
Background

CHAPTER 1

There is a considerable amount of data on government spending and numerous analyses of spending trends. Few efforts have been made, however, to comprehensively analyze overall state and local government spending trends in Minnesota or other states. This chapter documents how we analyzed spending in Minnesota. In particular, the chapter addresses the following questions:

- **What data are used in this report to analyze spending trends in Minnesota and make national comparisons?**
- **What methods were used to analyze the data?**

DATA SOURCES

The first part of this report relies extensively on expenditure data from the United States Bureau of the Census. In addition, we used Census Bureau data on public employment, payrolls, and fringe benefits. Most of the data are compiled every year for each state.¹ Every five years a more comprehensive census of all governments is undertaken by the Census Bureau. We used data from the five-year censuses going back to 1957, and supplemented that data with available annual data for other years.

Census Bureau data are generally the most comprehensive source of information on state and local government expenditures. Census data permit both an analysis of spending and related trends in Minnesota and a comparison of spending in Minnesota with other states. Expenditure and other data are available by type of spending (education, transportation, etc.) for each state as well as totals for all 50 states, including the District of Columbia. Census data eliminate double-counting by counting spending where it ultimately occurs. State aid to local governments, for example, is counted as local spending, since local governments actually spend the money. Information is also available, however, on the amount of state aid to local governments for various purposes within each state.

While Census data have numerous advantages, there are also a number of disadvantages. For example, Census data are not the most timely source of data on gov-

¹ Data on fringe benefits were only available for selected five-year censuses.

ernment spending. The most recent Census data available are for 1992.² In addition, Census data generally do not permit one to determine why state and local government spending in one state differs from spending in other states. Census data typically do not include information on the number of recipients or clients of particular government programs or spending breakdowns which are sufficiently detailed.

We used a variety of data sources.

As a result, we also used data from a variety of other sources in the second part of this report. These data generally came from state agencies in Minnesota, federal government agencies, or other national sources. For example, in analyzing elementary-secondary education, we used data from the Minnesota Department of Children, Families, and Learning; the National Center for Education Statistics of the United States Department of Education; and the National Education Association. Data from these sources permitted either a more up-to-date analysis or a more in-depth analysis of Minnesota's spending and national comparisons than did Census Bureau data.

Sometimes, however, the use of different data sources poses problems. The data may not always agree on the magnitude of spending trends or exactly how Minnesota spending compares with national averages. Some of these differences may be due to known differences in the type of spending measured by each data source. Sources may differ because they include or exclude certain types of spending such as capital spending.

The limitations of various data sources and contradictions among them occasionally limited the extent to which we could draw definitive conclusions about state and local spending in Minnesota. For example, it is not entirely clear exactly how much Minnesota's spending on elementary-secondary education per student varies from the national average. Data sources differ on this point, and variation in the type of spending data collected explains only a part of the difference.

In some other areas, lack of data was a problem. Census data indicate that Minnesota's health and human services spending per capita is well above the national average. Other data sources suggest, however, Minnesota's spending per capita on Medicaid and Aid for Families with Dependent Children (AFDC) is about average. There are insufficient data available to pinpoint exactly what other programs cause Minnesota to have above average spending, as indicated by Census data.

As a result, we were not always able to arrive at definitive conclusions about Minnesota's relative spending or the source of differences between Minnesota and other states. In these cases, we indicate the difficulty of interpreting existing data.

It is important to recognize other sources of information on state and local spending which we utilized. These sources include the Advisory Commission on Intergovernmental Relations (ACIR), the General Accounting Office (GAO), Minnesota Planning, the Minnesota Department of Finance, the Minnesota State

² In fact, the Financial Compendium of the Census of Governments for 1992 has not yet been published. For 1992, we used unpublished data from the Census Bureau. These data update the preliminary data published in United States Bureau of the Census *Government Finances: 1991-92 (Preliminary Report)*, 1994.

Auditor's Office, and the Financial Audit Division of the Minnesota Legislative Auditor's Office. ACIR is the source of information on representative expenditures and the representative tax system.³ The GAO supplied us with unpublished information on a more recent update of representative expenditures. We also benefited from Minnesota Planning's January 1995 report entitled *Within Our Means: Tough Choices for Government Spending* and working papers on various topics which were part of the research for the 1995 report. Additional information which we used included recent projections of future budget gaps from the Department of Finance; past reports from the State Auditor on spending for elementary-secondary education, highways, and public assistance programs; and a 1983 report from the Legislative Auditor on state and local government spending trends from 1957 to 1982.

METHODS

Spending Measures

In this report, we analyze expenditure data in several different ways. First of all, we present expenditure data of two types:

- Expenditures per capita, and
- Expenditures as a percentage of personal income.⁴

We adjusted spending data for population growth and compared spending increases with the growth in personal income.

It is useful to calculate expenditures per capita both to analyze Minnesota trends over time and to make national comparisons. As Minnesota's population has grown, state and local government spending has increased to provide services to Minnesota's new residents. The effect of population growth on spending is factored out by calculating spending per capita. Comparisons with other states are not very enlightening unless we adjust for differences in population. Without an adjustment for population, comparisons would generally show that more populous states have higher spending.

Another way to analyze government spending is to calculate spending as a percentage of a state's overall economic activity. Typically, state and local government spending is calculated as a percentage of a state's personal income. This measure permits national comparisons, and enables one to determine how the share of personal income going to state and local government activity is changing over time. Some suggest that as a state's personal income increases, its citizens desire more public services. Thus, state and local spending may increase as fast as personal in-

³ The representative expenditures analysis attempts to measure how state and local government spending differs from national averages after adjustments for the differences in workload and input costs faced by governments in different states. The representative tax system ranks states according to their tax capacity and their tax effort.

⁴ We obtained population data from the Bureau of the Census and personal income data from Minnesota Planning.

come. With this measure, we can track changes in spending relative to changes in personal income.

Expenditures per capita can sometimes be broken down into two components:

- Expenditures per client (or workload unit), and
- Clients (or workload units) per capita.

**We analyzed
spending in a
variety of ways.**

This breakdown can be useful in determining the extent to which increases in spending (spending per client) and increases in caseload (clients per capita) are causing changes in spending per capita. In higher education, for example, these measures permit one to determine the extent to which enrollment increases are causing spending per capita to grow. In addition, they permit one to make more detailed comparisons with other states. For example, we found that Minnesota's greater than average spending per capita in higher education is largely due to greater enrollment per capita, not greater spending per student.

Where feasible, we also attempt to analyze spending by classifying expenditures by:

- Current operating versus capital expenditures,
- Type of expenditure (or program), and
- Object of expenditure.

Census data can be separated into capital and current operating expenditures. This is important because capital expenditures do not occur as regularly as current operating expenditures. When analyzing trends or making national comparisons, care must be taken to avoid using a year in which capital expenditures are unusually high or low.

Sometimes data by program or object of expenditure can be obtained from a state or federal agency. These data can be useful in pinpointing what accounts for the overall change in expenditures. Program expenditure data on human services can help determine, for example, how much of the overall increase is due to Medicaid, AFDC, or other programs. Data on object of expenditure can help in isolating how much of the overall increase in elementary-secondary spending per student is due to the growth in salaries, fringe benefits, supplies, and other factors.

When available, we have also examined more detailed information on changes in staffing levels. These data were used in analyzing elementary-secondary education and, to a lesser degree, higher education. Staffing data is particularly important in areas such as these because a majority of the expenditures in these areas are for personnel. For other types of spending, personnel costs are of less importance in explaining spending trends. In transportation, for example, capital spending is a more important factor in overall spending. For human services, a majority of spending is for medical services or grants to individuals.

We adjusted spending data for inflation.

Inflation Adjustment

Expenditure data used in this report have been adjusted for the effects of inflation. Generally, we converted actual spending to constant dollars using the implicit price deflator for state and local government purchases as published by the Bureau of Economic Analysis of the United States Department of Commerce.⁵ When converting salaries or grants to individuals to constant dollars, we have also used the Consumer Price Index published by the Bureau of Labor Statistics.⁶

Generally, data on both price deflators are published for calendar years. Most of the expenditure data we used was for state fiscal years running from July 1 through the following June 30. As a result, we averaged the quarterly data available on the PGSL, and the monthly data available on the CPI-X1, to obtain fiscal year indices.

Adjusting for inflation is very important, since price levels have changed dramatically over the time period covered by this report. For example, from 1957 to 1992, the prices faced by state and local governments, as represented by the PGSL, have increased 536 percent. What governments paid \$100 for in 1957 cost \$636 in 1992.

In two instances, we also used other price deflators to adjust spending. We used the Higher Education Price Index (HEPI) to adjust higher education spending and a Federal Highway Administration price index for highway construction to adjust highway spending. These analyses were done to supplement the use of the PGSL, because price trends in these two areas may have been different from those experienced in other areas of government spending.⁷ Unfortunately, specialized price indices are not available for all major areas of spending.

Census Definition of a Year

It is important to recognize how the Census Bureau defines the year for which it collects data on expenditures. Data for 1992 generally means data from states, schools, counties, municipalities, townships, and other government units which had fiscal years ending between July 1, 1991 and June 30, 1992.⁸ For Minnesota, data for 1992 include data on cities, counties, and other government units which had a fiscal year ending on December 31, 1991 and data on state government and school districts which had a fiscal year ending on June 30, 1992.⁹ Because governments in other states have different fiscal years, one should be careful when

⁵ Throughout the report, we refer to this deflator as the PGSL, or the Public Goods and Service Index for State and Local Governments.

⁶ Technically speaking, we used the CPI-U-X1, which is the consumer price index for urban consumers. The notation X1 refers to the revisions made by the Bureau of Labor Statistics to the CPI-U in 1983 to reflect a different definition of housing costs.

⁷ Some of the most dramatic inflation was experienced by human service programs providing medical care. There is no satisfactory price index to measure inflation affecting government-provided health care.

⁸ There are a few exceptions to this rule. They are school districts which had a fiscal year ending in August or September of 1992.

comparing spending in Minnesota to individual states.¹⁰ This difference in fiscal years does not, however, have a significant effect on most comparisons of state and local governments. We discuss the significance of this difference in Chapter 2.

We also calculated spending per capita and spending as a percentage of personal income using the methods used by the Census Bureau. Spending per capita for 1992 is calculated by dividing 1992 spending (as defined above) by population as of July 1, 1992. Spending as a percentage of personal income is calculated by dividing 1992 spending by personal income for calendar year 1991.

National Comparisons

Spending comparisons with other states are somewhat difficult to interpret because other states may face higher or lower input costs than Minnesota. Items costing \$100 in Minnesota may cost \$115 per capita in New York and \$85 per capita in South Dakota because of different salaries required to hire similar workers or different prices required to purchase the same supplies and materials.

There have been a number of attempts to adjust actual spending per capita for these differences in input costs. However, it is very difficult to estimate input cost differences across states. Few studies agree on the relative cost differences for individual states.

**We compared
Minnesota's
spending with
national
averages.**

In this study, we do not adjust for input cost differences. We believe that existing data suggest that Minnesota's relative input costs are roughly the same as the national average.¹¹ As a result, comparisons with national averages can be made without an adjustment. However, comparisons of Minnesota with individual states are more suspect because of possible input cost differences.

Consequently, in this report, we make comparisons with national averages, but rarely discuss how Minnesota ranks among the states. Rankings are suspect for two reasons. First, without a valid means of adjusting for input cost differences, they may be misleading. States ranked high in spending per capita will tend to be those states with relatively high input costs. Second, small insignificant differences among states may be magnified by using rankings.

Furthermore, each national comparison we make is with a national average, not an average of the averages for 50 states. Averaging averages can also be misleading and can cause one to reach erroneous conclusions about how Minnesota differs from the "true" national average.

⁹ Minnesota townships have fiscal years ending either on December 31 or February 28.

¹⁰ In particular, cities and counties in a number of other states have fiscal years ending later than in Minnesota. Due to inflation, spending by cities and counties in those states would tend to appear higher relative to Minnesota than if the spending were adjusted to reflect the difference in fiscal years.

¹¹ The representative expenditure analysis for 1987 calculated Minnesota's relative input costs to be about one percent above the national average. The updated analysis for 1990 found Minnesota's relative costs to be about one percent below the national average.

SUMMARY

The first part of this report relies on Census Bureau data on state and local government expenditures, revenues, employment, and salaries from 1957 to 1992. These data are used to track Minnesota trends and draw comparisons with other states. The second part of the report examines spending trends in six major areas of state and local government spending. This section supplements the Census Bureau data with data from a number of state agencies and national sources. These various data sources are used to provide more up-to-date information and a more in-depth understanding of the factors underlying the trends for particular types of spending.

Our focus is on the growth in spending which is in excess of that caused by inflation and population growth. After adjusting for those factors, we attempt, when possible, to separate the growth in spending per capita into the growth in caseload (or workload) per capita and the growth in spending per client (or workload unit). When available, more detailed spending data are used to analyze the reasons for growth in spending per client. Our ability to analyze spending trends and make appropriate national comparisons is sometimes limited by the availability of data or contradictory findings from the available data sources.