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Local Road Funding History in Minnesota



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Local Road Funding History in Minnesota

Final Report

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Executive Summary

Expenditures by Minnesota's city and county governments increased by 55 percent between 1993 and 2003 and spending on local streets and roads increased by 62 percent. But, those substantial increases in local government spending do not necessarily mean that Minnesotans are consuming a great deal more services than in the past. Minnesota's population has grown, and inflation has decreased the buying power of a dollar. When examined on a per capita basis and after adjusting for inflation, city and county spending growth and the growth in spending for local roads was much more modest.

Adjusting for inflation made the biggest change in relative spending levels. Even though inflation has been largely under control in recent years, costs of the supplies, equipment, and labor used by local government have increased markedly since 1993. When the implicit price deflator for state and local government services was used to adjust for changes in the cost of those inputs, real expenditure growth between 1993 and 2003 fell to 18 percent. Adjusting for both inflation and population growth further reduced the growth rate. Real (inflation adjusted) per capita spending by cities and counties in Minnesota grew by only 4.4 percent, or about 0.4 percent per year, between 1993 and 2003.

Spending for some locally provided services grew more than six times faster than the average rate over the 10-year study period, while real per capita spending for other services declined. Combined current and capital spending for local streets and roads increased by nearly 9 percent over the ten year study period, about double the overall growth rate for local spending.

Much of the increase in road spending was at the city level where real per capita spending on local streets and roads grew by nearly 14 percent. County road expenditures grew by less than 1 percent during that same 10-year period. Local operating spending on roads, which includes the costs of road maintenance and lighting fell by 3 percent, while expenditures for expansion or construction of new roads increased by 17 percent. Current and capital spending on roads by cities and counties accounted for 21 percent of local budgets in both 1993 and 2003. However, capital spending was a slightly larger percentage of the total by 2003.

When capital expenditures were adjusted for inflation using the state and local construction price index, there was a significant change in growth in real, per capita capital spending by cities and counties. Under this measure of inflation real per capita capital expenditures in both cities and counties declined. County capital spending fell by 2.4 percent and city capital spending dropped by 4.3 percent on a real per capita basis.

The ratio of combined city and county spending to personal income fell by just over 0.5 percentage points during the 10-year study period. In 1993 total spending by Minnesota counties and cities amounted to 5.5 percent of state personal income. In 2003 that ratio had fallen to 4.9 percent. The change in the proportion of personal income going for

spending on local roads was small. In 1993 city and county road spending was 1.13 percent of personal income. In 2003, it was 1.05 percent.

Real, per capita intergovernmental aid to cities and counties fell by 4.6 percent during the study period. Combined county and city per capita receipts from state highway aid fell from \$104 per capita in 1993 to \$99 per capita in 2003 on an inflation adjusted basis. The source of the decline was state highway aid to cities. In 1993 real per capita state highway aid to cities was \$43 per capita. By 2003 it had fallen to \$33, a decline of 23 percent. Real per capita state highway aid to counties grew slightly over the study period increasing by \$3 from \$69 to \$72.

Applying the construction index to measure the change in the real, per capita buying power of state highway aid payments also produces a significantly different set of results. When that index is used real per capita highway aid to counties in 2003 was 2 percent below its 1993 level. For cities, the buying power of state highway aid fell by 27.4 percent on a per capita basis.

1. Introduction and Study Objectives

In 1983, 4.1 million people lived in Minnesota, and cities and counties spent a combined \$3 billion to provide local government services. Local spending for streets and roads, including both construction expenditures and operating expenditures, such as street lighting, snow removal and annual maintenance, accounted for \$608 million, or about one-fifth of all county and city government expenditures. The city and county spending also went to provide public safety (\$505 million), general government services (\$347 million), and parks and recreation (\$139 million). Spending on other locally provided services, except education, totaled more than \$1.4 billion.

Expenditures by county governments in 1983 totaled \$1.6 billion. Cities spent \$1.4 billion. Of the \$608 million devoted to local roads, counties spent \$298 million; cities, \$311 million. State highway aid was \$186 million in 1983, about 30 percent of local spending on roads. For counties, highway aid was 48 percent of total road spending; for cities, 13 percent.

By 1993, Minnesota's population had grown by nearly 9 percent and local government spending had grown as well. City and county expenditures totaled \$5.3 billion, up more than 75 percent from 1983 levels. Transportation spending grew at about the same rate over that 10-year interval. Total (current and capital) expenditure by cities and counties for streets and roads was \$1.1 billion, 79 percent more than in 1983. State highway aid also had grown. In 1993 local governments received \$390 million in highway aid, more than double the amount received in 1983. State aid funded about 36 percent of local government spending on streets and roads in 1993.

In 2003, Minnesota's population reached 5.1 million, 12.6 per cent more than in 1993, and local government expenditures had grown to \$8.2 billion, 55 percent above 1993's spending level. Local governments spent \$1.76 billion on streets and roads, more than 60 percent more than in 1993, and nearly triple the amount spent in 1983. Spending on streets and roads accounted for 21 percent of total county and city budgets, almost the same percentage as in 1993. State highway aid accounted for a smaller percentage of local expenditures on streets and roads than 10 years earlier. In 2003, 31 percent of local expenditures on streets and roads came from state highway aid, down more than 5 percentage points from the proportion of street and road expenditures funded in 1993.

Spending on other services also increased. City and county spending for public safety in 2003 totaled \$1.777 billion, three and one half times 1983 spending and nearly 75 percent more than in 1993. General government spending was \$1.296 billion, also about 75 percent more than in 1993. Local spending on parks and recreation showed the largest increase, growing by more than 89 percent between 1993 and 2003, to \$475 million. Expenditures on the remaining services also grew, but much more slowly. In 2003 city and county spending for all other services was \$2.905 billion, 32 percent more than in 1993.

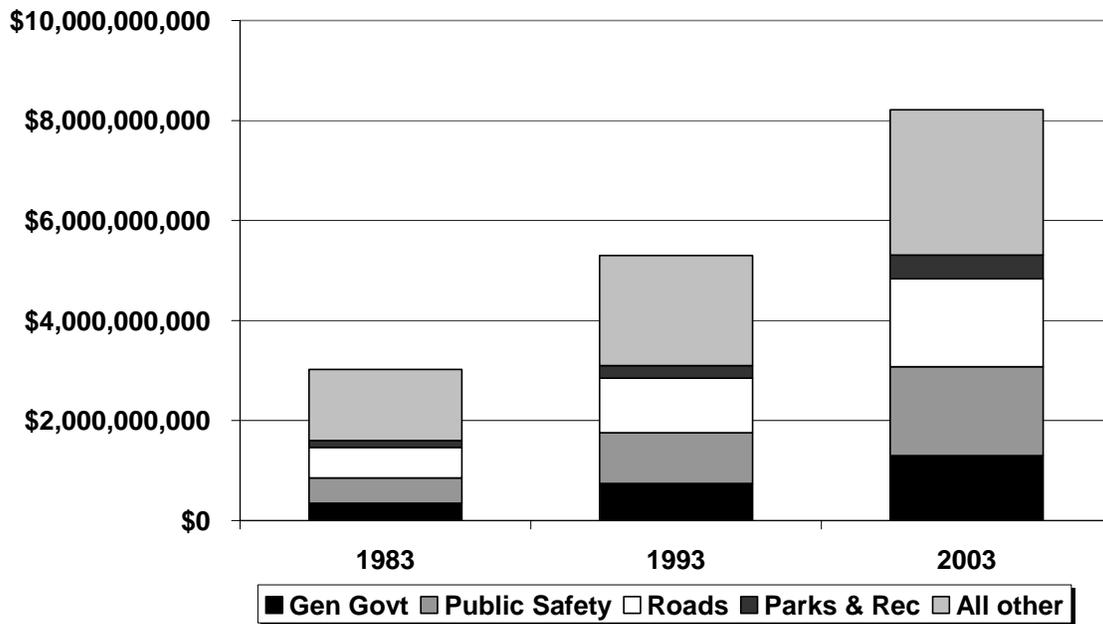


Figure 1.1. Local government spending by functional area, 1983, 1993, and 2003.

Those substantial increases in local government spending do not necessarily mean that Minnesotans are receiving a great deal more services than in the past. Minnesota’s population has grown, and inflation has decreased the buying power of a dollar. There may also have been a change in the mix of services provided and in the mix between operating expenditures and capital projects.

This report examines city and county government spending in 1993 and 2003 in an attempt to identify whether there were major changes in the local government spending patterns. Growth rates for county and city spending for both current operations and capital projects are examined separately. Particular attention is paid to the trend in local spending on streets and roads during that 10-year study period. While much of the analysis is based on changes in real, or inflation adjusted, per capita spending, changes in the ratio of spending to state personal income are also discussed.

2. Data Sources

Minnesota Statutes, Section 6.74 and 6.75 require the Minnesota State Auditor to make an annual report on the revenues, expenditures and debt of the state's cities and counties. Auditor's reports have been prepared since 1940 and are the most comprehensive set of data on the finances of Minnesota cities and counties available on an annual basis. The city financial data in the Auditor's reports is taken from the annual city financial reports of audits done by public accountants and the State Auditor, county auditors' tax abstracts, and reports of indebtedness, as well as Department of Revenue records of state shared tax distributions, grants, aids, and tax levies. The county data is taken from similar sources.

Counties, and cities with populations greater than 2,500, are required to submit comprehensive annual financial reports prepared in accordance with generally accepted accounting principles which is a modified accrual system of accounts. The data in the auditor's report for cities over 2,500 were taken from those reports. Those annual reports also were the basis for the Auditor's report for counties.

Cities with populations less than 2,500 can opt to report on a cash basis. Their reports may have been prepared by the auditor, in some instances, from cash receipts and disbursements submitted by city clerks. In earlier reports, expenditure detail for cities with populations less than 2,500 is limited to current expenditures in the categories of general government, public safety, transportation, sanitation, culture and recreation, and all other. Capital expenditures are reported separately for each functional area for both counties and cities. State highway grants are noted for both cities and counties as a separate source of revenue.

Selected data from reports beginning in 1983 was entered by hand into a spreadsheet and merged with electronically available data. That merged file was used in this report and is available for use by others on request to the authors. Totals for individual spending and revenue items for all counties and for each of the five classes of cities were compiled for use in this analysis. The population estimates from the original reports were used to convert the data to per capita amounts.

Two separate approaches were used to adjust for inflation. First, spending levels were adjusted using the consumer price index (CPI). This commonly used index measures the change in market prices of the market basket of goods and services consumed by a typical household. It provides a good measure of changes in the cost of goods and services purchased by consumers. The CPI is often used to adjust wage data from different year to show how actual purchasing power has changed over time. It also is a good measure of the wage pressures facing an employer in the private or public sector. The Bureau of Labor Statistics, an agency in the U.S. Department of Labor, prepares the CPI.

The local government spending data also were adjusted using the chain weighted implicit price deflator for state and local government services. This inflation index measures changes in the prices of items that state and local governments purchase and is generally

considered to be a better measure of the changes in the cost of the inputs used to produce local government services than is the better known consumer price index. A separate index for the cost of construction activity is also available. Use of this construction deflator provides an improved measure of the change in buying power of revenue going to state and local governments for their capital projects. The implicit price deflators are computed and reported by the Bureau of Economic Analysis, U.S. Department of Commerce as part of their estimates of gross domestic product.

3. Analysis

3.1 Local Government Spending Trends, 1993-2003

Comparisons of local government spending which focus only on changes in the actual amount spent over time can be misleading. The prices of the inputs used to produce services often increase, so the same dollar expenditure one or more years later usually will not be sufficient to fund the same service levels as before.¹ In addition, for many government services the cost of providing particular services increases as the population served grows. The relationship between the cost of providing a constant level of service and the number of residents or households receiving that service often is weak due to economies of size and threshold effects.² And, productivity improvements can offset some of the increase in input prices. But, analyses of local government spending trends over time typically are based on the path followed by real per capita spending.

Adjusting for inflation makes the largest changes in relative spending levels. Even though inflation has been largely under control in recent years, the CPI still has increased at an annual rate of more than 2 percent since 1993. Minnesota's population, while growing faster than other Frost Belt states, grew at an annual rate on of just 1.2 percent during the 10 year study period. The population of Minnesota's cities increased slightly faster than that for the state as a whole, growing at an annual rate of 1.4 percent during that time.³ After adjusting for inflation using the CPI the growth rate for total city and county government spending between 1993 and 2003 falls from 55 percent to 22 percent. When the deflator for state and local government services is used, city and county expenditure growth between 1993 and 2003 drops even more, to 17 percent. Since the state-local price deflator is the preferred measure of changes in the costs of inputs used by governments, that measure will be used throughout the remainder of the report to adjust nominal spending levels to real spending unless noted otherwise.

¹ The cost of some inputs can also decrease. For example the real cost of computers has fallen by more than 70 percent since 1998 and the real price of communications equipment has fallen by 20 percent over that same period.

² For a more complete discussion of threshold effects on local government services see Thomas F. Stinson and Andrea J. Lubov. " Segmented Regression, Threshold Effects, and Police Expenditures in Small Cities," *Am. Jour. of Agr. Econ.*, Nov., 1982, pp.738-746

³ Since a portion of the Minnesota's population lives outside the boundaries of the states cities, the appropriate divisor to reach per capita spending estimates for city population is the population of the state's cities, not the state population. This creates a problem, however, when looking at local government expenditure since there is no common divisor for total city and county spending, and no appropriate weighting scheme. This report will compute the per capita expenditures for cities and counties combined as being equal to the sum of city and county expenditures divided by the total state population for the year in question. Per capita city expenditures, however, will be computed using city population only.

Adjusting for the increase in the population served had a smaller impact. Adjusted for CPI inflation and population growth, real per capita local government spending in Minnesota grew from \$1,398 to \$1,515 between 1993 and 2003, an increase of 8.4 percent or just over 0.8 percent per year. Using the state local price deflator instead of the CPI reduces real per capita spending growth even further. When that deflator is used the growth in real per capita spending by cities and counties in Minnesota was only 4.4 percent or about 0.4 percent per year between 1993 and 2003.

Total county government spending grew by 52 percent between 1993 and 2003, reaching \$4.4 billion. But, once inflation and population growth are taken into account the growth rate is much more modest. On a real, per capita basis county spending for current or operating purposes increased by a total of 1.7 percent during that ten year period, or less than 0.2 percent per year. Capital spending grew more rapidly, 8.4 percent or about 0.8 percent per year. Combined operating and capital spending by county governments grew by 2.7 percent, or just over 0.25 percent per year.

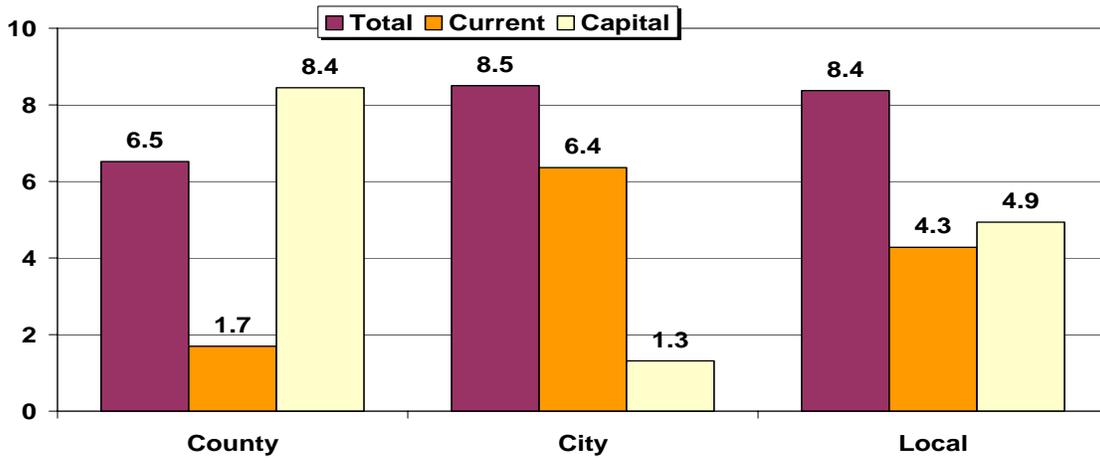


Figure 3.1. Percent change in real per capita local government expenditures, by object, 1993-2003.

Spending by cities grew slightly more rapidly. Real per capita operating expenditures increased by 6.3 percent between 1993 and 2003, while capital spending grew by 1.3 percent. Total spending by cities grew by 4.6 percent after adjusting for inflation and population growth.

3.2 Spending Trends by Functional Area

When local government spending changes are broken down by functional area, a very uneven pattern of growth emerges. Even though per capita county and city spending grew 4.4 percent on an inflation adjusted basis, the percentage increase in real per capita spending for some services provided by local government was substantially higher. Spending for both general government and public safety increased by about 18 percent, and spending for parks and recreation increased by 27 percent, but from a much smaller base. Total spending for streets and roads increased by nearly 9 percent, while all other spending fell by 11 percent (Figure 3.2).

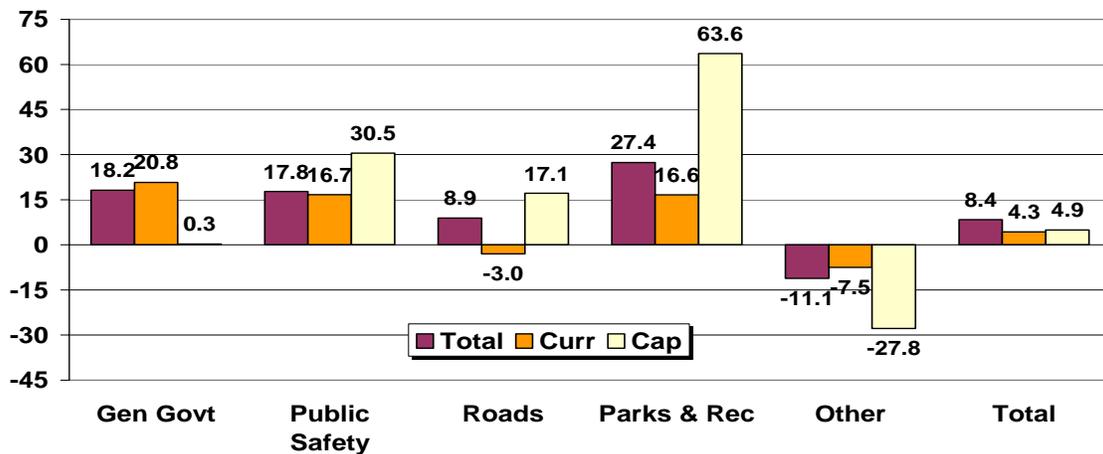


Figure 3.2. Percent change in real per capita local government expenditures, by functional area, 1993-2003.

Real per capita spending by counties for general government and public safety both showed increases of 24 percent during the study period. City spending on parks and recreation increased by nearly 28 percent. County spending on streets and roads grew by less than 1 percent over the entire ten years, while city spending grew by nearly 14 percent. The all other spending declined in both cities and counties (Figure 3.3).

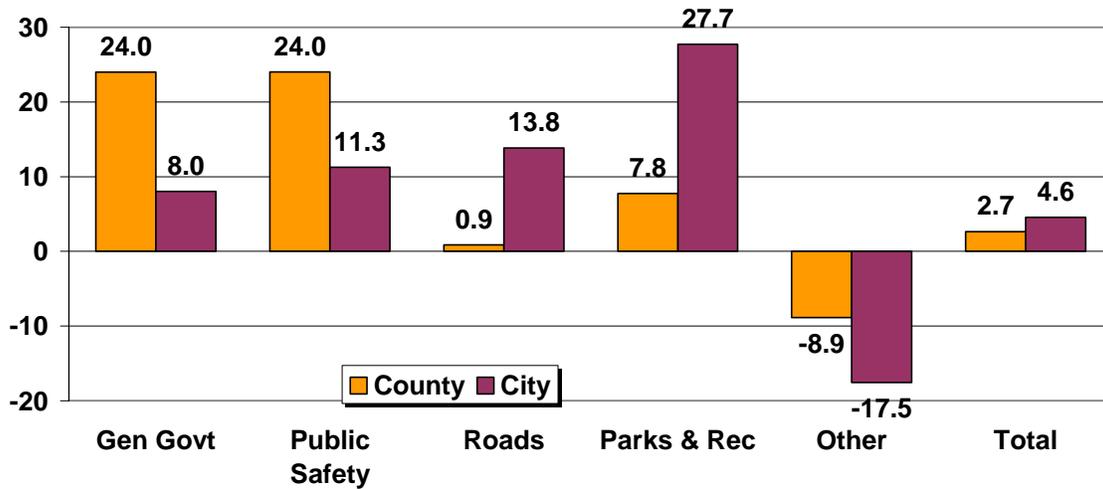


Figure 3.3. Real per capita county and city spending growth by functional area, 1993-2003.

Since capital spending tends to be a relatively small portion of total spending operating spending growth rates paralleled those for total spending for most services. For streets and roads, though capital spending is a substantial portion of total spending. Operating spending for streets and roads which includes local road maintenance and lighting fell by nearly 10 percent in the counties and increased by only 1.6 percent in the cities. The increase in operating spending by cities on parks and recreation also was significantly below the growth in total spending. (figure 5).

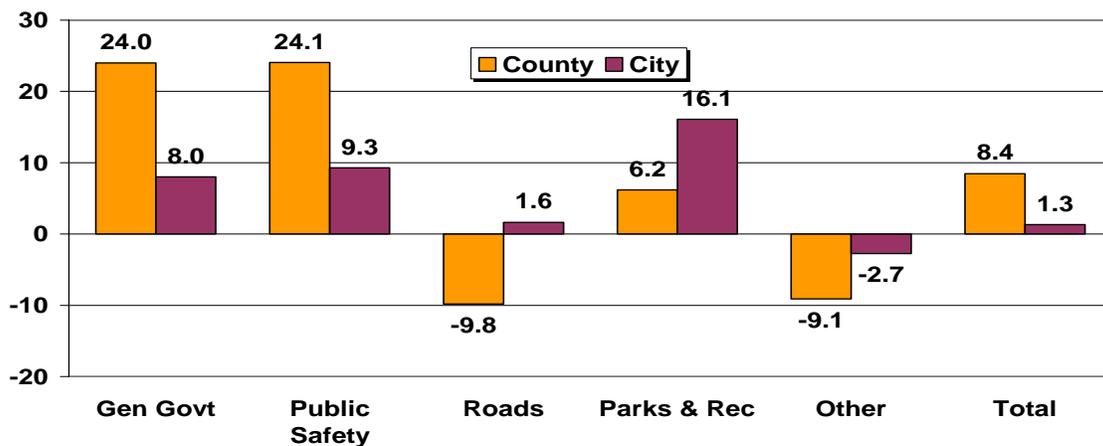


Figure 3.4. Growth in Real Per Capita Operating Expenditures of Counties and Cities by Functional Area, 1993-2003.

While real per capita capital expenditures in total grew only slightly during the 10-year study period, the modest growth rates masked substantial increases in spending for some functions. Real per capita capital expenditures on parks and recreation by cities grew the most, up 63 percent from 1993 levels. That growth, however, came from a relatively small base. In 2003, after that huge 10 year increase, parks and recreation expenditures by cities were still under 4 percent of city expenditures. Real, per capita capital expenditures for county parks and recreation, city roads, and both city and county public safety expenditures also grew by more than 20 percent between 1993 and 2003. Other city capital expenditures fell by 32 per cent during that same period. Real per capita county capital expenditures on roads increased by 8.9 percent (Figure 3.5).

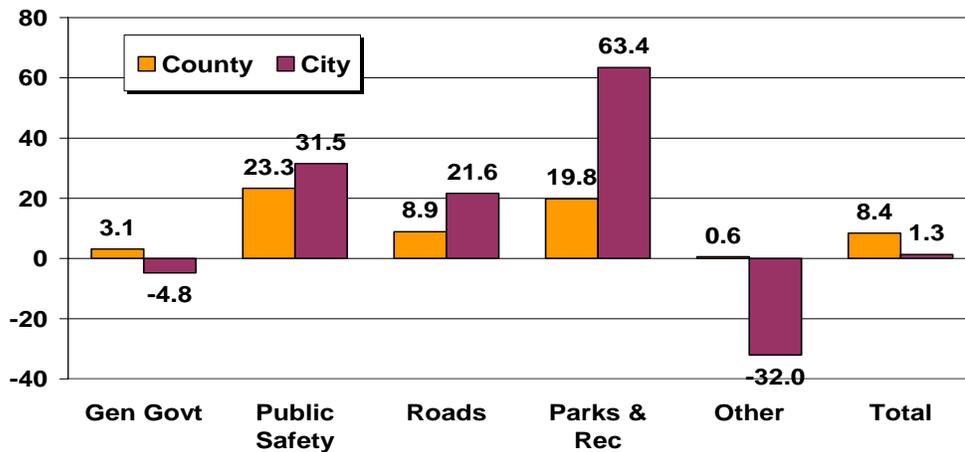


Figure 3.5. Percent change in real per capita capital spending by cities and counties, by functional area, 1993-2003.

3.3 Changes in Real Per Capita Local Government Spending on Streets and Roads

Current and capital spending on roads accounted for about 21 percent of combined city and county government expenditures in both 1993 and 2003. Over the 10-year study period capital spending has become a slightly larger percentage of the total, while the percentage of local spending devoted current expenditures for roads, which includes maintenance, has declined slightly. Local spending on streets and roads held relatively constant as a percentage of total local spending except in 2000, when some of the state general fund surplus was directed to funding transportation projects. (see figure 7)

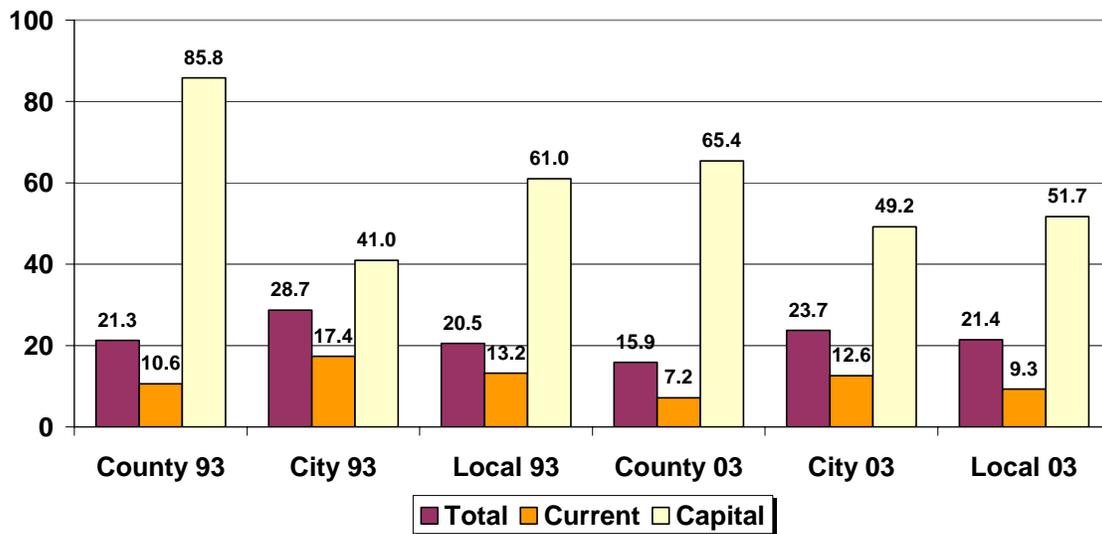


Figure 3.6. Local Road Spending as a Percentage of Total Spending, Cities and Counties, by Object, 1993, 2003.

There have been some changes in where the road spending is being allocated. The proportions of total county spending, county current spending, and county capital spending devoted to streets and roads in 2003 remain very similar to what they were in 1993. For cities, however, capital spending on streets and roads has increased as a percentage of all city capital expenditures. In 2003 it was 49 percent of the city capital expenditures in 2003, up from 41 percent in 1993. The largest portion of that expenditure increase occurred in cities between 20,000 and 100,000, and cities with populations between 2,500 and 5,000 where nominal spending on capital projects involving local roads more than doubled.

3.4 Local Road Spending as a Percentage of Personal Income

Trends in local government spending can also be tracked by comparing spending with broader measures of the economic output of the economy such as personal income or gross state product. In 1994 legislation was approved which required the Minnesota Department of Finance to compile a report each year showing the proportion of state personal income going to state or local governments in the form of taxes or fees to pay for services. The state’s Finance Department has prepared estimates of that ratio for all years since 1990. Those reports show that the “price of government” ratio has ranged between 15.9 percent and 17.7 percent over that time. Generally, price of government ratios prior to 1999 were above 17 percent. Since 1999 the ratio of state and local revenues to personal income has been between 16 and 17 percent.

There is no “right” level for the ratio of state/local revenues to personal income or gross state product. While economists believe that the demand for all normal goods increases as incomes increase, there is no reason to believe that the quantity demanded of a

particular good or service will increase proportionately with increases in state income. Thus as state personal income increases spending on some goods and services will increase more rapidly than income, while spending on others will increase more slowly, and take up a smaller percentage of personal income. Consequently, there is no necessary reason why spending for any particular good or service should be expected to remain a constant percentage of personal income as income grows.

It would though, be extremely unlikely for the quantity demanded of a particular good not to increase at all as incomes increase. For that to occur the income elasticity of demand for the good or service in question would be zero, a condition that, while not impossible, is highly unlikely. This means that some increase in real per capita spending on a particular good or service should be expected as incomes increase.

In this section the trend in the proportion of the state's economic activity that supports spending by local governments and the proportion allocated to spending for local roads is examined. Changes in the ratio of local government spending and local government spending on roads to state personal income are provided, consistent with the approach followed in the Department of Finance's price of government reports. As before, ratios are reported separately for county and city spending and for current and capital spending.

The ratio of total local government spending to personal income declined by just over 0.5 percentage points between 1993 and 2003. In 1993 total spending by counties and cities amounted to 5.5 percent of Minnesota personal income. In 2003 that ratio had fallen to 4.9 percent. (see table 1) Most of that decline came in current spending where the ratio of spending to personal income fell from 4.18 percent to 3.74 percent. For capital spending the change was more modest. The ratio of local government capital spending to personal income fell only slightly between 1993 and 2003, dropping from 1.32 percent of personal income to 1.18 percent in 2003. Spending by both cities and counties declined as a percent of personal income with the county spending share falling slightly more than the cities' share.

Table 3.1. Local government spending and local government spending on roads as a percentage of Minnesota personal income, 1993, 2003.

	1993			2003		
	Current	Capital	Total	Current	Capital	Total
Total Expenditure						
County	2.57	0.43	3.00	2.24	0.40	2.64
City	1.61	0.89	2.50	1.50	0.79	2.28
Total	4.18	1.32	5.50	3.74	1.18	4.92
Road Expenditure						
County	.30	.23	.53	.18	.28	.46
City	.36	.23	.60	.21	.38	.59
Total	.67	.46	1.13	.39	.67	1.05

When local spending on roads was compared to personal income levels the changes found were small. Total road spending was 1.13 percent of personal income in 1993 and 1.05 percent in 2003. Capital spending on roads remained a constant percentage of personal income during that period, while current spending, which includes normal maintenance, fell slightly. The largest change was for current expenditures by counties, where the percentage of personal income going to that service fell from 0.23 to 0.18 percent. But, while the percentage changes found in the ratio of spending to personal income were small, the dollar amounts associated with those changes are not insignificant. In 2003 Minnesota personal income was estimated to be \$167 billion. Were county current spending to have held at its 1993 ratio to personal income, more than \$83 million more would have been spent by counties on current expenditures associated with local streets and roads.

3.5 Changes in Local Revenues for Roads

Data from the Auditor's reports can also be used to analyze the sources of revenues for county and city government. The reports contain data on total revenues, locally raised revenues, and intergovernmental revenues. State highway aid to localities is reported separately from other intergovernmental aid.

County and city government revenues in 2003 totaled \$8.3 billion, about 50 percent above their 1993 level. Locally raised revenue, primarily from the property tax but also from other taxes and fees, totaled \$5.2 billion and intergovernmental aid was \$3.1 billion.

In 2003 state highway aid reached \$552 million, 6.6 percent of all city and county revenue and 17.5 percent of intergovernmental aid going to cities and counties.

County revenues for 2003 were \$4.4 billion while city revenues were \$3.8 billion. Both county and city revenue grew by about 50 percent between 1993 and 2003. But, while growth rates in locally generated revenues and intergovernmental aids for counties were similar (both just slightly in excess of 50 percent), revenue growth rates for cities differed noticeably. For cities locally generated revenues grew by 60 percent during that 10-year period while intergovernmental aid grew by 26 percent, less than one-half as fast.

When city and county revenues are adjusted for inflation and examined on a per capita basis revenue growth rates are very modest. In some instances their buying power has dropped when viewed on a per capita basis. After adjusting for inflation, per capita total county and city revenues were \$1,476 in 1993 and \$1,490 in 2003, growth of just 0.9 percent over the entire 10 year study period, or less than 0.1 per cent per year. County revenues grew slightly faster than the total, increasing by 1.85 percent from \$787 to \$802 per capita. Per capita city revenues, however, fell by 2.1 percent between 1993 and 2003 after adjusting for inflation. (See Figure 8)

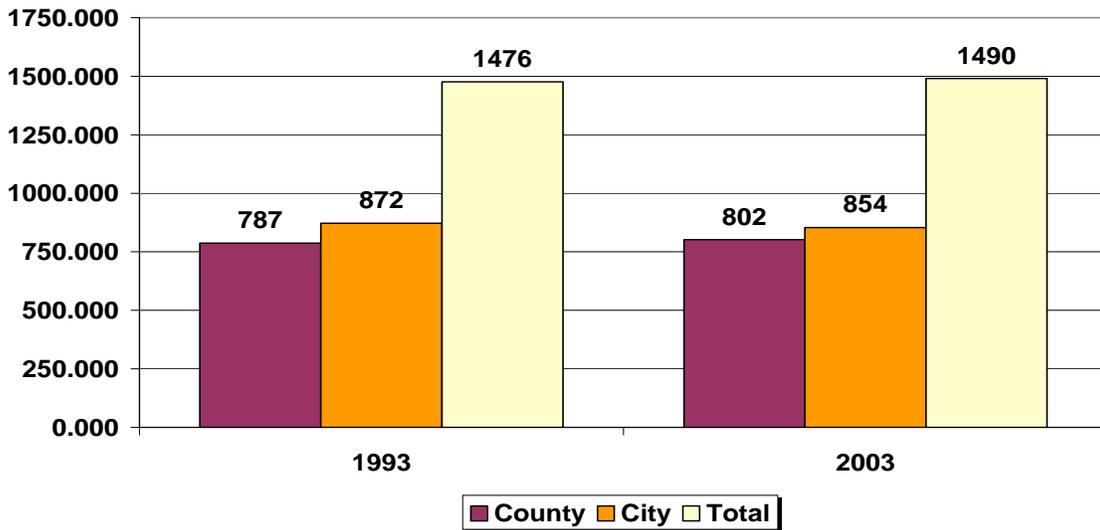


Figure 3.7. Real per capita local government revenues, by level of government, 1993, 2003.

Real locally raised revenues were \$881 per capita in 1993. In 2003 they were \$925 per capita, an increase of 4.9 percent. Locally generated county revenues grew by 2.0 percent over the ten year study period when examined on a real per capita basis, for city revenues the growth rate was 5.8 percent or about 0.6 percent annually.

Real, per capita intergovernmental aid to cities and counties fell by 5 percent during the study period. Between 1993 and 2003 intergovernmental aid to counties increased by 1.7

percent, but aid to cities fell by 16.5 percent. After adjusting for population growth and inflation intergovernmental aid to cities fell to \$257 per capita. In 1993 it was \$308 per capita.

State highway aid to cities also failed to keep pace with population growth and inflation. In 1993 real per capita state highway aid to cities was \$43 per capita. By 2003 it had fallen to \$33, a decline of 23 per cent. Real per capita state highway aid to counties grew slightly over the study period increasing \$3 to \$72 by 2003. Combined county and city per capita receipts from state highway aid fell from \$104 per capita in 1993 to \$99 per capita in 2003 after adjusting for inflation using the price deflator for state and local government.

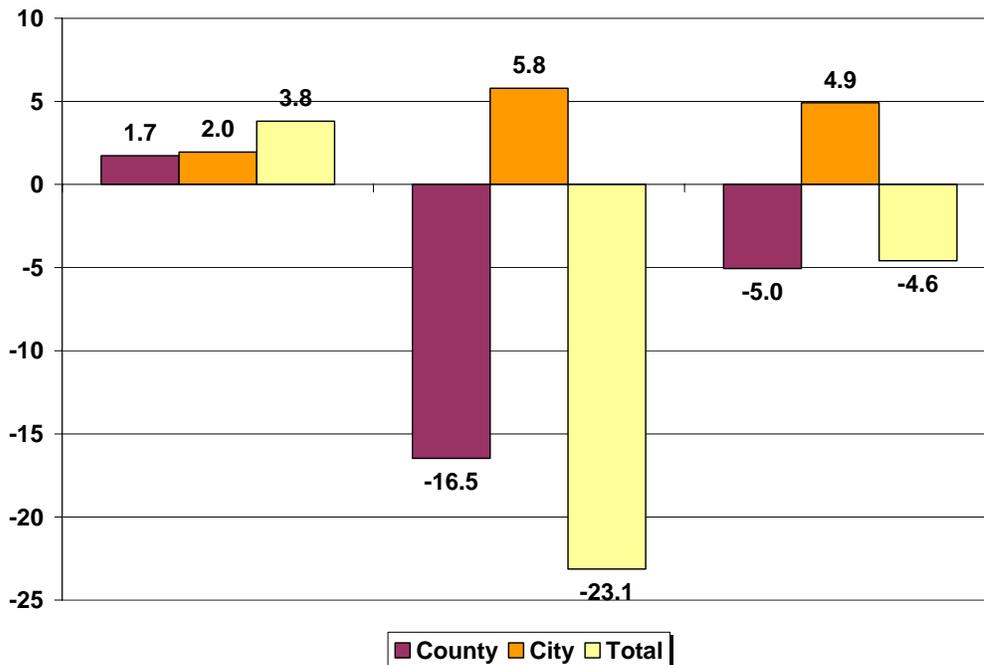


Figure 3.8. Percent change in real per capita local government revenues by type and level of government, 1993-2003.

3.6 Longer Term Trends in Local Expenditures and Revenues

The comparisons between real per capita spending and revenue levels in 2003 and those observed in 1993 provide useful information about changes in city and county finances as they relate to roads. Those simple comparisons do not, however, show the path followed to reach the spending levels observed in 2003. This section reports selected annual data on county and city finances that show how total expenditures, street and road expenditures, total revenues, intergovernmental aids, and state highway aid have varied over the past twenty years. While that path has been influenced by some major statutory changes affecting revenues and spending, identifying the long term spending and revenue trends is a useful step toward understanding how Minnesota arrived at current spending and revenue levels. To display on the same chart the pattern of growth in data series

starting from substantially different levels, indices of the series in question are used. For this report the average of values for 1983, 1984 and 1985 was chosen as the base period and that average was set to 100. Values for all years were then reported as a percentage of the 1983-85 base values.

Index values for real per capita amounts of total current spending, current spending on roads, total capital spending, and capital spending on roads are shown in figure 10. In general, current spending by cities and counties remained relatively constant compared to the 1983-85 baseline level during the 1983-2003 study period. Current road spending has also remained relatively constant at around 70 percent of the 1983-85 base level since 1988. Capital spending has been more volatile, with large swings in the late 1980s and early 1990s.

Real per capita capital spending by cities and counties peaked in 1999 at 159 percent of the 1983-85 base and was at 157 percent of the base in 2001. In 2003 it had fallen to 136 percent of the 1983-85 base. Capital spending on roads jumped substantially from the 1983-85 base levels. By 1987 it was more than 40 percent above the 1983-85 average and it has grown steadily over time. There was a large one time surge in 2000 when real per capita spending on city and county streets and roads capital project reached a level more than double the 1983-85 baseline, but even after the drop in spending levels the following year, the trend of relatively steady growth continued through 2003. In 2003 the level of real per capita capital spending on roads was nearly 75 percent above the baseline 1983-85 level.

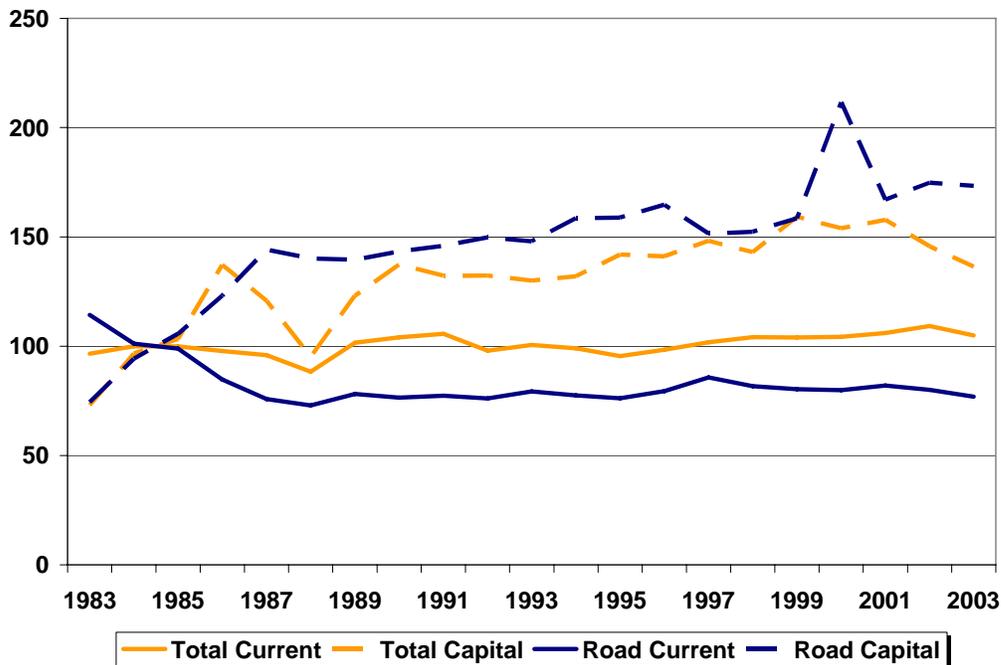


Figure 3.9. Changes in real per capita spending, 1983-2003, index, 1983-85 = 100.

When the road expenditure data is disaggregated into county and city spending for current and capital purposes four distinct patterns emerge. County current expenditures

on streets and roads falls to about 60 percent of its 1983-85 real per capita average by 1987, and stays within that range through the rest of the 20 year study period, while operating expenditures by cities remained relatively constant over that time period. Real per capita county capital expenditures for streets and roads rose quickly from a very low level in 1983 and by 1987 were more than double the baseline level. Since then they have fluctuated, but the trend has always been upward. In 2003 they were 257 percent of the 1983-85 base level. City capital expenditures also trended up between 1983 and 2003, but they did not grow as rapidly on a real per capita basis as did county expenditures. They ended 2003 about 60 percent above the average for 1983 through 1985.

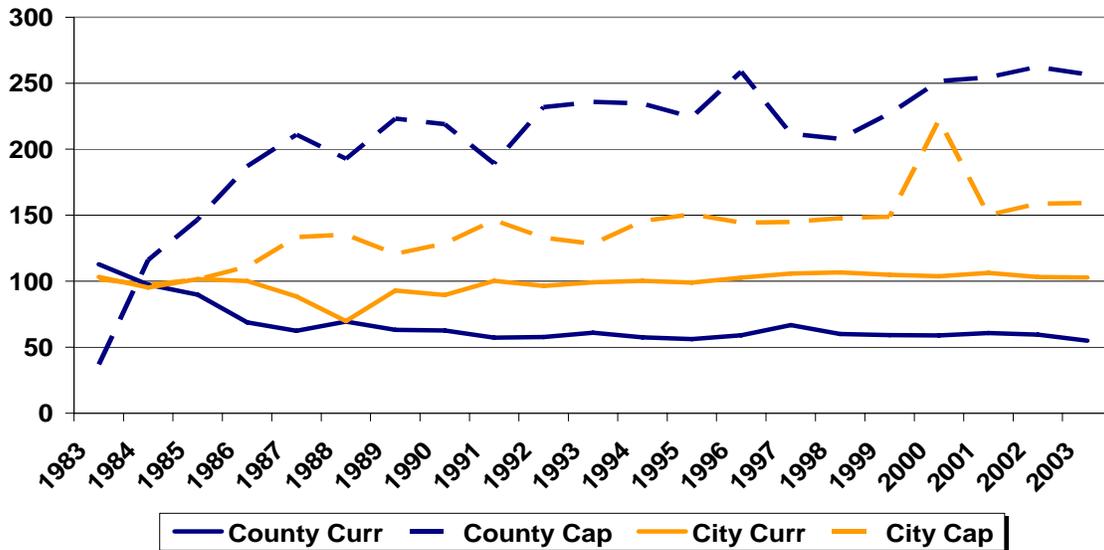


Figure 3.10. Real per capita county and city road spending, current and capita, 1983-2003.

Per capita locally generated revenues grew faster than inflation between 1983 and 2003. By 2003 local effort revenues for counties were 35 percent above the 1983-85 base level and those for cities were 25 percent above their 1983-85 base. Per capita intergovernmental aids, however, did not keep pace with inflation, lagging their base levels for almost the entire 20-year time horizon used in this study. In 2003 per capita intergovernmental aids received by cities were 83 percent of the baseline and intergovernmental aids received by counties were 95 percent of the 1983-85 average after adjusting for inflation. Highway aid received by both counties and cities, however, more than kept up with inflation between 1983 and 2003. Per capita city aids were up 38 percent after adjusting for inflation while per capita highway aid to counties increased by 11 percent.

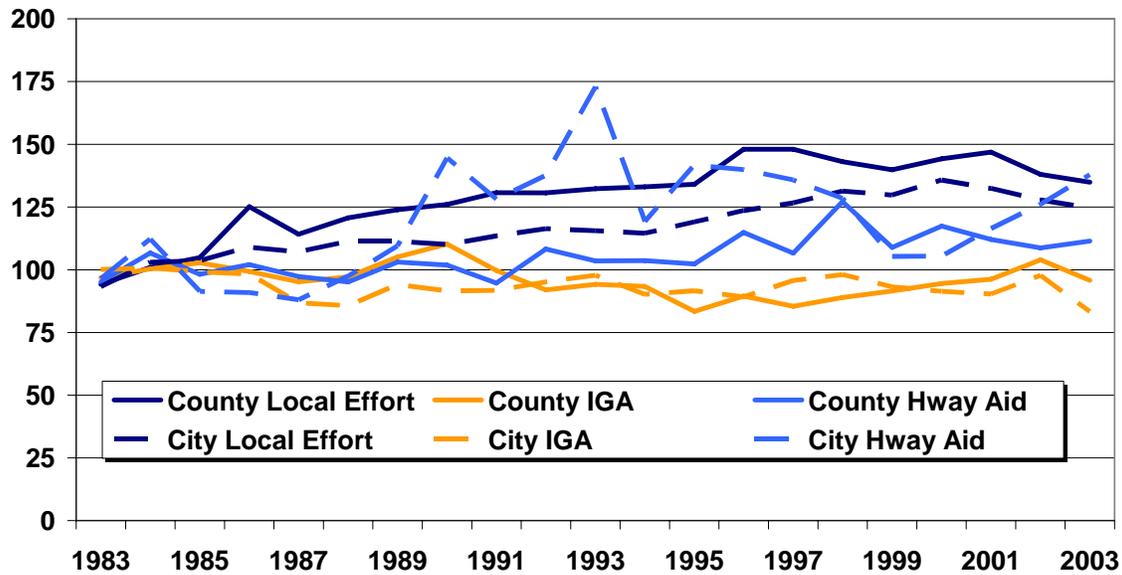


Figure 3.11. Real per capita county and city revenues, by source, 1983-2003, index 1983-85 = 100.

3.7 Adjusting Using the State and Local Construction Price Deflator

Although the implicit price deflator for state and local services is generally agreed to be the best available measure of the increase in the costs of inputs used by state and local governments, the price changes for those inputs are not necessarily a good measure of the cost of large capital projects undertaken by state and local governments. Those projects typically make use of a different mix of inputs, requiring less labor and more equipment and materials than do everyday operating services.

To better reflect the true increase in prices for inputs used in government capital projects the Bureau of Economic Analysis, U.S. Department of Commerce constructs a separate deflator, the price deflator for state and local construction. This deflator indicates construction costs increased somewhat greater faster between 1993 and 2003 than is shown by the state and local expenditure deflator. The implicit price deflator for all state and local government services increased by 32 percent during the 10 year study period, the state-local construction price index increased by 39 percent.

When the construction deflator is used to adjust local capital spending for inflation there is a significant change in growth in real per capita spending. Real per capita local capital spending falls between 1993 and 2003. County capital spending grows 2.4 percent on a real per capita basis while city capital spending declined 4.3 percent. Combined city and county per capita capital spending fell about 1 percent between 1993 and 2003 dropping from \$360 in 1993 to \$357 in 2003. When the broader based state and local price deflator was used local capital spending showed an increase of 4.4 percent.

Using the state local construction index also reduced the growth rate in real per capita spending by local governments on roads. While both counties and cities still show an increase in real per capita spending on road construction, the growth rates are significantly lower. When the construction price deflator was used county road construction spending increased by only 2.8 percent, or less than 0.3 percent per year, between 1993 and 2003. City road construction spending grew by 14.8 percent. When the broader index was used the growth rates were 8.9 percent and 21.6 percent respectively.

Applying the construction index to state highway aid payments also yields significant changes. When the construction index is used to adjust for inflation real per capita highway aid to counties in 2003 is 2 percent less than in 1993. Adjusting for inflation using the broader index showed a 3.8 percent increase. For cities real, per capita state highway aid fell by 27.4 percent when the construction index was used. With the broader index real per capita state highway aid fell by 23.1 percent.

4. Summary

After adjusting for inflation and population growth local government spending grew by 0.4 percent per year between 1993 and 2003. County government spending grew by 0.26 percent per year. City spending grew at annual rate of 0.46 percent.

Real per capita spending by local governments on streets and roads grew at an annual rate of 0.86 percent, during the 1993-2003 study period and there were substantial differences in the growth rates for county and city road spending. There was almost no change in county road spending. Total road spending by counties grew at an annual rate of less than 0.1 percent per year. City spending on roads grew at an annual rate of 1.3 percent per year. In 2003 cities were spending nearly 14 percent more on streets and roads than they did in 1993.

Real per capita local operating spending on streets and roads has fallen since 1993. Current expenditures by counties on roads fell by nearly 10 percent or an average of 1 percent per year between 1993 and 2003. Current expenditures include spending for maintenance, plowing, and lighting. Current expenditures by cities grew 1.6 percent, or about 0.16 percent per year, and combined county and city current expenditures on roads fell by 3 percent over the 10-year study horizon.

Real per capita local capital spending for streets and roads has grown since 1993. Capital expenditures on roads by cities and counties grew at an average annual rate of 1.6 percent between 1993 and 2003. Capital expenditures by cities for roads grew at an annual rate of more than 2.0 percent, while county capital spending for roads grew at an average annual rate of 0.85 percent. When capital expenditures for roads were adjusted using a deflator that reflects the costs of inputs used in state and local government construction, growth rates were lower. County government capital spending on streets and roads grew by 0.2 percent per year between 1993 and 2003. City government expenditures on roads grew at an annual rate of 1.4 percent.

Although the ratio of local government spending to personal income fell by 0.5 percentage points between 1993 and 2003, changes in the proportion of personal income going for local streets and roads fell by less than 0.1 percentage points over the entire 10-year study period. Capital spending on roads remained a constant percentage of personal income, while current expenditures, which includes maintenance, fell slightly. While the percentage reductions in spending on roads were small, the dollar amounts were not insignificant. Were county current spending to have remained at its 1993 proportion of personal income \$83 million more would have been spent on county road maintenance.

After adjusting for inflation and population increases the growth rates for local government revenues are very modest. Combined county and city revenues grew only by 0.9 percent (less than 0.1 percent per year) during the study period. Real per capita intergovernmental aid to cities and counties fell by 5 percent between 1992 and 2003. Counties received 3.8 percent more aid on a real per capita basis in 2003 than in 1993,

while cities received 23 percent less. If the state-local construction cost deflator is used real per capita highway aid received by counties falls by 2 percent over the study period. The buying power of aid received by cities in 2003 is 27 percent less than in 1993 when adjusted using the construction price deflator.