“Knowledge will forever govern ignorance; and a people who mean to be their own governors must arm themselves with the power which knowledge gives.” (James Madison, 1822)
public sector
Our founding fathers knew how important education was to the maintenance of democracy

Education also has an important bearing on government budgets, and those effects are the focus of this chapter. Following a brief overview of government budgets generally, we consider a specific example of the fiscal consequences of high school dropouts for our federal, state, and local governments. Then, we cover the ways in which educational attainment affects both public sector spending and taxation in Tennessee in detail.

But first, taxes and expenditures can be complicated and understanding the inner-workings of the state’s 600-plus page budget requires more energy than most people have. So perhaps an analogy will help illustrate the relationship education has with our tax system. Look at the state as if it were your body. There are certain basic activities you ask your body to do (breathe, pump your blood, process information) and sometimes you ask your body for some extras (exert energy, burn calories, provide warmth). Likewise, in this country, there are certain things we ask our government to do (protect us with armed forces and police forces; educate our children; provide assistance programs for the disabled, elderly, otherwise needy portion of the population, and more). Both your body and your government require inputs before they can perform these functions. Our bodies need fuel like food, water, and oxygen; and our governments need funding. How much fuel does our body need? Well, of course it depends on what we are going to ask it to perform—a 10-mile hike will require different (and yes, more) fuel than a nap on the couch. How much funding does our government need? Well, that too depends on what we ask it to perform—the more threats we are under, the more protection we will need; the more aged our population, the more funding our government will require to care for them through Medicare and Social Security.

So where does education fit into all of this? Education is not only one of the many things we ask our government to perform, but it is also an important input to our government. It is like energy for the state’s “body;” it helps the state create a strong tax base to generate tax revenue to fund what we ask our government to do. [Better educated people earn more income, thereby paying more money in taxes and improving the vitality of our state’s “body.”] And at the same time, the education of our population affects the demand for more government services. [Poorly educated people who often have low incomes and poor health consume more government services and contribute less to the tax base.] Very simply put (but for the sake of our analogy), the government cannot perform what we are currently asking it to perform our education input unless it is improved.

“Simply put, our nation’s fiscal policy is on an unsustainable course.

As long-term budget simulations by the General Accounting Office (GAO), the Congressional Budget Office (CBO), and others show, over the long term we face a large and growing structural deficit due primarily to known demographic trends and rising health care costs.

Continuing on this unsustainable fiscal path will gradually erode, if not suddenly damage, our economy, our standard of living, and ultimately our national security.

Our current path also will increasingly constrain our ability to address emerging and unexpected budgetary needs” (David M. Walker, Comptroller General of the U.S., 2005).
Our fiscal health: Government budgets

The fiscal health of our public sector depends fundamentally on a healthy tax base. The health of the tax base in turn depends on the performance of workers and businesses in the economy. To the extent that education improves economic performance, the vitality of the tax base is enhanced. This can happen directly through higher worker earnings and indirectly through stronger business activity resulting from a better trained workforce. The expenditure side of the government budget is also affected by the educational attainment of the population. Those with less education are often more reliant on expensive government spending programs like food stamps and Medicaid because their incomes are lower. A better educated population would support a stronger tax base while at the same time reducing pressures on the spending side of the budget.

Most of us would rather not pay taxes. Of course, we would rather not have a house payment or car payment either. In the end, we pay our bills and we pay our taxes. Taxes support many services and programs, some of which we like and others that we don’t care much about. We tend to like the services we receive and care a lot less for the services that others draw upon. Our general distaste for taxes, along with our differing views on what government should spend tax receipts on, means that the government budgeting process is always subject to debate and frequently clouded by acrimony.

Our budget challenges go deeper than the annual debate over taxing and spending. There are long-term problems confronting governments at all levels in the U.S. You may have heard people and pundits speak of “structural deficits.” This phrase refers to a long-term imbalance between what we want our government to spend and our ability to support this spending through the tax system. The federal government faces a looming crisis over both Social Security and Medicare funding as the population ages. Solving these problems will not be easy, and the final resolution will likely include a mix of spending cuts and tax increases.

The problem is not confined to the federal government. Recent estimates suggest that Tennessee will confront a structural imbalance of 9.3% between revenues and expenditures in 2013 (State Policy Reports, 2007). Of course, these figures are hypothetical, and we will ultimately balance our budget in the years ahead. But they are suggestive of the imbalance between our desires for government spending and our dislike of taxes.

The states are struggling to finance their shares of Medicaid and welfare, provide adequate funding for education (including at-risk children), meet the demands of mandates like No Child Left Behind, and support infrastructure investments like roads. The revenue side of state budgets faces its own problems. The corporate income tax is in long-term decline as a share of state tax revenue (though it has done well in the last few years), and the base of the sales tax is being eroded by both the growth of electronic commerce that easily escapes taxation and by services, which remain largely untaxed. Many local governments in Tennessee have serious expenditure problems to address because of strong population growth and the need to expand locally-provided services like education. As population pressures mount, there continues to be strong opposition to increases in local property taxes.

Many of the spending programs that are chewing up tax revenues are important, but they are still viewed as undesirable by many of us. Good examples are the criminal justice system, Medicaid, and welfare. While some feel it is too bad that we have to spend money on these programs, we have little choice. Prisons serve to punish and, perhaps, rehabilitate the guilty while protecting society at large. Welfare and Medicaid are costly programs, but we support them because of our collective concerns for the poor and the needy. Moreover, some of the welfare and Medicaid spending is a good investment, as with health care services for children, which can spare society greater costs later in the child’s life. As we fund these programs, money is diverted away from other uses, whether it’s out of our own pockets in the form of the taxes we pay or whether it’s taken away from another government spending program.
Let’s begin this journey by looking broadly at the way education may affect the fiscal health of our government using one recent study as an illustration. As a start, just consider the size of our government. Most of us think that the public sector in the U.S. is large, and it is. In fiscal year (FY) 2004, total government expenditures, including federal, state, and local spending, equaled $3.75 trillion. Given the 115 million U.S. households in 2004, government spending is equivalent to about $32,706 per household (Rector, Kim & Watkins, 2007). This spending is financed both through taxes we pay and through debt our government incurs.

Who pays taxes? We all pay some form of tax. At the federal level, low income households pay little or no income tax, though workers pay social security tax if employed. The lion’s share of federal income tax revenue comes from higher income taxpayers. At the state and local level people may pay sales, income and property taxes, as well as other more specific levies, depending on where they live.

In the end, income is the primary determinant of how much tax one pays, regardless of the tax. And as we have seen elsewhere in this book, education is a primary determinant of how much income one earns. The income a person earns directly affects income taxes, and income drives spending and home-buying decisions that determine how much is paid in sales and property taxes. The study we draw on here estimates that households headed by persons with less than a high school diploma paid on average $9,689 in federal, state and local taxes in FY2004, while all other households averaged $34,629 in taxes (Rector et al., 2007). We will accept the assumptions of this study, in part because even if the numbers were off by many thousands of dollars, the lesson would be the same.

Who benefits from government expenditures? Of course we all do. Some benefits accrue to anyone who wants them. Public schooling is a good example of a service we can use regardless of the taxes we pay. In other instances we pay tax when we use something provided by government, like the entrance fee to a park or a tax on gasoline that funds our roads. Access to many services will depend on the unique circumstances of individuals and families. Medicaid services, for example, can be an entitlement if your household income is low.

Education indirectly influences the services that different households receive from government. As an example, consider...
Introduction to spending in Tennessee

National patterns that link education to the public sector’s budget apply to all states, including Tennessee. The situation is somewhat different here since, unlike the federal government and most states, we have no broad-based income tax. Instead our state relies heavily on the sales tax. (The state budget shows that the sales tax should account for 60% of state tax revenue in FY2007/08.) Local governments in Tennessee are similar to local governments elsewhere in the country in their reliance on the property tax for the majority of own-source tax revenue, though they also have access to the local sales tax. Like the national picture portrayed above, better educated individuals in Tennessee tend to earn higher incomes and therefore pay more in taxes to our state and local government.

The better educated in Tennessee also rely less on government programs such as TennCare (Medicaid) and Families First (welfare). This is important because programs like these are very expensive to operate. For example, health and social services spending—which includes state welfare and Medicaid expenditures—uses 30 cents of every dollar generated by the state through taxes. Our total spending on these programs exceeds the state’s tax commitment because of financial support from the federal government.

Let’s continue our journey through the public sector by looking more closely at budget issues here in Tennessee, starting with the spending side of the budget.
**Families First.** Welfare programs are costly to operate, but they can be important in providing relief to needy families. State welfare programs have changed markedly since passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 and the resulting implementation of Temporary Assistance to Needy Families (TANF). The shift to the new program was intended to reduce welfare dependency and lower program costs to federal and state taxpayers. A key objective was to move people to work and self-sufficiency.

The number of U.S. citizens receiving welfare assistance has declined significantly since the new policy was implemented. In Tennessee, the number of families (i.e. “assistance groups”) on welfare has declined from 95,909 in 1995 to 67,411 in 2005, and to 64,234 in January of 2007 (CBER-UT, 2006a; Tennessee Department of Human Services, 2007). Time limits that constrain the number of years a person can be on welfare—a feature of the new welfare programs—are one factor contributing to the smaller caseloads.

Tennessee’s Families First system is a “means tested” entitlement program in which benefits are tied to the family’s income. In other words, if your family’s income (i.e. “means”) falls below a certain level, you may be entitled to support. Relatively less educated individuals tend to rely more on cash assistance because their earnings are lower. This figure shows the highest level of education completed for adults receiving cash assistance from Tennessee’s Families First program in 2005 (CBER-UT, 2006b).

**Educational attainment of Families First adults is generally very low**

89% of adults on welfare have a high school diploma or less

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**How can we put welfare spending in perspective?**

Here is one way.

The average salary for a classroom teacher in Tennessee was $42,485 in 2005/06 (Tennessee Department of Education, 2006).

Tennessee spent about $37.3 million of its own money on welfare cash assistance in 2005/06.

So the state’s spending on welfare would support hiring 877 teachers a year.

Total welfare spending in Tennessee was $147.6 million, or enough to fund over 3,475 schoolteachers a year.
To place the role of education and the Families First program in context

- About 38.2% of those adults receiving cash assistance did not graduate from high school (CBER-UT, 2006b). In contrast, only 24.1% of Tennessee residents had less than a high school diploma in 2000 (U.S. Census Bureau, 2000).
- Only 9.6% of Families First adults have taken college courses, and less than 1.0% of Families First adults hold a college degree (CBER-UT, 2006b). In contrast, 24.3% of all Tennessee adults in 2000 had a college degree (U.S. Census Bureau, 2000).
- The average years of schooling completed is 11.2 among Families First adults (CBER-UT, 2006b).

Despite reform and smaller caseloads, Families First continues to be an expensive program for federal and state governments to provide. The state budget for 2007/08 shows the following funding mix:

- Total spending on cash assistance through Families First equaled $147,632,300 in 2005–2006.
- Tennessee spent $37,253,900 of its own revenue in support of cash assistance in 2005–2006, just over a quarter of total spending on Families First in the state.
- The federal government provided Tennessee with 72.5% of Families First funding, approximately $106,998,200.
- There were 68,088 “assistance groups” or families on Families First in July of 2006. Each assistance group received an average of $2,168 in benefits per year.
- Tennessee’s share of Families First financial support (i.e. spending from own-source revenue) translates into $547 per assistance group and $205 per Families First recipient.
Families First, continued. TANF Work Requirements and Education. National evidence suggests that enrollment of welfare recipients in postsecondary education has declined due to welfare reform (Jacobs & Winslow, 2003). This is certainly an unintended outcome of the new policy. The Job Opportunities and Basic Skills (JOBS) program in 1995 reports that about 136,000 welfare recipients were enrolled in higher education, while only about 54,000 welfare recipients were reported as having engagement in higher education after the 1996 welfare reform took place (Jacobs & Winslow, 2003).

It is no surprise that many individuals believe the more stringent work requirements have had a negative impact on the educational attainment of welfare recipients. More importantly, data support the notion that states with less restrictive policies regarding work requirements have higher enrollment in post-secondary education (Jacobs & Winslow, 2003).

In defense of Families First, Tennessee is 1 of 3 states that imposed a full 40 hour work requirement on beneficiaries of cash assistance. However, Tennessee provided some flexibility in how work requirements are defined. A maximum of 20 hours per week could be spent on education and training including:

- Vocational education training
- Post-secondary education
- Secondary schools
- Training prep education (like preparing for post-secondary education, job skills training, employer-specific training, self-initiated job skills training, and literacy tests/ adult education) (CBER-UT, 2005).

Unfortunately, these provisions expired at the end of the 2006/07 fiscal year.

Education and training are the primary means of keeping people off of welfare and moving welfare recipients to long-term self-sufficiency and economic security. While education and training can be expensive, these expenditures can help save state and local governments other costs that might be associated with poorly educated individuals and households. We can either pay now or pay later. Why roll the dice?
**From the literature**

“How much would it cost and what would the benefits be if blacks and Hispanics graduated from high school, went to college, and graduated from college at the same rate as non-Hispanic whites?”

This is the focus of a report, *Closing the Education Gap: Benefits and Costs*, published by the prestigious RAND Corporation.

“The costs of education would be high, increasing by about 20% in California and 10% in the rest of the nation. **But the benefits**, in the form of savings in public health and welfare expenditures and increased tax revenues from higher incomes, **would be even higher**. Indeed, the added costs of providing more education to minorities would be recouped well within the lifetime of taxpayers called upon to make the additional investments.”

“The nation is experiencing a rapid immigration driven increase in the share of Hispanics in the school age population. Failure to increase the educational attainment of this group would result in growing shares of new labor-force entrants having levels of education lower than those prevailing today; in increased income disparities between blacks and Hispanics, on one hand, and Asians and non-Hispanic whites, on the other; and in increased public expenditures for social and health programs for generations to come” (Vernez, Krop & Rydell, 1999, book description).
PUBLIC SECTOR
spending in Tennessee

Public housing. Low-income individuals in the U.S. and Tennessee are more dependent on assistance programs than individuals with higher levels of income, and public housing assistance programs are no exception. In 2005, the median income of households residing in U.S. public housing was $10,738, less than one quarter of the nationwide median income (Econsult, 2007).

Spending for public housing has changed since it was first implemented under the U.S. Housing Act of 1937. Today, public housing relies heavily on federal subsidies to fund operating costs (Econsult, 2007). Providing public housing is an expensive task for the federal government:

- Over $6 billion in federal appropriations were spent on public housing in fiscal year 2006.
- For more than 1.2 million American households, public housing provides an annual rent subsidy of $5,964.
- Public Building Authorities across the country spend $8.1 billion a year on facility improvements, maintenance and operations.
- Replacing an average public housing unit costs $134,858.

Public housing has been criticized for many years due to the negative effects on surrounding neighborhoods and cultural perceptions that are associated with public housing (Freeman & Botein, 2002).

- Subsidized housing has been shown to contribute to declining property values in some situations.
- An increased concentration of poverty is often a result of more public housing.
- Subsidized housing is associated with higher levels of crime.

Efforts are now being made to integrate low-income households into areas with higher-income households to help mitigate these and other problems. And like welfare reform, evolving trends indicate that public housing programs have shifted their emphasis to self-sufficiency in order to lessen reliance on permanent housing support. Individuals who have succeeded most in these self-sufficiency programs are those with prior vocational training or education and those who have not previously experienced dependence on welfare. In particular, those individuals with a high school education, or any additional education, have a much greater chance for success (Kleit & Rohe, 2005).
The Tennessee Housing Development Agency (THDA) was formed to provide more affordable housing options to low-income families throughout the state of Tennessee (State of Tennessee, 2007). Tens of thousands of families have benefited from these programs.

- THDA provides opportunities for households to receive mortgage loans at interest rates below the market rate. Also provided are subsidies for renters. THDA assists local housing providers in creating affordable housing plans.
- THDA spent over $1.7 million in 2005–2006, the majority of which was funded by federal grants.
- Since 1973, THDA has created over 93,000 mortgages (THDA, 2006) and since 2000, they have helped more than 18,000 low-to-moderate income Tennessee households achieve homeownership.

Education can be an important piece of the puzzle in reducing the reliance on public housing in 2 ways. First, better educated people have a greater likelihood of securing private housing and mortgages by virtue of their higher incomes. Second, there is evidence showing that education facilitates the move from public to private housing. Homeownership is part of the American dream, and education is one means of realizing this dream.
PUBLIC SECTOR
spending in Tennessee

**Justice system.** Educational attainment of U.S. inmates is low in comparison to the rest of the population. The pie graph here demonstrates the education levels for inmates across the U.S. in 2002 (Bureau of Justice Statistics, 2004).

- 12.3% of inmates in the U.S. had less than an eighth grade education.
- Nearly 44.0% of inmates had less than a high school education, compared to only 14.8% and 24.1% of U.S. and Tennessee populations 25 years and older.
- While 35.0% of the U.S. population and 24.3% of Tennesseans had a college degree, less than 3.0% of U.S. inmates had a college degree.

We can delve deeper into educational attainment of inmates by looking at attainment levels based on the crime the inmate committed.

**U.S. inmates are relatively less educated than the overall population**

- College degree: 2.9%
- Some college: 10.1%
- High school / GED: 43.0%
- Less than high school: 43.9%


**Educational attainment is low, regardless of the offense**

Offenses are broken into four main categories: violent, property, drug, and public-order crimes. It is evident that individuals with at least some college education commit fewer offenses across all types. Of those inmates with a drug offense, 46.6% had less than a high school education, 42.2% had a high school diploma or GED, 8.9% had some college education, and 2.3% had a college degree.


**Correctional education reduces likelihood of repeat offenses**

Recidivism is common among offenders of all crimes. More than 2/3 of released inmates were rearrested within 3 years of their leaving jail (Bureau of Justice Statistics, 2002). However, rates of rearrest, reconviction, and reincarceration are all lower for those inmates who participated in correctional education (National Institute for Literacy, 2007).

- Non-participants in correctional education were rearrested at a rate of 57.0% compared to 48.0% for those who did participate.
- Those who were involved in correctional education were reconvicted at a rate of 27.0% while non-participants were reconvicted at a rate of 35.0%.
- Reincarceration rates for non-participants were 10.0% higher than for those who took part in correctional education.
Government spending on the Tennessee justice system

The justice system is an expensive piece of the state government spending pie, and statistics show prisoners are poorly educated relative to the overall population. In 2004, Tennessee spent $2,272,249,000 in total justice system expenditures (Bureau of Justice Statistics, 2006). Spending on law, safety, and correction accounts for about 11.0% of government expenditures in Tennessee (State Budget of Tennessee, 2007–2008). Just over 33% of this funding comes from the state government, while the remaining 66.8% is provided by local governments (31.8% from counties and 35.0% from municipalities). All levels of government share in the costs of the justice system in Tennessee.

The justice system in Tennessee comprises 3 main sectors: police protection, judicial and legal systems, and corrections. The majority of spending on police protection in Tennessee comes from local governments, specifically municipalities. State government supports 43.1% of all spending on judicial and legal systems while local governments (including counties and municipalities) support about 56.9%. Approximately 56.5% of funding for corrections in Tennessee is provided by the state government.

The Tennessee Department of Correction (TDOC) is responsible for fulfilling the obligations of the courts through the incarceration of inmates. In 2006, total jail population in Tennessee was 23,474 inmates, equivalent to less than 0.4% of the Tennessee population (TDOC, 2006b).

How does inmate spending compare to spending per pupil in public schools?

The average annual cost to house an inmate in Tennessee in 2006 was $21,502 (TDOC, 2007). In comparison, average spending per pupil in Tennessee was $7,469 in fiscal year 2005–06 (Tennessee Department of Education Annual Statistical Report, 2005–06).

The average Tennessee inmate served time for 4 years and 1 month in fiscal year 2005-2006 (TDOC, 2006a). At a rate of $21,502 per year, 1 inmate would cost nearly $87,800 over his or her time served—enough to put at least 11 Tennessee students through 1 year of school.
**Public Sector Spending in Tennessee**

*Food Stamps.* The major food assistance program to families in the U.S. is the Food Stamp Program. Like welfare, this is a means-tested program with benefits linked to household income. Relief is provided through an electronic benefits card rather than the paper stamps that were used years ago. Food stamp purchases are not subject to the sales tax.

The food stamp program is fully funded by the federal government.

- In FY2005, the State of Tennessee spent $973,153,600 in federal funds on food stamps (State of Tennessee, 2007).
- The number of food stamp recipients in Tennessee was 382,794 households, or 859,807 individuals, in July of 2006 (Tennessee Department of Human Services, 2006).
- In 2006, about $1,133 was received per recipient in Tennessee (Tennessee Department of Human Services, 2006; U.S. Census Bureau, 2006).

Total food stamp spending translates into about $160 per person in Tennessee, while as noted above the per-recipient amount is $1,133. The 10 counties with the highest incidence of food stamp reliance received more than $240 per capita in food stamps per year. These counties tend to have a poorly educated adult workforce (see below). On the other hand, the 10 counties with the lowest reliance received less than $115 per capita in food stamps per year (Tennessee Department of Human Services, 2006; U.S. Census Bureau, 2006). These numbers are illustrative since the federal benefit per recipient varies little. This means the variation in per capita spending across counties primarily reflects differences in the numbers of households receiving food stamps.

Because income is so closely linked to educational attainment, it is no surprise that food stamp recipients tend to be less educated than the population at large.

To the right we show counties grouped into quintiles based on the educational attainment of the county adult population. For the purposes of this illustration, we have used the share of the adult population with less than a high school degree, though the results are similar regardless of the attainment measure used. For each quintile, we show the average share of the county population that was on food stamps in 2000. For the 19 counties in the lowest attainment category, about 1 out of every 7 people (14.7% of the population) was on food stamps. For the 19 counties in the top attainment category, on the other hand, 1 out of every 14 people (or 6.9% of the population) was on food stamps.

*Percent of people receiving food stamps by educational group*
PUBLIC SECTOR
spending in Tennessee

TennCare, TENNderCARE, and Cover Tennessee. In 1960, health care spending in the U.S. equaled about 5.0% of gross domestic product. This figure rose to 16.0% in 2004, and it is estimated that by 2014 health care costs will account for 18.7% of gross domestic product (The White House, 2006). As overall health care spending has grown so has spending on Medicaid and Medicare. (Tennessee’s Medicaid program is called TennCare.) This rapid growth has severely strained state and federal budgets, the likely outcome being some combination of higher taxes and reduced spending in other areas of the budget. Medicaid, a program designed to provide health insurance to the poor, is now the most expensive government program designed for low-income individuals (Rosen, 2002). Medicare is a separate program funded by the federal government, which provides health insurance for the elderly. The long-term forecast for Medicare is grim, with huge spending increases anticipated as the population ages. The challenges confronting Medicare may be more daunting than those confronting the Social Security system.

The increased burden on federal and state governments due to significant growth in spending for Medicaid is unsustainable in the long run. In response, governments at all levels are making the push to expand enrollment in private insurance plans. For example, President Bush has developed a health insurance reform plan at the federal level that attempts to create a more efficient system where individuals can choose their health care package based on their own individual needs and preferences. In this system, the president pledges that more competition and market forces can promote efficiency and sustain the quality of health care at the same time that access is expanded. The reform proposed by the president allows health insurance to be carried across state borders (The White House, 2006).

The states are pursuing their own initiatives to rein in Medicaid costs, though there has been mixed success. California is the latest state to attempt to promote health insurance for all of its residents, following other states like Maine, Massachusetts, and Vermont. In California’s proposal, Governor Arnold Schwarzenegger argued that extending health insurance coverage to all residents should be the responsibility of the government, employers, health care providers, and uninsured individuals themselves. This state response has developed at a time when some

Needs, priorities, choices

For years and years, K-12 spending was the largest single category of state spending for state governments in the U.S.

But 2005 was a year of change as total state spending on Medicaid across all states ($283.0 billion) for the first time surpassed total state spending on K-12 education ($269.2 billion) (NASBO, 2006).

What do state governments spend money on?

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>22.9%</td>
</tr>
<tr>
<td>Elementary &amp; secondary education</td>
<td>21.8%</td>
</tr>
<tr>
<td>Transportation</td>
<td>8.6%</td>
</tr>
<tr>
<td>Higher education</td>
<td>10.6%</td>
</tr>
<tr>
<td>All other</td>
<td>30.8%</td>
</tr>
<tr>
<td>Corrections</td>
<td>3.5%</td>
</tr>
<tr>
<td>Public assistance</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Source: NASBO, 2006
PUBLIC SECTOR
spending in Tennessee

*TennCare, TENnderCARE, and Cover Tennessee, continued*

states (and all states in total) spend more on Medicaid than they do on elementary and secondary education. As more states contemplate health care insurance programs like this, it is likely that conversations will build regarding universal health care at the national level (Steinhauer, 2007).

Historically, many individuals in Tennessee have relied on TennCare because of their poor health status, because their employer did not provide health insurance, and/or because they could not afford to purchase private insurance. While TennCare is costly, the money does take care of many needy people. Like other states, Tennessee has enacted proposals to cover more people under private insurance systems. Cover Tennessee is the health care proposal developed by Governor Phil Bredesen that is intended to provide affordable and more portable health insurance options for working, low-income, uninsured Tennesseans (Cover Tennessee, 2007).

In the meantime, Tennessee continues to adjust the TennCare budget resources and spending following substantial reforms Governor Bredesen began in 2005. In early 2005 (the most recent year for which comprehensive enrollment data are available), TennCare covered significantly more individuals than the Medicaid programs offered by most states. The reason is that until the late-2005 reforms, TennCare served a substantial number of previously uninsured individuals, known as the medically eligible or expansion population, under the TennCare Standard program (Bureau of TennCare, 2005).

TennCare is a rather expensive government program, prompting the 2005 reforms to stall ever-increasing costs. In fiscal year 2005

- Total expenditures on TennCare exceeded $8.5 billion (Bureau of TennCare, 2005), or about $6,312 per beneficiary.
- Although the majority of funding was provided by the federal government, Tennessee state government supported more than $2.5 billion (or 29.6%) of the total TennCare expenditures, or an average of $1,870 per beneficiary.

The 2005 reforms changed eligibility requirements, benefit components, and premiums for its members. Adults, for instance, can now only obtain TennCare if they are Medicaid-eligible; the TennCare Standard program has been eliminated for adults. While an estimated 200,000 adults were disenrolled from TennCare during these reforms, no children lost their benefits. The Bureau of TennCare reported in its annual report for fiscal year 2005–06 that “TennCare is now stable and operating within its budget” (Bureau of TennCare, 2007, p. i).

- In fiscal year 2006, TennCare’s total expenditures were $6,918,716,800 (Bureau of TennCare, 2007), and TennCare enrolled about 1 out of every 5 Tennesseans and 4 out of every 10 children under age 19, or approximately 1,224,100 people.
- TennCare estimates its total services expenditure per member to be $4,285.28 (Bureau of TennCare, 2007).
- Assuming that state expenditures are approximately 29.8% of total TennCare spending as they were in 2006 (State of Tennessee, 2007), state expenditures per TennCare member are approximately $1,275.

Recent survey data for the state of Tennessee indicate that children on TennCare come from households with parents who have relatively lower levels of educational attainment. The same survey asked adults about whether they had private health insurance, and the responses were complementary, showing that the likelihood of having private insurance rises with adult educational attainment as well. These findings should not be a surprise. Those with less education generally have fewer skills and are less likely to hold a job where the employer offers health insurance. Less education also means lower income and thus less ability to purchase health insurance in the market. Both adults and children bear the consequences of low levels of educational attainment within the household.
**TENNderCARE** is a program that provides accessible health care resources for TennCare children from birth to the age of 21, including free check-ups, dental care, medical treatment, and behavioral health services (Bureau of TennCare, n.d.). These services are provided by a primary care provider (PCP) or through the health department. The support provided by TENNderCARE can help children while they are young and may reduce health care problems later in life to the benefit of the child and society.

TENNderCARE screenings for children are encouraged and include comprehensive health (physical and mental), complete physical exam, health education/anticipatory guidance, vision and hearing screening, developmental and behavioral screening, laboratory tests, immunizations.

Programs such as TENNderCARE help avoid obstacles that children and teens might encounter that keep them from realizing their full potential. By helping disadvantaged children early, kids are more likely to succeed and provide positive spillover benefits to society. Early intervention is critical. For example, programs such as Ludwig and Sawhill’s (2007) Success by Ten emphasize that intervention must be done early, often, and effectively for children to succeed, thus maximizing benefits to society through a better-educated population.

Research has found that early intervention programs aimed at helping high-risk children from disadvantaged families can provide substantial returns (Heckman & Masterov, 2007). For example, these children commit fewer felonies and misdemeanors, and they are less likely to become juvenile offenders. Benefits include

- Higher test scores
- Decreased grade retention
- Reduced time in special education
- Less crime and delinquency
- Increased high school graduation

In fact, specific programs, such as enriched preschool programs, provide evidence suggesting that those disadvantaged children who participate in such programs are 11.0% more likely to graduate from high school, 11.0% less likely to participate in special education programs, 15.0% less likely to repeat a grade, and 8.0% less likely to be arrested as a juvenile, compared to those children who do not participate in such programs.

Heckman and Masterov (2007) also find that economic outcomes are better for those children who come from disadvantaged families but participate in an early intervention program. One study reviewed by Heckman and Masterov shows that these children are

- 22.0% more likely to earn $2,000 or more in monthly income
- 23.0% more likely to own a home
- 21.0% less likely to ever be on welfare as an adult
If the household head has only a high school diploma, the odds are about 50:50 that a child will be on TennCare (SSRI & CBER-UT, 2007). As educational attainment of the household head rises, the likelihood of the child being on TennCare diminishes. If the household head has a bachelor’s degree, for example, the chance of being on TennCare falls to about 1 in 10.

Now look only at the children on TennCare and the educational attainment of the household head. Over three-quarters of the children on TennCare have household heads with no education beyond high school.

Heads of households with higher levels of education are less dependent on TennCare for their children

The majority of kids on TennCare have parents with low educational levels

From the literature

“Children in poor health may be less schoolready than other children. In addition to being less able to learn at school, they may miss more school days because of illness and may complete fewer years of schooling over their lives. Their poorer schooling, in turn, could limit their earnings potential, quality of life, and possibly their health as adults. A small but growing literature indicates that health in childhood is in fact a determinant of cognitive ability and educational attainment” (Case & Paxson, 2006, p. 159-160).

“Income-related disparities in childhood health are evident at birth or even before, and the disparities grow more pronounced as children grow older. Not only do poor children have more severe health problems than wealthier children, but they fare less well than healthier children who have the same problems. They also receive less and lower-quality medical care for their problems. And poor families may be less well equipped to manage their children’s health problems, which could worsen their effects” (Case & Paxson, 2006, p. 151).
A complementary perspective using Tennessee survey data is shown in this figure that focuses on private insurance. It is clear that as adult educational attainment rises, so too does the probability that one has a private health insurance plan.

*As educational attainment increases, so does the % of the population with employer-sponsored or private insurance*

Let’s turn the focus from individuals to our communities. A strong relationship exists between the educational attainment of the adult population and dependency on TennCare among Tennessee counties (CLIKS, 2000; U.S. Census Bureau, 2000). On the left scale, we show the share of the county adult population with less than a high school diploma, and on the bottom scale we show the share of the county population on TennCare. While there are certainly exceptions, there tend to be more people on TennCare in places where educational attainment is low.

*Counties with fewer individuals with a high school education are more likely to depend on TennCare*

Introduction to revenue in Tennessee

The federal government pays for a considerable share of the programs discussed in this chapter. Of course, we help support this spending through our federal tax payments, just like residents of other states. State government in Tennessee also contributes to the support of many visible programs like TennCare and Families First. While local governments are spared the direct burden of financing Medicaid and welfare programs, they do support local hospitals and health departments that incur costs from the low-income population. Moreover, local governments can be squeezed by fiscal pressures from above, both from the federal government and state government. The tighter federal and state budgets are, the bigger is the squeeze on local government finances.

As we noted earlier, 60 cents of every Tennessee state tax dollar comes from the sales tax. Many local governments, both cities and counties, also rely on the sales tax as an important revenue source. In fact, local governments must commit one-half of their sales tax collections to funding their public school system. Maintaining a strong sales tax base is obviously of critical importance to funding public services in Tennessee. The sales tax is being squeezed by a number of forces, including the growth of services, which are by and large not taxed, and the rise of electronic commerce, which can easily escape sales taxation. Legislated exemptions are another part of the story. Businesses pay a significant portion of the sales tax in Tennessee, so to help them remain competitive in the marketplace, they are often granted exemptions on some of the things they purchase. Consumers receive tax breaks as well, including popular programs like sales tax holidays and a lower sales tax rate on food. (See also TACIR & CBER, 2003, at <http://state.tn.us/tacir/PDF_FILES/Taxes/primer.pdf> for an overview of the state tax system in Tennessee.)

The property tax is the mainstay of local government finances in Tennessee. It is used to fund general government services, including police and fire protection, as well as a significant share of local government’s cost of elementary and secondary education. So like the sales tax, we need a healthy property tax base to fund the government services that we all use. While the local property tax may not be subject to the same big squeeze as the sales tax, it faces its own unique set of problems. One example is the decline in manufacturing which means the erosion of an important part of the local property tax base. Another example is the recently enabled local property tax freeze for elderly households. If local governments adopt the freeze, it will help many lower-income elderly households, but it also means less money to fund government services.

Earlier in this chapter, we pointed out that the education of our population affects the demand for more government services. Is it true that poorly educated people contribute less to the tax base? Let’s take a look at the sales and property taxes in Tennessee.
**Education and sales tax revenue.** To illustrate the way education can affect the revenue side of the government budget, we begin with a county-level focus built around the educational attainment of the adult population. Because of the extraordinarily high linkage between attainment and earnings, we expect to see counties with a better-educated population also have a stronger sales tax base. Tennessee's 95 counties have been divided up into 5 groups (i.e. into quintiles) with 19 counties in each group, based on the share of the adult population with at least a high school degree in 2000. We then look at the amount of state and local sales tax revenue per person within each of the 5 county groups using tax revenue data for 2005/06 and population data for 2006. The results are shown below.

Per capita state and local sales tax revenue is generally higher in counties with a better educated population. State sales tax revenue per capita for the top attainment group is $1,046 versus only $447 for the 19 counties in the bottom attainment group, a difference of 134%.

Unlike the state sales tax rate which is the same across the state, local rates show some variation across cities and counties. So differences in collections at the local level depend both on spending and tax rates. Nonetheless, the picture for local sales tax collections looks a lot like the picture for state tax revenue. The top 19 attainment counties have $288 in per capita sales tax collections compared to $128 for the bottom 19 counties, for a difference of 125%.

Think about what these differences mean in terms of our ability to fund state and local government services.

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**Average state sales tax revenue per capita by educational attainment group**

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**Average local sales tax revenue per capita by educational attainment group**

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Source: CBER-UT.
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revenue in Tennessee

*Education and Sales Tax Revenue, continued.* Another way to look at the linkage between education and sales tax performance is to isolate the taxes paid by individuals with differing levels of attainment and thus differing levels of earnings in the marketplace. This proves to be a difficult puzzle to solve in practice. We start with the easiest piece of the puzzle, the relationship between educational attainment and income using Tennessee data for 2000. As we have shown elsewhere in this book, the differences are striking with the premium on more education rising across most attainment categories. A high school dropout earned only $8,812 per year while someone with a high school diploma earned $16,274 in 2000. The earnings for a bachelor’s degree holder totaled $36,042 in the same year, 121% more than a high school degree holder and 309% more than a high school dropout.

A problem with taking these attainment and income data the next step (estimated sales tax payments) is figuring out just how much people spend on things that are subject to the sales tax. Some things like rent and food stamp purchases, along with most services, are not taxed at all in Tennessee; food is taxed at a lower state rate than other goods, and many other products are subject to the 7% state tax rate and any local sales taxes imposed by cities and counties. In addition, businesses and tourists contribute to our sales tax base in Tennessee. Because of all of these problems, we have chosen a simplistic and transparent approach for illustrative purposes. The estimates should thus be viewed as merely suggestive of how educational attainment affects state and local sales tax collections.

First we need to get a sense of the linkage between income and sales taxes. To resolve this problem, we rely on a fairly recent study that examined the equity of state tax systems, including the tax system in Tennessee (ITEP, 2003). The study reports the share of income paid in sales tax (along with other taxes) by income category using information on taxes for fiscal year 2002. These figures show that the share of income paid in sales tax falls with income, which means the sales tax is regressive. One limitation of these data is that they do not account for the sales tax rate increase that Tennessee enacted for 2003 and the years that followed. Because of this rate increase, the estimates we present will understate the amount of sales taxes people might pay.

We have tried to make the estimates more current by moving the earnings figures for 2000, which were presented above, to reflect a more recent year. To do this, we use national data on the change in earnings by level of educational attainment from 2000 to 2005, since state data are not available. The final step is to apply the estimates of the share of income paid in sales tax by income category from the study noted above.

The story here is quite clear. A high school dropout would pay only $571 per year in sales tax while a person with a professional degree (e.g. a doctor or a lawyer) would pay the most in tax, a total of $2,547. A high school graduate is estimated to pay $1,087 in state and local sales tax, while someone with an associate’s degree pays about $1,427 in sales tax. If you jump to a bachelor’s degree, the sales tax payments climb to $1,663 per year.
The story here is quite clear.
Education and Local Property Tax Revenue.

Since more education translates into higher earnings, we would expect the better educated to live in more expensive homes and pay relatively higher property taxes. As we have argued elsewhere, a better educated workforce also fosters a stronger economic development climate, which can easily translate into more business activity and thus a stronger commercial and industrial property tax base. So there are 2 channels whereby education might boost the vitality of the local property tax in Tennessee: residential property and business property.

As we did with the sales tax, let’s begin with a county-level analysis of the role educational attainment might play in affecting the local property tax. Once again, we break Tennessee’s counties into five groups based on the share of the adult population with at least a high school degree in 2000. For each of these 5 groups, we then consider average property tax revenue per capita, using population data and U.S. Census Bureau data for 2002 that account for all local property tax collections (including all types of property for cities and counties). Since these are revenue data, they account for both the size of the tax rate and the tax base. Rate differentials may help explain some of the variation shown across county groups. We do not have good data to account for the growth in the property tax base since 2002 so the numbers are not adjusted any further.

Average property tax revenue per capita by educational attainment

The figures are again revealing. For the top attainment group, per capita property tax revenues were $765 per year in 2002. Contrast this against the bottom category where revenues per capita were only $248 per year. As with the sales tax, think about what this means to different communities when they try to fund public services and balance their budgets.

We do not have detailed data on educational attainment and home ownership patterns in Tennessee that would allow us to look at property tax burdens for different households. So as a simple illustration we have chosen 3 hypothetical property values—$75,000, $150,000 and $300,000—and then calculated the amount of property tax revenue that would be paid using an average residential property tax rate for Tennessee cities and counties. The actual rate used in these examples is $3.22 per hundred of assessed value (where assessed value is 25% of actual market value).

A home with a market value of $75,000 would produce property tax revenue of only $602 per year, compared to $1,206 for a $150,000 home and $2,412 for a $300,000 home. Of course, we cannot say anything specific about the educational attainment of these households; instead we are simply assuming that it is likely that people with a better education live in more expensive homes.

Estimated property tax payments for hypothetical property values
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**What Does It All Mean?**

We are not in a position to conduct a comprehensive assessment of net fiscal burdens for people with different levels of education in Tennessee like that presented for the U.S. by Rector et al. (2007) described above. But the numbers we have presented on expenditure programs and sales and property taxes, despite their simplicity, are nonetheless revealing. If we were to improve the educational attainment of our population, the spending pressures on our government would be diminished and our tax base would be stronger. This might allow us to enjoy lower taxes or spend our tax dollars in other ways. Returning to our earlier analogy, our body would have the resources it needs to perform what we ask it to perform.

As a simple illustration, consider a poor family of 3 where the household head has only a high school degree. The family is assumed to be on both TennCare and Families First and live in a home worth $75,000. Note from the discussion above that Tennessee’s share of spending per TennCare beneficiary is $1,275, so the total TennCare costs for this family of 3 are $3,825. Let’s assume that the family receives the average amount of Tennessee’s share of assistance group support from Families First, $547. Adding these benefits together yields a total of $4,372 in support from Tennessee taxpayers through state taxes.

A home worth $75,000 would translate into a property tax bill of $602, using a statewide average rate. Of course, this is local revenue and our state government sees none of it. Combined state and local sales tax payments would be $1,087 using the figures presented above. Of this total, roughly 3/4 would flow to the state, and the remainder would go to the coffers of local government. Adding the taxes together produces a total of $1,689 per year, but less than one-half of this is state revenue.

We have considered only a couple of pieces of the fiscal puzzle and have already produced a huge deficit for the state. The situation for local government, though, looks pretty rosy. Right?

But look again. What about schooling costs? In the 2003–04 fiscal year, Tennessee spent $6,504 per pupil in public elementary and secondary schools. Of this total, 43.4%, or $2,823 came from the state, while 45.6% or $2,966 came from local sources. (The remainder came from the federal government.) So is the picture rosy for the local government? No, they don’t receive enough sales and property tax revenue from this hypothetical household to fund even a single child in the public schools, let alone any other locally provided services the household might use. And state government’s deficit has simply widened by considering education spending.

This simple illustration raises an important question: if a low-income household does not pay enough in sales and property taxes to support schooling and other services, how do we balance our budgets? Aside from federal aid, there are 3 mechanisms. First, households pay other taxes and fees in Tennessee, like the Hall income tax and motor vehicle registration fees. Second, higher income households pay a lot in taxes, but they generally don’t rely on government services like TennCare. This helps pay for the government services consumed by low income people. Third is through taxes on businesses, like the state corporate excise tax on business profits and the local gross receipts tax.
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Our fiscal health


Spending in Tennessee: Families First


Spending in Tennessee: Public housing


**Spending in Tennessee: Justice system**


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references

**Spending in Tennessee: Food stamps**


**Spending in Tennessee: TennCare**


Revenue in Tennessee

