
FINANCING COLORADO'S FUTURE

An Analysis of the Fiscal Sustainability of State Government

Phase 1 Findings



Center for Colorado's
Economic Future

APRIL 2011

Letter From the Chancellor

April 21, 2011

Dear Friends:

Colorado has been home to the University of Denver since our founding during territorial days in 1864, and in a sense, both the state and the University have grown up together. Our deep roots in this place have given rise to a strong sense of obligation among us at the University to work for the public good and the well-being of our fellow Coloradans, and indeed this has become a very large part of our institutional mission. This commitment has had its own long history, particularly as it relates to informing policy makers, elected officials and citizens as they have considered important fiscal decisions related to the health of the Colorado economy. Early examples include fiscal studies published in 1938 and 1959, the latter led by DU and supported by faculty members from both DU and the University of Colorado.

More recently, DU has contributed to the policy-making process through the activities of our Strategic Issues Program (SIP), begun in 2004. In that year, we assembled the Colorado Economic Futures Panel under the aegis of the SIP, and the report from this panel (2005) has become one of the touchstones of the economic reform movement in our state. Last year, in the midst of the worst economic recession and financial decline since the Great Depression, the General Assembly enacted Senate Joint Resolution 10-002, which requested that the University of Denver undertake a comprehensive study of the financing of state and local government in Colorado.

This new study, the first of its kind since 1959, was done over the course of the past year by the Center for Colorado's Economic Future at DU, under the leadership of Charles S. Brown. The report of this work is presented here. It will be followed in the coming months by the report from our current Strategic Issues Program panel, which has focused its work on the future of state government.

This study was made possible by support from the University of Denver and from nine Colorado foundations, which are the El Pomar Foundation, the Bonfils Stanton Foundation, the Colorado Health Foundation, the Rose Community Foundation, the Boettcher Foundation, the Gates Family Foundation, the Piton Foundation, the Colorado Trust and the Kaiser Permanente Foundation. We at the University of Denver are very grateful for the generosity of all of these nonprofit organizations, which, like the University, are dedicated to the public good.

Sincerely,



Robert D. Coombe

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INTRODUCTION

Senate Joint Resolution 10-002, which asked the University of Denver to conduct a nonpartisan review of state and local government taxes, was approved by the Colorado General Assembly during the most severe economic downturn in the United States in eight decades. The Colorado economy was hit so hard that revenue collections for the General Fund, the account that supports most of the core operations of state government, fell 13 percent—*more than \$1 billion*—in one year, from FY 2007–08 to FY 2008–09. The following year, FY 2009–10, the state took in roughly the same amount of general-purpose tax revenue as it had nine years earlier, in FY 2000–01. That is nearly a decade of zero revenue growth, while Colorado’s population increased 13 percent, public school enrollment 14 percent and state personal income an inflation-adjusted 17 percent.

Since the crisis began, the legislature has grappled with General Fund shortfalls in the hundreds of millions of dollars. The holes would have impacted the state sooner if not for a \$1.6 billion injection from the federal government’s economic stimulus program. As lawmakers began a new session in January 2011, they faced another substantial General Fund budget shortfall because, in large part, revenue collections had not recovered enough to replace the impending loss of federal stimulus money in the coming fiscal year.

Although the state’s short-term budget problems continue to be daunting, this study by DU’s Center for Colorado’s Economic Future focuses on Colorado’s long-term fiscal situation—the forces that will drive both revenue productivity and state government out to the year 2025 and beyond. It is the growing imbalance between projected General Fund revenues and the projected cost of programs that is particularly troubling.

The last comprehensive study of state and local government finances was conducted during a recession in the late 1950s, at the request of then-Gov. Steve McNichols. That review, a project led by DU and supported by faculty at DU and the University of Colorado, took more than two years to complete, cost the state about \$2.6 million in today’s dollars and produced close to 500 pages of detail on every aspect of Colorado’s fiscal structure. The scope of this study is limited primarily to the state’s General Fund, in part because of the constraints of time and resources, but also because it is within this \$7 billion (in FY 2010–11) account that the recession’s impact has been most keenly felt and the structural breakdown between revenue and expenditures is the most pressing. It is the General Fund, which represents a little more than one-third of the total \$19.5 billion state budget this fiscal year, into which the majority of state income and

sales taxes flow. The rest of the budget is financed with federal dollars earmarked for certain programs and with cash funds that receive specific fees and taxes to support specific programs, such as hunting and fishing license fees for wildlife management and motor fuel taxes for transportation projects.

Why is it important to examine the state government’s revenue system? Why does it matter if tax collections fall precipitously during a recession or if the long-term spending trajectory is steeper than the revenue curve? The answers to these questions are rooted in the role of state government in Colorado and, in particular, the way General Fund dollars are allocated.

Colorado is one of the most fiscally decentralized states in the nation, one of only six in which the state collects less tax revenue than its combined local governments. This may reflect a long tradition of relying on community authorities—cities, towns, counties and, more recently, special districts—to provide services. So what happens to the income and sales taxes that go into Colorado’s General Fund? A portion of that money goes for a few vital services provided directly by the state—judges to preside over the state’s court system, corrections officers to guard inmates inside the prisons, investigators to help local law enforcement agencies fight crime and professors to teach at state colleges and universities. Some of the money goes for state-administered services delivered at the county or community level, such as mental health clinics and public-assistance programs. But most of the General Fund is used to finance services administered and delivered by other entities, namely public school districts and the myriad health care providers reimbursed with Medicaid dollars.

Health care and K-12 education are not only the two biggest General Fund programs but two of the fastest growing and most difficult to cut. Therein lies the problem with a growing imbalance between projected revenues and expenditures: The Colorado Constitution requires a balanced budget every year, so something has to give.

The authors of the 1959 study observed that, “It has been aptly said that a tax pattern, like a suit of clothes, must fit the wearer.”¹ For the Center for Colorado’s Economic Future to determine whether Colorado’s current tax system “fits” the services it currently finances over the longer-term future, we needed to forecast expenditure trends. For the period FY 2011–12 through FY 2024–25, we forecast the largest and fastest-growing programs of state government, as well as the General Fund revenue that would be expected to finance them. Our objective

was to determine whether the state's financial problems are simply a reflection of a contracting economy (a cyclical problem), a harbinger of longer-term imbalances (a structural problem) or both.

In recent times, many homebuyers have fallen victim to adjustable-rate mortgages, engineered to keep payments low for a few years at the beginning of the mortgage, but with increasing payments down the road. The problem for some was that their incomes could not keep up with their rising mortgage obligations, and their homes were foreclosed upon. By analogy, is the situation simply that the state has found itself in a short-term bind and once we get through that, better times lie ahead? Or is Colorado's state government in a situation similar to an adjustable-rate mortgage? Is the state facing accelerating payments without sufficient income growth to pay the bills? Or worse still, are we suffering the one-two punch of both problems?

These are the questions we sought to answer. The results of our analysis pointed us to the kinds of options we will explore to address the state's fiscal problems over the long term.

NOTE: The models used to forecast revenues and expenditures for this phase of our research were based on the latest economic data available when those models were built. As we continue our work, the models will be updated to reflect changing economic circumstances.

NOTE: All further references to state General Fund revenues also include revenues diverted to the State Education Fund beginning in FY 2000–01.

THE BOTTOM LINE

Economists talk in terms of whether a phenomenon is cyclical or structural. High unemployment, for example, can be a cyclical problem when fluctuations in economic activity trend downward—many laid-off workers will be rehired when the cycle resumes an upswing. Structural unemployment, on the other hand, happens when underlying conditions change fundamentally, resulting in a mismatch between the demands of the labor market and how the labor force has been trained. This can lead to a prolonged period of high unemployment.

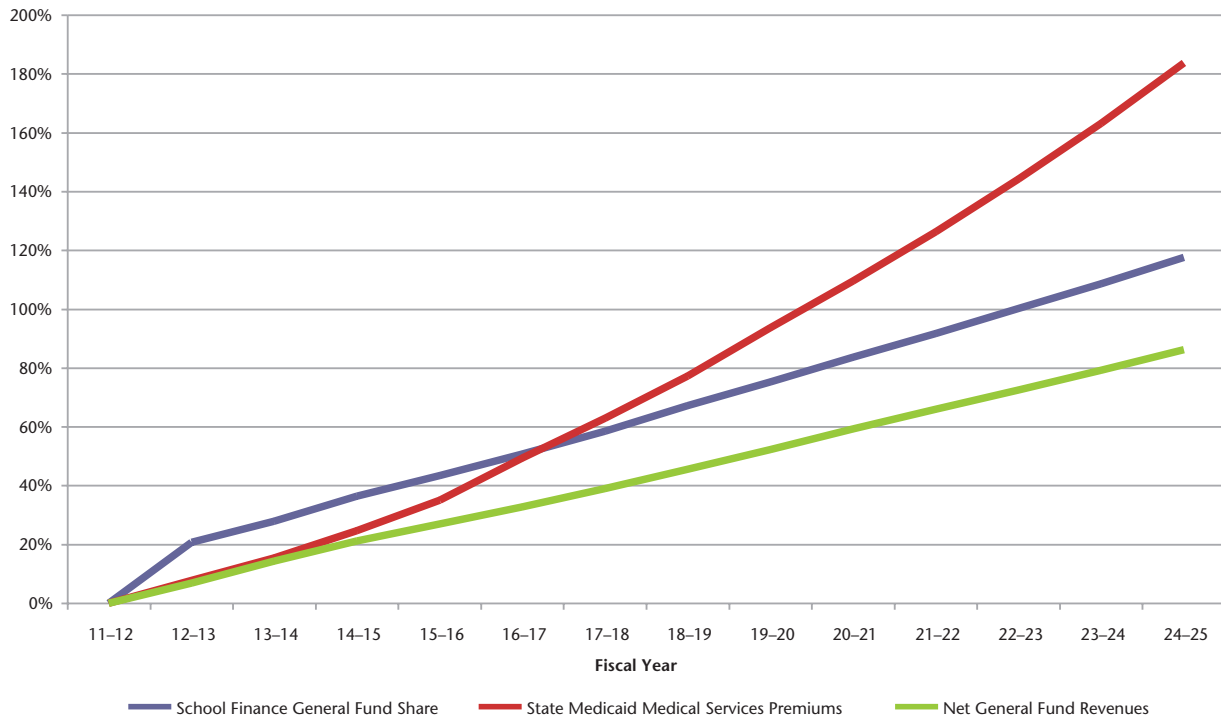
Colorado’s budgetary woes are both cyclical and structural. The extraordinary revenue shortfalls that have plagued state government for much of the last decade were caused, in large part, by two extreme economic downturns, the latter of which was, by many measures, the worst since the Great Depression. When the economy improves, tax collections will pick up. But absent major changes in policy, a structural imbalance underlying the fiscal workings of state government will ensure that Colorado’s budget problems persist for many years to come.

The bottom line is this: Even a strong recovery and sustained job growth over the next decade and a half will not produce enough income and sales tax revenue to afford Colorado’s share of Medicaid funding and the state’s payment for public schools under current constitutional and statutory provisions. Together with the rising (although more stable than in the past) cost of the state’s prison system, the two biggest programs in the state General Fund will continue to crowd out higher education and other programs competing for the same tax dollars.

The Center for Colorado’s Economic Future created models that projected General Fund revenues and costs for the three largest General Fund program areas—K-12 education, Medicaid and corrections—from FY 2011–12 to FY 2024–25. Our forecasts show that the state’s annual expenditures for Medicaid medical services premiums will nearly triple during that period (184 percent). What the state pays every year to help fund public schools will more than double (118 percent). General Fund tax collections, however, will grow only 86 percent.

Figure 1

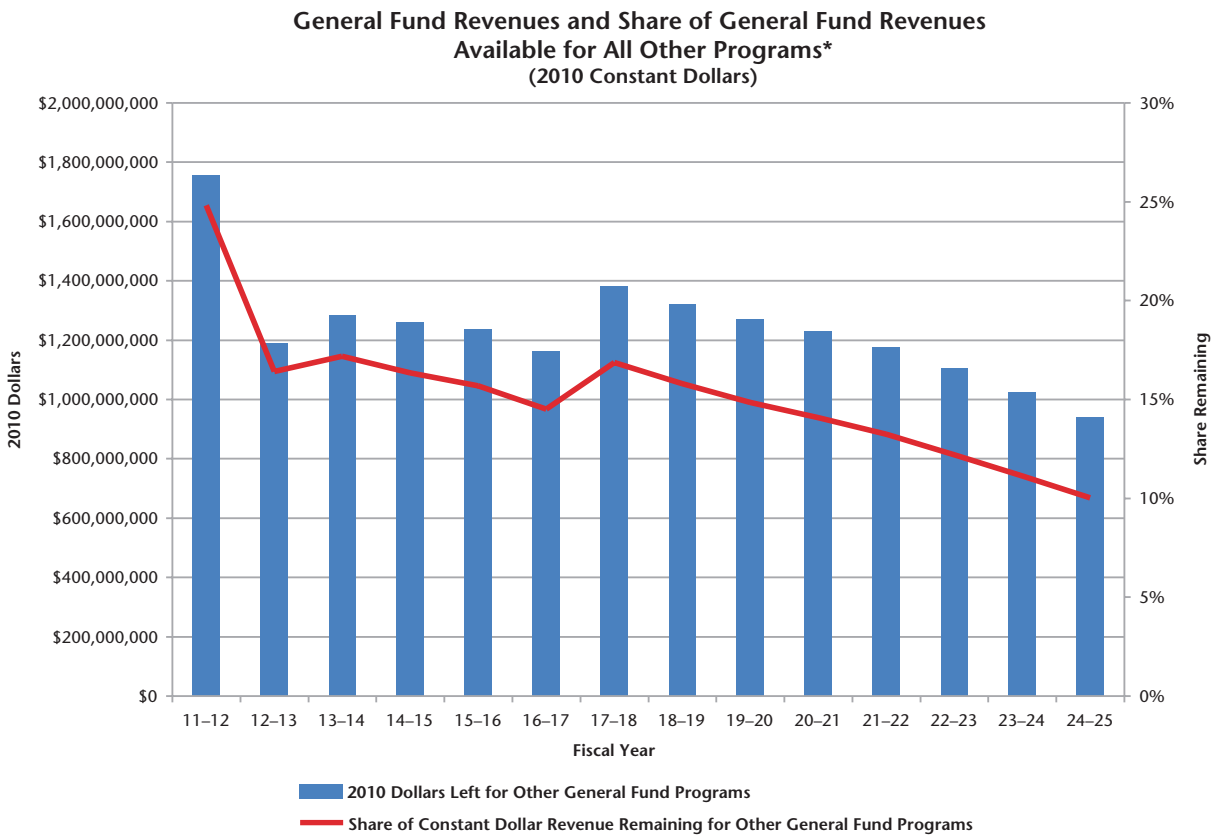
**Cumulative Growth Rates From FY 2011–12:
School Finance & Medicaid Appropriations vs. General Fund Revenues**



Forecast: Center for Colorado’s Economic Future, University of Denver

After increases for schools, Medicaid and corrections are funded, the share of the General Fund left over for other programs will be cut by 60 percent over our forecast period. Not only will the nominal amount of dollars remaining for higher education, human services, the court system and other programs drop, but the purchasing power of those dollars will fall by about 46 percent due to inflation. Meanwhile, Colorado's population is expected to rise about 26 percent, to more than 6.7 million people. That will mean more college students, more court filings, higher caseloads in the Department of Human Services and so on. Some of these programs will grow at rates greater than inflation as measured by the Consumer Price Index.

Figure 2

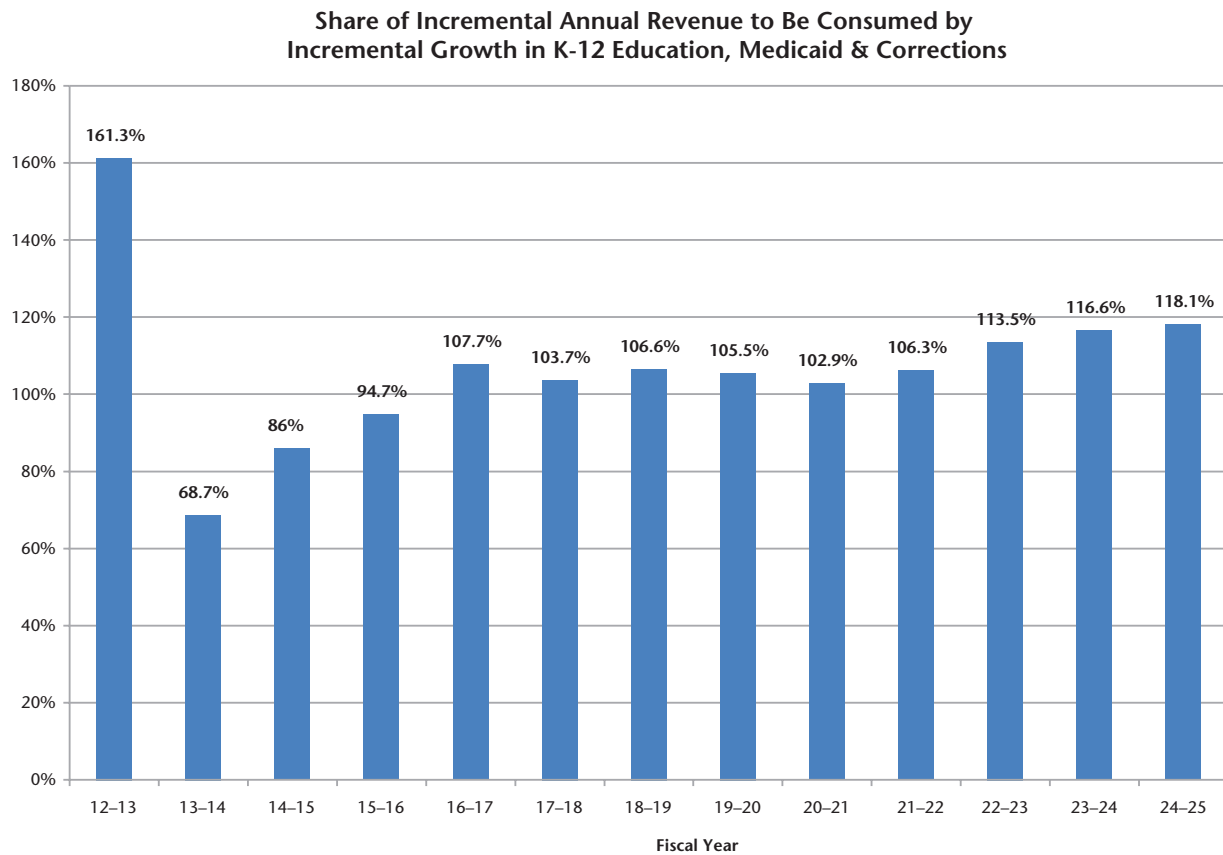


Forecast: Center for Colorado's Economic Future, University of Denver
 * Including SB 09-228 transfers from FY 2012-13 to FY 2016-17

We anticipate that General Fund diversions for transportation, capital construction and reserve increases will be triggered in FY 2012–13, as required by SB 09-228, due to a rise of more than 5 percent in state personal income. The diversions will continue for five years, expiring after FY 2016–17, leaving no continuing General Fund support for these purposes. Money available for programs other than education, Medicaid and corrections will be even less if state legislators and the governor continue the General Fund diversions. As shown in Figure 3, our models project that all “new money”—the amount of growth in revenue each year over the prior year’s revenue—will be consumed by schools, Medicaid and corrections for nine years beginning in FY 2016–17. In FY 2024–25, every \$100 in additional revenue will need to fund \$118 in additional expenses just for these three programs.

Colorado cannot expect to grow its way out of its budget problems. The Center’s state economic model, which is largely based on national economic indicators forecast by Moody’s Economy.com, shows a healthy recovery from the current economic downturn, with rates of job growth commensurate with the recoveries of the late 1980s and mid 2000s and with sustained job growth through 2025. However, that level of economic activity will fail to generate revenues sufficient to keep pace with the major programs driving General Fund expenditures. From FY 2011–12 to FY 2024–25, our projections show state K-12 education costs growing at a compound annual rate of about 6 percent and Medicaid expenditures growing more than 8 percent annually. But General Fund revenues will grow at a compound annual rate of only 5 percent over that period. From this we conclude that the state budget faces a persistent structural imbalance.

Figure 3



Forecast: Center for Colorado’s Economic Future, University of Denver

The Center's revenue model was generated econometrically by separately forecasting each major tax revenue stream and combining them into a General Fund total. The tax revenue streams were forecast using parameters estimated from a series of structural relationships between the historic performance of each tax and major macroeconomic indicators. On the expenditure side, the K-12 model projected the state share of education costs using a simulation that incorporated the mill levy freeze enacted in 2007, the expected performance of local property taxes and funding requirements resulting from school enrollment growth and inflation. Medicaid was forecast by first separately projecting caseload growth by recipient categories based on State Demography Office population projections. The Congressional Budget Office's national cost-growth projections for Medicaid were then applied to these caseloads to forecast the total growth of medical services expenditures. Corrections expenditures are based on a prison population forecast that takes into account recent changes in sentencing laws and grows with the population of males ages 18 to 30, as projected by the state demographer.

Among our study's other findings:

- Colorado's revenue system is more volatile than the revenue systems of the 50 states combined. This volatility stems primarily from the General Fund's reliance on individual income taxes, which has increased markedly over the last 30 years and which subjects state revenue collections to the ups and downs of capital gains realizations. Volatility—which works in state government's favor during boom times but can be devastating for the General Fund budget during economic downturns—makes it much more difficult for state economists to forecast tax revenues.
- The state portion of total school funding, which has risen to 63 percent from 55 percent in FY 1993–94, will grow to 70 percent by FY 2024–25. The local share, which is supported by local school property taxes, will continue to decline. This trend will persist despite a recent attempt to stabilize the property tax share through legislation that froze school district mill levies. Schools, excluding K-12 categorical programs, will consume 53 percent of General Fund revenues in FY 2024–25, compared with 45 percent in FY 2011–12.
- Medicaid expenditures will grow strongly due to costs associated with the high rate of health care inflation and a burgeoning number of older enrollees—a trend driven by the aging of the baby boom generation—who make up the most expensive part of the caseload. Many of these older enrollees will require long-term care at home or in skilled-nursing facilities. Medicaid medical services premiums will account for 27 percent of General Fund revenues in FY 2024–25, compared with 18 percent in FY 2011–12.

- While expenditures for the state's prison system will continue to grow, the share of General Fund revenues consumed by corrections will drop from about 9 percent in FY 2011–12 to about 7 percent in FY 2024–25. The corrections department was one of the fastest-growing portions of the General Fund budget as the prison population grew rapidly in the 1990s and 2000s. But this growth has leveled off and even declined recently thanks to changes in sentencing laws, a downward trend in felony court filings and slower growth in the 18- to 30-year-old demographic cohort most likely to be incarcerated. Our projections show the prison population rising less than 7 percent to about 24,110 in FY 2024–25 from the current population of 22,600.

Some of Colorado's fiscal problems are rooted in a system that limits taxes and revenue but also encourages—or is unable to restrain—growth in the state's obligation to fund some expensive programs. The system got this way for multiple reasons, some directly tied to decisions made by elected officials and citizens and some out of their control. Coloradans, for instance, can do little by themselves to bend the steep curve of health care inflation that is partly responsible for the Medicaid program's rising trend line. They can do nothing to change demographic currents propelling the future cost of Medicaid. But the problem with public school finance is mostly manufactured: The interaction of three voter-approved constitutional provisions and the state's school finance act forces the General Fund to bear an increasing share of the cost of K-12 education. Meanwhile, permanent tax cuts enacted in 1999 and 2000 have limited the state's ability to pay for schools and other core government functions.

Expectations cultivated during the 1990s, a period of robust economic expansion in Colorado, are part of the story. The roaring stock market, growth in high-wage jobs and economic activity from residential and nonresidential construction produced a bonanza of tax revenue for state and local governments. It was more or less assumed for several years that state revenue collections would be large enough for General Fund spending to grow at the maximum rate—6 percent annually—with money left over for exceptions to the spending cap, typically capital construction, maintenance of state facilities and transportation.

In FY 1996–97, income and sales taxes began to generate more revenue than could legally be retained under the Taxpayer's Bill of Rights (TABOR), the tax- and revenue-limiting constitutional amendment enacted by voters in 1992. At the end of the decade, with state economists projecting surpluses of billions of dollars over the next several years, lawmakers decided not only to refund excess revenues to taxpayers, as TABOR required, but to

lower sales and income tax rates permanently to avoid collecting money they figured would be refunded anyway. The income tax rate was lowered twice.

At about the same time, Colorado citizens moved to harness the state's prosperity to catch up on public education spending, which had fallen in national comparisons. The passage of Amendment 23 in November 2000 promised annual increases in per-pupil funding from the state and the diversion of income tax collections into a special trust fund for K-12 education. The inflated expectations of Amendment 23 proponents were evident in a *Denver Post* column a few days before the election. "The Colorado economy is so strong that every estimate of the state surplus revises it upward," they wrote. "The increase in the state education budget would come from the surplus that is expected to last for at least the next 10 years."

Those expectations proved to be unrealistic. We know in retrospect that various forces—the dot-com bubble, the real estate bubble, cheap and abundant credit, overleveraged consumers, etc.—distorted economic conditions and, therefore, revenue growth for some years in the 1990s and mid-2000s. Colorado cannot expect a return to such elevated levels of revenue growth any time soon, even with a healthy economic recovery. But the cost pressures associated with Medicaid, K-12 education and other programs will continue, resulting in a divergence between the long-term trajectory of projected expenditures and that of projected revenues. While the recent recession has required annual cuts to balance the General Fund budget, those cuts do not address the longer-term structural imbalance.

This persistent structural imbalance between General Fund revenues and expenditures will not be corrected without structural solutions. Below are the policy directions we have identified and will pursue further in the next phase of this project:

- ***A long-term planning approach to complement the annual budget process.*** Structural problems take years to develop; they will not be resolved overnight or during a single budget process. A long-term plan should address the persistent fiscal imbalance. It would be adjusted as necessary when economic circumstances and policy decisions exert different pressures on revenue and expenditure trends.
- ***Budget rules that address the volatility of revenue streams.*** Given Colorado's volatile tax structure, the management of state finances requires an explicit recognition of that volatility and rules for managing it. A budget stabilization fund would capture revenues generated during unusually large upswings and save them to cover shortfalls resulting from large negative swings.

- ***A redefinition of the state-local partnership for funding schools or a new way to fund schools.*** Tax-base erosion under the Gallagher Amendment, property tax limits imposed by the school finance act and TABOR, and the mandated cost increases of Amendment 23 have shifted the burden of funding K-12 education substantially to state resources. The partnership between state and local revenues should be rebalanced, or Colorado should consider a new way to pay for public schools.
- ***Strategies to address programs, particularly Medicaid, that grow faster than revenues.*** As Colorado's large baby boom cohort ages, the state will experience slower per-household revenue growth coupled with greater Medicaid expenses. Strategies include planning for cost increases, more cost-effective ways to deliver Medicaid services and ways to improve the productivity of current revenues.
- ***Stable and permanent funding sources for transportation, capital needs and controlled maintenance.*** In the long term, the General Fund cannot provide surplus funding for transportation, capital needs and controlled maintenance. Other financing mechanisms will need to be identified.
- ***Reforms of the revenue system.*** Colorado's current revenue system could be made more productive and flexible with measures that broaden revenue bases to capture a larger share of economic activity. This may be accompanied by lower rates and still result in a more productive and equitable revenue system. In addition, reconsidering the earmarking of certain revenues for specific purposes could increase elected officials' flexibility to deal with changing circumstances in a timely manner.

COLORADO'S REVENUE SYSTEM

Ideally, the taxes and fees imposed by a state government would be components of a carefully designed system. The mix of levies would generate revenue reliably—neither too excessively when the economy is good nor too ineffectively when times are bad—and revenues would grow proportionately with the level of services being financed. Taxes would be broad-based, so that the burden does not weigh too heavily on any class of taxpayer, and rates would be set low enough to minimize their effect on economic activity. Taken together, the taxes would be equitable, without a greater impact on people who are less able to pay.

The reality is, however, that state tax systems are the products of decades of tweaking. They were created many years ago, in eras with vastly different economies than those of the early 21st century. They were amended on a piecemeal basis as circumstances and politics warranted. Certainly no state's system perfectly fits all of the criteria mentioned above and others outlined in "Principles of a High-Quality State Revenue System,"² a widely accepted guide for state policymakers prepared by the National Conference of State Legislatures. Nonetheless, these goals constitute a worthwhile checklist as Colorado and other states re-evaluate their revenue sources.

This section explains how Colorado generates revenue to support the primary functions of state government and how those revenue sources have changed over the years. It also discusses factors affecting the growth and volatility of tax collections, and who bears the burden of Colorado taxes.

Background

The tax system that supports state government in Colorado, as in many states, is rooted in the Great Depression. The first statewide retail sales tax was an emergency measure in 1935, enacted to supplement declining property tax revenues and to raise money for welfare programs. Lawmakers optimistically set the sales tax to expire within two years, but it effectively became a permanent part of Colorado's tax structure in 1936, when an initiated constitutional amendment froze 85 percent of sales and other excise tax revenues for old-age pensions. Voters in 1936 also approved the state's first individual and corporate income taxes, with the levy on individual income originally intended to replace local property taxes as the funding source for public schools. The use tax followed in 1937, closing a loophole in the sales tax law by applying the rate to the retail price of tangible personal property purchased outside of Colorado and brought into the state for use, consumption or storage.

Income, sales and use taxes now provide about 95 percent of the revenue deposited into the General Fund, the \$7 billion³ account that supports the core operations of state government. The remaining 5 percent comes mainly from excise taxes on liquor and tobacco and a tax on insurance premiums. Other state taxes, fees and fines flow into special-purpose reservoirs called cash funds outside of the General Fund. For example, money collected from motor-fuel taxes and vehicle-registration fees goes into the Highway Users Tax Fund to pay for transportation projects. Hundreds of cash funds support a wide range of programs, from the compensation of crime victims to the licensure of mortgage brokers.

Money from the federal government is the third major category of funding for state government. Of the total \$19.5 billion state budget for FY 2010–11, nearly \$5.3 billion was expected to come from federal sources. Most of these dollars are tied to specific programs, such as Medicaid and K-12 education. Prior to the current economic downturn, the federal government picked up about half the cost of Colorado's Medicaid program. Economic stimulus funds from the American Recovery and Reinvestment Act (ARRA) have temporarily increased the federal government's share. ARRA funds also have been used to support other areas of the General Fund budget, such as corrections and higher education, during the economic crisis.

Property taxes in Colorado have been strictly a local government revenue source since a statewide property tax—limited to four mills and historically dedicated to capital construction financing—was repealed in 1964.

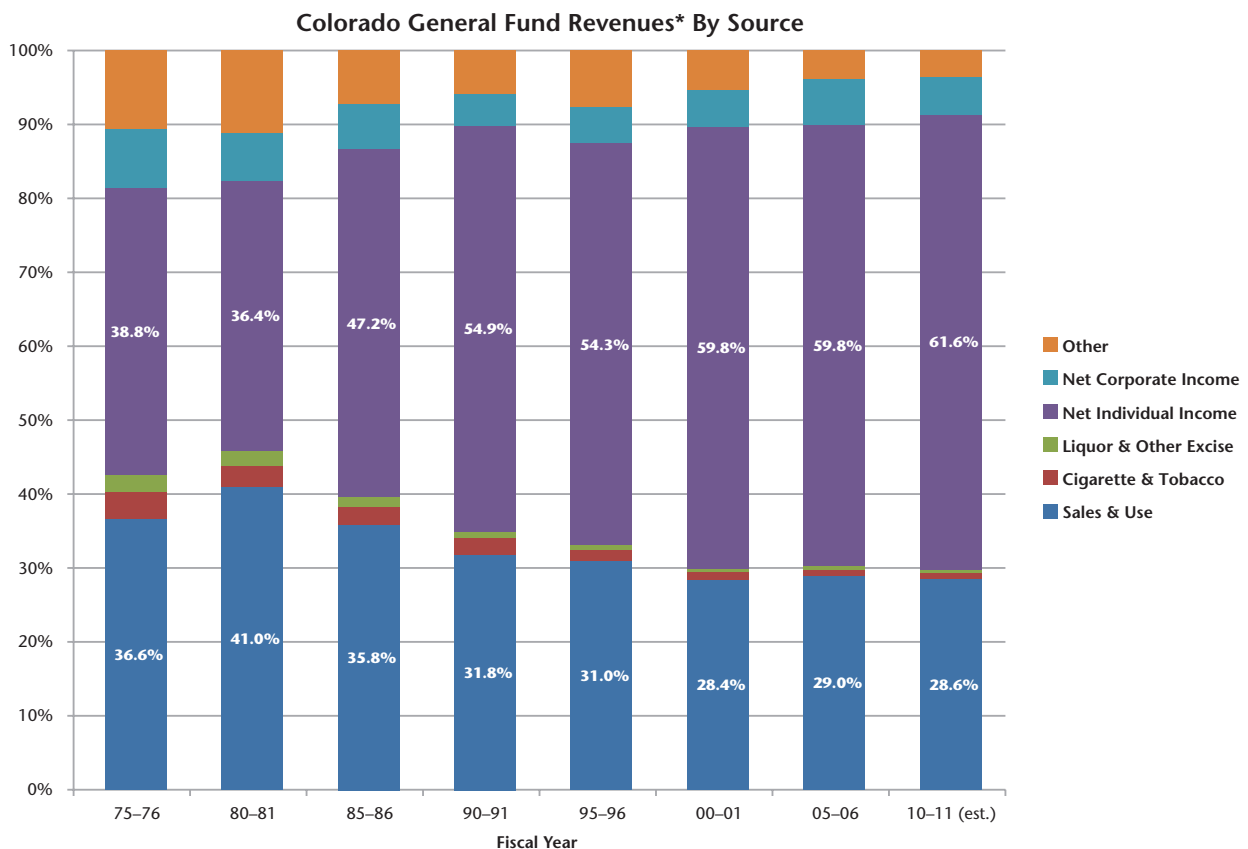
Since 1992, TABOR has specifically prohibited the assessment of a statewide property tax. However, the property tax plays a critical role in state government budgeting because property tax collections for school districts directly affect state appropriations for K-12 education. Colorado’s school finance law determines a base amount of per-pupil funding, which is adjusted for differences among districts in size, cost of living and the number of at-risk students. In most school districts, local property and specific ownership tax revenues (from vehicle-registration fees) are insufficient to cover their per-pupil amounts, so the state must backfill the difference. Two constitutional amendments, TABOR (enacted in 1992) and the Gallagher Amendment (1982), have held down the rate of property tax growth in Colorado, while a third, Amendment 23 (2000), has put pressure on the state to finance annual boosts in school funding. The state’s share of total K-12 education costs surpassed the locals’ share in 1991 and has risen steadily. It approached 63 percent in FY 2010–11, accounting for \$3.4 billion in state appropriations. The increased obligation has put considerable pressure on the General Fund, which also finances Medicaid, prisons, state colleges and universities and other programs.

Diversification of Revenue Sources

A diversified portfolio of taxes is another virtue of a high-quality state revenue system. The idea is that diversification stabilizes the system because the inadequacies of any one tax are offset by the productivity of others. In the mid- to late 1970s, sales and use taxes (taken together) and individual income taxes contributed nearly equal shares of revenue to the General Fund, and sales and use taxes contributed the larger share in some years. But over the past three decades, state government has increasingly come to rely on individual income tax collections to pay for General Fund programs, while the relative role of sales taxes has diminished.

Individual income taxes, as shown in Figure 4, now account for about 62 percent of General Fund revenues, up from 36 percent 30 years ago. Sales and use taxes together were the largest source of General Fund revenues in FY 1980–81, contributing 41 percent of the total. But this year, sales and use taxes are expected to generate less than 29 percent.

Figure 4



* Includes General Fund revenue diverted to the State Education Fund beginning in FY 2000–01.
Data source: Colorado Legislative Council

One reason for this shift was the 1986 federal tax reform act, which broadened the U.S. income tax base by eliminating several deductions. In 1987 the Colorado General Assembly passed legislation that both tied the state's definition of net taxable income to the federal definition and replaced a graduated income tax structure with a single flat rate of 5 percent in an effort to simplify the state's income tax system. Calculating state income taxes based on the wider federal tax base increased state income tax collections, which also were boosted over time by the rising incomes of Coloradans. More money reported on tax returns meant more income tax revenue for the state, particularly when stock market investors realized large capital gains during the dot-com bubble and before the current downturn.

Also responsible for reconstituting the General Fund revenue pie have been tax policy decisions, demographic shifts and long-term changes in consumer behavior that have slowed the growth rate of sales tax revenues.

Sales and Use Tax Exemptions

Most of the tax policy decisions were made in the late 1970s and early 1980s during a time of state revenue surpluses. The legislature responded to these surpluses by enacting several sales and use tax exemptions, the biggest of which was the 1979 exemption on food for home consumption. (A state sales tax on food would have generated an estimated \$252 million in revenues in 2009.) Other major exemptions targeted fuels used for residential heat, light and power (an estimated \$94 million in 2009), machinery and tools used in the manufacturing process (\$91 million) and medical equipment and devices (\$8.4 million). Prescription drugs (\$65 million) had been exempted a few years earlier, in 1965. The absence of nondiscretionary items from the tax base likely made state sales tax receipts fall more precipitously during the last two recessions than they would have otherwise. The reason is that during economic downturns consumers still tend to buy groceries and heat their homes—essential purchases that are exempt from state sales taxes—while they reduce spending on discretionary items that are taxable, such as home appliances, cars and restaurant meals.

In 2000, during another period of revenue surpluses, the legislature lowered the state sales tax rate from 3 percent to 2.9 percent, where it currently stands. TABOR prevents lawmakers from raising the rate again without a statewide vote. However, the legislature recently expanded the state sales tax base to a small degree—and on a temporary basis in some instances—following a 2009 ruling by the Colorado Supreme Court. For 17 years after the 1992 passage of TABOR, it was generally thought that state lawmakers did not have the authority to repeal any sales tax exemptions because of TABOR's restrictions on tax policy changes without voter approval. However, the

Supreme Court decision⁴ opened the door for lawmakers to make tax policy changes that do not cause the state to exceed its TABOR revenue limit. During budget crises in 2009 and 2010, the legislature repealed or suspended about \$120 million in sales and use tax exemptions for cigarettes, soft drinks, sugary snacks, software, direct mailings and some other items.

Taxing Services

It is unclear whether state lawmakers could invoke this Supreme Court decision to extend the sales tax to certain services without a vote of the people. For 10 years beginning in 1935, Colorado had what was considered a “very productive” state sales tax on services, but it was repealed after increasing opposition from professional groups.⁵ Today, the state sales tax is applied to fewer services here than in most states,⁶ even though the service sector now contributes about 80 percent of economic output (as measured by state gross domestic product) in Colorado. Services commonly taxed in other states that are not taxed by the state in Colorado include: photocopying; admission to professional sports, fairs and cultural events; 900 telephone-number services; and sign construction and installation.

As shown in Figure 5, the shift from a goods-based to a services-based economy in the United States began in the late 1960s and early 1970s, and Moody's Economy.com's forecast predicts that this shift will continue. Expanding the sales tax to additional services would increase the sufficiency and reliability of Colorado's sales tax revenue stream, allowing tax collections to grow more in step with growth in the state's economy.

There are many scenarios for the addition of services to the sales tax base, largely based on the type of services included as taxable. Our analysis defined taxable services most narrowly by restricting the definition to personal services, such as auto and other repairs, veterinary services, recreational services and personal care services not including medical care. Under the narrowest extension of the sales tax base, we estimate that adding personal services would generate 18 percent to 29 percent more revenue in FY 2011–12, with the additional yearly amount being 19 percent to 33 percent in FY 2024–25. The wide range of growth estimates is the result of differing assumptions about the purchasers of these services. At the lower end, we assume that only households would be taxed. At the higher end, all sectors including businesses and nonprofits would be subject to the sales tax when purchasing a taxable service. For this analysis, we maintained the current state sales tax rate of 2.9 percent and evaluated the increase relative to our sales tax forecast off of the current base, which consists mainly of goods sold at retail.

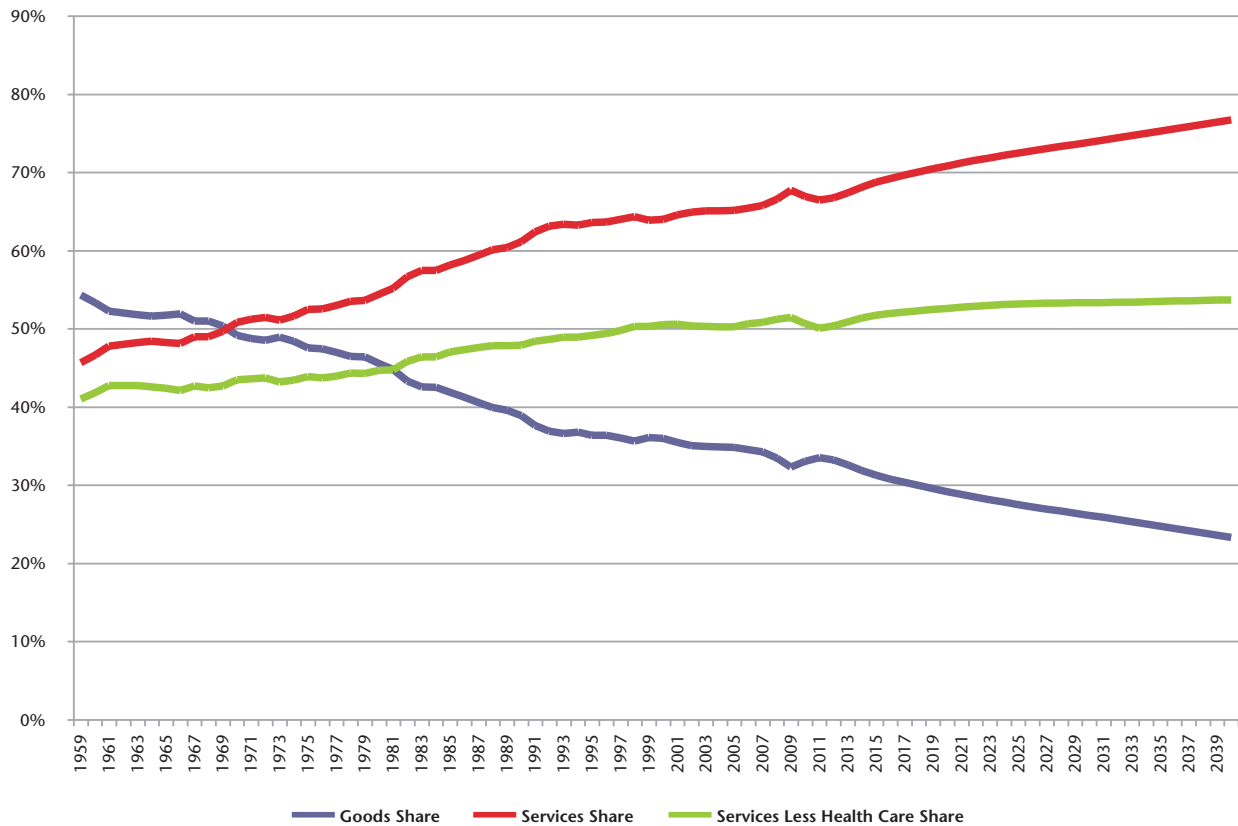
Including more services in the tax base could allow the state to lower the current sales tax rate and still generate additional revenue in future years. The amount of extra revenue would depend on how much the base is expanded. Because Colorado taxes far fewer services than its border states (New Mexico taxed 158 services in 2007⁷⁷ while Colorado taxed only 15), it is unlikely that bringing additional services, particularly personal services, into the tax base would affect the state's competitive position.

Internet Sales

Colorado and other states also lose revenue when residents do not pay sales or use taxes on purchases made over the Internet. In an effort to improve compliance, the General Assembly passed a bill in 2010 that requires out-of-state online retailers to notify Colorado purchasers that they owe state taxes. The legislation was expected to bring in about \$12.5 million for the state and an undetermined amount for local governments in FY 2011–12. However, in January 2011, a federal judge issued a preliminary injunction to block the state's enforcement of the law, ruling that it places a burden on out-of-state retailers that is not imposed on in-state businesses.

Figure 5

Personal Consumption Expenditures for Goods and Services as a Share of Total: U.S. History and Forecast



Data source: Moody's Economy.com

Demographic Shifts

The performance of tax collections also can be influenced by demographic factors. For example, how much residents earn—and therefore pay in sales and income taxes—is partly determined by whether they have completed college or have earned advanced degrees. Characteristics such as age, education, ethnicity, family size and income level shape consumption patterns. These, in turn, affect the generation of sales tax revenue. Meanwhile, population growth, changes in household size and other demographic shifts can impact demand for housing, raising or lowering values and affecting property tax receipts.

Colorado is a relatively high-income state, in part because its residents are better educated than the U.S. population as a whole. It has been that way for at least 70 years, even before an influx of World War II veterans who had been stationed at military bases around the state. Many went to college here on the G.I. Bill. Continued defense spending and the development of Denver as a regional headquarters for federal agencies lured many more college-educated people to the state. The establishment of advanced technology businesses later attracted even more highly trained workers.

Colorado now ranks third among states in educational attainment, behind Massachusetts and Maryland, with 35 percent of residents ages 25 and older possessing a bachelor's or higher-level college degree. To achieve that status, Colorado has needed to import many thousands of well-educated people from other states. Nearly seven of 10 college-educated Coloradans were born in another state, and 10 percent were born in other countries or are U.S. citizens born abroad—a reflection of Colorado's rapid population growth over the last two decades.

Only Nevada and Arizona grew faster in the 1990s, when Colorado claimed five of the nation's 10 fastest-growing counties. That gallop (30.6 percent growth) slowed to a trot in the 2000s (16.9 percent), but Colorado still added people more quickly than all but eight states. Jobs are typically what lure people to Colorado, and a shortage of employment tends to keep people away or send them packing to other states. But this didn't happen after the 2008 economic bust—people kept moving here. The decade of the 2000s appears to be an aberration, with the state gaining 728,000 new residents but adding only about 35,000 new jobs.⁸

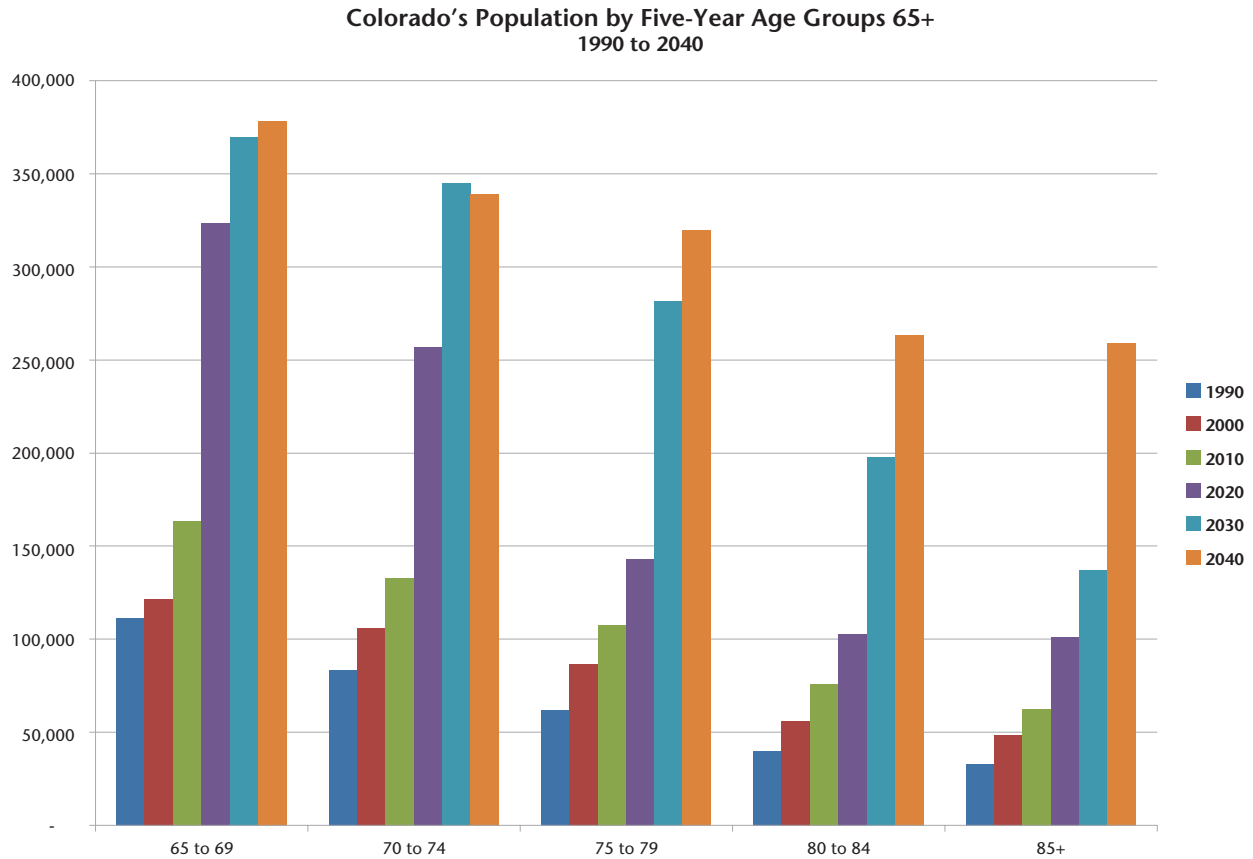
Colorado's growth surge is expected to continue, albeit at rates more comparable to the 2000s than to the 1990s. The state demographer projects that the state's population, about 5 million in 2010, will approach 6.2 million by 2020 and reach 7.2 million by 2030, growing fastest from 2015 to 2020 at an average annual clip of 1.9 percent. The pace will slow to 1.1 percent a year by the time the population surpasses 8 million in 2040.

An Aging Population

Colorado has been a relatively youthful place for decades. About one in 10 residents was 65 or older in 2009, ranking the state fifth from the bottom among states in that age category. Starting now, however, the graying of Colorado is about to accelerate. And that will have profound implications for state government, not only in the demand for services but in consumption patterns and personal income levels and how those factors affect the generation of tax revenue.

In just four years, by 2015, the cohort of older Coloradans is projected to be 13 percent of the total population. It will climb to 15 percent five years later, 17 percent by 2025 and about 18.5 percent by 2030. By then, the population of Coloradans 65 and older is expected to be three times the size it was in 2000, growing from 419,000 to more than 1.3 million. The state's median age—28.6 in 1980 and 36.3 in 2010—will reach about 37.6 in 2030 before leveling off.

Figure 6



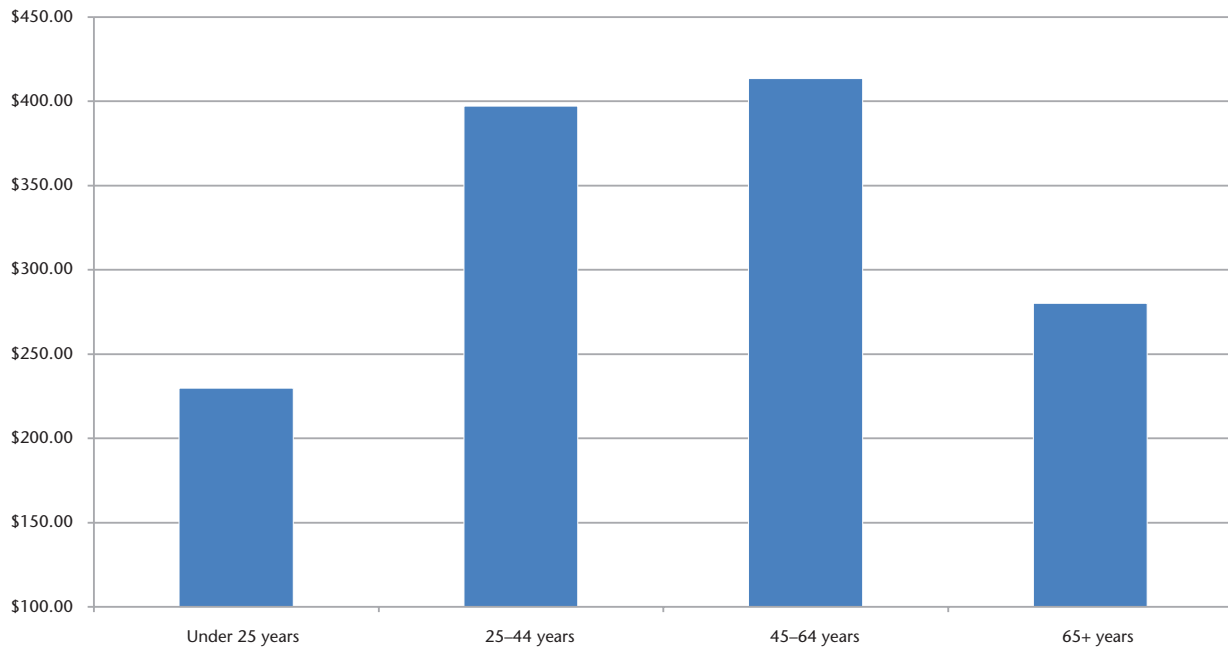
Data source: Colorado State Demography Office

The aging of the baby boomers—people born during a post-World War II jump in fertility from 1946 to 1964—is behind this imminent demographic shift. The first baby boomers are turning 65 in 2011, and all of them will be in the “older” category by 2030. Of course, this is not just a Colorado phenomenon. Nearly one in five Americans will be 65 or older two decades from now. But the change will occur more rapidly here. A study by former state demographer Jim Westkott pinpointed the reason: Colorado’s baby boom cohort grew 312 percent from 1950 to 2000, compared with 117 percent for the United States as a whole. Most of Colorado’s growth in this group is attributable to the aging of residents who moved here from other places as younger adults.

The first baby boomers were 25 to 35 years old in the 1970s, and many came to Colorado to work in the expanding technology, tourism, construction and energy industries. Nearly 91,000 more people moved into Colorado than moved out in 1973, an all-time peak for net migration into the state. More housing units were built here in the 1970s than even during the booming 1990s. Many newcomers stayed put and aged. Since 2000, the group of Coloradans about to become senior citizens—those 55 to 64—has grown at an average annual rate of nearly 6 percent, while the group of all U.S. residents in that age category has grown about 4 percent per year.

Figure 7

Patterns of Household Contribution to the Sales Tax Base by Age of Householder



Data sources: Consumer Expenditure Survey, U.S. Bureau of Labor Statistics, October 2010; American Community Survey, U.S. Census Bureau, 2009; revenue approximated using state sales tax rate of 2.9 percent.

Because so many factors must be considered, it is difficult to predict the fiscal impact of this coming demographic wave of seniors. Americans are living longer and are less likely to be disabled, at least in their early senior years, than in the past. Older Americans also are more likely to be better educated and wealthier (although retirement account losses stemming from the recent recession have cut into much of that wealth for many people). Still, it is known that people 65 and older generally have less income than people in their prime working years. In 2010, the estimated median income for Colorado households headed by seniors was \$38,097, compared with \$68,637 for householders ages 45 to 64 and \$58,134 for householders 25 to 44.

The fact that seniors make only 55 percent of the income of 45- to 64-year-olds will affect per-household tax revenues as the number of senior-headed households skyrockets in coming years, growing much faster than households headed by any other age group. People 65 and older now constitute about 17.5 percent of Colorado householders. Two decades from now, nearly a third of all households in the state will be headed by senior citizens. Because seniors spend considerably less, particularly on taxable goods and services, than those in other age categories (except for the under-25 group), they tend to pay less in sales taxes per household. Figure 7 uses consumer expenditure data to approximate Colorado sales taxes paid per household in 2009 by age of householder.

Consumer expenditure data also show that a smaller share of seniors' income, compared with that of other age groups, is subject to income taxes. More than half of what seniors take in comes from Social Security or pensions, which may not be fully taxed at the federal level (reducing the amount subject to state income taxes). In addition, Colorado allows a married couple to subtract up to \$48,000 of pension and annuity income.⁹ More than 426,000 tax returns included pension and annuity deductions in 2005, amounting to at least \$170 million.

Table 1

Projected Growth of Colorado Households by Age of Householder 2010–2030	
All householders	44.9%
18–24 years	26.7%
25–44 years	30.1%
45–64 years	16.3%
65 and over	147.5%

Data source: Colorado State Demography Office

MEASURING REVENUE GROWTH AND PRODUCTIVITY

Key Finding: Colorado has a slight revenue productivity problem.

Growth in total General Fund tax revenue sources has failed to keep pace with growth in incomes and lags the combined 50-state performance. Because of projected demographic changes and the structure of our revenue system, our analysis suggests that this slight degradation in productivity will continue over the modeling horizon of this study.

Tax revenues in Colorado continue to exhibit fairly healthy growth in general, but there are signs the system described in this section will generate slower-growing tax revenues into the future, in total and for specific revenue sources.

Over the past 30 years, real (inflation-adjusted) per-capita General Fund tax revenue growth has slightly exceeded population and inflation, growing at 0.03 percent. Over this same period, however, real per-capita personal income in the state grew by 1.27 percent. Another method of measuring revenue growth allows for a more detailed analysis. Comparisons of total General Fund tax revenue growth to total personal income growth for Colorado and all 50 states combined yielded the following:¹⁰

- For the period 1977–2009, a 1 percent increase in total Colorado personal income resulted in a 0.96 percent increase in General Fund revenues.¹¹
- For the shorter period 1992–2009, a 1 percent increase in total Colorado personal income resulted in a 0.91 percent increase in General Fund revenues.
- For the shorter period 1992–2009 for the 50 states overall, a 1 percent increase in total personal income resulted in a 0.95 percent increase in total general revenue to the states.¹²

As Colorado households age, they spend less on goods subject to state sales tax and have less household income subject to state income tax. So, as the share of older households increases, the growth rate of state revenue relative to state personal income likely will fall. Furthermore, the inflationary pressures on goods subject to the state sales tax are lower than those on wages or other broad areas of spending. Thus, over time, the sales tax becomes less productive relative to growth in other economic variables such as income. These phenomena combine to place downward pressure on the growth of state revenues relative to other sectors of the economy, both in the state and the nation overall.

Not all revenue sources grow with personal income at the same rate. Table 2 below shows the percent increase in each revenue source that resulted from a 1 percent increase in total personal income. The analysis was performed for two time periods in Colorado, as well as for a corresponding time period for the 50 states combined.

Corporate income tax revenue growth in Colorado, measured relative to state gross domestic product rather than state personal income, is increasing in its productivity over time and is more productive than for the 50 states overall. However, on average, corporate income taxes historically represent only 5 percent of total General Fund revenues, not a large enough share to translate into more robust growth for the General Fund overall.

Table 2

Percentage Increase in Revenue Source from a 1 Percent Increase in Total Personal Income* ¹³			
	Colorado (1977–2009)	Colorado (1992–2009)	50 States (1992–2009)
Individual Income Tax	1.15%	1.02%	1.046%
Sales Tax	0.795%	0.685%	NA ¹⁴
Use Tax	0.685%	0.892%	NA
Sales and Use Tax	0.786%	0.702%	0.867%
Selective Excise Taxes	0.163%	No significant relationship	0.893%

* All coefficients significant at 1 percent level unless otherwise noted.

Revenue Volatility

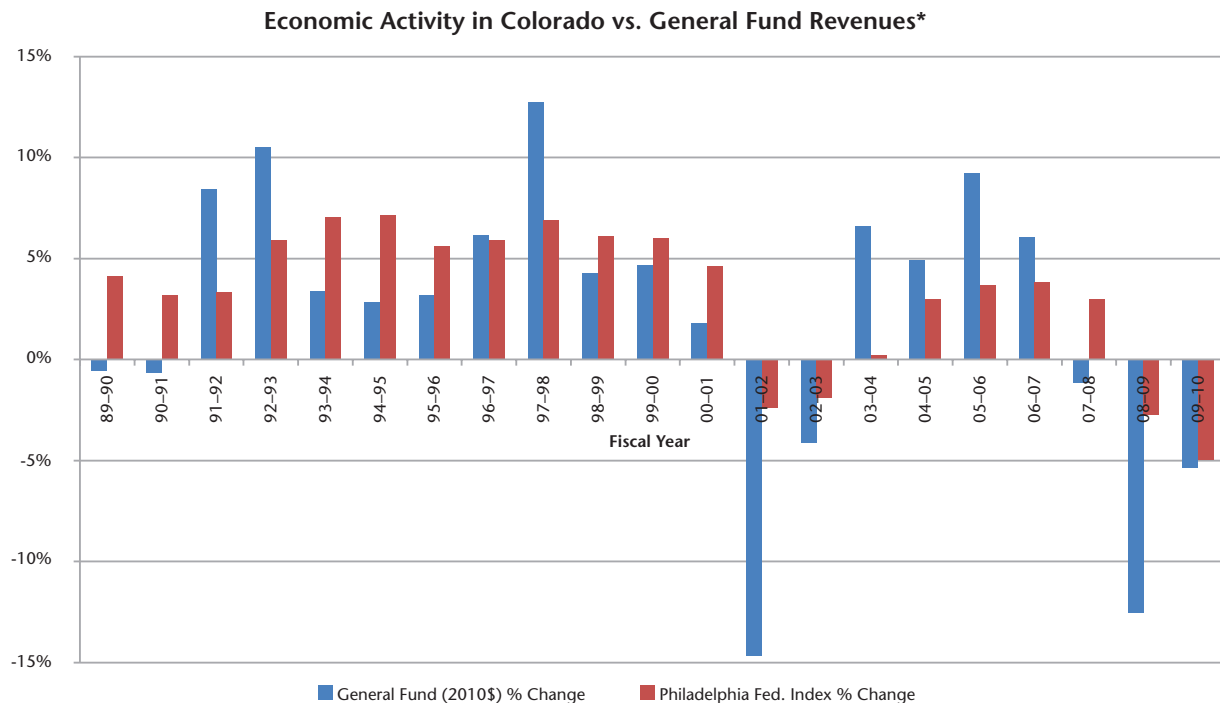
To get an idea how changes in the economy can quickly alter the outlook for state government revenue collections, consider this: In June 2008, six months after the nation officially entered a recession, the Colorado Legislative Council Staff expected individual income tax receipts for FY 2009–10 to total about \$5.6 billion. Six months later, near the height of the global financial crisis, the projection for individual income tax revenue for that fiscal year had been revised downward by \$848 million. By June 2010, at the end of FY 2009–10, the estimate stood at \$4.1 billion, down another \$660 million. In total, that amounts to 37 percent less revenue—\$1.5 billion less—than state economists originally expected from income tax filers for that year.

The opposite occurred to some extent in the late 1990s, when the stock market was soaring and Colorado’s economy was in overdrive: The state’s coffers overflowed, and state economists had to revise their calculations upward.

Heightened volatility is a consequence of the General Fund’s growing reliance on individual income taxes. It works in state government’s favor during boom times, but it can be devastating for the state budget when the economy sours. Capital gains are a primary reason for these exaggerated revenue swings.

The base of taxable income includes wages and salaries, dividends, interest and capital gains realizations. A net capital gain or loss is the difference between the sale price of a capital asset—often an investment in the stock market—and the cost basis for that asset. Because capital gains are included in regular taxable income at the state level, collections are larger when taxpayers make money on financial investments and smaller when taxpayers do not claim capital gains or when they take losses, which sometimes can be carried forward for several years, thus reducing taxpayers’ taxable income. This up-and-down nature of capital gains can make revenues collected from individual income taxes much less certain. Total General Fund tax revenues, in fact, can be much more volatile than the state’s economy, as shown in Figure 8, which relates annual changes in the General Fund to annual changes in the Philadelphia Federal Reserve’s Coincident Index for Colorado. This is a comparison of the broadest measure of state General Fund income—gross revenues plus revenues diverted to the State Education Fund—with the broadest measurement of economic activity in Colorado. The Coincident Index, produced monthly for each state, includes nonfarm payroll employment, manufacturing hours, the unemployment rate and wage-and-salary disbursements deflated by the consumer price index. Long-term growth in the Coincident Index matches that of the state’s gross domestic product.¹⁵

Figure 8

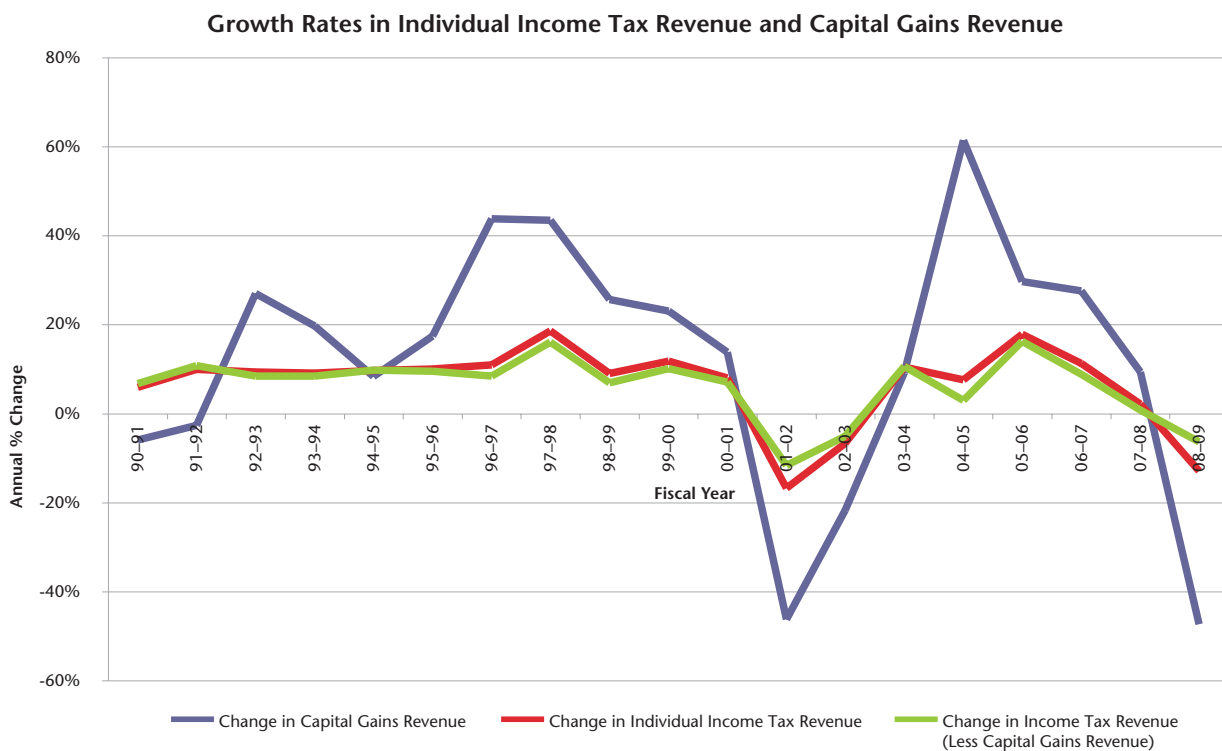


* Includes General Fund revenue diverted to the State Education Fund beginning in FY 2000–01. Data sources: Colorado Legislative Council Staff; Federal Reserve Bank of Philadelphia

General Fund revenues also can be much more volatile than Coloradans' income. In boom times, individual income tax collections tend to fill state coffers faster than personal income growth. Revenues rose so quickly in the late 1990s and early 2000s that the General Assembly permanently reduced the income tax rate twice—to a flat 4.75 percent and then to the current rate of 4.63 percent—to avoid projected TABOR refunds of more than \$1 billion annually. But in periods of zero or negative personal income growth, individual income tax revenues—and revenues overall—have fallen at a much greater rate than personal income. This was especially evident during the last decade's two recessions.

The volatility of revenue generated from capital gains can be extreme enough to affect the trend in total individual income tax collections. State income tax revenue attributed to capital gains realizations can be approximated using data from the Internal Revenue Service and the Colorado Legislative Council Staff. These calculations show that capital gains revenue¹⁶ represented about 5 percent of all individual income tax revenue in FY 1991–92, but that share grew to nearly 15 percent in FY 2000–01, before the dot-com bubble burst, as investors sold high-flying stocks and bonds and exercised stock options. It fell to 9.5 percent as the country entered a recession in FY 2001–02 and then dropped below 8 percent during the next two fiscal years. In FY 2007–08, the share of income tax revenue from capital gains grew to an even higher level—16 percent—than it had been at the start of the decade, but plummeted again when the stock market crashed the next year. During the last decade, year-to-year increases in capital gains revenue have been as much as 61.5 percent (2003 to 2004) and year-to-year declines as much as 47 percent (2007 to 2008). This degree of volatility makes it difficult to project revenue for state budgets with much certainty.

Figure 9



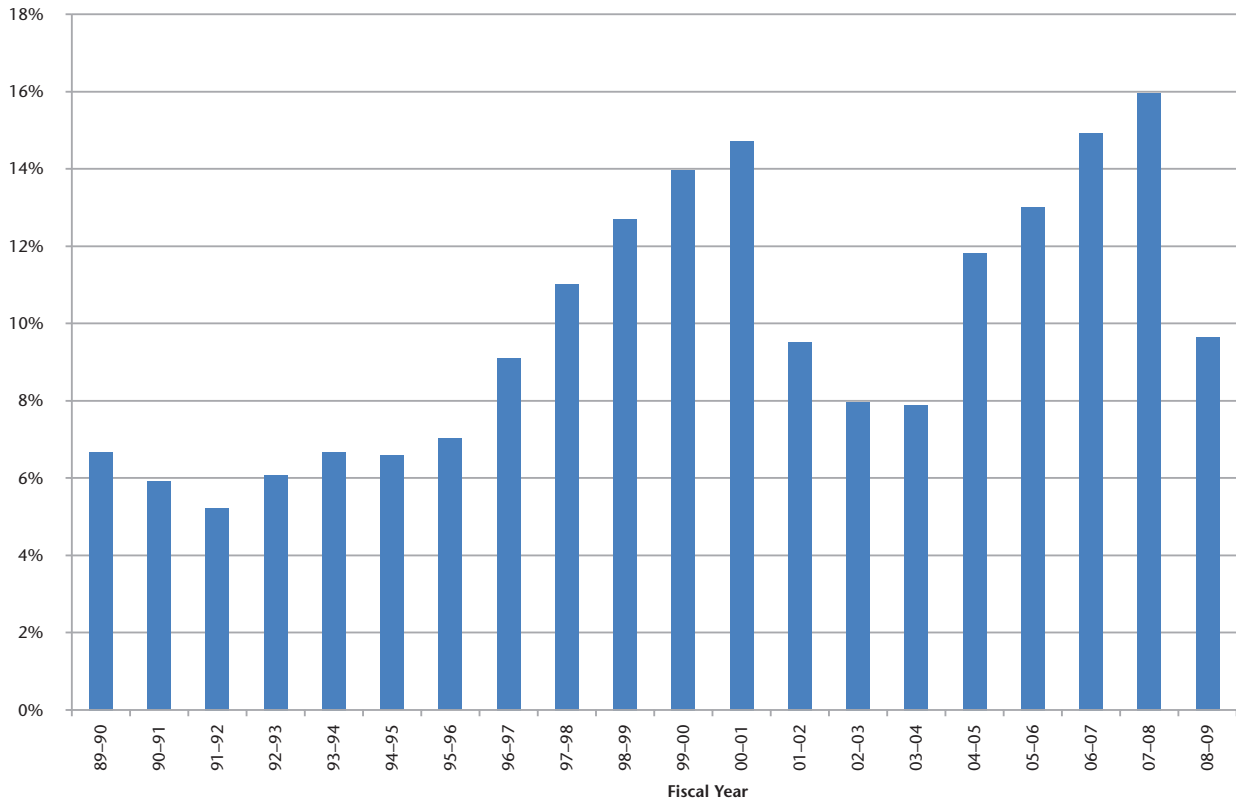
Data sources: Internal Revenue Service, Colorado Legislative Council

The volatility of capital gains realizations likely impacts Colorado more than most states because of Colorado's reliance on individual income taxes and its relatively high-income population. Of the 43 states with income taxes, only four (Oregon, New York, Virginia and Massachusetts) collected a larger share of all state taxes from individual income taxes than Colorado in 2009. Of \$8.7 billion in total state taxes, 50.7 percent came from individual income taxes. The national average was 34.4 percent.

A 2003¹⁷ study showed that individual income tax collections are more volatile in states with more capital income in their tax bases. Because wealthier taxpayers report the most capital gains on their tax returns, states such as Colorado with higher per-capita incomes are apt to be more affected by fluctuations in capital gains. In 2008, the latest tax year for which IRS data are available, Colorado ranked fourth among all states with state income taxes in net capital gains as a percentage of total adjusted gross income (6.3 percent). It ranked third in 2006 (11.3 percent).

Figure 10

Capital Gains Tax Revenue as a Share of Total Individual Income Tax Revenue



Data sources: Internal Revenue Service, Colorado Legislative Council

MEASURING REVENUE VOLATILITY

Key Finding: Colorado has an increasing revenue-volatility challenge.

While all of the state’s major revenue sources are becoming increasingly volatile, a growing reliance on the relatively more volatile individual income tax has made the General Fund more volatile overall and thus more difficult to forecast. Unless the state and national economies undergo significant structural changes, we project that revenues will remain volatile over the forecast horizon of this study.

As with revenue productivity, revenue volatility can be measured and stated as comparative percentages. The appropriate interpretation is in the relative changes in the rate of the growth rates of revenues and personal income. Change in the rate of a rate of change might best be explained using an illustration: A car traveling at 40 mph has a constant rate of change in its position relative to a stationary object. As the car speeds up or slows down, its rate of change is itself constantly changing. Hence, it is showing a change in the rate of a rate of change.

For Colorado’s General Fund and general revenues for the 50 states combined, the following relationships concerning volatility hold:¹⁸

- For the period 1978–2009, a 1 percent change in the rate of the growth rate of Colorado personal income resulted in a 1.49 percent change in the rate of the growth rate of General Fund revenue.
- For the shorter period 1992–2009, a 1 percent change in the rate of the growth rate of Colorado personal income resulted in a 2.8 percent change in the rate of the growth rate of General Fund revenue.
- For the shorter period 1992–2009 for the 50 states overall, a 1 percent change in the rate of the growth rate of total personal income resulted in a 1.81 percent change in the rate of the growth rate of total general revenue to the states.

Table 3

Percent Change in the Rate of the Growth Rate of Revenue Sources Resulting From a 1 Percent Change in the Rate of the Growth Rate of Total Personal Income* ¹⁹			
	Colorado (1978–2009)	Colorado (1992–2009)	50 States (1992–2009)
Individual Income Tax	1.63%	3.06%	2.71%
Sales Tax	1.22%	1.80%	NA ²⁰
Use Tax	1.70%	1.88%	NA
Sales and Use Tax	1.25%	1.82%	1.24%
Selective Excise Taxes	No significant relationship	.03% ²¹	1.0% ²²

* All coefficients significant at 1 percent level unless otherwise noted.

Largely due to the behavior of the individual income tax as described in this section, revenues in Colorado are becoming increasingly volatile. And comparisons with national data reveal that Colorado has a more volatile revenue system than the 50 states combined. Table 3 shows the percent change in the rate of the growth rate of each revenue source that resulted from a 1 percent change in the rate of the growth rate of total personal income. The analysis was performed for two time periods in Colorado as well as for a corresponding time period for the 50 states combined.

As previously mentioned, volatility in the individual income tax can be attributed to volatility in capital gains revenue. A further breakdown of Colorado’s individual income tax into estimates of taxes on capital gains realizations and on other sources of income yields the following findings for the period 1989–2009:²³

- Total individual income taxes were 3.06 times as volatile as personal income.
- Income taxes on sources of income other than capital gains were 2.14 times as volatile as personal income.
- Income taxes on capital gains were 8.2 times as volatile as personal income.

It is important to note that volatility of revenue in and of itself is not necessarily a problem. Managing and budgeting in a volatile environment, however, can be challenging for state lawmakers and budget writers.

Volatile revenues are often the most productive ones, and this is the case in Colorado. The relatively volatile individual income tax is the most productive of the state’s major revenue sources. The even more volatile capital gains component is approximately 50 percent more productive than the tax on other sources of income or the individual income tax overall. Eliminating volatility often comes with a tradeoff: revenue productivity. Therefore, volatile revenue environments often require strategies for recognizing volatility and managing revenue rather than blunt-force solutions such as eliminating volatile revenue sources.

Tax Equity

The question of who bears the burden of state taxes also is important as policymakers and voters re-examine Colorado's revenue structure. High-quality tax systems try to treat individuals and households equitably, and they try to minimize the impact of taxes on those with lower incomes.

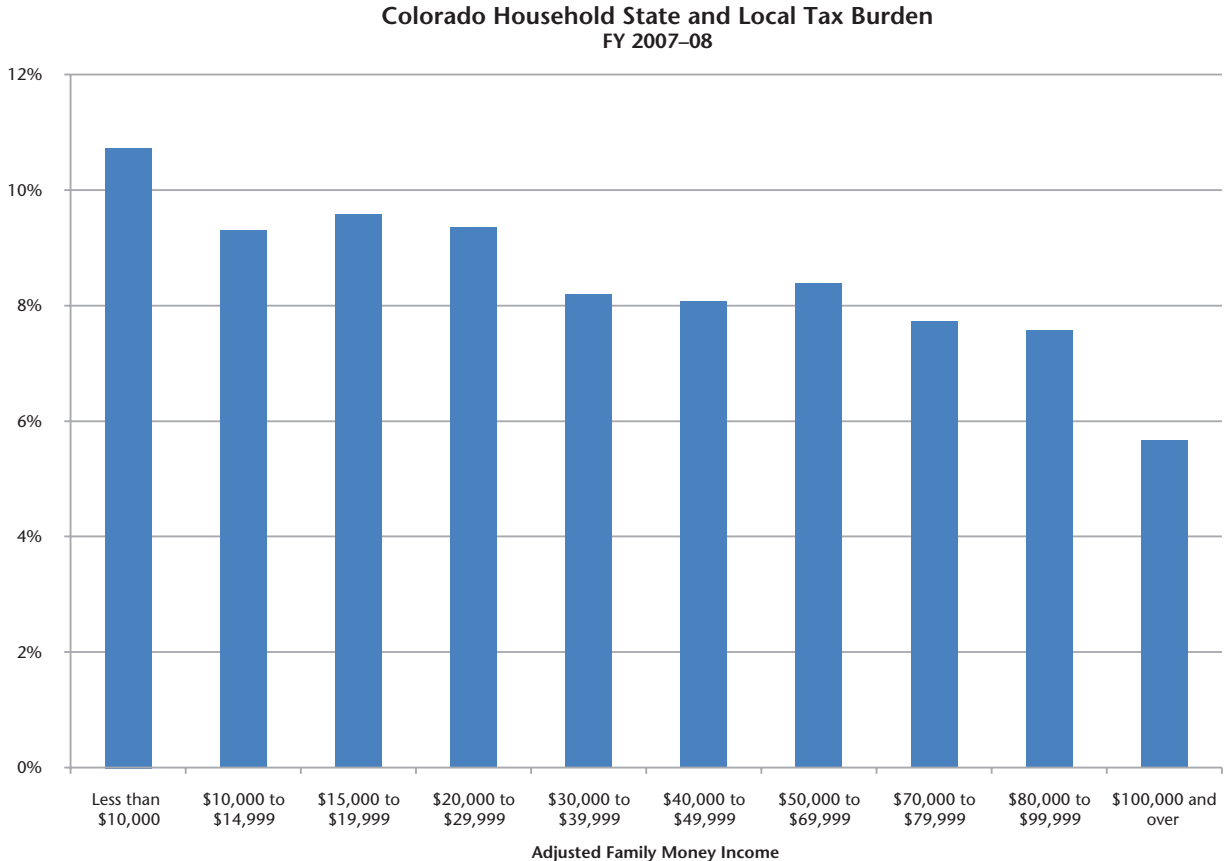
Most studies of tax-system fairness focus on vertical equity, which measures how tax burdens change as someone's income changes. A tax structure is considered regressive if taxpayers pay a smaller portion of their income as it increases. Likewise, it is considered progressive when they pay a larger portion of their income as it increases. A progressive structure is preferred by some because it focuses on one's ability to pay. A proportional tax structure, where portions are approximately equal throughout the income spectrum, might be considered ideal, but it is difficult to accomplish.

The degree of vertical equity can be influenced by several factors, including the types of taxes that are imposed. Higher rates for high-income taxpayers make a tax structure more progressive while the size of personal exemptions and standard deductions affects equity for low-income taxpayers. The relative level of tax rates

also matters. A high sales tax rate combined with a low set of income tax rates would yield a more regressive measurement than the opposite combination. Finally, tax exemptions for basic necessities can reduce the inherent regressivity of a tax structure. Colorado accomplishes this through some of the state sales tax exemptions mentioned earlier, particularly those for prescription drugs and food for home consumption.

Two studies have examined the vertical equity of Colorado's state and local taxes taken together. The studies by the Colorado Department of Revenue and the Institute on Taxation and Economy Policy (ITEP)²⁴ include different taxes in their analyses and categorize income groupings differently, but both come to roughly the same conclusion: Colorado's overall tax structure is regressive. As shown in Figure 11, higher-income households generally pay a smaller share of their income in state and local taxes. The Department of Revenue's analysis is depicted here because it is more inclusive, adding capital gains to a definition of family money income that takes into account multiple income sources. The revenue department's analysis is more recent (FY 2007–08) than ITEP's (FY 2006–07) and also includes specific ownership taxes, driver's license and registration fees, and occupation taxes in addition to the main taxes—income, sales and other excise taxes.

Figure 11



Data source: Colorado Department of Revenue

The ITEP study is useful for comparing Colorado with other states and the District of Columbia. What stands out is that Colorado's tax structure is more regressive than the U.S. average. This is likely due to Colorado's flat income tax rate of 4.63 percent. Thirty-five of the 41 states with broad taxation of individual income have graduated tax rates, and the average top rate is 7.24 percent, or 56 percent higher than Colorado's single tax rate.²⁵ ITEP did not specifically rank the states in order of most regressive to most progressive tax structures, but data from the ITEP study allowed us to make a rough comparison of progressivity for each state. This comparison shows that Colorado has a regressive tax structure, and the state ranks near the middle of all states and the District of Columbia.

Tax Equity—A Closer Look

Table 4 shows the tax burden as a percent of income for the major tax categories. The income tax is clearly progressive as those in the lowest income group paid just 0.6 percent of their income, while those in groups with incomes of \$100,000 and more paid 3 percent. Colorado's income tax is progressive despite a single tax rate of 4.63 percent, rather than a graduated rate. The value of the federal standard deduction and personal exemption incorporated within Colorado's starting point of federal taxable income eliminates state income taxes for many at the low end of the income spectrum. A single person did not pay state income tax until reaching an income of \$8,750 in 2007, while a married couple did not pay tax until reaching an income of \$17,500. As incomes increase, the relative contribution of itemized deductions reaches a limit.

All other taxes, both state and local, are regressive in nature. Lower-income groups pay larger portions of their incomes than do upper-income groups. As an example, the state sales and use tax for the lowest income group is 1.9 percent of income, while it is 0.5 percent of income for the highest income group.

Table 4

**Taxes as Percent of Income
FY 2007–08**

	Adjusted Family Money Income										Total
	Less than \$10,000	\$10,000 to \$14,999	\$15,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 to \$49,999	\$50,000 to \$69,999	\$70,000 to \$79,999	\$80,000 to \$99,999	\$100,000 and over	
State Taxes:											
Individual Income	0.6%	0.7%	1.1%	1.7%	2.0%	2.3%	2.4%	2.7%	2.8%	3.0%	2.7%
Sales and Use	1.9%	1.5%	1.3%	1.2%	0.9%	0.9%	0.9%	0.8%	0.8%	0.5%	0.7%
Fuel Tax	0.7%	0.5%	0.5%	0.5%	0.4%	0.3%	0.3%	0.3%	0.2%	0.1%	0.2%
Licenses and Registrations	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Liquor Tax	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tobacco Taxes	0.8%	0.5%	0.5%	0.4%	0.3%	0.2%	0.2%	0.1%	0.1%	0.0%	0.1%
Total State Taxes	4.3%	3.5%	3.6%	3.9%	3.9%	4.0%	4.0%	4.0%	4.1%	3.7%	3.8%
Local Taxes:											
Residential Property	3.0%	3.0%	3.6%	3.1%	2.4%	2.3%	2.7%	2.3%	2.0%	1.1%	1.7%
Sales and Use	2.8%	2.2%	1.9%	1.7%	1.4%	1.3%	1.3%	1.2%	1.2%	0.7%	1.0%
Specific Ownership	0.5%	0.6%	0.4%	0.5%	0.4%	0.4%	0.3%	0.3%	0.3%	0.1%	0.2%
Occupation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Local Taxes	6.4%	5.8%	6.0%	5.5%	4.3%	4.1%	4.4%	3.7%	3.5%	2.0%	2.9%
Total Taxes	10.7%	9.3%	9.6%	9.3%	8.2%	8.1%	8.4%	7.7%	7.6%	5.7%	6.7%

Data source: Colorado Department of Revenue

A proportionality index built from the Department of Revenue's data shows the ratio of the share of taxes paid to the share of income for each income group. An index number of one indicates that the share of taxes paid by an income group is equal to the share of income earned by the group. If the index number is less than one, that group's share of taxes paid is less than its share of income earned. Conversely, an index number greater than one indicates that the share of taxes paid is more than the share of income earned. Table 5 shows that most households paid a share of state taxes nearly equal to their share of income, indicating a state tax structure that is more or less proportional. The index numbers for local taxes, however, indicate a regressive local tax structure. This is because local governments in Colorado rely heavily on the regressive sales tax and are prohibited from levying an income tax.

Differences in sales taxes further contribute to the relative regressivity of the local tax burden. While local government sales tax collections total 27 percent more than state sales tax collections, the average household burden of these local taxes is 52 percent larger. This is due to the mix of what is taxed. For example, many local governments still impose sales taxes on food for home consumption and residential heat and electricity, while the state does not. In addition, the sheer size of the local property tax, combined with its moderate regressivity, contributes to an overall regressive local tax structure.

How Colorado Compares

Taxes levied by states and local governments often are compared using two primary methods: 1) as revenue per capita, dividing a government's collections by its population; and 2) relating revenue to total personal income (wages, salaries, dividends, interest, etc.). The second method takes into account wide variances in income among the states. Both measures generally show that compared with other states, Colorado has low state taxes, high local taxes and a combined state-and-local tax burden that is lower than average. That picture has not changed much over the last 30 years, except that the nominal dollar figures are much larger and Colorado has dropped in rank in overall tax burden.

Taken together, the \$19.6 billion in taxes generated by state and local governments in Colorado in FY 2007–08²⁶ amounted to \$3,979 per capita, ranking the state 28th. That was \$392 less in taxes per capita than all state and local governments in the United States combined. Another way of looking at per-capita tax collections is to examine what remains after state and local taxes are subtracted from income. Colorado was eighth highest (after South Dakota, New Hampshire, Tennessee, Alabama, South Carolina, Oregon and Missouri), with nearly 91 percent of income remaining, although most states were close to that percentage. New York (85 percent) and Alaska (68 percent) were at the bottom.

Table 5

Proportionality Index— Ratio of Share of Taxes Paid to Share of Adjusted Family Money Income			
Size of Income	Proportionality Index		
	State	Local	Combined
Less than \$10,000	1.13	2.20	1.60
\$10,000 to \$14,999	0.91	2.00	1.38
\$15,000 to \$19,999	0.95	2.04	1.43
\$20,000 to \$29,999	1.02	1.87	1.39
\$30,000 to \$39,999	1.02	1.49	1.22
\$40,000 to \$49,999	1.04	1.41	1.20
\$50,000 to \$69,999	1.05	1.50	1.25
\$70,000 to \$79,999	1.05	1.28	1.15
\$80,000 to \$99,999	1.07	1.20	1.13
\$100,000 and over	0.97	0.68	0.84

The total state and local tax burden appears lower when relating revenue to personal income, with Colorado ranking 44th (\$92.48 per \$1,000 in personal income compared with \$108.82 for all states combined). Because Colorado is a relatively wealthy state, it usually falls in rank when income is used for comparisons.

NOTE: In past studies, it has been customary to report state and local burdens separately. However, our research into the Census Bureau data that serve as the basis for these comparisons suggests that it may be inappropriate to do so. Fiscal systems vary by state. Some states collect the majority of tax revenues at the state level and then redistribute them to local units of government. In many cases, all of that revenue would be categorized as state revenue in the census data. Conversely, in other states such as Colorado, local revenues are collected and reported as local revenues. While it is correct that by point of collection Colorado appears to have low state burdens and high local burdens, if the national data were corrected for the unit of government to which the revenues ultimately flowed, the relative state and local tax burdens and how they rank would change.

Examining only state tax collections and using both measures, Colorado ranked near the bottom in FY 2007–08. Colorado was \$623 below the national per-capita amount to rank 40th. In state government taxes per \$1,000 of personal income, it ranked 48th: \$45.33 compared with \$64.14 nationally. A major reason for this low ranking is Colorado’s state sales tax rate, which at 2.9 percent is the lowest among the 45 states with state sales taxes. In FY 2007–08, Colorado also had the lowest state sales tax collections of any state, measured both per capita and per \$1,000 of personal income. It ranked higher in individual income tax collections: 17th per capita and 27th relative to income.

In local government tax collections, Colorado placed near the top using both measures. In FY 2007–08, local tax receipts in Colorado exceeded the national per-capita figure by \$226 to rank ninth. The state ranked 10th when local tax receipts were related to personal income, but Colorado’s \$47.15 in collections per \$1,000 of income was not much higher than the national figure of \$44.89.

Colorado’s local government sales taxes were among the highest in the nation, ranking fourth per capita behind the District of Columbia, Louisiana and New York and third per \$1,000 of personal income behind the District of Columbia and Louisiana. But local government property taxes ranked 20th per capita and 27th per \$1,000 of personal income. Both were below the national averages.

A Tax Foundation analysis²⁷ that isolated property taxes on owner-occupied housing also showed that Colorado’s burden is lower than in most states. In 2009, Colorado ranked 30th in median property taxes (\$1,437 compared with a U.S. median of \$1,917), 39th in taxes as a percentage of home value (0.60 percent, U.S. = 1.04 percent) and 36th in taxes as a percentage of a homeowner’s median income (2.02 percent, U.S. = 3.03 percent).

Table 6

**How Colorado Compared in Taxes
FY 1977–78 and FY 2007–08**

	FY 1977–78			FY 2007–08		
	U.S.	CO	CO Rank	U.S.	CO	CO Rank
State & Local Taxes Per Capita	\$872	\$851	19	\$4,371	\$3,979	28
State & Local Taxes Per \$1,000 Personal Income	\$105.77	\$100.28	25	\$108.82	\$92.48	44
State Taxes Per Capita	\$512	\$438	38	\$2,573	\$1,950	40
State Taxes Per \$1,000 Personal Income	\$62.10	\$51.63	44	\$64.14	\$45.33	48
Local Taxes Per Capita	\$362	\$413	9	\$1,803	\$2,029	9
Local Taxes Per \$1,000 Personal Income	\$43.90	\$48.65	11	\$44.89	\$47.15	10

Data source: U.S. Census Bureau, state and local government finances database

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FORECAST METHODOLOGY: GENERAL FUND REVENUES

The General Fund revenue projections produced by the Center for Colorado's Economic Future rely on three input components: the macroeconomic forecast from Moody's Economy.com (January 2011 baseline scenario forecast); the Colorado State Demography Office's projections of state population by age cohort; and a state model developed by the Center for Business and Economic Forecasting (CBEF) and adapted by us for this study. The relationships are shown in the diagram to the right. The methodology is designed to capture long-term trends, not future business cycles. In particular, it is not a model of the state budget.

Economy.com Model of the U.S. Economy

Moody's Economy.com provides long-term forecasts on a large array of U.S. economic variables. Forecasts are based on assumptions about the future of global economic dynamics, factored into multiple-equation econometric models. The near-term outlook is conditioned by recent events. The long-term outlook is based on long-term historical growth rates and estimates of the economy's productive potential.

In the near term, the Economy.com January 2011 Baseline Scenario, a major input to our state macroeconomic forecast, makes the following assumptions:

- Monetary policy is expected to remain stimulative throughout 2011. The current zero interest rate policy will stay in place into 2012. The Federal Reserve is not expected to raise short-term rates until spring 2012.
- There will be little progress in reducing the budget deficit until after the presidential election. Thereafter, the deficit is expected to stabilize at about 5 percent of GDP. In the longer term, the deficit must decline to a sustainable level of 3 percent of GDP.
- Oil prices are expected to remain close to \$90 per barrel through much of 2011 and range as high as \$100 in the next several years.

In the long term, U.S. employment growth rebounds in the middle of this decade and settles down to about 0.6 percent annually. By contrast, the average annual growth rate of the 1990s was about 1.8 percent. Personal income follows a similar pattern, stabilizing at about 3.6 percent yearly growth on a nominal basis. This compares with growth rates of 6 percent in the 1990s. Retail sales follow a similar pattern, rebounding and then stabilizing at about 3 percent.

Diagram 1:
Structure of the Forecasting Models

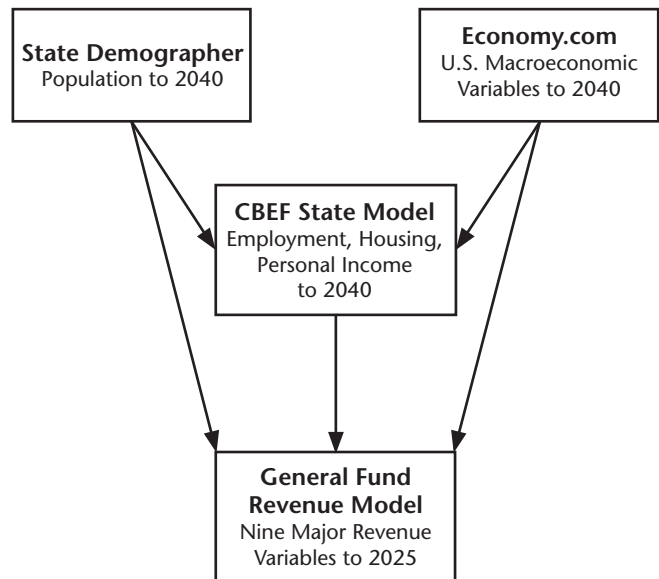
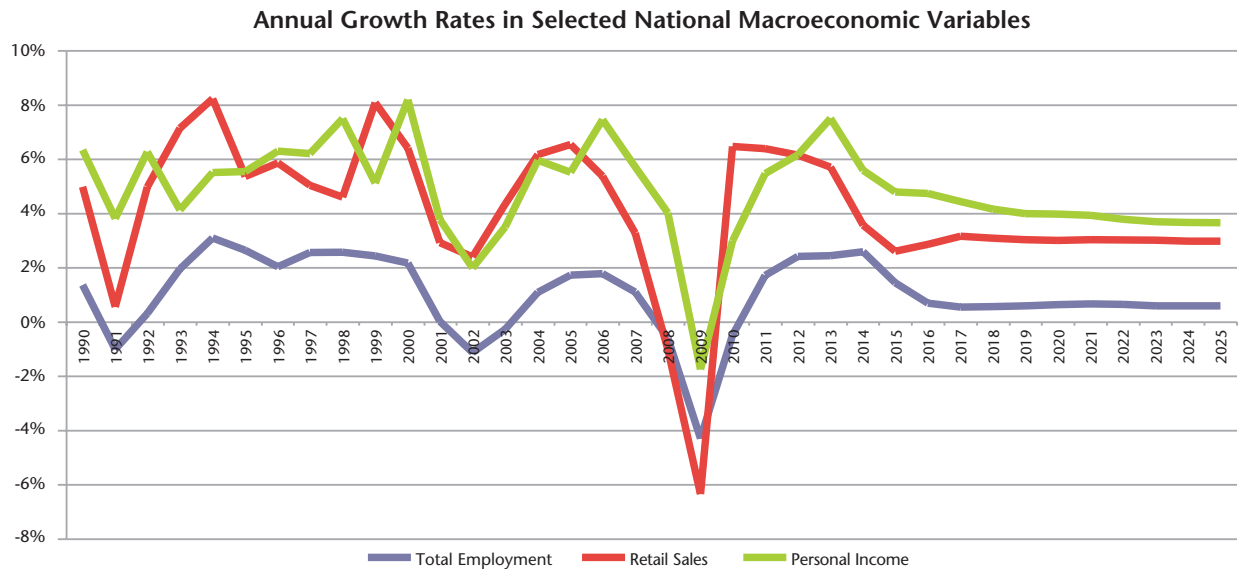


Figure 12



Data source: Moody's Economy.com

State Demographer's Population Forecast

The State Demography Office projects population by age and sex to 2040 using estimates of births, deaths and migration. The Center for Colorado's Economic Future used this data through 2025. Colorado's population grew nearly 3.5 percent per year in the early 1990s, but growth declined to 1.5 percent during the most recent recession. Population growth will rebound as the economy recovers to an average annual rate of 1.9 percent from 2015 to 2020 but then decline to 1.6 percent by 2025 as Colorado's economy matures in the long term. More significantly, the aging of the population means that the growth of the working-age cohort grows much more slowly than population as a whole. The growth of this age cohort is just 0.9 percent by 2025.

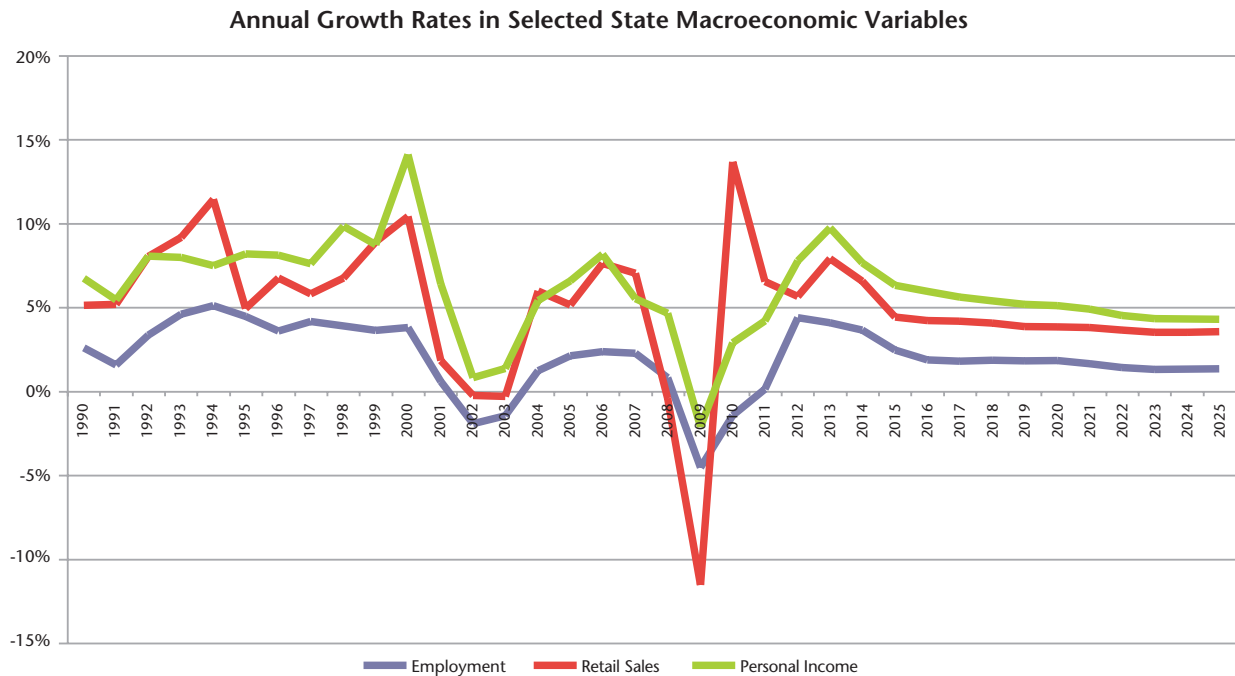
The Colorado Macroeconomic Model

To forecast major macroeconomic variables for the state, we adapted a model developed by the CBEF. Outputs from the model include trend forecasts to 2025 for Colorado employment, personal income, retail sales, housing and most other major state macroeconomic indicators. Using methods similar to those of Economy.com, our model exploits correlations between U.S. and regional variables, along with the state demographer's population forecasts. The key variables follow patterns similar to those of the nation, but generally are somewhat higher, reflecting a historical pattern in which

Colorado's economy has grown at a faster pace than the nation overall. In our long-term forecast, largely because of the depressed condition of the economy in 2011, employment grows at a compound annual rate of 2.2 percent, personal income at 5.8 percent and retail sales at 4.9 percent. A recovery for the state economy is forecast for 2012 to 2014. After 2014, our state macroeconomic model predicts a long-term growth trend more modest than the one enjoyed by Colorado in the 1990s but more robust than the decade following 2000.

Consistent with trends enjoyed by the state prior to the last decade, our forecast for employment growth reverts to the sort of growth relative to the United States that Colorado experienced during the 1990s. From 1993 to 2000, the growth in Colorado employment was, on average, 1.75 times greater than the national rate. For the middle of the current decade, our recovery scenario has the Colorado jobs rate growing, on average, 1.65 times that of the national rate. This translates into a projection for the state to add 280,000 jobs from 2012 to 2014. We recognize that job growth of this magnitude is an optimistic recovery scenario. However, it is not unprecedented for Colorado to enjoy this rate of growth relative to the national experience. Given that an optimistic recovery scenario represents a conservative approach to the overall study, we maintain these growth assumptions in our state revenue model outlined below.

Figure 13



Data source: Center for Colorado’s Economic Future state macroeconomic model

The General Fund Revenue Model

Our model of total General Fund²⁸ revenue is compiled from individual forecasts of the following major revenue components:

- Individual Income Tax
- Corporate Income Tax
- Sales Tax
- Use Tax
- Tobacco Tax
- Cigarette Tax
- Liquor Tax
- Insurance Premium Tax
- General Fund Other

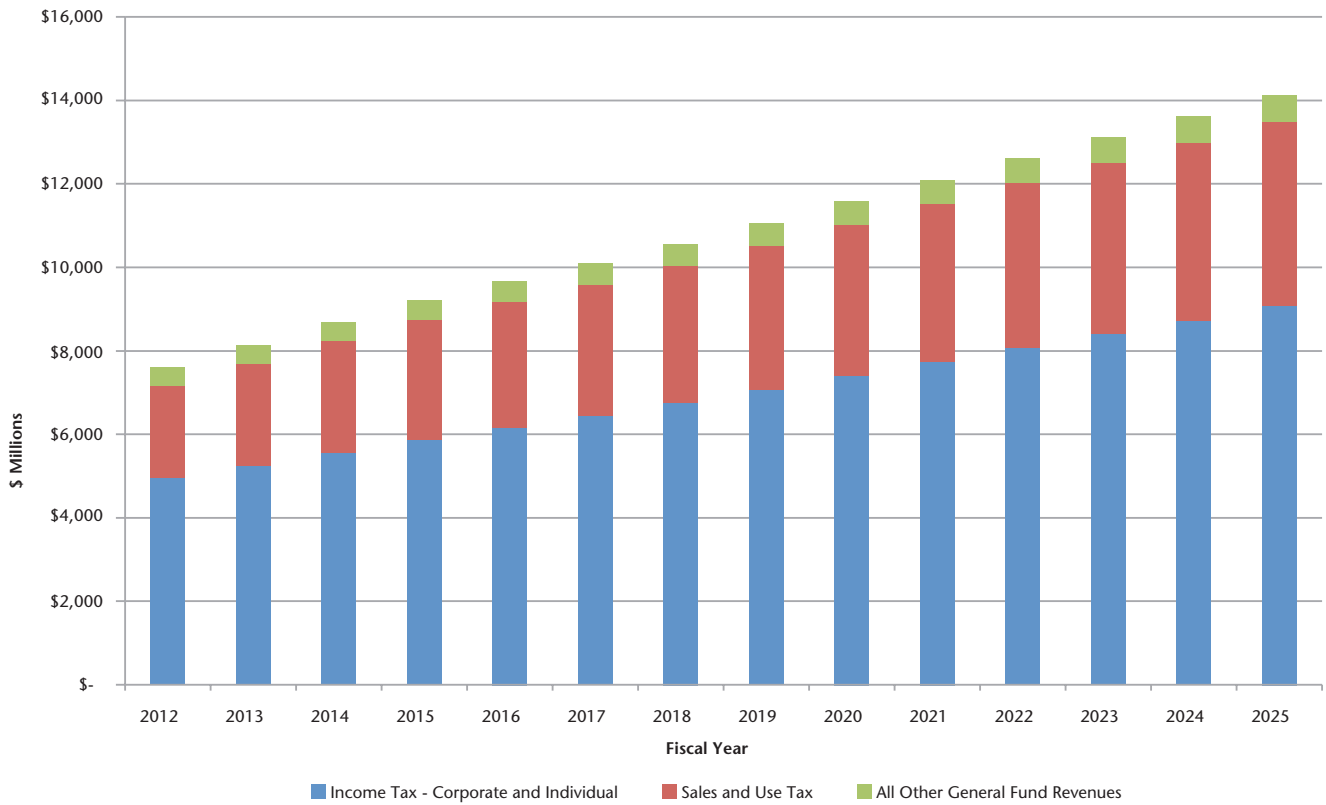
For each of these sources of General Fund revenues, we forecast future streams econometrically after fitting structural equations to a General Fund revenue history obtained from Colorado Legislative Council Staff. The revenue history was available from FY 1975–76 through FY 2009–10. We adjusted this history for changes to sales, use and income tax rates. No adjustment was made for changes to the revenue base.

Historical and future changes in revenue were predicted with variables from Economy.com’s January 2011 baseline forecast, our state macroeconomic model and the state demographer’s population forecasts. Finally, rebates and expenditure obligations of the General Fund were forecast by major drivers such as inflation and growth in the 65-and-older population. These forecast amounts were deducted from the gross forecast to obtain net General Fund revenues available for programmatic expenditures. Figure 14 shows, by major revenue source, the General Fund forecast before the subtraction of rebates and expenditures. Our trend forecast projects the shares of major revenues—the income and sales and use taxes—to remain relatively stable throughout the forecast horizon.

Colorado Legislative Council Staff economists prepare revenue forecasts quarterly. Our forecasts for FY 2011–12 and FY 2012–13 are within 2.5 percent of the revenue forecasts prepared by Legislative Council economists in December 2010 for those fiscal years. For FY 2013–14 and FY 2014–15, and consistent with the national forecast for continued recovery, we project that revenues will continue to recover before settling to a trend increase in the average vicinity of just under 4.5 percent annually.

Figure 14

General Fund Revenue Forecast by Major Revenue Sources



Data source: Center for Colorado's Economic Future General Fund revenue model

BUDGET DRIVERS

While the charge of SJR 10-002 focused on tax policy, it is important to illustrate relevant expenditure issues in the General Fund so that forecast revenues and expenditures can be compared. Over many years, the General Fund budget has been dominated by K-12 education, financing the state's share of Medicaid and incarcerating inmates. Today, these three areas constitute more than 70 percent of General Fund spending.

In this section, we present a long-term analysis of what can reasonably be expected in terms of cost growth in these areas. The expenditure or cost projections must be distinguished from budget projections. Assuming that the state's constitutional balanced-budget requirement remains in place, the General Fund budget will not run a deficit on an annual basis—in any given year, spending and revenue must “balance.” These projections for the long term are meant to illustrate the impact of expected trends, and we are aware that long-term forecasts are subject to large potential variances.

Budget Driver No. 1: K-12 Education Finance

The funding of public elementary and secondary schools in Colorado has long been the largest single line-item appropriation in the state's General Fund budget. In FY 2010–11, schools will receive 46 cents of every General Fund dollar appropriated, a total of more than \$3 billion. State revenues support a variety of school district programs, such as special education, English language proficiency and public school transportation. But the largest amount by far goes for general school district operations through the Public School Finance Act of 1994.

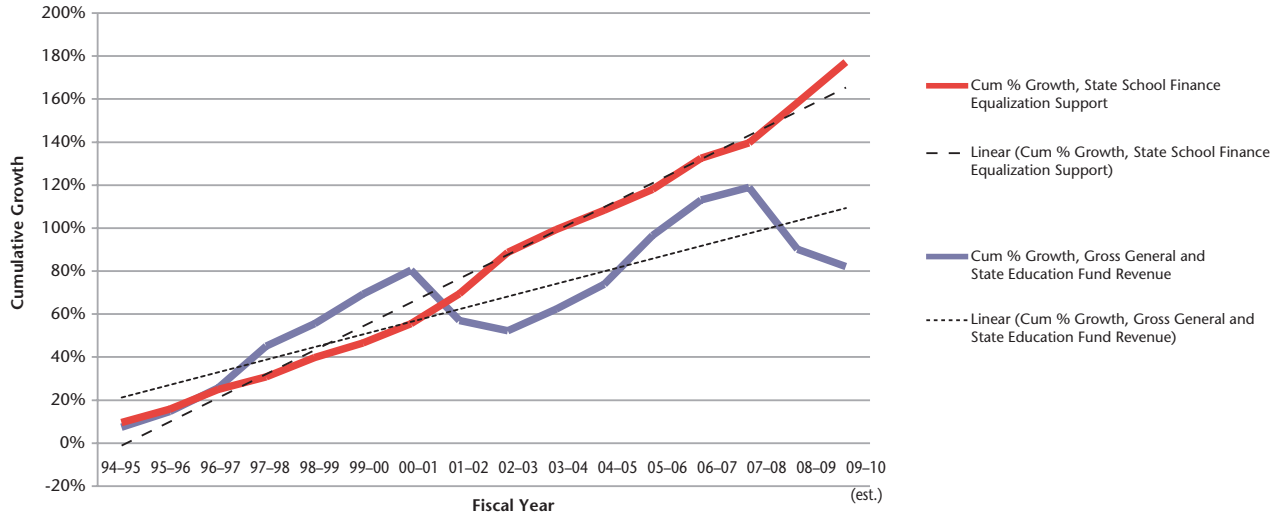
The state's responsibility for financing public schools has grown substantially, from about 55 percent of total funding in FY 1993–94 to about 63 percent today. Conversely, the relative share contributed by local school district property taxes statewide has declined. We expect this trend to continue, although more slowly than in the past, despite a recent attempt to stabilize the property tax share through legislation that froze school district mill levies. Our projection shows state funding for K-12 education increasing by about 118 percent through FY 2024–25, compared with 57 percent growth in local school property taxes. At the end of this period, the state portion of total education funding will have risen to a little more than 70 percent.

This section explores the major forces driving the continued growth of the state's share of public education costs. The funding of schools in Colorado has always been a partnership between state and local resources. However, that partnership has been reshaped by constitutional provisions that require increases in total school funding on the one hand while they constrain local financial resources for education on the other. The state has had to make up the difference.

Most of the state's contribution comes from the General Fund, but the tax revenues flowing into the General Fund have not kept up with the growth of state education appropriations. We expect this trend to continue as well. The lines in Figure 15 depict the cumulative growth rates of General Fund revenues and state spending on school finance since FY 1994–95. The lines crossed in FY 2001–02, during the first recession of the 2000s, but even the strong economic recovery fueled by the subprime mortgage bubble was not enough to close the gap.

Figure 15

**Cumulative Growth Rates in General Fund Revenues and State School Finance Equalization Support
FY 1994-95 to FY 2009-10**

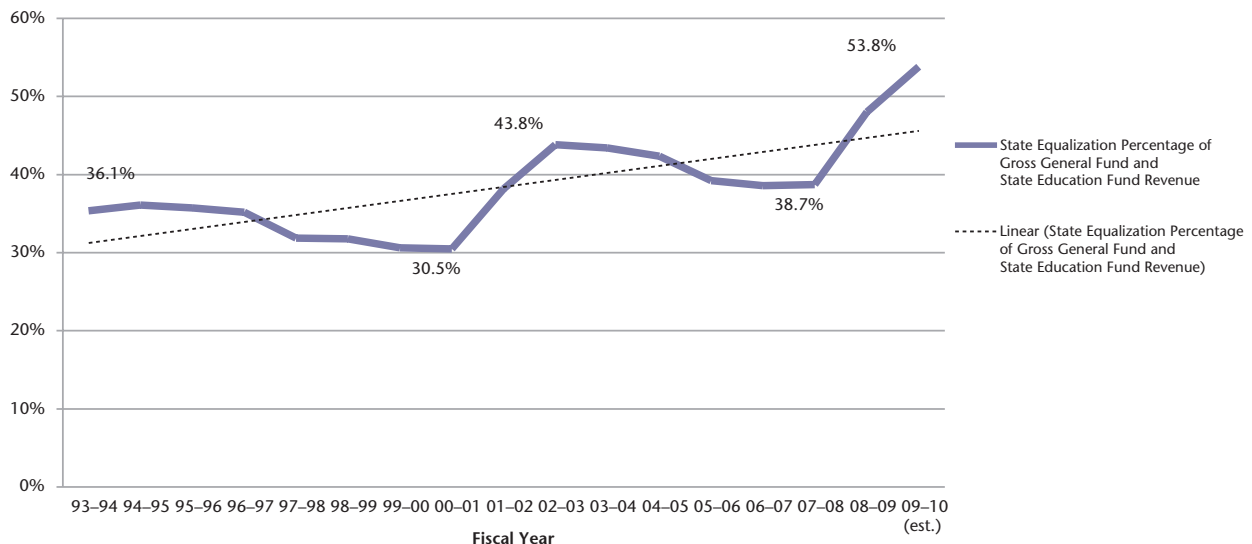


Data sources: Colorado Legislative Council Staff; Colorado Department of Education

Over the last 15 years, state spending on K-12 education has consumed an increasingly larger chunk of available tax dollars. Figure 16 shows that state equalization support rose from 35.3 percent to 53.8 percent of gross General Fund income from FY 1993-94 to FY 2009-10. The impact of the business cycle can be clearly seen as the percentage declined during the periods of strong revenue growth associated with the dot-com and subprime mortgage bubbles and grew sharply during the periods of economic decline when those economic bubbles burst.

Figure 16

State Equalization Percentage of Gross General Fund Revenues



Data sources: Colorado Legislative Council Staff; Colorado Department of Education

Background

The state's primary role in K-12 public education finance is framed by two original provisions of the Colorado Constitution. The first provision, found in Article IX, Section 2, directs that:

"The general assembly shall, as soon as practicable, provide for the establishment and maintenance of a **thorough and uniform system** of free public schools throughout the state, wherein all residents of the state, between the ages of six and twenty-one years, may be educated gratuitously." [Emphasis added.]

The second provision, Article IX, Section 15, requires that:

"The general assembly shall, by law, provide for organization of school districts of convenient size, in each of which shall be established a board of education, to consist of three or more directors to be elected by the qualified electors of the district. **Said directors shall have control of instruction in the public schools of their respective districts.**" [Emphasis added.]

On their face, these provisions appear to contradict each other. How can a system be "uniform" if control over it is vested in (currently 178) locally elected school boards? Over the course of Colorado's history, the General Assembly has resolved this apparent tension by determining that its role is primarily to provide school districts equal access to financial capacity, while the role of local school boards is largely administrative, supervisory and curricular. In this way, the primary aim of the state's school finance acts has been to guarantee the revenue-raising capacity of the state's very disparate school districts through a variety of financial mechanisms. At the same time, each district makes local determinations about the delivery of educational services and whether to exceed the level of funding provided by law by imposing additional taxes locally.

In reality, the tax base disparities among Colorado's school districts have been too large for the state to overcome through any financing formula. In FY 2009–10, for example, the assessed value per pupil ranged from a high of \$2,534,614 in DeBeque (Mesa County) to a low of \$11,785 in Edison (El Paso County). In other words, DeBeque's tax base per pupil was 215 times higher than Edison's. While districts with low property wealth per pupil receive most of their school finance act funding from the state, very little state support is provided to districts with high property wealth per pupil. Historically, those districts with relatively high property wealth compared to their enrollment sizes have received a set minimum amount of state aid.

Over the past 40 years, the General Assembly has employed three basic mechanisms to determine the local and state shares of school funding. From 1973 to 1988, the school finance act embodied a "modified power equalization" formula in which the state guaranteed the ability of each district to generate a set revenue amount per mill for each pupil every year. Districts with little property wealth per pupil were backfilled up to the state guaranteed amount, while districts with high wealth per pupil were provided a "minimum guarantee." The 1973 act also set an amount of state and local revenue per pupil that each district was authorized to receive each year. Because the General Assembly controlled both the total amount of funding per pupil and the state-guaranteed amount that the tax base of each district could generate per pupil, it was able to control the growth of the local and state shares each year. The General Fund appropriation for school finance could grow in proportion to the growth of General Fund revenues.

Under a cloud of pending litigation and growing pressure from school districts, the General Assembly replaced the 1973 school finance law in 1988. The Public School Finance Act of 1988 calculated total funding for school districts by determining district costs per classroom unit, which varied with each school district's "setting category." The local share of funding for each district was to be provided, in most cases, by a uniform statewide mill levy. At the time the act was passed, some districts' levies were substantially above the uniform rate and others were substantially below. The levies of many districts were forced to migrate to the uniform rate over a phase-in period. By controlling the dollar-amount increases associated with classroom units in each district, as well as the uniform mill levy and phase-in period, the legislature was able to control the growth of the state share to fit the annual amount of General Fund revenue growth.

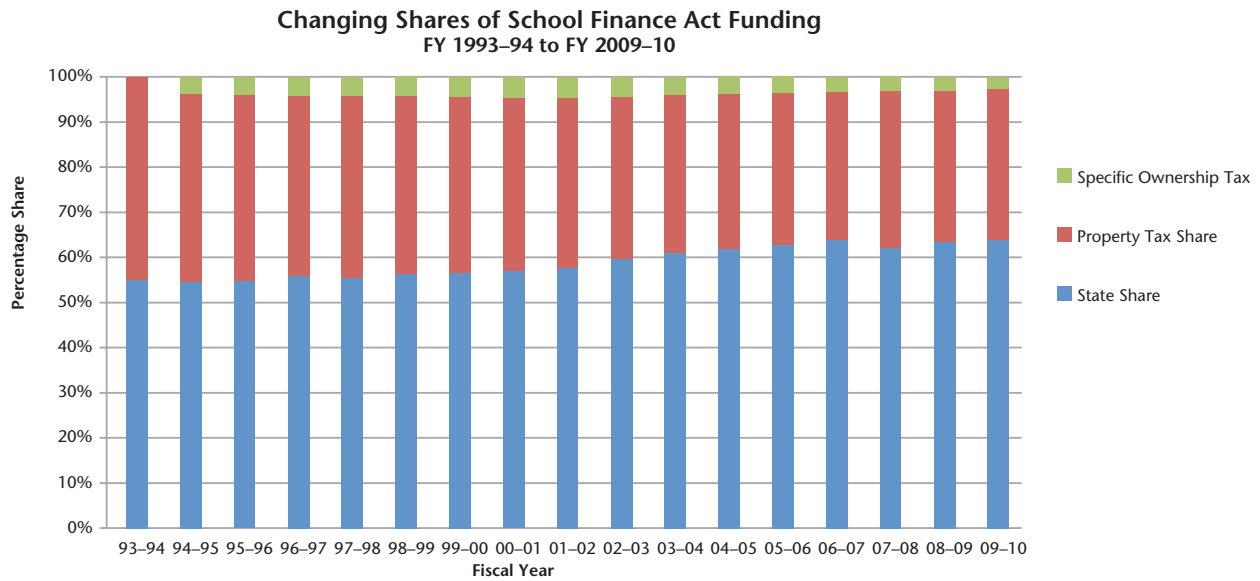
It is important to note that the General Assembly's flexibility in determining the property tax and state shares of school funding did not mean an acceleration of the local share, which would have allowed the state to protect the General Fund from an increasing burden. Conversely, in the late 1970s, surplus General Fund money was appropriated to the state share specifically to reduce local property taxes throughout Colorado. In the late 1980s and again in the early 1990s, the state increased its share in order to hold down local property tax increases. Property taxes for schools were held below 1989 levels for five years through 1994.

School districts brought increasing pressure against the 1988 act after a relatively short lifespan. The 1994 school finance law, which is still in effect today, calculates total funding for districts using a per-pupil base amount that is uniform throughout the state but adjusted for the enrollment size of each district, the number of “at-risk” children and a factor intended to recognize the diverse costs of living in different parts of the state. As with prior acts, funding is shared among the state and local school district property taxes and local school districts’ share of specific ownership (motor vehicle) tax receipts.

After passage of the Public School Finance Act of 1994, the state’s percentage share of funding began to rise steadily for the next decade and a half, as shown in Figure 17. The local share, provided primarily by property taxes, slowly declined. This put the state in the position of paying for its portion of school funding while also having to make up for the amount of school funding that property taxes could not provide.

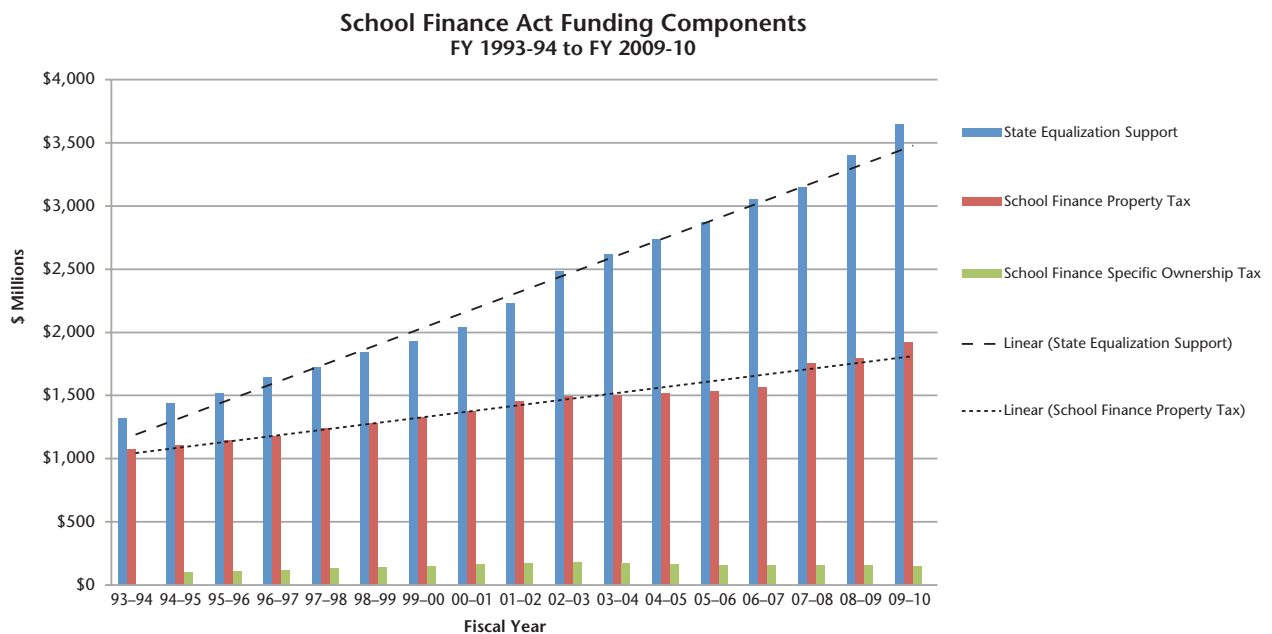
Over the period shown in Figure 18, the total school finance program rose by 138 percent. School district property taxes rose by 78 percent, so state funding was forced to grow by 177 percent.

Figure 17



Data source: Colorado Department of Education

Figure 18



Data sources: Colorado Legislative Council Staff; Colorado Department of Education

In previous school finance acts, the legislature had made straightforward policy decisions regarding the appropriate balance between state and local funding proportions. But the legislature's power to make this determination under the 1994 act has been constrained by two constitutional amendments, the Gallagher Amendment in 1982 and TABOR in 1992, that have held down local property taxes. A third amendment added in 2000, Amendment 23, put additional pressure on the state to finance annual funding increases for schools.

Analysis

The Gallagher Amendment was part of a ballot measure on property tax reform referred to voters by the General Assembly. It set the assessment ratio for most nonresidential property at 29 percent of actual value and the assessment ratio for residential property at 21 percent of actual value. It also required that the residential ratio be reset during each biennial reassessment cycle to ensure that residential property would never, after 1982, grow as a percentage of the total taxable valuation base. Beginning in 1987 and over the next two decades, as population growth and rising home values led to stronger growth in residential properties relative to the rest of the tax base, the residential assessment rate was correspondingly reduced.

The Taxpayer's Bill of Rights (TABOR), initiated by voters in 1992, contains four provisions affecting the calculation of total funding entitlements and the state and the local shares:

- **A prohibition on assessment ratio increases** without statewide voter approval.
- **An overall spending limit** for each district, consisting of the district's prior year spending base plus enrollment and inflation. This restricts annual growth in total program support for each district (Article X, section 20(7)(b)).
- **A property tax revenue limit** of each district's prior year property tax collections plus enrollment growth and inflation (Article X, section 20(7)(c)).
- **A provision prohibiting mill levy increases** without voter approval (Article X, section 20(4)(a)).

Interaction of Gallagher and TABOR

Under the Gallagher Amendment, the residential assessment rate was reduced from 21 percent to 18 percent in 1987 and subsequently adjusted downward six times to a rate of 9.74 percent in 1997. The rate remained frozen until 2001, when it was reduced to 9.15 percent. It was lowered to its current level of 7.96 percent in 2003. Studies conducted by the state Division of Property Taxation determined that, absent the assessment-ratio increase prohibition in TABOR, the rate would have climbed four times between 1998 and 2009. Table 7 compares the percentage distribution between actual and assessed values for residential and nonresidential property, along with the applicable residential assessment rate for 1984 through 2009. The table shows that by 2009, actual residential values comprised a little more than 76 percent of total property values, but only 43 percent of the tax base. This difference between the actual and assessed values indicates the amount of residential value that is no longer available to support the local share of school funding. We estimate that statewide residential assessed values would have been \$69.3 billion higher in 2009 if the original assessment rate for residential property had remained at 21 percent.

Table 7

Comparison of Actual and Assessed Values for Residential and Nonresidential Property 1984 to 2009

Assessment Year	Residential Actual Value	Nonresidential Actual Value	Residential Assessment Rate	Residential Assessed Value	Nonresidential Assessed Value
1984	54.1%	45.9%	21.0%	44.2%	55.8%
1985	54.4%	45.6%	21.0%	44.5%	55.5%
1986	54.8%	45.2%	21.0%	45.0%	55.0%
1987	60.8%	39.2%	18.0%	48.4%	51.6%
1988	61.4%	38.6%	16.0%	46.0%	54.0%
1989	62.5%	37.5%	15.0%	45.5%	54.5%
1990	63.1%	36.9%	15.0%	46.1%	53.9%
1991	63.7%	36.3%	14.3%	45.6%	54.4%
1992	64.7%	35.3%	14.3%	46.5%	53.5%
1993	67.1%	32.9%	12.9%	46.4%	53.6%
1994	67.5%	32.5%	12.9%	46.8%	53.2%
1995	71.8%	28.2%	10.4%	46.7%	53.3%
1996	72.0%	28.0%	10.4%	47.0%	53.0%
1997	72.3%	27.7%	9.7%	45.9%	54.1%
1998	72.6%	27.4%	9.7%	45.9%	54.1%
1999	72.6%	27.4%	9.7%	46.3%	53.7%
2000	72.9%	27.1%	9.7%	46.6%	53.4%
2001	74.8%	25.2%	9.2%	47.1%	52.9%
2002	75.3%	24.7%	9.2%	47.7%	52.3%
2003	77.5%	22.5%	8.0%	47.7%	52.3%
2004	77.7%	22.3%	8.0%	47.1%	52.9%
2005	77.8%	22.2%	8.0%	46.9%	53.1%
2006	77.8%	22.2%	8.0%	46.1%	53.9%
2007	77.6%	22.4%	8.0%	46.2%	53.8%
2008	77.6%	22.4%	8.0%	46.2%	53.8%
2009	76.1%	23.9%	8.0%	43.3%	56.7%

Data source: Colorado Division of Property Taxation

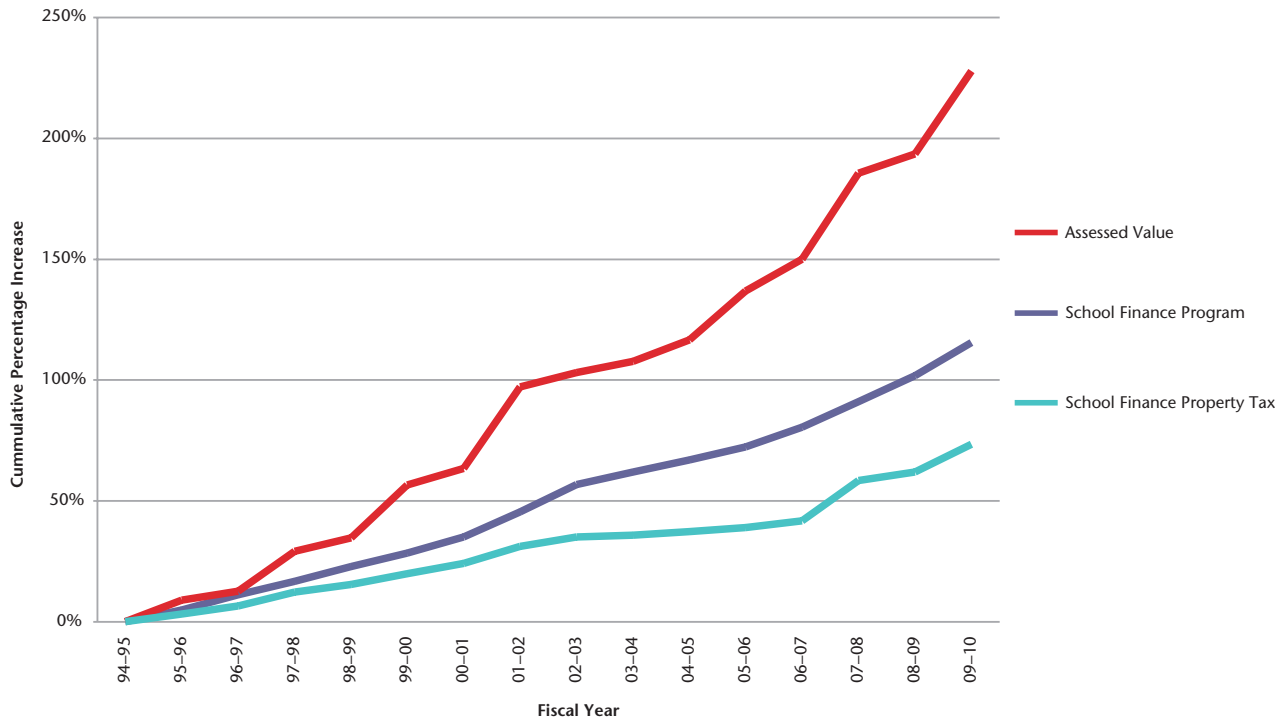
Figure 19 compares the cumulative growth rates of assessed values, statewide total program funding for schools and school district property tax collections from FY 1994–95 to FY 2009–10. Although it appears that, on a statewide basis, the property tax base is adequate to fund the local share of the school finance act, property taxes are levied locally by each of the state’s 178 school districts, and their tax bases vary dramatically. In addition to tax-base variations, enrollment variations also have a significant effect on the property tax mill levies needed to sustain the local share. For example, in districts with very high tax bases and relatively lower enrollments, the high tax base per pupil drives levies downward, reducing the rate of property tax collections relative to the district’s tax base. Districts with high concentrations of residential property also have diminished tax bases resulting from the fact that, under the Gallagher Amendment, for every \$100 of actual residential value, property is assessed at only \$7.96—less than one-third of the rate assessed for nonresidential property.

When the School Finance Act of 1994 was enacted, it provided additional funding for most Colorado school districts. For many, the amounts authorized by the new funding formula were greater than their spending limits as defined by TABOR, so they needed voter approval to receive the extra money. Because the additional funding came from the state share and because local mill levies were not increased, nearly all of Colorado’s 176 (at that time) school districts sought and received voter approval during the 1990s. After these elections, the overall spending limits imposed by TABOR ceased to be a significant factor in the legislature’s formation of school finance policies.

However, TABOR’s mill levy and property tax limits began to play a significant role in the funding split between state and local property taxes. Generally, due to steady growth in assessed property values statewide from FY 1994–95 onward, school district property tax levies were forced downward by TABOR’s property tax revenue limits.

Figure 19

Comparison of Increases in Assessed Value, School Finance Total Program and School Finance Property Taxes



Data sources: Colorado Division of Property Taxation; Colorado Department of Education

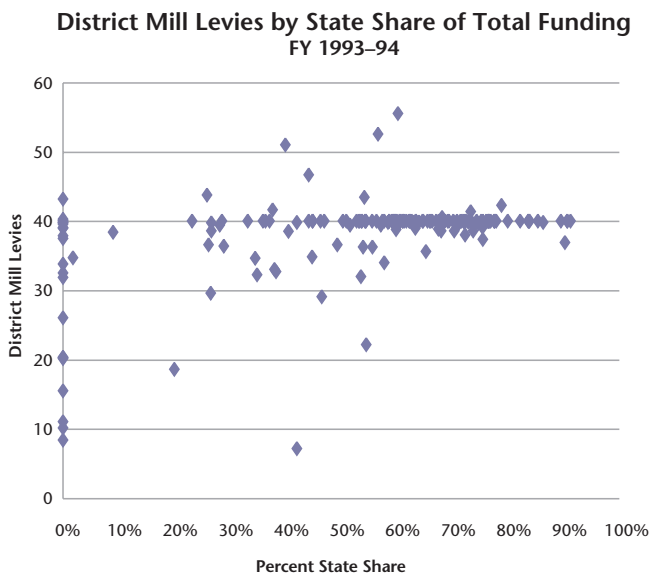
In FY 1993–94, 12 districts had mill levies above the uniform rate of 40 mills, 64 districts had levies below the uniform rate and 99 districts were at the uniform rate. By FY 2009–10, only 39 districts were at the maximum rate of 27 mills and 139 districts were below this rate.

In addition to the reduction in levies, TABOR had the effect of preserving the state/local split between property taxes and state funding in many districts because each district’s property taxes were allowed to grow at only about the same rate as their increase in total program funding under the school finance act —despite significant growth in their property tax bases. Because the assessed value of some districts grew much more rapidly than their enrollments plus inflation, the levies of those districts were forced below 10 mills while they continued to enjoy having the majority of their funding come from the state. Generally, this phenomenon occurred in districts with significant commercial and energy production activities that typically do not produce correspondingly large increases in public school enrollments.

Figures 20a and 20b depict the downward slide of school district mill levies and array them by the percentage of their total school funding provided by the state. In FY 1993–94, only three districts had levies of 10 mills or less, and two of the three received very little state aid. In FY 2009–10, 19 districts had levies of fewer than 10 mills. Of those, 14 received at least half of their total program funding from the state, two received 15 percent to 25 percent of their funding from the state, and three received little or no funding from the state.

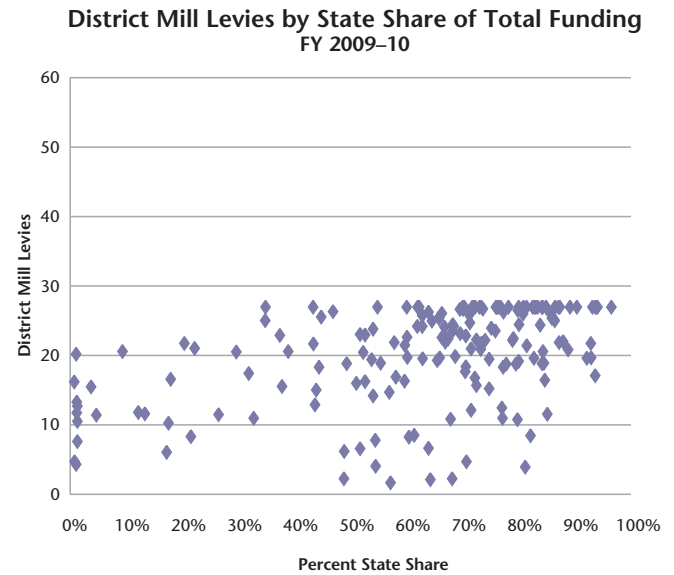
These dynamics have lessened the productivity of school district property taxes, forcing the state’s General Fund to compensate for the inability of the local share to keep up. Given the strong rate of assessed value growth over the period, even a somewhat more productive local share would have been able to keep up with the growth in total program funding. Generally speaking, assessed values of property in Colorado grew at more than three times the rate of property tax growth for the local share of school funding.

Figure 20a



Data source: Colorado Department of Education

Figure 20b



Data source: Colorado Department of Education

Amendment 23

Amendment 23, an initiated amendment to the Colorado Constitution in 2000, contains four major provisions that:

- Increased statewide base per-pupil funding by at least inflation (in the Consumer Price Index) plus 1 percent for 10 years from FY 2001–02 to FY 2010–11, and by the rate of inflation after that.
- Increased funding for categorical programs by at least the minimum rates of increase set for the per-pupil funding base.
- Transferred an amount equivalent to one-third of 1 percent of federal taxable income (about 7.2 percent of state income tax collections) to a State Education Fund, which the amendment created outside the TABOR and General Fund appropriations limits.
- Restricted the state from using the newly created State Education Fund to supplant General Fund appropriations by creating a maintenance-of-effort requirement. This mandates that General Fund appropriations be increased by a minimum of 5 percent per year for the first 10 years as long as state personal income growth in each year was 4.5 percent or more.

Although the General Assembly could have increased school funding above the minimum set by Amendment 23, that flexibility was never exercised as the state entered recession in the same year Amendment 23 took effect and, after a brief recovery, entered another recession for the remainder of the decade.

At the same time per-pupil base funding was growing by inflation plus 1 percent, it was generally thought that the per-pupil local share of the school finance act could only grow by the rate of inflation due to TABOR's property tax revenue limit. This 1 percentage-point difference between the amount the local share could grow and the rate of total program growth required by Amendment 23 placed an increasing burden on the state share. In the six years before Amendment 23 took effect, the state share increased from 54.3 percent of total program costs to 57.1 percent, a rise of 2.8 percentage points. In the first six years after Amendment 23 took effect, the state share grew from 57.1 percent to 63.9 percent, an increase of 6.8 percentage points.

The Mill Levy Freeze

Senate Bill 07-199 effectively ended TABOR's property tax revenue limit for 174 school districts that had received voter approval for an exception from TABOR. It did this by requiring those districts to freeze levies at the number of mills imposed in the year prior to passage of the legislation (mills levied in 2006 for payment in 2007) and capped all districts' levies at 27 mills, reducing

the rate in districts with higher mill levies. Two districts had not sought voter approval. One district's election was unsuccessful, and one district's ballot language did not provide for an exception from TABOR's property tax revenue limit. The four districts are Cherry Creek in Arapahoe County, Colorado Springs and Harrison in El Paso County, and Steamboat Springs in Routt County. In FY 2009–10, the four districts accounted for 9.3 percent of the assessed valuation of all school districts and 10.7 percent of all school finance act property taxes collected statewide. They received 11.9 percent of total state equalization payments made that year.

There is little doubt that the mill levy freeze has required school districts to collect more school property taxes, stabilizing the local and state shares of school funding since 2007. The mill levy freeze and the levy cap of 27 mills resulted in a net increase in statewide property tax collections of about \$118 million and \$130 million respectively for the succeeding two state fiscal years.

For many districts, the mill levy freeze will result in property tax collections increasing at the same pace as assessed valuation growth. The relationship between statewide assessed value growth and statewide property tax growth will, however, break down over time for several reasons:

- The levies of the four districts still governed by TABOR's property tax revenue limits are likely to keep the percentage of state aid they currently receive.
- Some districts have experienced or will experience strong assessed valuation growth that will require levy reductions so they do not collect more in property taxes than the total funding they are entitled to receive under the act.
- Some districts will experience enrollment declines that will reduce their total program funding, triggering a reduction in their mill levies so they do not collect more in property taxes than the total funding they are entitled to receive.
- Some districts will experience rapid enrollment increases, boosting their total program funding without a corresponding increase in assessed values, so their state aid distributions will increase.
- Some districts will experience large assessed-value fluctuations due to natural resource production. Historically in these districts, assessed values grow rapidly one year (forcing levy reductions) and are followed by years in which production is scaled back, causing property tax declines (the reduced levy can't be restored without a vote), requiring the state to backfill the loss of revenue.

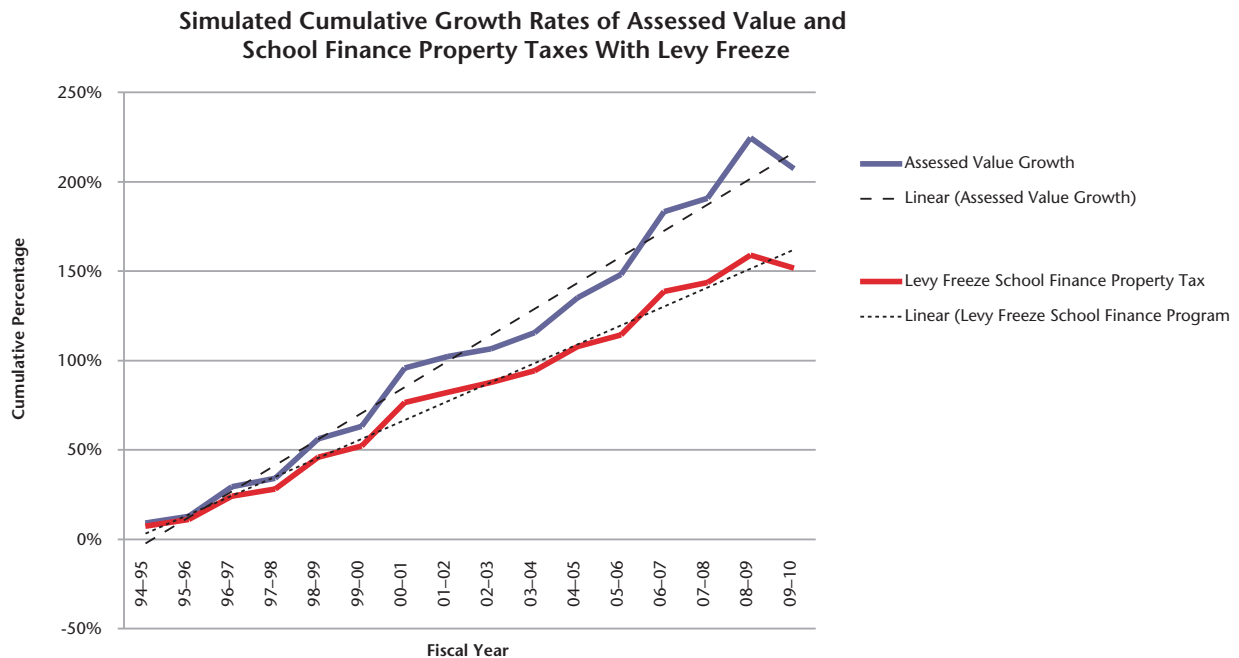
The individual circumstances of 178 school districts are impossible to predict, and the impossibility becomes even more apparent as the forecast horizon increases. The business cycle and its differential impacts on the economic circumstances of each district's property tax base, as well as enrollment increases and declines for each district over time, make long-term analysis risky. Perhaps the best way to gauge how the levy freeze will behave in the future is to examine how it would have behaved in the past, given actual economic cycles and individual enrollment shifts in the 178 school districts. We simulated what would have happened if a levy freeze had taken effect in FY 1994–95. To make the simulation assumptions correspond more closely to provisions affecting school finance beyond FY 2010–11, base per-pupil funding was inflated by the Consumer Price Index without the additional 1 percent increase required by Amendment 23. Figure 21 compares the cumulative percentage rates of growth of assessed value and property taxes from the simulation.

Generally, it shows that assessed values grew by 207.2 percent and property tax collections would have grown by 150.3 percent—a property tax growth rate that is 27.5 percent slower than the growth rate of assessed values over the period. The gap widens, however, in

the final two years of the simulation (FY 2009–10 and FY 2010–11), with property tax growth lagging assessed value growth by nearly 50 percent.

Although the levy freeze simulation shows leakage in the property tax share of school funding, the very strong assessed-value growth of 207.2 percent experienced during the previous 15 years would have been more than sufficient to avoid strain on the state share. In fact, the state share would have declined during the period from 54.3 percent to 49.5 percent of total program funding. The 207.2 percent increase in assessed values during this period compares with only 28.9 percent growth in pupils and a 53.6 percent increase in inflation. In other words, assessed values grew 2.5 times more than enrollments and inflation *combined*. We do not believe, however, that the economy will sustain such strong growth in assessed values. The rate of growth in statewide assessed values over the next 15 years is likely to be about 40 percent of the growth rate experienced during the last 15 years (or about 84 percent), even though enrollment counts and inflation are likely to increase at about the same rates as during the last 15 years. On that basis, despite the levy freeze, we expect some erosion in the local share and some expansion of the state share to continue.

Figure 21



Data source: Colorado Department of Education
Simulation: Center for Colorado's Economic Future, University of Denver

Forecast Results

Increases in school finance components forecast by our econometric models are shown in Table 8.²⁹ The most significant conclusion from the forecast is that state funding is expected to rise by 117.9 percent during the period. Local funding is expected to go up by 56.8 percent, a little less than half the rate of increase expected for the state. During the period, the state share of total program costs is projected to increase by 7.3 percentage points to 70.3 percent.

Table 8

**School Finance Forecast by Component
FY 2010–11 to FY 2024–25**

Fiscal Year	Funded Pupils	Pupils Percent Change	Total Program Cost	Total Local Share (Includes SO Tax)	Local Share Percent	State Share	State Share Percent
FY 10–11	798,676	n/a	\$5,441,404,230 *	\$2,018,856,003	37.5%	\$3,422,548,227 *	62.9%
FY 11–12	808,382	1.22%	\$5,438,295,823 **	\$1,955,451,923	36.0%	\$3,482,843,900 **	64.0%
FY 12–13	819,814	1.41%	\$6,206,046,097	\$2,025,415,751	32.6%	\$4,180,630,346	67.4%
FY 13–14	833,245	1.64%	\$6,560,027,691	\$2,133,141,785	32.5%	\$4,426,885,906	67.5%
FY 14–15	846,421	1.58%	\$6,963,629,875	\$2,249,864,945	32.3%	\$4,713,764,930	67.7%
FY 15–16	861,994	1.84%	\$7,311,602,370	\$2,362,430,173	32.3%	\$4,949,172,197	67.7%
FY 16–17	881,443	2.26%	\$7,656,003,322	\$2,460,100,737	32.1%	\$5,195,902,586	67.9%
FY 17–18	899,918	2.10%	\$8,019,702,016	\$2,559,079,102	31.9%	\$5,460,622,914	68.1%
FY 18–19	918,239	2.04%	\$8,395,728,602	\$2,642,686,792	31.5%	\$5,753,041,810	68.5%
FY 19–20	934,770	1.80%	\$8,760,554,906	\$2,734,158,456	31.2%	\$6,026,396,450	68.8%
FY 20–21	950,790	1.71%	\$9,124,543,264	\$2,816,754,908	30.9%	\$6,307,788,357	69.1%
FY 21–22	966,176	1.62%	\$9,494,730,516	\$2,909,616,245	30.6%	\$6,585,114,272	69.4%
FY 22–23	981,002	1.53%	\$9,862,160,353	\$2,993,144,924	30.3%	\$6,869,015,429	69.7%
FY 23–24	996,511	1.58%	\$10,238,470,262	\$3,084,214,259	30.1%	\$7,154,256,002	69.9%
FY 24–25	1,012,596	1.61%	\$10,622,214,240	\$3,166,027,105	29.8%	\$7,456,187,135	70.2%
Change	213,920	26.78%	\$5,180,810,010	\$1,147,171,102	-7.7%	\$4,033,638,908	7.3%

*Both the total program cost and state share for FY 10–11 include \$216.4 million of federal funds.

**Total program and state share funding for FY 10–11 are prorated pursuant to the budget stabilization factor created by FY 10–1369.

Budget Driver No. 2: **Medicaid**

Medicaid, the health insurance program for low-income Americans, is state-administered and jointly funded by the federal and state governments. It represents a large and growing part of Colorado's budget.

The Colorado Department of Health Care Policy and Financing (HCPF), through which Medicaid dollars are appropriated,³⁰ received \$1.5 billion from the General Fund in FY 2007–08, the most recent budget year not skewed by a temporary injection of federal stimulus money for Medicaid during the economic downturn. This represented 20.4 percent of all General Fund expenditures and 19.4 percent of net General Fund revenues³¹ for that year. General Fund spending for the department rose at a compound annual rate of 6.5 percent from FY 1994–95 to FY 2007–08, compared with 5.3 percent for overall General Fund appropriations. Over the past three fiscal years, including the current one, federal funds provided under the American Recovery and Reinvestment Act (ARRA) enabled Colorado to expend less General Fund revenue on Medicaid. With stimulus money gone this coming fiscal year, General Fund spending for HCPF is expected to be about \$1.6 billion.

In FY 2010–11, approximately 553,000 Coloradans, or 10.5 percent of the state's population, were enrolled in Medicaid, whose caseloads and costs are driven by demographics, eligibility expansions and economic conditions. While the absolute number of Medicaid enrollees in Colorado has trended upward, it swells during economic downturns and drops somewhat during economic recoveries. The growth of expenditures, however, has tended to rise more consistently because economic cycles mostly affect the number of relatively low-cost, low-income children and nondisabled adults enrolled in Medicaid, while the more costly disabled and elderly caseloads are more stable over time.

Colorado's Medicaid spending is also greatly impacted by the same high growth rate in health care costs that affects all parts of the U.S. health care system. All national forecasts indicate that overall health care spending will continue to grow at a rate substantially above general inflation and gross domestic product (GDP) growth, resulting in health care spending rising from 17 percent of American GDP to more than 20 percent by 2020. If historical spending trends continue into the more distant future, health care spending could account for 40 percent of U.S. GDP by 2050. Rising health care costs affect all insurers, both private and public, and the fragmented nature of the American health insurance system limits the ability of any single government or private entity to significantly control its own costs.

The Congressional Budget Office projects that from 2012 to 2020 expenditures per Medicaid enrollee will exceed the overall inflation rate, as measured by the Consumer Price Index (CPI), by 2.8 to 3.4 percentage points per year for each of the major groupings of Medicaid enrollees (aged, disabled, children and nondisabled adults). In recent years, government insurance programs such as Medicare and Medicaid have managed somewhat lower cost increases than private insurers, but ever-rising costs, associated with advanced medical technologies and an ever-greater volume of health care services consumed, have limited the success of cost-containment attempts.

Cost-control efforts by individual payers, such as when states limit payments to Medicaid providers, can lead to covert rationing of services to enrollees. This can happen when physicians choose not to accept Medicaid patients because reimbursement rates are significantly below those of Medicare and private insurers. It can also happen when beds in skilled nursing facilities are not available to Medicaid patients because of low payment rates.

While Colorado's Medicaid expenditures have grown greatly over the last two decades, the state faces a tsunami of Medicaid expenditures over the next 15 years and beyond. The greater part of these expenditures will be driven by costs associated with the high rate of health care inflation and a burgeoning number of older enrollees, particularly those in need of skilled nursing home facilities or home care. As their proportion of the state's population increases, older enrollees will make up the most expensive part of the Medicaid caseload. To a lesser extent, the state's Medicaid expenditures also will be driven by the state share of additional enrollees—individuals with incomes up to 133 percent of the poverty line—who will be covered by federal health care reform legislation, the Patient Protection and Affordable Care Act of 2010.

The overall Medicaid budget includes medical service premiums, Medicaid mental health community programs, indigent care, administrative costs and some other medical services. It also includes funds re-appropriated to the Department of Human Services. What follows in this forecast deals solely with medical services premiums, which currently make up 70 percent of Medicaid General Fund expenditures. Our forecast shows Medicaid expenditures for medical services premiums growing to nearly \$3.8 billion by FY 2024–25, about a 192 percent increase from the \$1.3 billion estimated General Fund obligation in FY 2011–12. This would be an 8.4 percent compound annual growth rate.

Background

Medicaid was created in 1965 by Title XIX of the Social Security Act. While each state administers its own program, the federal Center for Medicare and Medicaid Services establishes requirements for quality, service delivery and eligibility. Colorado is one of 14 relatively high-income states that share the cost of Medicaid equally with the federal government. The federal government contributes a higher proportion of the total in lower-income states, a share that rises to 78 percent in Mississippi.

Medicaid operates as a means-tested, needs-based social protection program in which eligibility is largely determined by one's income and financial resources. Medicaid eligibility, however, has historically been limited to specific categories of low-asset individuals and not to everyone living in poverty. The Patient Protection and Affordable Care Act of 2010 widens Medicaid eligibility to all persons with incomes below 133 percent of the federal poverty line.

The Medicaid program serves several different populations who qualify for benefits on somewhat different bases. These eligible caseloads generally fall into the following four broad categories:

- **Aged**—About 39,000 Coloradans 65 and older receive Medicaid benefits. These people fall into two subcategories. The first qualifies for Medicaid by being eligible for federal Supplemental Security Income (SSI) benefits or a state Old Age Pension usually because, for one of any number of reasons, they did not contribute long enough to qualify for Social Security and Medicare. The second population consists of people in nursing homes and those receiving home care who have low incomes and who have drawn down their assets. Most also receive Medicare benefits, but Medicaid pays for long-term care not covered under Medicare. As such, the aged are one of the most costly subsets of the Medicaid caseload, with an average annual cost of more than \$21,000 per individual in FY 2010–11. About 17,000 low-income Coloradans 65 and older also receive some Medicaid benefits because they are “dual eligible.” They receive health care through Medicare but have incomes low enough for Medicaid to pay for the co-payments required by Medicare.
- **Disabled**—About 61,000 Coloradans with disabilities under age 65 qualify for Medicaid by receiving means-tested SSI payments or, if they are ages 60 to 64, by receiving a state Old Age Pension. Disabled Medicaid recipients normally do not qualify for Social Security Disability Insurance and Medicare, often because they have not worked and contributed to those social insurance systems long enough to qualify. The overall average annual cost for disabled Medicaid recipients exceeded \$14,000 per individual in FY 2010–11.
- **Children**—In 2010, roughly 300,000 children from low-income Colorado families were enrolled in Medicaid, as were almost 19,000 children in foster care. Although children make up the largest part of Medicaid's current caseload, their health care costs are generally low, an average of only \$1,600 per low-income child enrolled and \$3,600 per child in foster care in FY 2010–11.
- **Nondisabled Adults**—In 2010, more than 66,000 nondisabled adults in Colorado were enrolled in Medicaid, qualifying for the program by falling below the needs standard and having children in the household. Most low-income adult Medicaid recipients are women under age 40. Like their children, these recipients generally have low per-capita costs, which averaged around \$3,600 in FY 2010–11. An additional 7,000 women with incomes up to 133 percent of the poverty line were enrolled during pregnancy and for postpartum care.

Analysis

The drivers of Medicaid General Fund expenditures through FY 2024–25 are expected to be a combination of rising health care costs, an increasing elderly population and, to a lesser degree, additional caseloads due to federal health care reform.

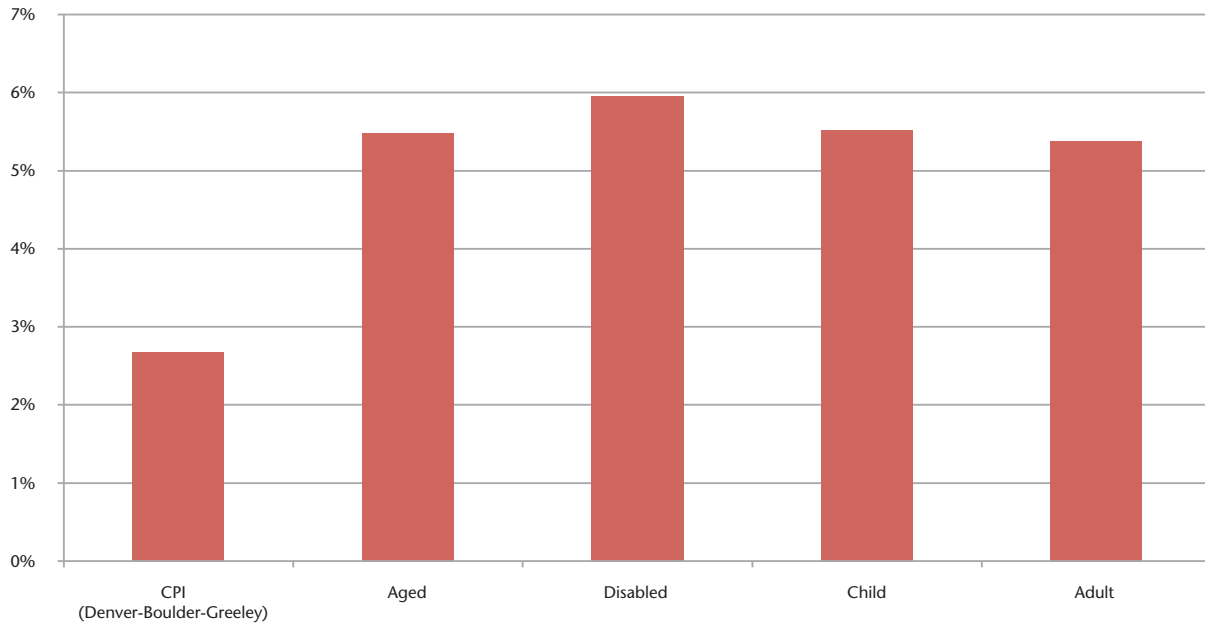
Rising Health Care Costs

The largest single contributor to Colorado's rising Medicaid expenditures will be continued health care cost escalation significantly in excess of general inflation as measured by the CPI. The Congressional Budget Office (CBO) produces mid-range and long-range forecasts for federal entitlement expenditures, including the federal portion of Medicaid costs. We believe these forecasts incorporate some of the most reliable estimates for health care inflation affecting future state Medicaid costs. From 2012 to 2020, the CBO expects annual federal expenditure growth per Medicaid enrollee to exceed the overall CPI by 3.2 percentage points for those 65 and older, by 3.4 percentage points for the disabled and by 2.8 percentage points for children. The CBO estimates for Medicaid health care cost escalation, which we have incorporated into our forecasts, are below many estimates of the rates private insurers have experienced or will experience in the future.

Health care cost growth is not entirely “inflation” in the sense of the same product or service rising in cost over time. Rather, much of the cost growth in health care reflects continuous increases in the volume of care provided in the health care system, including physician evaluation and management services, surgical procedures and implants, diagnostic tests, imaging services and pharmaceuticals. Cost growth may also reflect technological advances, essentially improvements in the quality, rather than just the quantity, of services provided.

Figure 22

Annual Expenditure Growth per Medicaid Enrollee vs. Inflation
FY 2011–12 to FY 2024–25



Forecast: U.S. Congressional Budget Office and Center for Colorado's Economic Future, University of Denver

Many analysts have speculated as to when the overall cost curve in American health care spending will begin to bend downward, if further advances in medical technology will slow, or if the growing use of diagnostic tests and imaging systems will level off. Few see any obvious reasons to expect a change in trends. We believe Colorado's Medicaid program faces the same cost pressures as those in other states. Thus, we anticipate annual expenditure growth per Medicaid enrollee through FY 2024–25 to exceed overall inflation by an amount similar to the 2.8 to 3.4 percentage points the CBO forecasts nationally.

Growth in the 65 and Older Population

While there are high- and low-cost individuals in all Medicaid programs, Medicaid enrollees might fairly be categorized into high- and low-cost populations. The aged and disabled have high average costs per enrollee, while the nondisabled adults and children who make up the large majority of the Medicaid caseload have low average costs per enrollee.

Colorado's Medicaid caseload has risen over the last two decades largely because of expansions that made more children eligible for benefits. While the overall caseload grew strongly, most of the new additions were low-cost individuals, so the overall impact on Medicaid costs was

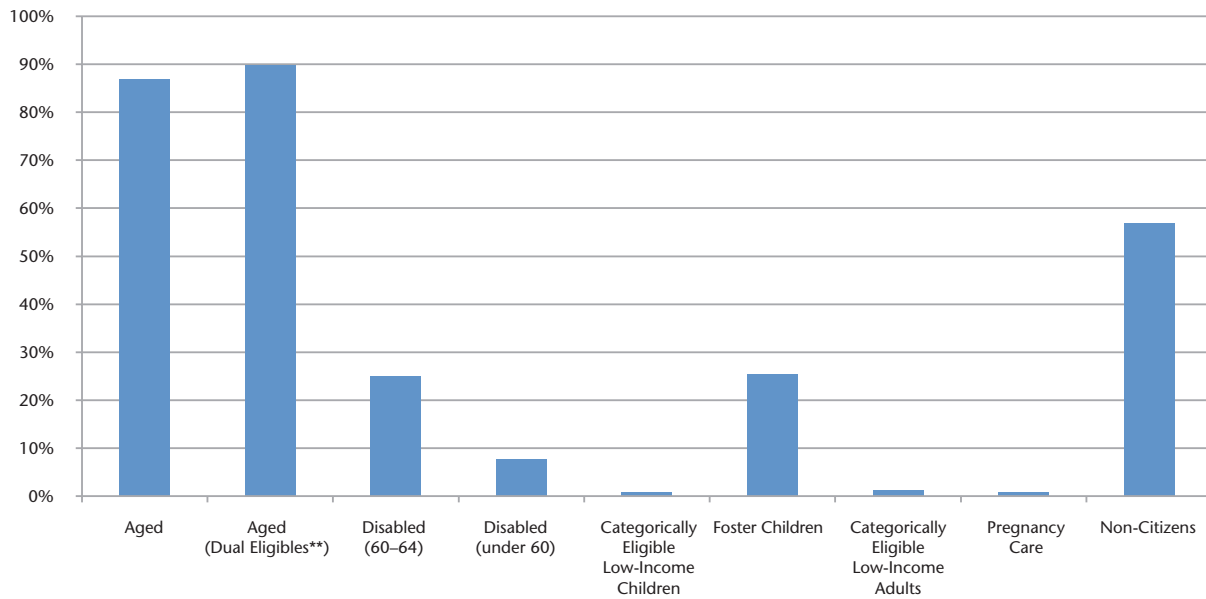
relatively small. Meanwhile, the number of generally high-cost aged and disabled Medicaid enrollees grew more modestly and rather consistently with their group's shares of the Colorado population. Going forward from 2011, this relatively modest historical growth in the number of aged Medicaid recipients will change as Colorado's 65-and-older population swells.

From 2011 to 2025, Colorado will have one of the more rapidly aging state populations. The number of residents 65 and older is forecast to more than double, from 565,000 to 1,145,000, and increase from 10.8 percent to 17.1 percent of the state's total population. The aging of the population is a national phenomenon, with the large baby boom cohort born between 1946 and 1964 replacing the smaller cohort born during the Great Depression and World War II as the population in the 65- to 80-age range. In addition, a greater proportion of Americans are living into their 80s and 90s. The growth in this age group will be especially rapid in Colorado because of a large influx of baby boomers from the late 1960s to the early 1980s.

Medicaid expenditures associated with Colorado's 65-and-older population will build over time as the baby boom cohort ages. While fewer than 7 percent of

Figure 23

Medicaid Caseload Growth Forecast*
FY 2011–12 to FY 2024–25



Data source: Joint Budget Committee of the Colorado Legislature

Forecast: Center for Colorado’s Economic Future, University of Denver

* Forecast caseload growth is only for traditional Medicaid caseloads funded by the General Fund. Expansion caseloads are not included.

** Dual eligibles receive health care through Medicare but have incomes low enough for Medicaid to pay for the co-payments required by Medicare.

Coloradans ages 65 to 69 were enrolled in Medicaid in FY 2010, 10.5 percent of those in the 80-to-84 age range and nearly 27 percent of those 90 and older were enrolled. Older members of the 65-and-above population also have higher per capita Medicaid expenditures because the proportion of the elderly needing either home care or skilled nursing facility care, which Medicare does not cover, increases with age. While the average cost per Medicaid enrollee ages 65 to 69 was \$9,387 in FY 2010, it was \$16,797 for those in the 80-to-84 age range and \$27,099 for those 90 and older.

From now until FY 2024–25, the aging of the baby boom generation into retirement will mostly add to the population of the younger elderly (ages 65 to 80) in Colorado. It should be noted, however, that Medicaid costs will swell further in the years beyond the scope of this study as many members of that generation move into the high-cost 80-and-older age range.

Greater longevity also will play a major role in increasing Colorado’s Medicaid costs over the next 15 years. For example, the state’s 90-and-older population, the age range when enrollees have the highest average cost, is forecast to nearly double by FY 2024–25, increasing from 21,500 to 42,300.

Federal Health Care Reform

In March 2010 Congress passed the Patient Protection and Affordable Care Act. Among the numerous provisions designed to extend health insurance coverage to all Americans, the legislation extends Medicaid eligibility to all persons with incomes under 133 percent of the federal poverty line in 2014. Because previous expansions in Medicaid and child health programs have covered more children below that income threshold, it is anticipated most new enrollees will be adults. While the federal government pays half the cost of most Medicaid caseloads in Colorado, it will pay 100 percent of the cost for those newly eligible under the act from 2014 to 2016, 95 percent in 2017, 94 percent in 2018, 93 percent in 2019 and 90 percent in 2020 and beyond.

By 2020 this eligibility expansion is expected to add 145,000 people to Colorado’s Medicaid rolls, at an average cost of \$5,000 per enrollee, 10 percent of which will be a state financial obligation that, presumably, will be covered by General Fund revenues. The state Department of Health Care Policy and Financing estimates that Colorado’s annual funding obligation will start at \$30.9 million in FY 2016–17 and rise to \$72.5 million by FY 2019–20.

Forecast

In the interests of illustrating the growth in the cost of services that will be used by Medicaid enrollees, our Medicaid forecast through FY 2024–25 covers only medical services premiums. Because it does not include administrative costs, mental health community programs, indigent care and Medicaid programs administered by the Department of Human Services, the forecast should not be considered the full cost of Colorado’s Medicaid program. Nor should it be regarded as HCPF’s future budgetary needs.

From FY 2011–12 to FY 2024–25, General Fund expenditures associated with Medicaid medical services premiums are expected to grow at a compound annual rate of 8.4 percent, going from about \$1.3 billion to nearly \$3.8 billion. That would be an increase from 17.9 percent to 27.2 percent of net forecast General Fund revenues.

We forecast that annual General Fund expenditure increases will range from 7.2 percent to 10.6 percent, with the highest growth rates coming in the four years between FY 2016–17 and FY 2019–20, when Colorado begins assuming a share of the cost of the caseload expansion associated with federal health care reform. Although the new enrollees under the act will add to Colorado’s overall Medicaid expenditure burden, we should point out that those costs will account for only 2.6 percent of the total General Fund obligation for Medicaid medical services premiums by FY 2024–25. That is largely because state funds will pay only 10 percent of costs rather than 50 percent, as for other Medicaid populations.

By FY 2024–25, we expect annual expenditure growth for medical services premiums to be more than \$274 million, which would account for nearly 53 percent of the growth in General Fund revenues from the previous fiscal year.

While we expect substantial cost growth for all classes of Medicaid eligibles, reflecting the upward spiral in costs afflicting all parts of the American health care system, expenditure growth will not be equal among all populations. Costs associated with categorically eligible children and nondisabled adults, excluding those added through federal health care reform, will rise less rapidly than those for other populations, declining from 28.7 percent of total expenditures for Medicaid medical services premiums in FY 2011–12 to 20.6 percent in FY 2024–25.

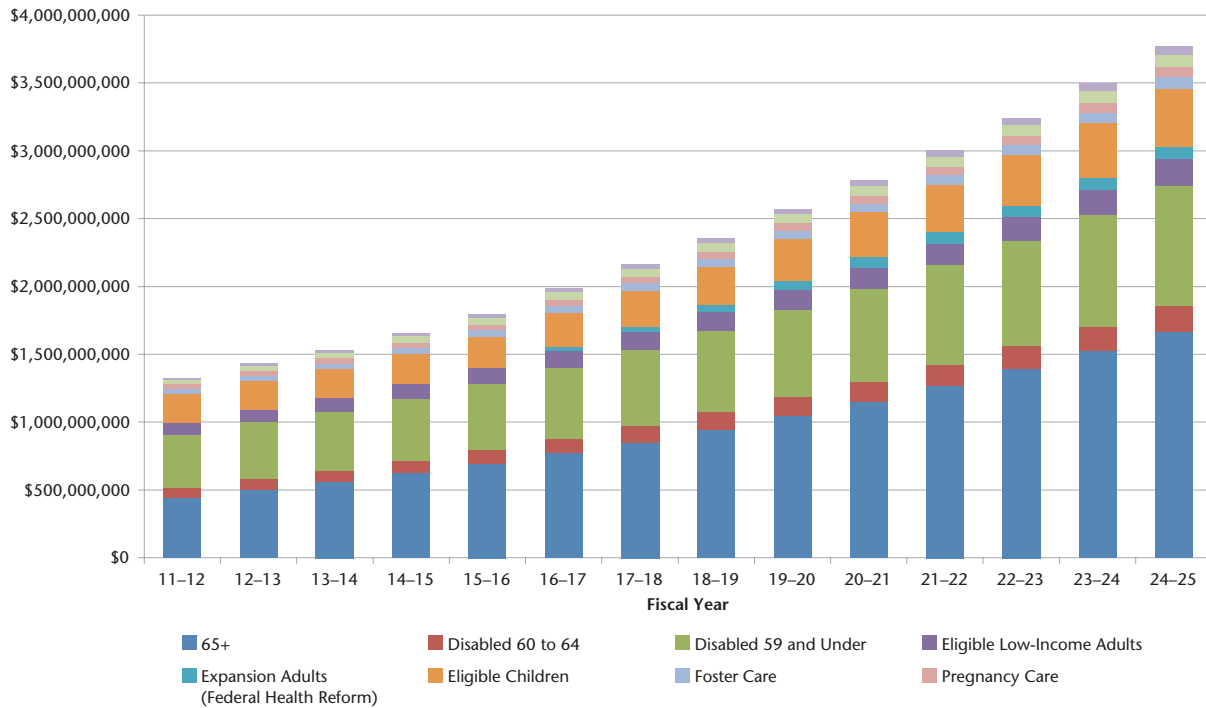
Meanwhile, Medicaid General Fund expenditures associated with the aged will rise from \$450 million to \$1.7 billion, a compound annual rate of 10.8 percent. Medicaid spending on the aged would then represent 45.9 percent of total expenditures for medical services premiums, up from 34.4 percent in FY 2011–12. The shift in Medicaid spending from the disabled, children and nondisabled adults to the aged reflects the rapid growth Colorado will experience in its 65-and-older population over the next 15 years.

Health Care Expansion Fund Shortfall

In 2004 Colorado voters passed an amendment to the state constitution that raised the tax on tobacco products and expanded Medicaid eligibility to higher income thresholds for adults and children. Amendment 35 requires 46 percent of tobacco tax revenues to be placed in a Health Care Expansion Fund to cover newly eligible Medicaid enrollees and newly eligible children in the Child Health Plan Plus (CHP+) program. As the number of people receiving Medicaid benefits under the new criteria has grown, expenditures have exceeded allocated revenues and have drawn down the Health Care Expansion Fund. The expenditure obligation is forecast to exceed allocated tobacco tax revenues by \$77.3 million in FY 2011–12 and \$86.9 million in FY 2012–13. It is expected to increase in subsequent years as Medicaid expenditures continue to rise while tobacco tax revenues are stagnant or falling. This shortfall represents a growing additional General Fund obligation, one not included in our General Fund forecast.

Figure 24

Future Growth of Medicaid Medical Services Premiums by Caseload



Data source: Joint Budget Committee of the Colorado Legislature
 Forecast: Center for Colorado’s Economic Future, University of Denver

Methodology

Our forecast was limited to the medical services premium costs of Medicaid caseloads funded by General Fund revenues. Thus, it does not represent an overall budget forecast for the Department of Health Care Policy and Financing. The three main components of this forecast include forecasts for caseloads for the various populations covered by Medicaid, forecasts for cost per case and estimates of the proportion of total costs to be borne by General Fund expenditures. The methods and assumptions used in developing this forecast are explained below.

Caseloads

Caseload forecasts are based on the percentage of the state population of the applicable age range that has historically been included in a particular caseload. For example, if, as estimated by the State Demography Office, 2.4 percent of Coloradans ages 60 to 64 were enrolled in Medicaid’s OAP-B (Old Age Pension) Disabled caseload in 2010, we applied that rate to the state demographer’s projection of the population in that age range in future years.

For caseloads whose enrollments fluctuate greatly with economic conditions, such as low-income children and low-income adults, we chose an average enrollment rate for each population for a representative five-year period. We assumed that, as the Colorado economy improves, current high enrollment rates will gradually decline.

For the OAP-A elderly caseload, different age ranges have greatly different average enrollee costs, and the demographic trends among Colorado’s elderly are such that different age ranges will grow at differing rates through the forecast period. The enrolled population was broken into five five-year age bands (65 to 69, 70 to 74, etc.) and a 90-and-older age grouping. The percentage of the elderly in each age range who were enrolled in the OAP-A caseload in FY 2009–10 was assumed to stay constant through the forecast period.

For the Medicaid enrollment increase associated with the federal Patient Protection Act’s eligibility expansion to persons with incomes under 133 percent of the federal poverty line, we used the Department of Health Care Policy and Financing’s enrollment estimates through 2020 and grew the enrollment numbers at the same rate as the under-65 population in subsequent years.

Cost

The Congressional Budget Office's August 2010 estimates for federal Medicaid expenditures through 2020 served as the basis for our cost-per-case growth estimates. Different Medicaid populations use different mixes of medical services. From 2012 (the earliest year in the CBO's forecast not affected by ARRA funding) to 2020, the CBO estimates that national health care spending will rise annually at a rate 3.2 percentage points above CPI growth for aged Medicaid enrollees, 3.4 percentage points above the CPI for disabled enrollees and 2.8 percentage points above the CPI for children.

Our annual cost-per-enrollee forecasts for most Medicaid populations apply the Denver-Boulder-Greeley CPI for each year and raise that rate by the CBO's excess health care cost growth rate for the applicable populations. The CBO's cost-per-enrollee growth rate forecast for non-disabled adults is skewed by the large population of new Medicaid enrollees who will become eligible under the federal health reform law. We assumed that the cost of these caseloads will grow at the same annual rate as that of child caseloads—2.8 percentage points in excess of the CPI.

For the population added by the federal health care reform act, we used the Department of Health Care Policy and Financing's cost estimates through 2020 and applied the same cost growth factors we used for other populations through FY 2024–25.

General Fund Expenditures

The state portion of funding for some Medicaid caseloads comes partly or entirely from sources other than General Fund dollars, and it is assumed those caseloads will continue to be funded by those other revenues. Our General Fund cost forecast assumes that the proportion of each Medicaid caseload population funded by the General Fund in the Joint Budget Committee's FY 2011–12 appropriations forecast will remain constant through our forecast period. We have noted that this assumption may not prove to be correct, as Medicaid expenditures for expansion caseloads will exceed Health Care Expansion Fund revenues in FY 2011–12 and throughout the forecast period, with the shortfall becoming a General Fund obligation.

Budget Driver No. 3: Corrections

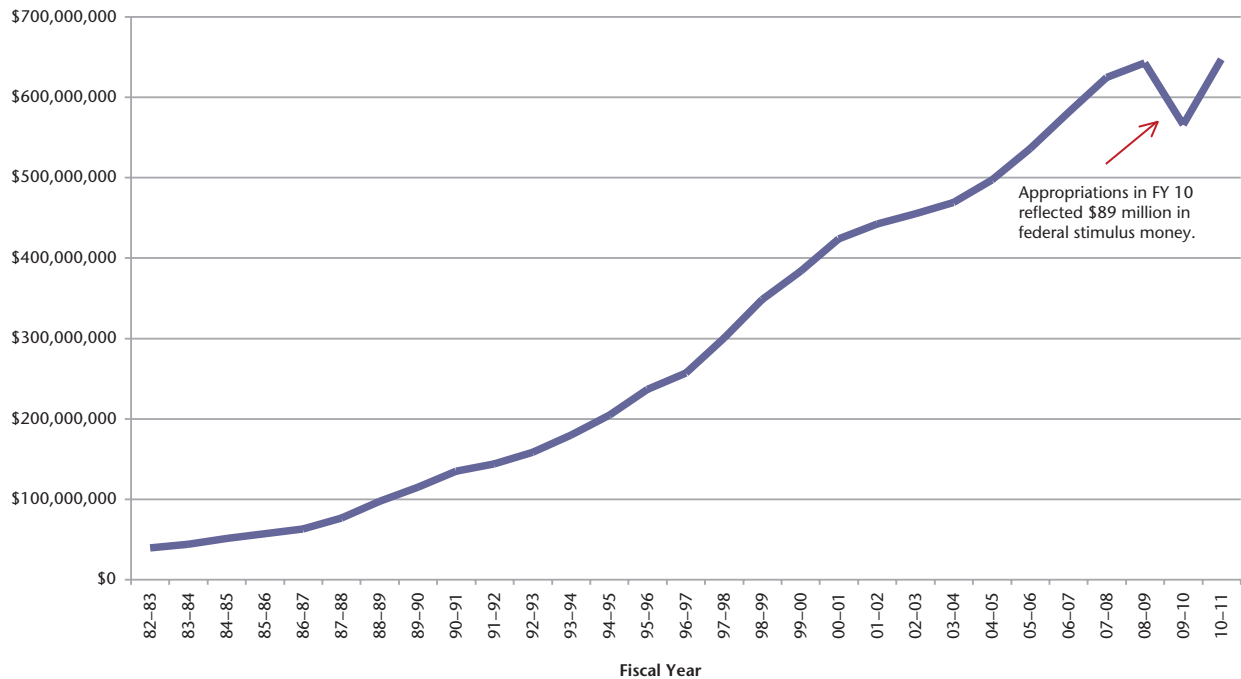
Until recently, the Department of Corrections' (DOC) budget represented one of the fastest-growing portions of Colorado's General Fund, with expenditures rising at a compound annual rate of 9.6 percent in the decade and a half between FY 1992–93 and FY 2007–08. During this period, the DOC's jurisdictional population increased by nearly 150 percent, from about 9,000 to nearly 23,000 inmates, an average annual growth rate of more than 6 percent. The population under parole supervision rose even more rapidly during this time, from fewer than 3,000 to more than 11,500. The DOC's \$624 million appropriation in FY 2007–08 represented 8.6 percent of General Fund expenditures and 7.8 percent of net General Fund revenues³² that year.

In addition to a growing operating budget, the escalating number of prisoners has required a huge investment in capital construction. Colorado has spent more than \$744 million to build 10,322 additional beds in state prison facilities since 1985. As the capital construction budget for prisons became seriously constrained over the last decade, the state contracted more extensively with privately run prisons to house as many as 5,000 inmates at a time.

Since FY 2006–07 Colorado's inmate population growth has slowed. It even declined in FY 2009–10 by more than 300 inmates, the first such decline in decades and a trend that is forecast to continue in the short run. Colorado is not unique in this respect, as the number of people incarcerated nationally has leveled off as well. The recent reversal in the long-term growth trend raises the question of whether this decline represents a permanent change or a temporary blip. The question has great implications for General Fund expenditures over the period of this study and may best be answered by considering the drivers of prison population growth.

Figure 25

Department of Corrections - Annual General Fund Appropriations
FY 1982-83 to FY 2010-11



Data source: Joint Budget Committee of the Colorado Legislature

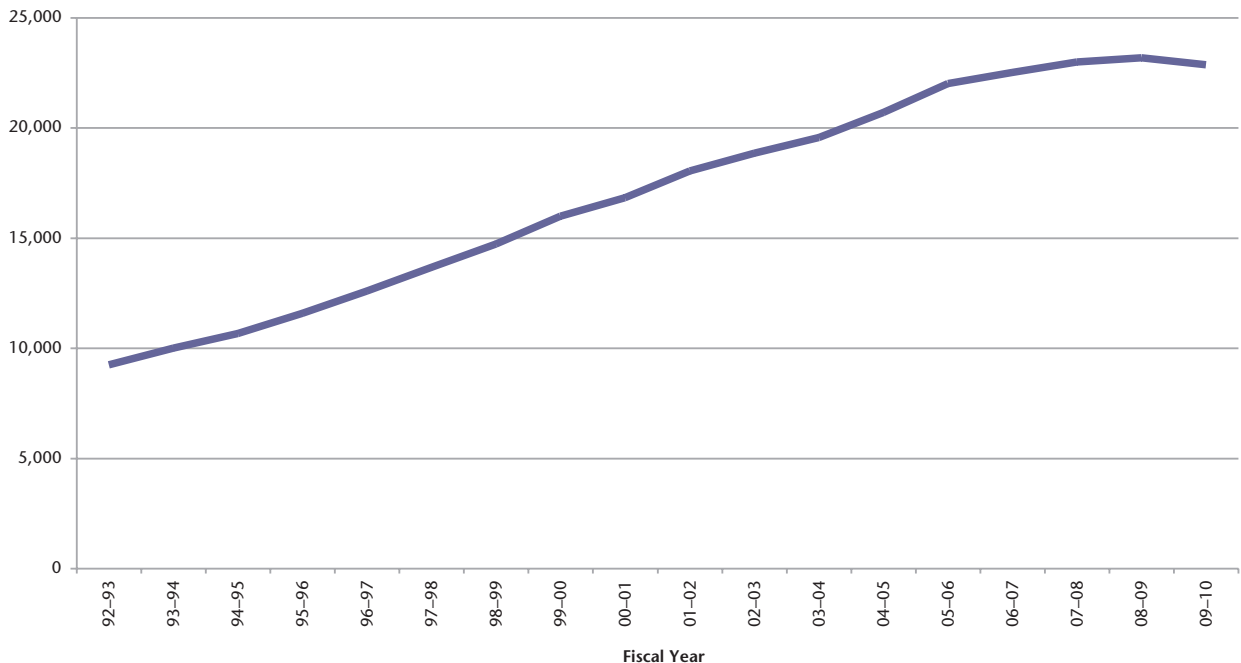
Long-Term Drivers

Numerous factors determine whether or when prison populations cease to grow more rapidly than the overall population: demographics, the level of criminal activity,

sentencing laws, and to some degree, the level of policing and the discretion of prosecutors, judges and parole board members.

Figure 26

Growth in Inmate Population
FY 1992-93 to FY 2009-10



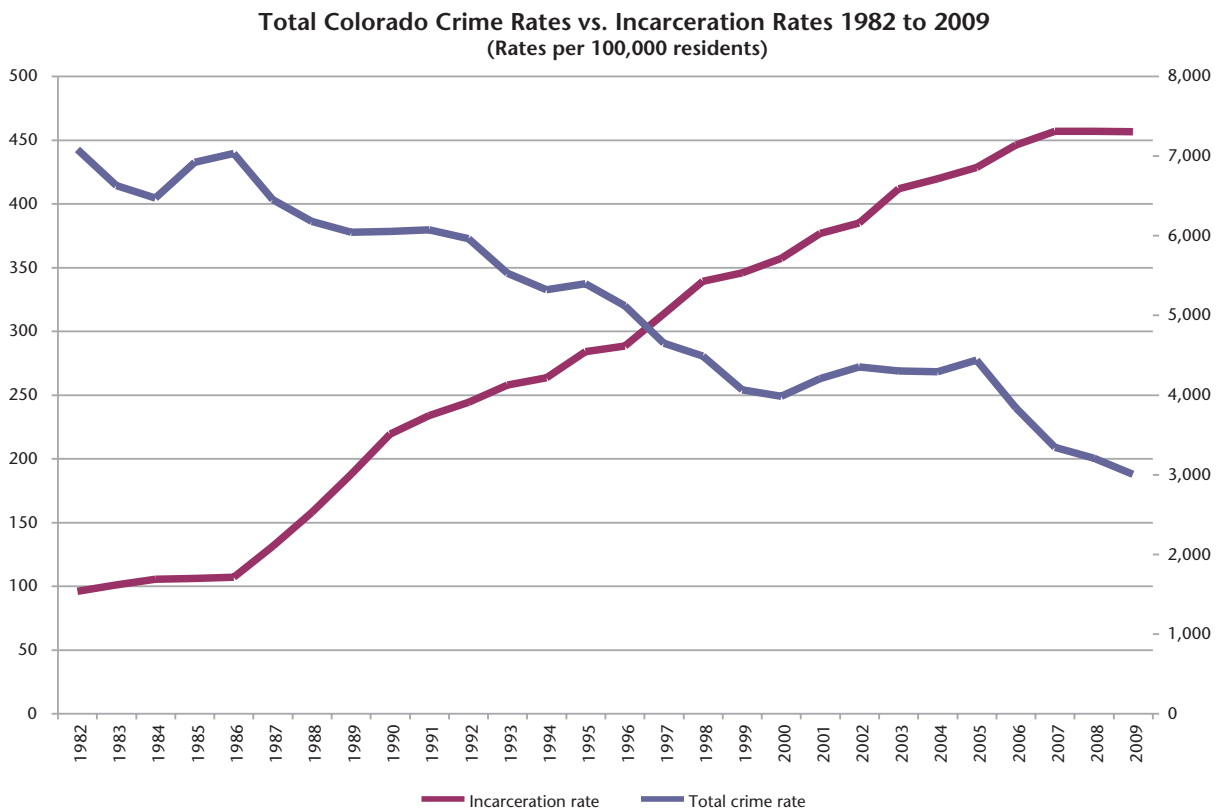
Data source: Colorado Department of Corrections

Over the last quarter-century, Colorado experienced growth in the population cohort (males 18 to 30) accounting for most admissions to prison, but age demographics were responsible for a relatively small part of the state's prison population growth. Far more significant were several changes to sentencing laws, the most important of which was House Bill 85-1320, known as the Mielke-Arnold Bill, which doubled the maximum sentencing ranges for all felony classes. Within three years of the legislation's passage, the average sentence length of convicted felons increased by two-thirds. To some degree the legislation still contributes to prison population growth. For example, an inmate sentenced under the previous law who received the maximum sentence of 12 years would have long been out of the prison system for that crime by now. But someone sentenced for the same crime under the provisions of HB 85-1320 might only now be leaving the system. Also contributing to more prison admissions and longer prison stays were enhanced sentencing provisions for certain violent crimes and "extraordinary risk crimes," along with mandatory prison sentences for some drug crimes and other categories of crime.

A bill enacted in 1993 required all offenders sentenced to prison for crimes committed after July 1, 1993, to serve a one- to five-year period of mandatory parole, depending on the felony class of their conviction crime. This law substantially raised the average length of parole supervision and increased parole populations. Prisoners who may have been released from prison without parole supervision under prior laws have since faced parole periods of as long as five years. This is the time frame during which their parole could be revoked for technical violations or for committing new crimes. Thus, mandatory parole also contributed to a larger prison population.

During the 1990s and 2000s, while prison populations in Colorado and other states were increasing rapidly, reported rates of violent and nonviolent crimes displayed a downward trend. As reported by the Colorado Division of Criminal Justice, the state's incarceration rate rose from 219 to 457 inmates per 100,000 residents from 1990 to 2009. During that period, the state's crime rate, as reported by the FBI's Uniform Crime Report, dropped from 526 to 338 per 100,000 residents for violent crimes and from 5,528 to 2,666 per 100,000 residents for property crimes.

Figure 27



Data source: Colorado Division of Criminal Justice

For several reasons, this divergence is not necessarily contradictory:

- While in prison, those who might be inclined to commit more crimes are incapacitated for the duration of their incarceration.
- Longer and higher levels of supervision outside of prison (parole, probation, community corrections) may contribute to lower rates of recidivism.
- Greater resources for law enforcement may reduce the average number of crimes a felon commits before being apprehended (quite often a significant number, especially for those engaged in property crimes).

The drop in reported crime does not reflect, at least over the last 15 years, a surge in arrests, felony filings, convictions and prison admissions for drug crimes. Indeed, the number of DOC inmates with drug offenses as their highest felony convictions rose from 1,453 in 1996 to 4,373 in 2009, one of the most rapid increases for any type of crime. The use, possession, sale and trafficking of illegal drugs do not factor into the statistics on reported crimes. Drug crimes, however, are reflected in arrest and felony court filing rates, better short-term predictors of prison admissions than reported crime rates.

Colorado's Prison Population 2011–25

The explanation of why Colorado's prison population grew so rapidly over the last 25 years is necessary to understand why much slower growth is expected in the mid-term future. Over the next 14 years, corrections is unlikely to consume an increasing proportion of state General Fund dollars. There are several reasons for this lessening in the growth rate of the prison population and associated state expenditures.

First and foremost, although Colorado struggled to deal with its growing prison population in the 1990s and 2000s, there was no major sentencing legislation after 1993 that added significantly to inmates' length of stay in prison. Going forward from FY 2011–12, the provisions of HB 85-1320 and mandatory parole will make only very small contributions to additional prison population growth, unlike during the 2000–10 decade, when their effects on the prison population were still being felt.

Second, while arrests, court filings for felony crimes and prison commitments were still increasing during the 1990s, those trends reversed by the middle of the 2000s. From FY 2005–06 to FY 2008–09, court filings for felony crimes in Colorado declined by 16.1 percent. Commitments to prison for new crimes declined by 6.2 percent from FY 2007–08 to FY 2008–09 and 2.6 percent from FY 2008–09 to FY 2009–10. During the first half of FY 2010–11, prison admissions declined another 4.9 percent. The downward trends in felony crime filings and prison commitments may not be permanent ones, but they are significant enough that both the Colorado Legislative Council Staff and the state Division of Criminal Justice forecast that the DOC population will drop by about 3 percent annually for the next two to three years.

In contrast to the 1980s-era legislation increasing sentence lengths and prison stays, several bills passed in 2009 and 2010 will reduce Colorado's prison population to some degree. HB 10-1338 allows judges to sentence those with two or more prior felony convictions to probation rather than prison under some circumstances. HB 10-1352 reclassified some drug offenses from felonies to misdemeanors and reduced the penalties for other drug offenses. Together, the two bills are expected to reduce the DOC population by 764 inmates by FY 2014–15. Meanwhile, HB 09-1351 and HB 10-1374 changed inmates' eligibility to receive earned time (time deducted from an offender's sentence), a provision also expected to reduce inmate numbers. Also, HB 10-1360 allows some parolees with technical violations of their parole to be placed in community corrections facilities instead of prison, a change that does not reduce the DOC's jurisdictional population but saves money by placing such violators under a less intense level of supervision.

Finally, the State Demography Office forecasts that the demographic cohort most at risk for sentencing to prison, males 18 to 30, will grow at a compound annual rate of only 1.2 percent between now and FY 2024–25. That would be a slightly lower rate than occurred over the last decade and less than half the annual growth rate of that age group in the state during the 1990s. Other factors being equal, slower growth in the age group most likely to be incarcerated will lead to fewer prison commitments and slower growth in the prison population.

Forward Projections

The General Fund expenditure forecast for corrections through FY 2024–25 is based on a prison population forecast that uses Colorado Legislative Council Staff and state Division of Criminal Justice projections through FY 2015–2016. It then grows the DOC population by the State Demography Office’s forecast growth rate in the 18-to-30 age cohort that will account for the bulk of prison commitments during the nine years that follow (FY 2016–17 through FY 2024–25).

The Legislative Council and Division of Criminal Justice projections take into account the short-term downward impact that the bills passed in 2009 and 2010 will have on the prison population over the next three to five years. The legislation mostly impacts inmates with nonviolent offenses and those who fall into lower felony classes and generally have relatively short prison sentences. Thus, the impact of the bills on reducing the prison population will primarily be felt within the period covered by the Legislative Council and Division of Criminal Justice prison population forecasts. We believe that beyond FY 2015–16, the impact of existing legislation—both the bills of the 1980s and 1990s that increased sentence lengths and imposed mandatory sentences, as well as the recent bills that reduced prison sentencing—will have little directional impact on the prison population. Thus, our forecast for FY 2016–17 through FY 2024–25 assumes a constant population-adjusted rate of prison admissions as well as a constant average length of stay for inmates.

Our long-term projections yield a DOC jurisdictional population of 24,113 in FY 2024–25, a total less than 7 percent above Colorado’s current prison population of 22,610. We forecast the total parole population (including out-of-state parolees) to increase 28 percent from the current 11,518 to 14,747 in FY 2024–25. We forecast General Fund DOC expenditures to rise from \$647,180,811 appropriated in FY 2010–11 to slightly more than \$1 billion by FY 2024–25, a compound annual growth rate of 3.2 percent. Our expenditure estimates are based on the cost per inmate and parolee rising through the forecast period at the same rate as the forecast increase in the Denver-Boulder-Greeley Consumer Price Index. We wish to note, however, that several factors may lead to the per-inmate cost rising somewhat more rapidly. These include the following: rising health care costs for an inmate population with a growing number of older offenders serving very long or life sentences; and the possibility that, as non-prison alternatives are increasingly used in the sentencing of nonviolent offenders, average security needs will increase as the inmate population comes to include a higher proportion of violent offenders.

Conclusion

Somewhat contrary to our expectations when this study was conceived and in contrast to the past quarter-century of prison population history, we project that, by FY 2024–25, the Department of Corrections’ inmate population will grow by less than 7 percent to 24,113 inmates. The DOC’s operating budget needs will grow roughly in conjunction with overall spending growth. While DOC expenditures will rise to just over \$1 billion during that time, they are expected to decline as a portion of net General Fund revenues from 8.8 percent in FY 2010–11 to 7.3 percent.

PROGRAM COSTS AND REVENUES: A STRUCTURAL BREAKDOWN

How well does the tax structure supporting Colorado's General Fund fit the services it is expected to finance over the long term? Does that structure, damaged by two recessions in the last decade, need only minor repairs to serve us well in the future? Or will the forces driving growth in the General Fund portion of state government, primarily Medicaid and K-12 education, outgrow the capabilities of our current tax system, perhaps requiring a major overhaul?

To examine these questions, this section compares our combined net General Fund and State Education Fund revenue forecast to our expenditure forecasts for K-12 education, Medicaid medical services premiums and corrections. The amount left over after paying for these programs must pay for all other General Fund activities. This comparison of income over time to the growth of major spending drivers is not intended to be a long-term budget exercise. Instead, the purpose of this approach is to see how well Colorado's general-purpose income streams align with big-ticket spending items. Before proceeding, however, three points of caution need to be considered.

First, our forecasts are based on long-term national forecasts from Moody's Economy.com. Neither they nor we can predict the business cycle. The height and depth of the business cycle, when it begins and when it ends, all have considerable bearing on how financial events will unfold. Instead, our forecasts show long-term growth trends relative to Colorado's economy in which economic booms and busts tend to offset each other but underlying long-term growth is observed. The relatively smooth upward curve of revenue growth shown in our forecasts is extremely unlikely, and we know that when economic expansion and contraction occurs, Colorado's volatile General Fund revenue system will respond in an exaggerated manner. Unfortunately, the business cycle and its effects on revenues are a certainty, but the timing and amplitude of the business cycle are not.

Second, the business cycle has a significant impact on the spending drivers we are forecasting. Medicaid caseloads skyrocket during recessions. The assessed property values that determine the local share of school funding flatten and sometimes decline during recessionary periods, but grow during recoveries, affecting the state's portion of school funding. Because K-12 education finance is the sum of the individual economic and enrollment circumstances playing out in 178 independent school districts, the overall consequence of the business cycle is extremely difficult to anticipate. It should be noted that our revenue and expenditure forecasts anticipate a robust recovery from FY 2012–13 to FY 2014–15 but do not reflect subsequent business cycle-related effects.

Third, our expenditure forecasts are illustrative in nature and are not budget predictions. Colorado's General Fund spending is extremely complex and influenced by changes in other state government accounts—cash funds, re-appropriated funds, federal funds and General Fund exempt—and is subject to manipulation that addresses the requirements of the moment. To complicate things further, our expenditure forecasts have been made during very unstable times. Sizeable budget cuts in the base year of our forecasts, FY 2011–12, appear inevitable. The way that policymakers choose to address the current financial distress will significantly affect how departmental budgets will grow over the next decade and a half.

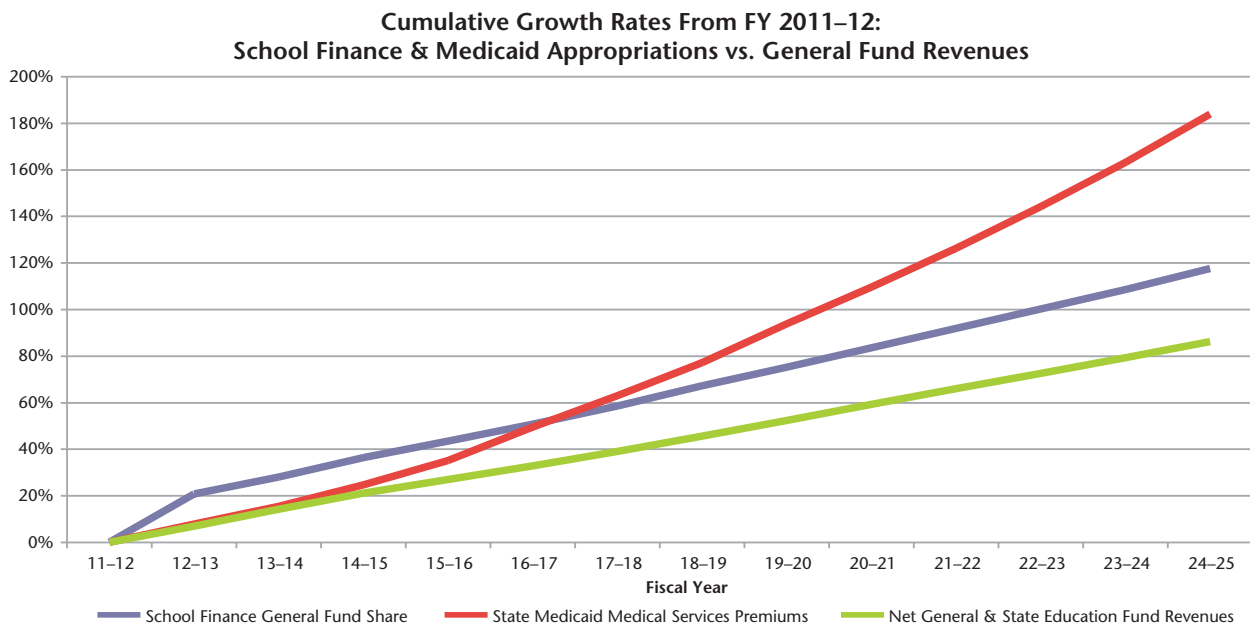
Our comparison of growth in General Fund revenues and anticipated expenses is similar to the exercise that many families and businesses undertake to figure out why their money seems to run out sooner each month. If expenses grow faster than income, something must be done. The state budget, of course, is the focus of a great deal of attention from elected officials each year. Difficult choices are made, and limited resources are distributed among much greater budget requests. The exact shape of the budget from year to year is impossible to predict years in advance. Instead, our analysis highlights the underlying dynamics likely to create the boundaries for future budget debates. Our illustration should be regarded as a depiction of the internal pressure mounting within the General Fund budget—pressure that will squeeze out much of the spending that is not protected by federal rules or the Colorado Constitution.

The Structural Breakdown

We examined the relationship between revenues and spending from two perspectives. First, we looked at how much of each year’s new revenue will be required to address spending in three major areas of the General Fund budget: K-12 education, Medicaid and corrections. Second, we compared projected expenditures for these programs with projected net General Fund and State Education Fund revenues.

Figure 28 juxtaposes the cumulative growth rates of Medicaid and the state share of school funding with growth in net General Fund and State Education Fund revenues. The chart shows that growth in both programs will exceed revenue growth. Initially, state expenditures for public schools are expected to grow at a significantly higher rate than revenues. In FY 2015–16 the Medicaid growth rate accelerates.

Figure 28



Forecast: Center for Colorado’s Economic Future, University of Denver

Budget writers often focus on the concept of “new money”—the amount of revenue growth in the year being budgeted over the level of revenue in the prior year. Often, the new money in each year’s budget is used to fund the costs of caseload growth and inflation—in other words, new money helps budget writers maintain the status quo in existing programs. In years of economic expansion and high revenue growth, funds in excess of inflation and caseload costs have historically been targeted for new or expanded programs, capital construction, controlled maintenance, transportation funding or tax cuts. In years of economic contraction, year-to-year revenues actually decline, forcing cuts in funding of existing programs.

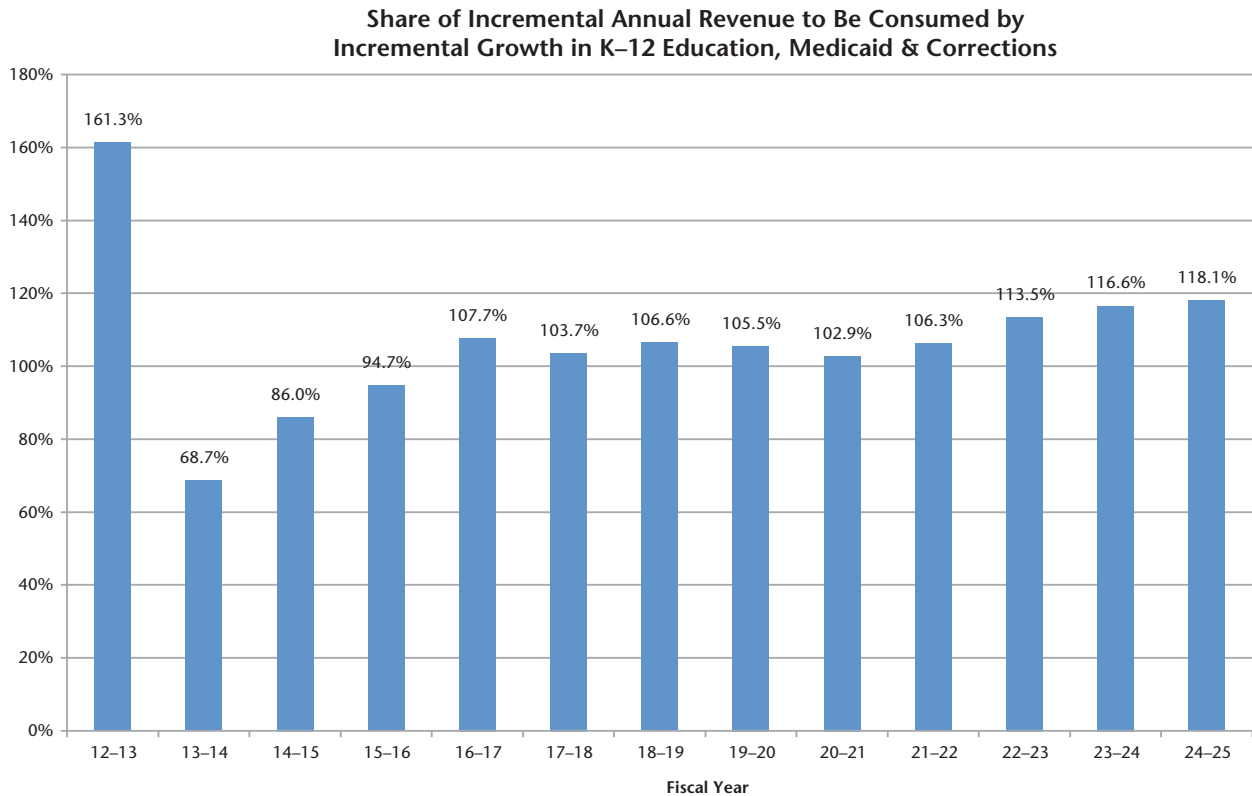
When cuts are made, they are not uniform across all state programs. Programs protected by federal rules or the Colorado Constitution—school finance and Medicaid, for example—generally have either continued to grow because of caseload and cost requirements or have not absorbed cuts proportionate to revenue reductions. When this happens, deeper cuts are made in nonprotected programs, reflecting an internal displacement in the allocation of revenues.

To depict the amount of “new money” each year that will be required for school finance (including K-12 categorical programs), corrections and Medicaid, we compared the yearly increase in our net General Fund and State Education Fund revenue forecast with the incremental funding required for these programs. Figure 29 shows the percentage of each year’s new money that will be needed to fund growth in the three programs.

Figure 29 demonstrates that for 10 of the 13 years of our forecast horizon, all new money will be needed to fund rising costs in school finance, Medicaid and corrections, with nothing left for other purposes. In FY 2012–13, 61.3 percent more than the available new money would be needed to fund these programs. The extremely high level of growth shown for FY 2012–13 is primarily due

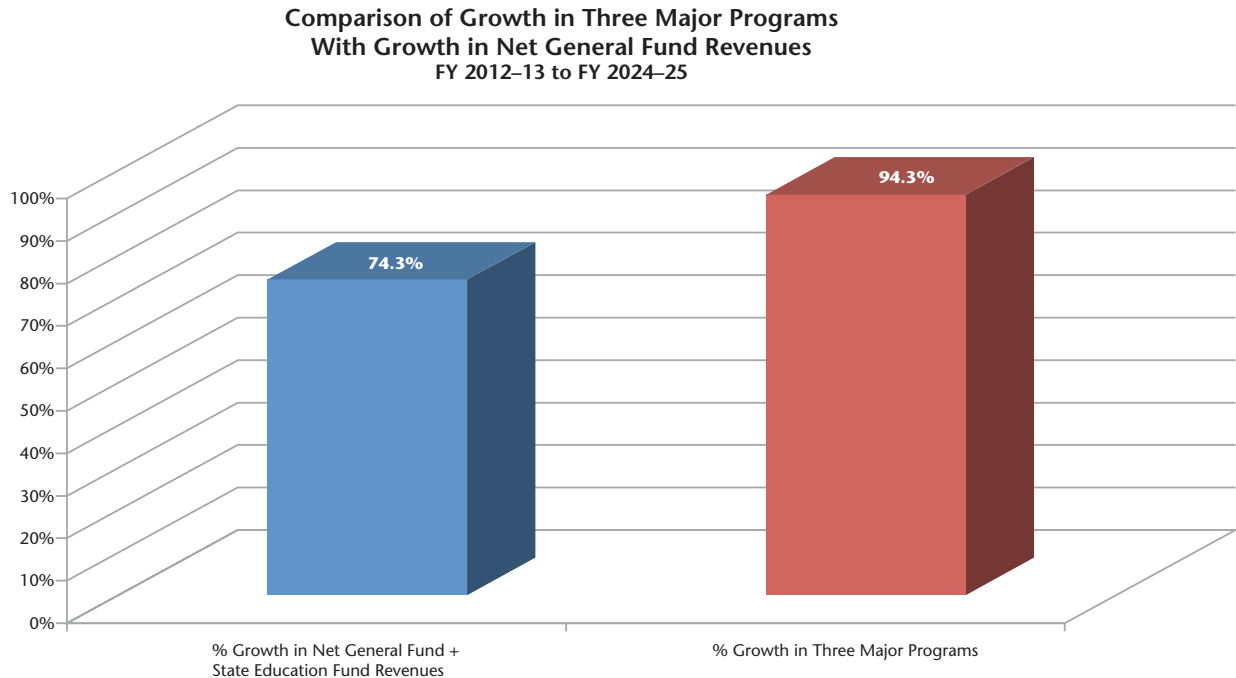
to the expiration of K-12 education cuts and a return to funding levels driven by the school finance formula in that year, with most of the cost thrust upon the state due to a lack of growth in the property tax share of funding. (Also affecting FY 2012–13 are diversions under SB 09-228 for transportation, capital construction and General Fund reserves.³³) It seems likely this situation will be addressed through additional years of cuts to schools, but unless the school finance formula is reduced, this “balloon payment” in funding will occur eventually. If the return to formula funding occurs, but is phased in over three years or more, the costs would be lower in FY 2012–13 but higher during succeeding years, increasing the percentage of new money needed in those years. Of course, it is impossible to predict how policymakers will handle this situation.

Figure 29



Forecast: Center for Colorado’s Economic Future, University of Denver

Figure 30



Forecast: Center for Colorado’s Economic Future, University of Denver

Another way to look at the longer-term structural issue is to compare the total spending increase projected for Medicaid, K-12 education and corrections with the total new money that will be available over the forecast period, starting in FY 2012–13. Figure 30 shows the projected growth of the three driver programs and the projected growth in revenues.

Over the period, the compound annual growth rate of the three programs is expected to be almost one percentage point higher than the growth rate of revenues. It is important to note that because our economic forecast predicts a recovery, personal income growth is likely to exceed 5 percent from 2011 to 2012, triggering FY 2012–13 diversions under SB 09-228 for transportation, capital construction and General Fund reserves, which will continue automatically until FY 2016–17.

While a percentage point difference in the compound annual growth rates of revenue and expenses may not seem too large an obstacle to overcome, several contextual issues accentuate the problem:

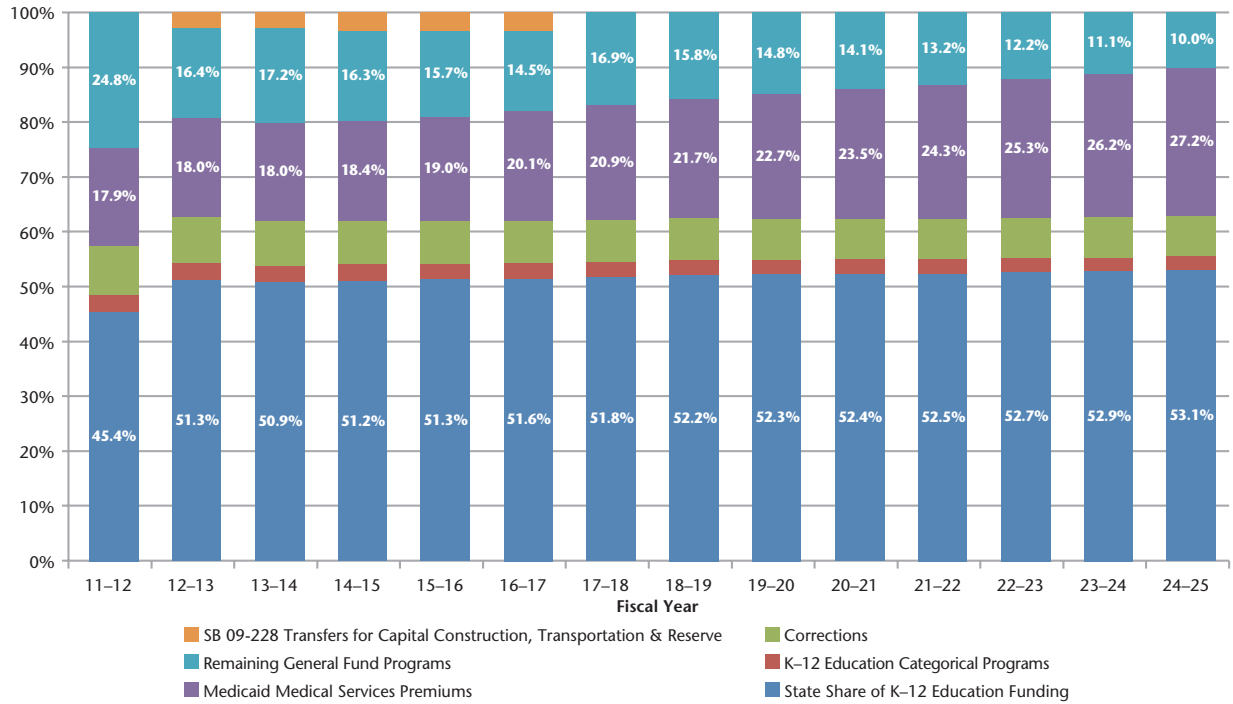
- In 10 of 13 years, when the upcoming year’s budget is prepared, the revenue available for purposes other than the three major programs will be less than the prior year.
- Any revenues left over for other purposes will be further diminished by inflation, which will erode their purchasing power.
- Program cuts in any given year are likely to be permanent because there will be no new money in subsequent years to restore them.
- After FY 2016–17, diversions for capital construction and transportation funding under current law will cease, so any additional funding of capital construction and transportation will need to be deducted from the reduced revenue, requiring more cuts from other programs.
- In FY 2012–13 and thereafter, the Senior Homestead Exemption,³⁴ costing in excess of \$100 million a year, is scheduled to be reinstated.
- In some departments, caseload growth will drive costs faster than inflation. Funding for caseload growth will need to come from cuts in other programs.
- Other programs in the Department of Health Care Policy and Financing, aside from the Medicaid medical services premiums we have forecast, are likely to grow at rates higher than inflation. These include Medicaid mental health and other medical services. Funding increases for these programs also will need to come from cuts in other programs.
- As total appropriations grow, the requirement to fund the statutory 4 percent General Fund reserve will cause incremental reserve increases each year. These reserve increases will need to be funded from cuts in other General Fund programs.

It is telling to examine how growth in K-12 education, Medicaid and corrections will consume relative shares of net General Fund and State Education Fund revenues into the future. Figure 31 shows the proportion of total projected revenue by year that must be used to pay for each program. By FY 2024–25, the share remaining for

all other programs is 40 percent of what it was in FY 2011–12, falling from 24.8 percent of the total to 10 percent. What’s more, as described below, inflation-adjusted dollars represented by that declining share also are less. Education and Medicaid medical premium expenditures squeeze out all other spending.

Figure 31

**Percentage Shares of Net General Fund Revenues by Program
FY 2011–12 to FY 2024–25**



Data source: State agency budget requests for FY 2011–12
Forecast: Center for Colorado’s Economic Future, University of Denver

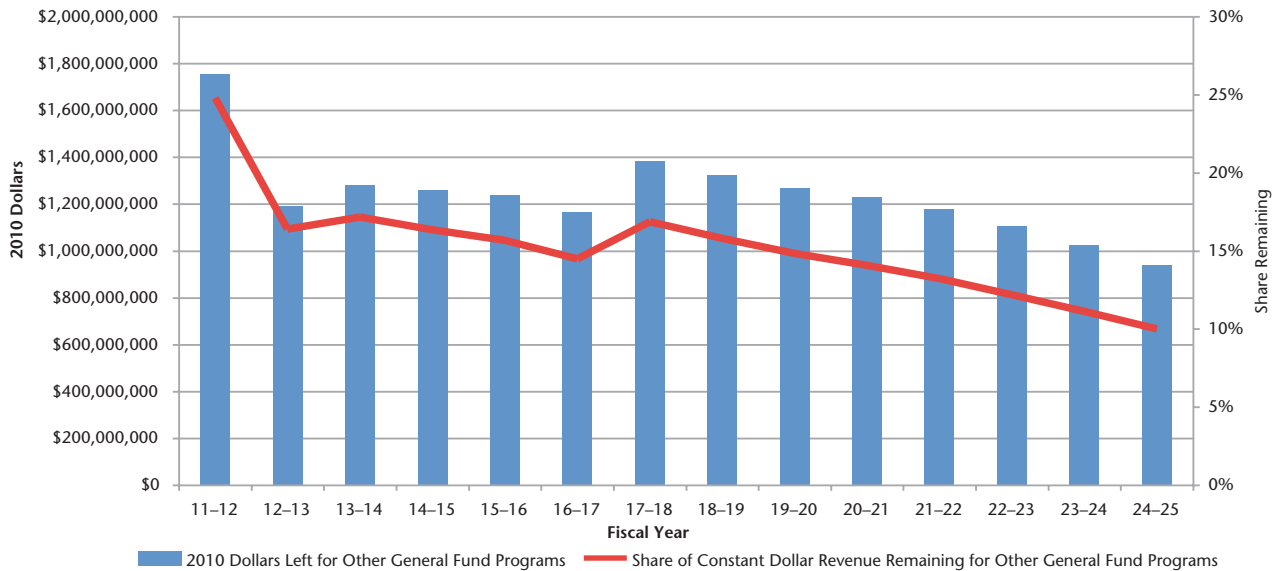
The bars in Figure 32 show, in inflation-adjusted 2010 constant dollars, what remains of General Fund and State Education Fund revenues after the three major programs are funded. The line across the chart shows the declining share of total revenue available to finance other programs after deducting the share taken up by schools, Medicaid and prisons. The amounts are derived by subtracting our forecasts for the three major programs from our revenue forecast, then adjusting for inflation to illustrate the declining purchasing power of the remaining revenue. While these numbers are consistent with our forecasts, they do not represent amounts currently under consideration by the executive and legislative branches of state government. Those are based on other forecasts and budget proposals.

Figure 32 shows that the purchasing power of revenue for these other programs will decline by about 46 percent during the forecast period. While this projected decline is substantial, the drop may actually be steeper because some programs will likely grow at rates greater than inflation. These include health care, human services and judicial programs that are driven by rising caseloads.

From FY 2011–12 to FY 2024–25, Colorado’s population is expected to increase about 26 percent, from about 5.3 million residents to more than 6.7 million. This will mean more students enrolling in public colleges and universities, more cases in the state court system, more crimes to be investigated by the Department of Public Safety, higher caseloads for the Department of Human Services, more tax returns, motor vehicle registrations and liquor enforcement actions for the Department of Revenue, and so on. In other words, workloads will swell, but the money to fund them will shrink in both nominal and real terms.

Figure 32

General Fund Revenues and Share of General Fund Revenues Available for All Other Programs* (2010 Constant Dollars)



Forecast: Center for Colorado’s Economic Future, University of Denver
 * Including SB 09-228 transfers for FY 2012–13 to FY 2016–17

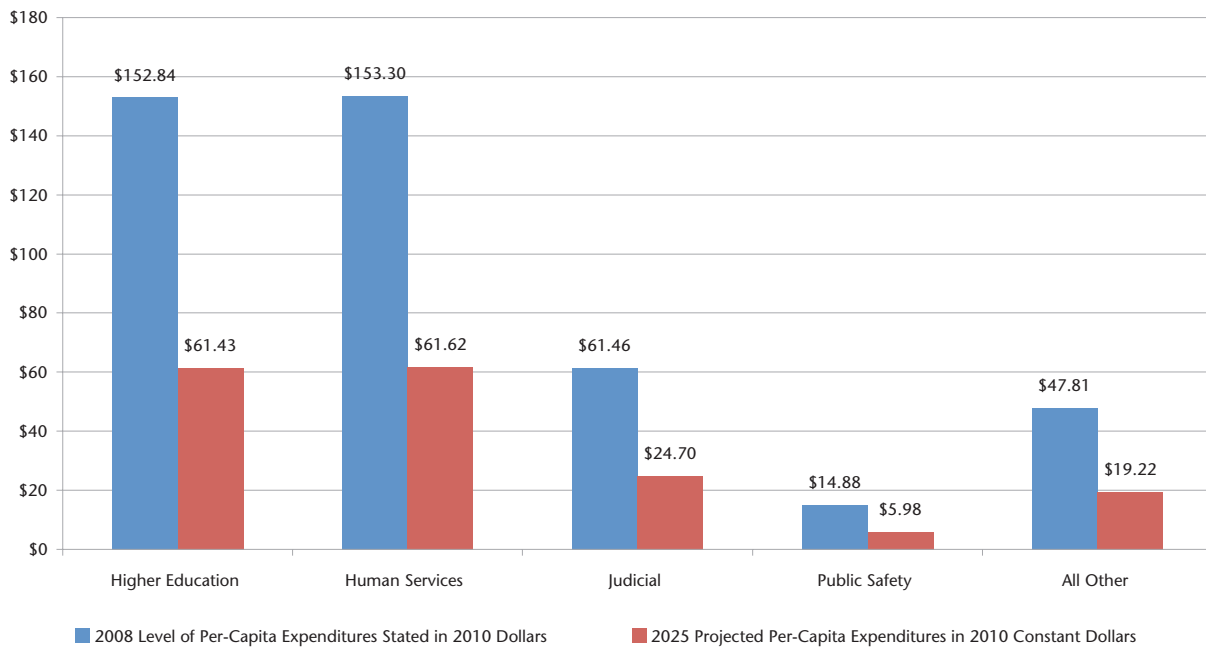
Efficiencies and innovations undoubtedly will help agencies absorb some of the impact of declining funding and growing workloads, but these are impossible to predict, much less quantify, for the future. We can, however, illustrate what will happen by FY 2024–25 if the remaining funds are distributed among departments in the same proportions as they have been in the past. While we know that these distributions are likely to be different 14 years from now, the hypothetical exercise illustrates the magnitude of the situation.

Figure 33 shows per-capita distributions to the other departments in FY 2024–25, assuming the proportions will be as they were in FY 2007–08. The beginning point is FY 2007–08, the year before the state entered recession, because that was the last relatively stable year during

which the allocation of General Fund revenues was not distorted by actions addressing economic turbulence. Compared with subsequent years, allocations were not impacted by federal stimulus funds, major cash-fund borrowing and so on. FY 2007–08 also was the last year of General Fund transfers for capital construction and transportation, and the statutory reserve was fully funded (the General Fund reserve was about 4.6 percent, greater than the 4 percent required by law). For the comparison, we converted FY 2007–08 per capita General Fund appropriations to the departments not containing the three major programs into 2010 constant dollars. We then converted the total per capita amounts remaining in FY 2024–25, after funding the three major programs, into 2010 constant dollars.

Figure 33

**Per-Capita General Fund Spending by Department FY 2007–08 and FY 2024–25
(2010 Constant Dollars)**



Data source: Colorado Legislative Council
Forecast: Center for Colorado’s Economic Future, University of Denver

Observations and Conclusions

Our analysis leads us to several observations and conclusions.

First, the cyclical issues plaguing Colorado's General Fund budget have accentuated an underlying structural breakdown in the financing of major state government programs. This situation will continue to worsen even after a robust economic recovery. The budget problems that are projected to be particularly intense in FY 2012–13 are echoes of problems experienced since 2008. These include the cost of returning to the formula funding of the school finance act called for by Amendment 23 (see pages 38–39 in the section on K-12 education finance) and the creation of new diversion programs (for transportation, capital construction and a General Fund reserve) during the infancy of an economic recovery. The magnitude of the budget problem in FY 2012–13 is shaping up to be even more dramatic than the problems of FY 2011–12. Unless the law is changed to reduce, permanently, the school finance formula and delay or reduce the SB 09-228 transfers, further cuts to balance the FY 2012–13 budget will simply “kick the can down the road.”

Once the FY 2011–12 budget is balanced and FY 2012–13 problems are resolved, even solid projected revenue gains of 6.9 percent in FY 2013–14 and 6 percent in FY 2014–15 will not stave off further cuts. Again, continuing cuts will be necessary because the combined growth in K-12 education, corrections and Medicaid costs will be greater than the growth in revenues, shrinking the share remaining for other purposes. If, in future budgets, lawmakers choose to continue General Fund diversions for transportation, capital construction and increased reserves, cuts to existing programs will have to be even greater.

If the General Fund budget is to be balanced solely with cuts, policymakers should realize that under the scenarios depicted above, it is unlikely these cuts will ever be restored. Simply put, without structural changes, each cut should be regarded as permanent. That is because in the ensuing year, after funding education, corrections and Medicaid increases, remaining funds will be less than in the prior year. This will leave no new money to restore previous cuts. In addition, more cuts will need to be identified each year.

We find that our current General Fund financing system is in persistent, long-term structural imbalance. The sooner structural changes are undertaken, the less drastic these changes need be.

ACKNOWLEDGMENTS

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ENDNOTES

¹ “Financing Government in Colorado,” Report of the Governor’s Tax Study Group, 1959, p. 37.

² NCSL Fiscal Affairs Staff and Foundations for State Legislatures Fiscal Partners, “Principles of a High-Quality Revenue System,” National Conference of State Legislatures, July 2007.

³ FY 2010-11. The \$7 billion total does not include \$368.5 million of income tax revenues diverted to the State Education Fund.

⁴ Mill Levy Stabilization case (Mesa County Board of County Commissioners v. State of Colorado).

⁵ “Financing Government in Colorado,” Report of the Governor’s Tax Study Group, 1959, p. 185.

⁶ A Federation of Tax Administrators survey in 2007 ranked Colorado third among states for the fewest services taxed with 15. Only Oregon, Alaska and New Hampshire taxed fewer services. The number of services taxed varied from none in Oregon to 160 in Hawaii. On average, the 50 states and District of Columbia taxed about 56 services

⁷ New Mexico has a very different consumption tax system than Colorado. New Mexico has a gross receipts tax that is collected on the money or value of other consideration received from selling property in New Mexico, leasing or licensing property employed in New Mexico, granting a right to use a franchise employed in New Mexico, performing services in New Mexico, and selling research and development services performed outside New Mexico, the product of which is initially used in New Mexico (New Mexico Taxation and Revenue Department). Thus, a direct comparison of services taxed between Colorado and New Mexico must be made in light of their differing tax systems.

⁸ Total non-farm, not seasonally adjusted employment from U.S. Bureau of Labor Statistics, December 1999 compared with December 2009.

⁹ Depending on their age, taxpayers can subtract pension and annuity income, such as Social Security payments, that is included in federal taxable income.

¹⁰ AR(1) corrections made where necessary; 2009 personal income still preliminary; Colorado income and sales tax revenue streams corrected for rate changes; U.S. revenue series not corrected for rate changes.

¹¹ For all the calculations cited in this section, Colorado sales, use and income taxes are adjusted for rate changes and stated as if the rate were constant throughout the analysis period.

¹² For the remaining 49 states included in the 50-state calculation, rate changes are not accounted for.

¹³ Percent changes calculated from a series of regression equations. AR(1) and AR(2) corrections made where necessary; 2009 personal income still preliminary; For excise tax equations, neither Colorado nor U.S. revenue streams corrected for tax rate changes; For all other calculations, Colorado series adjusted for tax rate changes such that the series is stated as if rate were current over the period studied.

¹⁴ NA = data not available at national level to perform this calculation. Sales and use tax not reported separately in national data.

¹⁵ A full explanation of State Coincident Indexes can be found at www.philadelphiafed.org/research-and-data/regional-economy/indexes/coincident/.

¹⁶ Revenue calculations were adjusted to reflect changes in the income tax rate in 1999 and 2000.

¹⁷ David L. Sjoquist and Sally Wallace, “Capital Gains: Its Recent, Varied and Growing (?) Impact on State Revenues,” *State Tax Notes*, Aug. 18, 2003.

¹⁸ AR(1) corrections made where necessary; all coefficients significant at 1 percent level; 2009 personal income still preliminary; Colorado income and sales tax revenue streams corrected for rate changes; U.S. revenue series not corrected for rate changes.

¹⁹ Volatility rates were calculated from a series of regression equations. AR(1) and AR(2) corrections made where necessary; 2009 personal income still preliminary; for excise tax equations, neither Colorado nor U.S. revenue streams corrected for tax rate changes; for all other calculations, Colorado series adjusted for tax rate changes such that the series is stated as if rate were current over the period studied.

²⁰ NA = 50-state values not available for sales and use separately because the data do not report sales and use tax separately.

²¹ Significant at 20 percent level.

²² Significant at 10 percent level.

²³ This different time period was selected to coincide with the period for which reliable capital gains tax revenue data are available.

²⁴ The ITEP study is “*Who Pays? A Distributional Analysis of the Tax Systems in All 50 States*”; 3rd Edition; Institute on Taxation and Economic Policy, November 2009. The Colorado Department of Revenue, pursuant to section 24-35-108.2 (C.R.S.), has published its estimates of taxes paid by the state’s households since 2004. The most recent studies by both groups are for 2007.

²⁵ Forty-three states have individual income taxes but New Hampshire and Tennessee tax only dividends and interest income. Federation of Tax Administrators data as of Jan. 1, 2010. See http://www.taxadmin.org/fta/rate/ind_inc.pdf.

²⁶ The most recent year for which both state and local tax collection data for the states are available.

²⁷ The Tax Foundation study used data from the U.S. Census Bureau’s American Community Survey.

²⁸ Amendment 23 requires that one-third of 1 percent of federal taxable income be set aside into the State Education Fund (SEF). While we did calculate this amount for each fiscal year, those amounts are not identified separately in our final forecast. Since the SEF is forecast to be fully expended each year to support school finance obligations, we present a combined revenue number for the General Fund and SEF.

²⁹ The funded pupil count forecast is based on the State Demography Office’s forecast for the school-age population. The Denver-Boulder-Greeley CPI forecast is based on our state macroeconomic model. The property tax forecast is based on the assessed-values forecast by class, as modified by assumptions taken from our simulation of the mill levy freeze. Based on our forecast, we do not expect any reduction in the residential assessment ratio pursuant to the Gallagher Amendment.

³⁰ The federal government requires that one state agency receive all Medicaid funding so all state and federal Medicaid funds are appropriated through the Colorado Department of Health Care Policy and Financing, although some are then transferred to the state Department of Human Services, which administers some Medicaid programs.

³¹ Included in net General Fund revenues are income taxes diverted to the State Education Fund. Subtracted from General Fund revenues are rebates and expenditures for the Old-Age Pension Fund, cigarette rebate, aged property tax and heating credit, interest payments for school loans, police/fire pensions and Amendment 35 expenditures.

³² Included in net General Fund revenues are income taxes diverted to the State Education Fund. Subtracted from General Fund revenues are rebates and expenditures for the Old-Age Pension Fund, cigarette rebate, aged property tax and heating credit, interest payments for school loans, police/fire pensions and Amendment 35 expenditures.

³³ SB 09-228 requires that once personal income growth exceeds 5 percent in a calendar year, a five-year sequence of diversions is to begin in the state fiscal year in which the calendar year personal income growth was experienced. The diversions are: 2 percent of General Fund revenues per year going to the department of transportation; one-half of 1 percent of General Fund revenues to the Capital Construction Fund for the first two years, increasing to 1 percent for the remaining three years; and one-half of 1 percent of General Fund appropriations to the General Fund reserve each year. Total amounts of funds diverted under our forecast are: \$227.4 million in FY 2012–13, \$249.2 million in FY 2013–14, \$301.0 million in FY 2014–15, \$315.3 million in FY 2015–16 and \$329.9 million in FY 2016–17.

³⁴ The Senior Homestead Exemption was referred to voters as Referendum A in 2000. It provides that householders ages 65 and older who have lived in their homes for at least 10 consecutive years qualify to have up to half of their home’s actual value, up to a maximum of \$200,000, exempted from property taxes. The state is required to reimburse taxing jurisdictions for the loss of revenue. The legislature is allowed to change the value each year after 2003. Due to revenue shortfalls, the legislature suspended the exemption for 2003, 2004, 2005, 2009, 2010 and 2011. In 2012 it is estimated that nearly 200,000 households will qualify for the exemption, which will cost the state \$103.1 million in reimbursements to local governments in FY 2012–13.

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SELECTED SOURCE LIST

Data and Information Sources:

Colorado Department of Education
Colorado Department of Revenue
Colorado Division of Property Taxation
Colorado General Assembly
Colorado Joint Budget Committee
Colorado Legislative Council Staff
Colorado State Demography Office
Congressional Budget Office
Federation of Tax Administrators
Internal Revenue Service
National Conference of State Legislators
U.S. Bureau of Economic Analysis
U.S. Bureau of Labor Statistics
U.S. Census Bureau

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