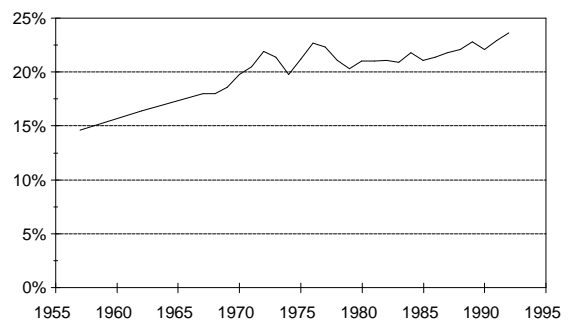
Source: U.S. Census Bureau.

Since 1972, spending has grown only a little faster than personal income.

Spending as a Percentage of Personal Income

As a percentage of personal income, Minnesota's state and local government spending grew from 14.6 percent in 1957 to 21.9 percent in 1972, remained about the same through 1987, then rose to 23.6 percent in 1992 (see Figure 2.3). Overall, spending as a percent of personal income grew by 61 percent during the past 35 years, considerably lower than the growth in per cap-

Figure 2.3: Minnesota State and Local Government Expenditures as a Percent of Personal Income, 1957-92



Source: U.S. Census Bureau.

Between 1957 and 1992, health and welfare explained nearly half of the growth in spending as a percentage of personal income.

ita, inflation-adjusted spending. The reason that the growth in spending is slower when measured as a percent of personal income is because personal income grew considerably faster than inflation throughout this time period.

Table 2.6 shows the trend in spending as a percentage of personal income by functional category.

Health and welfare spending grew steadily from 2.6 percent of personal income in 1957 to 6.5 percent in 1992. Health and welfare explained 44 percent of the growth in spending as a percent of personal income between 1957 and 1992. In more recent years, health and welfare explained an even higher percentage of the growth. For example, it explained 57 percent of the growth between 1982 and 1992.

Education spending rapidly increased from 5.7 percent to 9.9 percent of personal income in 1972, declined to 7.4 percent in 1982, and rose to 8.0 percent in 1992. Both K-12 education and higher education spending grew rapidly as a percent of

Table 2.6: State and Local Government Expenditures as a Percent of Personal Income, Minnesota, 1957-92

	<u>1957</u>	<u>1972</u>	<u>1982</u>	<u>1992</u>	<u>Percent Change 1957-92</u>	<u>Percent of Growth 1957-92</u>
Education						
K-12 Education	4.5%	6.5%	5.1%	5.6%	23%	12%
Higher Education	1.1	2.9	1.9	1.9	85	10
Other Education/Libraries	<u>0.2</u>	<u>0.3</u>	<u>0.4</u>	<u>0.4</u>	<u>168</u>	<u>3</u>
Subtotal	5.7	9.9	7.4	8.0	39	25
Health and Welfare	2.6	3.9	5.1	6.5	152	44
Transportation	3.1	3.0	2.3	2.2	-29	-10
Public Safety						
Police	0.3	0.5	0.6	0.6	85	3
Fire	0.2	0.2	0.2	0.2	6	0
Corrections	<u>0.2</u>	<u>0.2</u>	<u>0.3</u>	<u>0.3</u>	<u>91</u>	<u>2</u>
Subtotal	0.7	0.8	1.0	1.1	65	5
Environment and Housing						
Natural Resources	0.4	0.4	0.3	0.4	-5	-0
Parks and Recreation	0.2	0.3	0.5	0.5	117	3
Housing and Community Development	0.1	0.3	0.4	0.5	601	5
Sanitation	<u>0.5</u>	<u>0.7</u>	<u>0.8</u>	<u>0.7</u>	<u>38</u>	<u>2</u>
Subtotal	1.1	1.7	2.0	2.0	73	9
Government Administration	0.7	0.8	1.0	1.2	61	5
Interest on General Debt	0.3	0.9	1.0	1.4	425	13
Other General Expenditures	<u>0.4</u>	<u>0.9</u>	<u>1.2</u>	<u>1.1</u>	<u>228</u>	<u>9</u>
Total	14.6%	21.9%	21.1%	23.6%	61%	100%

Source: U. S. Census Bureau.

Transportation was the only major category to decline as a percentage of personal income between 1957 and 1992.

personal income after 1957, reaching peaks in 1971 or 1972, after which they declined and did not reach those levels again through 1992.

Transportation spending steadily declined from 3.1 percent in 1957 to 2.2 percent of personal income in 1992. It is the only major spending category to decline as a percent of personal income over this 35 year period.

The public safety category grew from 0.7 percent in 1957 to 1.2 percent of personal income in 1992. This growth was almost entirely due to police and corrections spending. Police spending increased rapidly between 1957 and 1982, but increased slowly after 1982. In contrast, corrections spending did not increase between 1957 and 1972, but has grown rapidly since 1972. Spending on fire protection remained nearly constant as a percent of personal income throughout this period.

Spending Trends by Object of Expenditure

This section examines spending trends from 1967 to 1992 by object of expenditure, including salaries, fringe benefits, capital outlay, interest payments on general debt, and other non-personnel expenditures such as aid to individuals, purchased services, supplies, and rent. We used this time period because the only years that the Census Bureau collected comprehensive data on fringe benefits were 1967, 1982, and 1987. To estimate fringe benefits for 1992, we used national data on changes in fringe benefit costs for state and local governments between 1987 and 1992. These national data indicate a smaller rate of growth than do Minnesota data on fringe benefit costs for local school districts. As a result, our results, based on the national fringe benefit data between 1987 and 1992, may underestimate the increase in fringe benefit costs.

Table 2.7 summarizes the trends by object of expenditure. We found that:

- **Between 1967 and 1992, increases in employee compensation expenditures explained about 43 percent of the growth in state and local government per-capita spending, after adjusting for inflation.**

The increase in employee compensation is due to the combined effect of a higher percentage of the population employed by state and local governments, higher average salaries, and higher fringe benefits. We estimate that between 1967 and 1992, 19 percent of the overall spending growth is attributable to growth in public employment (as a fraction of population), 12 percent is due to higher average salaries, and 12 percent is due to higher average fringe benefits.

Interest on the general debt accounted for 10 percent of the spending growth. Capital outlay (in constant dollars) declined during this time period. Other non-personnel expenditures were responsible for 51 percent of the spending growth.

- **About 31 percent of the growth in government spending is due to increases in non-personnel expenditures for welfare and hospitals, including Medical Assistance.**

Table 2.7: Trend in Spending by Object of Expenditure, Minnesota, 1967-92

	Expenditures per Capita (in constant 1992 dollars)		Percent Change	Percent of Growth
	1967	1992		
Employee Compensation				
Salaries and Wages	\$1,084	\$1,675	54%	29%
Employee Benefits	97	374	285	14
Interest	74	274	272	10
Capital Outlay	668	594	-11	-4
Other Non-Personnel Expenditures				
Welfare and Hospitals	203	832	309%	31%
Other	335	752	125	20
Total Expenditures	\$2,462	\$4,500	83%	100%
Breakdown of Employee Compensation				
Employees (FTE) per 1,000 Population	439	52	33%	19%
Average Salary	\$27,890	\$32,451	16	12
Average Benefits	\$2,497	\$7,247	190	12

Source: U. S. Census Bureau.

The non-personnel welfare and hospital spending consists primarily of welfare benefits provided to individuals and medical and social services purchased by state and local governments.

Net Expenditures

Net expenditures exclude spending financed by non-tax revenue.

State and local government expenditures are financed by state and local taxes, charges paid by the public for specific services received, revenue from the federal government, and miscellaneous revenue. In this section, we examine trends in expenditures net of charges and miscellaneous revenue. We also look at expenditures net of federal revenue.

Expenditures net of charges and miscellaneous revenue can be viewed as a measure of the public cost of government activities. Some common charges are college tuition, sewer charges, parking fees, and payments by patients, insurance companies, and Medicare for medical services provided by public hospitals. Examples of miscellaneous revenue are interest earnings, private donations, special assessments, and child support collections under the Aid to Families with Dependent Children program.

In 1992, public hospitals in Minnesota received about \$916 million from patients, their insurance carriers, or Medicare. To determine the public cost of hospitals, payments from patients and insurance companies need to be subtracted from total spending. To obtain the cost for state and local governments, Medicare payments also need to be subtracted. Similarly, to obtain the public cost of government, it is important to subtract various miscellaneous revenues such as interest revenue (the largest miscellaneous revenue category) and AFDC child support collections.

Trends in net expenditures need to be interpreted cautiously because they are affected by changes in pricing policies and methods of delivering services as well as normal cost changes. For example, net sanitation expenditures have declined in Minnesota because sewer and solid waste charges have increased substantially. This is the result of policy decisions to have people pay for sanitation services according to their usage.

Net Expenditures in 1992

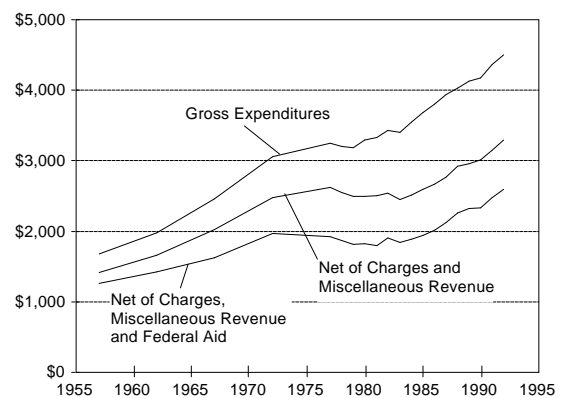
In 1992, Minnesota's state and local governments financed 15.3 percent of their expenditures with charges, 11.5 percent with miscellaneous revenue, and 15.4 percent with federal revenue (taxes financed almost all of the rest of spending). As a result, net expenditures for 1992 were \$2,602 per capita, 42 percent less than gross expenditures. Table 2.8 presents net expenditures by spending category. Since miscellaneous revenues are not broken down by functional category, the table includes expenditures net of charges and federal revenue only. Charges and federal revenue financed a high percentage of spending on sanitation (69 percent), housing and community development (63 percent), and health and welfare spending (48 percent). As a result, these categories account for a smaller share of total net expenditures than they do for gross expenditures. For example, health and welfare spending made up 21 percent of overall net expenditures compared with 28 percent of gross expenditures.

Net Expenditure Trends

Tables 2.9 and Figure 2.4 summarize trends for net expenditures. Overall, we found that:

- **Between 1957 and 1992, net expenditures grew slower than gross expenditures because state and local governments increasingly used charges, miscellaneous revenue, and federal revenue.**

Figure 2.4: State and Local Government Expenditures per Capita (in Constant 1992 Dollars), Minnesota, 1957-92



Source: U.S. Census Bureau.

Table 2.8: Net per Capita Expenditures of Minnesota State and Local Governments, 1992

	Expenditures:			Percent Share of Expenditures:		
	Expenditures	Net of Charges	Net of Charges and Federal Revenue	Expenditures	Net of Charges	Net of Charges and Federal Revenue
Education						
K-12 Education	\$1,062	\$1,025	N/A	23.6%	26.9%	N/A
Higher Education	372	220	N/A	8.3	5.8	N/A
Other Education/Libraries	85	85	N/A	1.9	2.2	N/A
Subtotal	1,519	1,330	1,214	33.8%	34.9%	38.9%
Health and Welfare	1,247	1,042	644	27.7%	27.3%	20.6%
Transportation	421	389	326	9.4	10.2	10.5
Public Safety						
Police	114	114	114	2.5	3.0	3.7
Fire	38	38	38	0.8	1.0	1.2
Corrections	67	67	67	1.5	1.7	2.1
Protective Inspection	27	27	27	0.6	0.7	0.9
Subtotal	246	246	246	5.5	6.5	7.9
Environment and Housing						
Natural Resources	68	61	56	1.5	1.6	1.8
Parks and Recreation	90	65	65	2.0	1.7	2.1
Housing and Community Development	93	84	34	2.1	2.2	1.1
Sanitation	128	40	40	2.8	1.0	1.3
Subtotal	379	249	195	8.4	6.5	6.2
Government Administration	221	221	221	4.9	5.8	7.1
Interest on General Debt	274	274	274	6.1	7.2	8.8
Other General Expenditures	192	192	192	4.3	5.0	6.2
Charges NEC		(133)	(133)		-3.5	-4.3
Other Federal Revenue			(59)			-1.9
Total	\$4,500	\$3,811	\$3,119	100.0%	100.0%	100.0%

Source: U.S. Census Bureau.

Net expenditures per capita grew from \$1,270 to \$2,602, an increase of 105 percent, compared with 168 percent for gross expenditures per capita. During each of the three time periods we examined (1957-72, 1972-82, and 1982-92), governments in Minnesota increasingly used charges and miscellaneous revenue to finance their spending. Between 1957 and 1992, expenditures net of charges and miscellaneous revenue increased by 131 percent. Federal revenue as a percentage of gross expenditures grew rapidly between 1957 and 1972, but declined slightly after 1972.

We also analyzed trends in net expenditures by functional category. However, neither miscellaneous revenue data nor federal intergovernmental revenue data were

Table 2.9: Trend in Net State and Local Government Expenditures (in Constant 1992 Dollars per Capita), Minnesota, 1957-92

	<u>1957</u>	<u>1962</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>1982</u>	<u>1987</u>	<u>1992</u>	<u>Percent Change</u>
Expenditures	\$1,680	\$1,984	\$2,462	\$3,061	\$3,244	\$3,431	\$3,939	\$4,500	168%
Charges	164	195	268	361	376	484	575	689	319
Miscellaneous Revenue	<u>92</u>	<u>128</u>	<u>170</u>	<u>219</u>	<u>244</u>	<u>402</u>	<u>599</u>	<u>517</u>	<u>464</u>
Expenditures Net of Charges and Miscellaneous Revenue	1,424	1,662	2,025	2,481	2,625	2,546	2,766	3,294	131%
Federal Revenue	<u>154</u>	<u>236</u>	<u>400</u>	<u>508</u>	<u>698</u>	<u>642</u>	<u>645</u>	<u>692</u>	<u>349</u>
Expenditures Net of Charges, Miscellaneous Revenue, and Federal Revenue	\$1,270	\$1,427	\$1,625	\$1,973	\$1,926	\$1,905	\$2,121	\$2,602	105%
Revenues as a Percent of Gross Expenditures									
Charges	9.8%	9.8%	10.9%	11.8%	11.6%	14.1%	14.6%	15.3%	56%
Miscellaneous Revenue	5.5	6.4	6.9	7.2	7.5	11.7	15.2	11.5	111
Federal Revenue	9.2	11.9	16.2	16.6	21.5	18.7	16.4	15.4	68

Source: U. S. Census Bureau.

broken down by functional category for most of this time period. As a result, we examined trends in expenditures net of charges. Table 2.10 presents the trends in net expenditures by functional category. We found that:

- **Spending trends for expenditures net of charges are very similar to the gross expenditure trends described earlier.**

As with gross expenditures, most of the growth in expenditures net of charges was due to education, health, and welfare. Between 1957 and 1992, these categories explained 66 percent of net expenditures, compared with 65 percent for gross expenditures. Sanitation was the only category for which net and gross expenditures had significantly different growth rates. Gross sanitation expenditures grew by 129 percent between 1957 and 1992, whereas net sanitation expenditures declined by 10 percent.

NATIONAL COMPARISONS

Per capita spending comparisons need to be interpreted cautiously.

In this section, we compare Minnesota's spending per capita with the national average for state and local governments. Per capita spending comparisons need to be interpreted cautiously because a variety of factors can affect a state's per capita spending. First, the prices of labor and goods needed to produce public services vary among states. For example, some states must offer higher wages to attract qualified employees because the prevailing wages are higher than average. Sec-

Table 2.10: Minnesota Expenditures per Capita Net of Charges (in Constant 1992 Dollars)

	<u>1957</u>	<u>1972</u>	<u>1982</u>	<u>1992</u>	Percent Change <u>1957-92</u>	Percent of Growth <u>1957-92</u>
Education						
K-12 Education	\$497	\$891	\$785	\$1,025	106%	23.0%
Higher Education	75	293	208	220	193	6.3
Other Education/Libraries	<u>19</u>	<u>48</u>	<u>56</u>	<u>85</u>	<u>346</u>	<u>2.9</u>
Subtotal	591	1,232	1,050	1,330	125	32.2
Health and Welfare	259	448	660	1,042	302	34.1
Transportation	347	401	351	389	12	1.9
Public Safety						
Police	37	66	92	114	207	3.3
Fire	22	25	33	38	76	0.7
Corrections	<u>21</u>	<u>25</u>	<u>43</u>	<u>67</u>	<u>217</u>	<u>2.0</u>
Subtotal	80	115	168	219	274	6.1
Environment and Housing						
Natural Resources	37	39	48	61	64	1.0
Parks and Recreation	19	34	65	65	243	2.0
Housing and Community Development	6	40	52	84	1,205	3.4
Sanitation	<u>45</u>	<u>73</u>	<u>81</u>	<u>40</u>	<u>-10</u>	<u>-0.2</u>
Subtotal	107	186	246	249	233	6.2
Government Administration	83	117	164	221	167	6.0
Interest on General Debt	31	127	170	274	772	10.6
Other General Expenditures	40	122	202	219	445	7.8
Charges NEC	<u>(23)</u>	<u>(47)</u>	<u>(63)</u>	<u>(133)</u>	—	—
Total	\$1,515	\$2,700	\$2,948	\$3,811	151%	100.0%

Source: U.S. Census Bureau.

ond, personal income affects what a state can afford to spend and may also affect the level of services demanded by its citizens. Existing data suggest that Minnesota's personal income and input costs are close to the national average. Between 1982 and 1992, Minnesota's per capita personal income has ranged from 99 percent of the national average to 102 percent.³ As we discussed in Chapter 1, other studies have estimated that input costs for Minnesota are slightly higher or slightly lower than the national average. Thus, these two factors should not cause large differences between Minnesota's spending and the national average.

However, there are several other factors for which it is difficult to measure how much each contributes to per capita spending differences. For example, the need for services varies among states. Poverty rates vary among states, causing differences in the need for public assistance. Differences in miles of roads and vehicle

³ U.S. Department of Labor, Bureau of Economic Analysis.

miles driven per capita may lead to differences in highway spending needs. Alternatively, differences in spending may simply reflect differences in preferences over the level of services desired. Finally, states may vary in how efficiently they provide services.

Since per capita spending comparisons do not distinguish between these reasons, they are just a first step in analyzing the level of Minnesota's spending. The Advisory Commission on Intergovernmental Relations attempted to measure how the need for services varies among states by developing various workload measures for each major spending category. We present the results of this effort later in this chapter. But it is important to recognize that measuring needs is inherently difficult, and existing measures need to be examined closely before drawing conclusions.

Our national comparisons are based on the combined spending of state and local governments because the responsibilities of different levels of governments varies greatly among the states. For example, it does not make sense to compare state government spending on higher education between a state with a state-run system and a state with a local system.

1992 Per Capita Spending Comparisons

Comparisons between Minnesota and the national average for state and local government spending are presented in Table 2.11.

Since 1980, Minnesota's spending per capita exceeded the national average by at least 17 percent.

- **In 1992, Minnesota spent, on average, about 18 percent more per capita than state and local governments in the nation.**

Minnesota spent 12 to 38 percent more per capita than the national average in each of the major spending categories except public safety, for which Minnesota was 28 percent below average. Minnesota's spending exceeded the national average by the largest amount for transportation (38 percent), followed by human services (29 percent), interest on debt (26 percent), environment and housing (24 percent), K-12 education (18 percent), higher education (12 percent), and government administration (12 percent).

Comparisons Over Time

Figure 2.5 shows that between 1957 and 1992, Minnesota's per capita spending has exceeded the national average for state and local governments by between 9 and 23 percent.⁴ Since 1980, Minnesota has been higher than the national average by at least 17 percent.

⁴ Spending comparisons between Minnesota and other states can be affected by the Census classification of employer contributions for employee retirement and by differences among governments in fiscal years. The Census general expenditure data excludes employer contributions for employee retirement if they are made to the a fund controlled by the same government. This affects comparisons between Minnesota and other states because it excludes more employer contributions (as a percent of general expenditures) in other states, on average, than it does for Minnesota. As a result, if all employer contributions were included, Minnesota's general expenditures per capita would be 17 percent higher than the national average instead of 18 percent. On the other hand, many city and

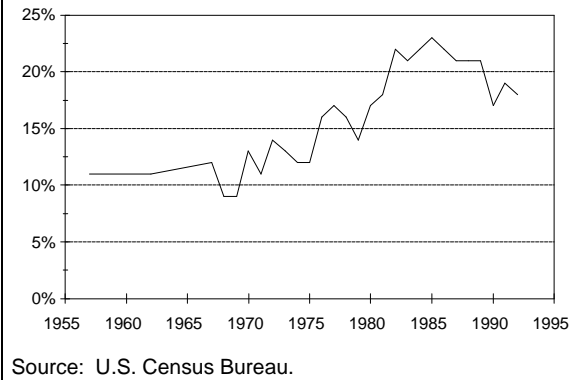
Table 2.11: State and Local Government Expenditures per Capita, Minnesota vs. U. S. Average, 1992

	<u>Minnesota</u>	<u>United States Average</u>	<u>Percent Difference from U. S. Average</u>	
In 1992, Minnesota spent more than the national average on all major functions except public safety.	Education			
	K-12 Education	\$1,062	\$898	18%
	Higher Education	372	331	12
	Other Education/Libraries	85	70	22
	Subtotal	1,519	1,298	17
	Health and Welfare	1,247	967	29
	Transportation	421	306	38
	Public Safety			
	Police	114	135	-16
	Fire	38	56	-32
	Corrections	67	113	-41
	Subtotal	219	304	-28
	Environment and Housing			
	Natural Resources	68	51	33
	Parks and Recreation	90	62	47
	Housing and Community Development	93	67	39
	Sanitation	128	127	1
	Subtotal	379	307	24
	Government Administration	221	197	12
	Interest on General Debt	274	217	26
Other General Expenditures	219	217	1	
Total	\$4,500	\$3,813	18%	

Source: U. S. Census Bureau.

county governments in other states do not have the same fiscal year as Minnesota. This can affect comparisons because spending in some states is being reported for a later time period than in Minnesota. We estimate that this makes national spending appear about 0.3 percent higher than it would be if they used the same reporting period as Minnesota. Thus, we estimate that the combined effect of these two factors is less than 1 percent.

Figure 2.5: Percent Difference in per Capita Spending, Minnesota vs. the National Average, 1957-92



1990 Comparisons Based on Workload Measures

Another way to compare spending among states is to compare spending relative to various workload measures, such as the number of poor persons, or number of crimes. For example, in-

stead of comparing welfare spending per capita, one could compare welfare spending per poor person. In 1990, the Advisory Commission on Intergovernmental Relations (ACIR) developed workload measures for the major spending categories, as shown in Figure 2.6. ACIR designed these workload measures to reflect differences in need for services.⁵

After adjusting for workload differences, Minnesota's spending was 22 percent above the national average.

In 1992, the author of the original ACIR report updated the report based on 1990 Census data.⁶ Table 2.12 shows how Minnesota's spending compares with national spending, relative to these workload measures. The first column shows how Minnesota's workloads per capita compare with the national average. Overall, according to ACIR's estimates, Minnesota's workload is 95 percent of the national average. In other words, ACIR's model estimates that Minnesota could meet its needs as well as the rest of the nation by spending 5 percent less per capita. The second column in Table 2.12 gives Minnesota's per capita spending in 1990 as a percent of the national average. The third column is the ratio of Minnesota's spending to the estimated amount necessary to provide the average level of services in the nation. Since Minnesota spent 17 percent more per capita than average, but its estimated need for services was 5 percent less than average, ACIR's model suggests that it spent 22 percent more than the amount required to provide the average level of services.

After adjusting for ACIR's estimates of service needs, Minnesota's spending is still higher than the national average for all spending categories except police and corrections. Minnesota exceeded the national average by the largest amount for public welfare due to Minnesota's higher per capita spending and its lower poverty rate. Minnesota's public welfare spending was 69 percent more per poor person than the national average. For most other categories, Minnesota was 12 to 29 percent higher than average.

⁵ Advisory Commission on Intergovernmental Relations *Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity*. (Washington: 1990).

⁶ Unpublished memorandum from Robert W. Rafuse, Jr., (Washington: November 9, 1992).

Figure 2.6: Workload Measures for State and Local Governments Developed by the Advisory Commission on Intergovernmental Relations

1. Elementary and Secondary Education

The workload measure is the weighted sum of three population groups: (1) children of elementary-school age [5-13] net of enrollment in private elementary schools, (2) youth of secondary-school age [14-17] net of private secondary enrollment, and (3) the population under 18 living in households with incomes below the poverty line. The weights are, respectively, 0.6, 1.0, and 0.25.

2. Higher Education

The measure is the weighted sum of the population in the age groups 14-17, 18-24, 25-34, and 35 and older. Each weight [1.32 percent, 22.44 percent, 4.16 percent, and 0.83 percent respectively] is the full-time-equivalent number of students in the age group enrolled in institutions of higher education nationwide as a proportion of the total population in the age group.

3. Public Welfare

The workload measure is the population living in households with incomes below the poverty line.

4. Health and Hospitals

The measure is the sum of the equally weighted percentage distributions of (1) persons age 66+ with work disabilities, (2) the population living in households with incomes below 150 percent of the poverty line, and (3) the total population.

5. Highways

The workload measure is the weighted sum of the percentage distributions of two variables: (1) vehicle-miles traveled, and (2) lane-miles of streets and roads other than those on federally controlled land. The first is weighted 0.825, the second 0.175.

6. Police and Corrections

The measure is the sum of the equally weighted percentage distributions of (1) the population age 18-24, (2) the number of murders committed, and (3) the total population.

7. All Other Direct General Expenditures

The workload measure is total population.

Source: Advisory Commission on Intergovernmental Relations, *Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity* (Washington, D.C.: 1990).

Available workload measures are only rough indicators of service needs.

As we discussed earlier, these results need to be interpreted cautiously. One limitation is that the workload measures do not always reflect the differences in needs between Minnesota and the nation. The measure for public welfare appears to be appropriate for programs targeted at people living below the poverty level. However, the census category of public welfare includes most Medical Assistance spending, including institutionalized care of the aged and disabled. For nursing home services, the age distribution (such as percent of population over 65, giving greater weight to those who are over 85) might be a better indicator of relative need than the population with incomes below the poverty level. For example, in 1990, 1.6 percent of Minnesota's population was 85 or older, compared with 1.2 percent for the nation (the percentage who were 65 or older was about the same). As a result, the workload measure for public welfare probably overstates the differences between Minnesota and other states.

Another limitation of workload measures is that high spending relative to workload does not distinguish among various causes of high spending. Spending could

Table 2.12: Minnesota's 1990 Spending Compared with the National Average for State and Local Governments, Based on Workloads Developed by the Advisory Commission on Intergovernmental Relations

Minnesota as a Percent of the National Average

	<u>Workload</u>	<u>Per Capita Spending</u>	<u>Spending Relative to Workload</u>
K-12 Education	101%	113%	112%
Higher Education	95	117	123
Public Welfare	78	132	169
Health and Hospitals	89	114	129
Highways	119	153	129
Police and Corrections	73	71	97
Environment and Housing	99	125	126
Government Administration	99	112	113
Interest on General Debt	100	124	124
Other General Expenditures	<u>100</u>	<u>103</u>	<u>104</u>
Total	95%	117%	122%

Note: Workload measures are adjusted for input cost differences, based on methods developed by the ACIR. Minnesota's input costs for the above spending categories ranged from 0 to 1.7 percent lower than the national average.

Source: Memorandum from Robert Rafuse, Jr., U. S. Department of Treasury. This is an unpublished document obtained from the General Accounting Office. It is an update of a report published by ACIR in 1990: Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity.

be high because a state serves more people, provides higher quality services, or spends less efficiently. For example, Minnesota spent 22 percent more on higher education than what would be expected based on national spending levels and Minnesota's age distribution. This is partly due to the fact that within each age range, a higher proportion of Minnesota residents attend college than in other states. We examine this issue in more depth in Chapter 7. Another reason that Minnesota's spending is higher might be that Minnesotans want higher quality services. However, comprehensive outcome data for government services are not available to compare Minnesota's services with those in other states.

SUMMARY

Over the past 35 years, per capita spending by Minnesota's state and local governments grew by 2.9 percent per year, after adjusting for inflation. Health and welfare explained more growth (34 percent) than any other spending category. It grew faster than overall spending, particularly during the past 20 years. Education spending explained the second largest amount of growth (30 percent), even though its annual growth rate (2.4 percent) was below the overall growth rate. The reason that education spending explains much of the overall growth is that it remains the

largest spending category. Transportation, the third largest spending category, contributed very little to spending growth because it increased by an average of only 0.5 percent per year.

The fastest growth occurred between 1957 and 1972, when spending increased by 4.1 percent per year. The main reason that overall spending grew at a slower rate after 1972 was the effect of the baby boom on education spending. Education spending grew rapidly as the baby boom generation moved into the education system during the 1950s and 1960s, but education spending did not grow as fast after 1972 because K-12 school enrollments declined between 1972 and 1985 as the baby boom moved out of the system. Most other spending categories increased by about the same annual rate during the last 20 years as they did during the first 15 years.

In 1992, Minnesota spent 18 percent more per capita than the national average for state and local governments. Minnesota was higher than average for all major spending categories except public safety. After adjusting for differences in workload measures developed by the Advisory Commission on Intergovernmental Relations, Minnesota's state and local government spending was still above average for all spending categories except police and corrections.