MassHealth and State Fiscal Health

A New Look at the Effects of Medicaid Spending on State Finances

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The Massachusetts Medicaid Policy Institute is an independent and nonpartisan source for information and analysis about the Massachusetts Medicaid program (often referred to as "MassHealth"). MMPI seeks broader understanding of MassHealth and a rigorous and thoughtful public discussion of the program's successes and challenges ahead.

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Executive Summary

Medicaid, the joint federal/state health insurance program, is how the Commonwealth ensures that its most vulnerable residents have access to decent and affordable health care. Because of the high costs of the Medicaid program, there has been concern about the fiscal effects of Medicaid spending growth; the Medicaid program is often blamed for stress on the Commonwealth's budget and the fiscal squeeze put on other public programs. In this report we look at the relationship between Medicaid spending and the resources at the state's disposal to support public programs, in order to determine how Medicaid spending growth has affected the fiscal health of the Commonwealth. This analysis has implications for how people should think about the Medicaid budget now and in the future.

To analyze Medicaid spending, we look at trends over the course of a complete economic cycle (from Fiscal Year 1994 to Fiscal Year 2005). Over the period we analyze, we find that Medicaid spending grew at close to the same rate as the economy, while revenues coming into the state treasury did not keep pace with the economy. Accordingly, Medicaid spending became a larger share of revenues, which in turn were a smaller share of the economy. The declining growth in revenues had a considerably greater effect on the Commonwealth's treasury than the rate of growth in the Medicaid program.

REPORT OVERVIEW

Between FY 1994 and FY 2005, Medicaid spending grew as a share of the state budget; a closer look shows that this was not primarily the result of Medicaid spending growth, but rather because of revenue reductions.

- **Medicaid spending grew at roughly the same rate as the state's economy. Medicaid spending grew 5.6 percent on average annually, while the economy grew 5.3 percent.**
- **However, revenues grew only 4.4 percent on average annually. The share of the economy available to the state as revenues to spend on public services dropped by close to ten percent between FY 1994 and FY 2005.**
- **Medicaid spending would not have grown significantly as a share of state revenues had revenues grown along with the economy.**

Because the economy is cyclical and Medicaid is by design *counter*-cyclical, the clearest picture of Medicaid spending comes from looking at longer-term trends, and considers the context of revenue growth and growth in the economy as a whole.

Medicaid spending changed very little in relation to personal income between FY 1994 and FY 2005, and therefore was sustainable given the economic growth over that same period.

Medicaid Spending Growth

In order to make meaningful year-to-year comparisons of the Medicaid program, we make several adjustments to reported Medicaid spending figures to account for programs moving in and out of the Office of Medicaid, programs moving on- and off-budget, and other accounting technicalities. For example, when the Commonwealth purchases drugs and receives rebates from the pharmaceutical manufacturer, those rebates are treated in budget documents as new revenue rather than as discounts on the cost of the drugs. While there are valid reasons for that accounting practice, it

results in an overstatement of the ultimate cost to the state of certain prescription drug purchases. In examining the magnitude of these rebates, we found that the reported spending on prescription drugs has exceeded the actual net costs by over $200 million a year in recent years.

With these adjustments, between FY 1994 and FY 2005 Medicaid spending grew from $3.3 billion to $5.9 billion. Although Medicaid spending growth varied widely from year to year, on average Medicaid spending grew 5.6 percent annually.

To determine whether Medicaid spending put a strain on the Commonwealth's resources, we compare Medicaid spending growth to growth in the Commonwealth's economy, as measured by personal income. Between FY 1994 and FY 2005, personal income grew from $156.4 billion to $277.1 billion. This is an average annual growth rate of 5.3 percent, only slightly slower than the rate of growth in Medicaid spending.

Because Medicaid spending grew at approximately the same rate as the economy, Medicaid spending as a share of personal income remained relatively constant, increasing by only 0.06 percentage points, from 2.08 percent in FY 1994 to 2.14 percent in FY 2005. This increase is equivalent to about $158 million in FY 2005, and the approximate net effect on the state treasury of this increase in Medicaid spending as a share of personal income was half of that amount, or $79 million in FY 2005.

State Revenues

To better understand why Medicaid spending was blamed as a source of fiscal stress, we also look at the rate of growth in state revenues. Between FY 1994 and FY 2005, there was enormous variability in the rate of growth in state revenues — ranging from the high of 10.1 percent during the end of the economic expansion of the 1990s to a low of -7.6 percent during the recession. Over the course of the entire period the average annual growth rate in state revenues was 4.4 percent.

Since actual state revenues reflect both the hardiness of the economy and tax and other fiscal policies, we compare state revenues to personal income to distinguish between the impacts on revenues of changes in the economy and of changes in tax and other fiscal policies. Between FY 1994 and FY 2005, state revenues as a share of personal income dropped by almost ten percent, from approximately 10.0 percent of personal income to 9.1 percent of personal income. Had there been no changes in tax policy, this measure would have remained relatively constant over the course of the economic cycle.

The budgetary impact of the reduction in the share of personal income available to support the state budget amounted to $2.4 billion in FY 2005. This amount is what state revenues would have been, had the Commonwealth continued to collect the same share of personal income in FY 2005 as it did in FY 1994. These forgone dollars could have been available to the Commonwealth to pay the costs of Medicaid, local aid, education, or other essential state services.

The Fiscal Effects of Medicaid Spending Growth

Between FY 1994 and FY 2005, Medicaid spending as a share of state revenues increased from 20.8 percent to 23.4 percent. The increase created a perception that Medicaid was responsible for the state's fiscal stress. This perception overlooks the relationship among Medicaid spending, state revenues, and the Massachusetts economy. Since Medicaid spending remained a constant share of personal income, yet revenues declined as a share of personal income, the increase in Medicaid spending as a share of state revenues is more a function of the change in revenues than the change in Medicaid spending. Medicaid spending became a larger share of revenues that were themselves a shrinking share of the economy.

To interpret accurately the fiscal effects of Medicaid spending growth, it is helpful to look at spending over the course of an entire economic cycle, to look at state revenues, and to look at Medicaid spending in the context of economic growth. Although Medicaid spending growth varied widely from year to year, Medicaid spending between FY 1994 and FY 2005 changed very little in relation to personal income, and therefore was sustainable given the economic growth over that same period.

Introduction

Medicaid, the joint federal/state health insurance program, has long been a crucial part of how the Commonwealth tries to make good on its commitment to the "common wealth." The Medicaid program ensures that the most vulnerable residents of the Commonwealth — the elderly, and those with low incomes or disabilities — have access to decent and affordable health care. There has long been wide support for this health care program, but as its costs have grown it has also been seen as a financial burden contributing to the state's fiscal distress, particularly in the early part of this decade.[1]

The Massachusetts Medicaid program, usually referred to as MassHealth, has long been one of the largest components of the state's budget, and is the single largest state health and human service program.[2] More than a million residents of the Commonwealth depend upon the Medicaid program for their health care. Because Medicaid is such a large program, changes in Medicaid financing have a significant impact on the lives of many people.

Our analysis of the Medicaid program looks at total Medicaid spending from several angles, and looks at patterns over time to determine whether Medicaid spending growth has been out of line with the capacity of the Commonwealth to support the program. We have chosen to look at Medicaid spending between FY 1994 and FY 2005 because this period spans the course of a complete economic cycle: FY 1994 was the third year into an economic recovery, there was a long period of growth until March 2001, a recession in FY 2002, and now FY 2005 is the third year into a recovery.[3]

There is a relationship between patterns in Medicaid spending and changing cycles in the economy. The majority of people in the Commonwealth receive their health insurance from their places of employment, but Medicaid is a source of health insurance for people who do not have other access to insurance and who meet the eligibility criteria for the program. When the economy falters and unemployment increases, publicly-funded health insurance costs are likely to go up.

The most significant factors affecting Medicaid spending are the number of people enrolled in the program and the types and costs of services purchased for the enrollees. Over the course of the decade, state policies expanding the program and increasing outreach led to enrollment growth from under 700,000 members to over 1,000,000, including increased coverage of persons with

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[1] The Medicaid program was often referred to as a "budget buster." See Elisabeth J. Beardsley , "State Officials Worried about 'Budget Buster' Potential in Medicaid", State House News Service, January 25, 2001, available at http://www.statehousenews.com/cgi/as_web.exe?2001.ask+D+449620. Some people also called Medicaid the budget's "Pac-Man" — a monster gobbling up state tax dollars (see Michael Norton, "Poll Operations Among Many New Features of State Health Care Site," State House News Service, January 29, 2001, available at http://www.statehousenews.com/cgi/as_web.exe?2001.ask+D+541608).

[2] Throughout this paper, we use the terms "Medicaid" and "MassHealth" interchangeably to refer to the full range of Massachusetts Medicaid programs. Technically, "MassHealth" coverage refers to services and enrollees covered through the Medicaid Section 1115 waiver expansion programs.

[3] The Business Cycle Dating Committee of the National Bureau of Economic Research defines a recession as a "significant decline in economic activity spread across the economy, lasting more than a few months." See "Business Cycle Expansions and Contractions," National Bureau of Economic Research, available at http://www.nber.org/cycles/cyclesmain.html.

disabilities and persons with long-term care needs. Increases in health care costs generally, including the increasing costs associated with pharmaceuticals, drove up Medicaid costs. Also over the course of the decade, the state attempted to moderate escalating costs through measures such as the increased use of HMOs, drug utilization and expenditure controls, constraints in payments to providers, and restrictions in eligibility and benefits changes. Because we are looking at Medicaid spending relative to the Commonwealth's financial capacity to pay for the program, these elements of program cost are not the focus of this paper.

In order to track Medicaid spending, which grew in nominal dollars from approximately $3.3 billion in FY 1994 to $5.9 billion in FY 2005, we look carefully at how we account for the Medicaid program. We look at how closely Medicaid appropriations in the state budget represent actual Medicaid spending, and why budget and spending numbers might differ. We then look at the capacity of the Massachusetts economy over time to sustain Medicaid spending growth. We also look at the state's financial picture, what revenues have been available to the Commonwealth over the past decade to finance the Medicaid program, and how these revenues have changed over time. We examine how changing revenue sources available to fund the Commonwealth's programs have influenced the effects that Medicaid spending growth has had on the state treasury.

We also look at patterns in Medicaid spending and in revenue collections, and how these might contribute to a misinterpretation of the long-term relationship between the costs of the Medicaid program and the Commonwealth's fiscal picture. These analyses allow us to determine how Medicaid spending growth has affected the fiscal health of the Commonwealth, and consider the effects of other fiscal choices as well.

A Note about the Data Sources

Throughout this report, we base our analysis on figures from the *Statutory Basis Financial Report* (SBFR) published by the Office of the State Comptroller each year. These reports reflect budget totals and expenditures, as well as revenues available to the Commonwealth based on state finance law. The Comptroller publishes these data and official financial statements annually. The accounting in the SBFR corresponds to the state's budgeting and spending as reflected by the state budgetary process. With the statutory basis reports we can make useful comparisons across years within Massachusetts, but we cannot make comparisons of Massachusetts with other states.[4]

In order to complete our analysis of Medicaid spending, we make certain adjustments to the numbers reported by the Comptroller. In any instance where our analysis differs from the numbers published by the Comptroller, we explain those differences. We express all dollar figures in current (nominal) dollars, unless we indicate otherwise.

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[4] For figures that are comparable with other states, refer to the *Comprehensive Annual Financial Reports*, published annually by the Office of the State Comptroller. See http://www.mass.gov/osc/Reports/reports.htm.

Section 1 Understanding Medicaid Spending

Between Fiscal Year 1994 and Fiscal Year 2005, Medicaid spending grew on average 5.6 percent annually. In this section, we describe Medicaid spending between Fiscal Years 1994 and 2005, and track trends in Medicaid spending growth. We adjust the spending totals provided by the Comptroller in order to account for program shifts over time and retained revenues.

What Do We Mean by "Spending"?

For our analysis of the Medicaid program, we focus on Medicaid spending ("expenditures") rather than the Medicaid budget. The budget process for each year consists of an initial appropriation ("General Appropriation Act") passed at the beginning of each fiscal year. The Medicaid budget, by definition, is the Commonwealth's best estimate at a point in time about dollars needed to fund the costs of the Medicaid program. If the Commonwealth underestimates the costs of the program, the Legislature may appropriate additional dollars ("supplemental budgets") to cover the expected actual costs of the program. In some years, the budgeted total for Medicaid services at the beginning of the year is dramatically different from the final budget total for that year (see Figure 1).

Figure 1
Medicaid Budgeted Total Appropriations ($ millions)

Fiscal Year	General Appropriation Act	Supplemental Budgets	Total Budget	Reversions
1994	3,293.1	78.4	3,371.5	12.4
1995	3,403.6	114.0	3,517.6	18.0
1996	3,498.2	30.8	3,529.0	11.8
1997	3,567.5	71.2	3,638.7	68.2
1998	3,756.5	58.3	3,814.8	47.0
1999	3,983.7	44.7	4,028.4	64.9
2000	4,260.0	178.3	4,438.3	101.1
2001	4,482.2	359.2	4,841.4	49.2
2002	5,068.3	297.4	5,365.7	7.9
2003	5,621.9	—	5,621.9	11.7
2004	6,018.9	96.1	6,115.0	253.2
2005	6,406.0	—	6,406.0	521.0

Sources: Executive Office of Administration and Finance, Office of Medicaid, Massachusetts Budget and Policy Center

Just as there are differences between the Medicaid budget at the beginning of a year and the total amount budgeted for Medicaid by the end of the year, the Medicaid budget totals often differ significantly from actual Medicaid spending ("expenditure") totals. Medicaid is an entitlement program, and therefore must provide certain benefits to all who are eligible. Actual spending

during a year will be affected by changes in enrollment over the course of the year, the mix of those enrolled (children, elders, persons with disabilities), as well as the nature of the health needs of the persons enrolled. When the budget exceeds spending, the Commonwealth returns the remaining funds to the state treasury ("reversions").

In some years, the budget numbers tracked fairly close to spending, but in more recent years the Medicaid program's budget forecasts were substantially higher than actual spending for the year. For example, in FY 2001, the Legislature determined that the amount for Medicaid budgeted in the General Appropriation Act at the beginning of the fiscal year was inadequate to cover the year's program costs, and several supplemental appropriations added about $360 million over the course of the fiscal year. In FY 2004, on the other hand, the Medicaid program reverted more than $250 million to the state treasury.

In our analysis of the Medicaid program, we analyze Medicaid spending totals because, unlike budget numbers, spending totals are not estimates of what might happen in the future, but are descriptions of what actually happened in the past and they give us the most accurate picture of the fiscal impact of Medicaid growth over time. In order to base our analysis on reliable, consistent and audited figures, we use the Medicaid spending figures as reported by the Office of the State Comptroller (see Figure 2).[5]

Figure 2
Reported Medicaid Budget and Medicaid Spending ($ millions)

Fiscal Year	Reported Budget	Reported Spending	Difference
1994	3,329.5	3,313.1	16.4
1995	3,415.2	3,398.2	17.0
1996	3,416.6	3,415.9	0.6
1997	3,517.7	3,455.5	62.2
1998	3,706.5	3,665.8	40.7
1999	3,899.6	3,856.5	43.1
2000	4,324.6	4,270.0	54.6
2001	4,727.2	4,642.3	84.9
2002	5,282.9	5,259.3	23.6
2003	5,506.6	5,485.1	21.5
2004	5,997.1	5,742.4	254.7
2005	6,498.2	5,977.2	521.0

An accounting change in FY 2005 reduced reported spending.
Source: Statutory Basis Financial Reports, Office of the Comptroller

[5] The budget totals in this chart differ from the budget totals in the preceding chart. These differences are simply a function of differences in how the Executive Office of Administration and Finance and the Office of the Comptroller track the Medicaid program, and are not significant here.

What Do We Mean by "Medicaid"?

In order to identify Medicaid spending trends over time, we must make sure that we are comparing spending on the same set of programs from year to year. The Comptroller reports on Medicaid spending based on those programs administered by the Office of Medicaid (or its predecessor agencies) in a particular year, and does not adjust for programs moving in or out of Medicaid or for programs moving on- or off-budget. In order to make our year-to-year comparisons accurate, we adjust for these accounting technicalities, including the treatment of retained revenue. Our adjusted Medicaid spending totals therefore differ from the Comptroller's totals, but they provide a better basis for accurate year-to-year comparisons. (Neither the Comptroller's figures nor the figures in this analysis include spending in other health and human service departments for which the Commonwealth receives federal Medicaid reimbursement, except as noted.)

Creating a consistent definition of "Medicaid"

To compare Medicaid spending over time, we must be sure that we are comparing "apples to apples." In other words, we want to make sure that we are looking at the same items each year, so that we can analyze any differences in the context of a programmatic or budgetary change, and not simply because we are adding different items each year.

The state budget consists of thousands of named line items, and it is particularly complicated to track Medicaid budgeting and spending. Several areas of government have responsibilities for various aspects of Medicaid accounting. The Departments of Public Health, Social Services, Youth Services, Mental Health, and Mental Retardation and the Executive Office of Elder Affairs all spend Medicaid dollars. In addition, over the past decade the Commonwealth has re-ordered certain functions of government, based upon their perceptions of how best to administer and manage the complex responsibilities associated with the delivery of health and human services. For example, between FY 1993 and FY 1994, the Executive Office of Health and Human Services transferred the costs and functions of the Office of Medicaid from the Department of Public Welfare into the Executive Office. A significant drop in funding for the Department of Public Welfare between these two years reflected the shift in this responsibility, which was counteracted by an increase in the budget of the Executive Office of Health and Human Services. Similarly, as the Medicaid program grew through expansions and implementation of various new programs, the Commonwealth was able to expand services that had previously been funded strictly as state programs. Medicaid funding, in those cases, both supplemented and supplanted other health and human service program funding.

Because of these shifts, the Comptroller's Medicaid totals do not necessarily report on the same line items year after year. The Comptroller might add the costs of a certain program in the total for the Office of Medicaid in one year, but then add the costs of that same program in the Executive Office of Elder Affairs in another year (for example the Senior Pharmacy Assistance/Prescription Advantage program). Comparing these Medicaid spending totals in the Comptroller's reports across years might yield some distortions.

To develop a consistent across-year comparison of Medicaid funding, we have categorized as "Medicaid" spending certain functions that in some years may not have been directly under the auspices of the Office of Medicaid (or its predecessor agencies), and these categorizations stay constant across all years in which we make our comparisons.

Adjusting for off-budget spending

Another adjustment we need to make in our categorization of Medicaid line items is to account consistently for "off-budget" Medicaid spending. The Commonwealth does not pay for off-budget items through annual appropriations from the General Fund, but rather through specially designated trust accounts or through another "non-budgetary" source. There are two primary components of Medicaid "off-budget" spending: spending associated with the MassHealth Essential program, and spending associated with a special assessment on nursing home providers.

The MassHealth Essential program is an insurance program for very low-income long-term unemployed individuals, who are otherwise ineligible for MassHealth coverage. The Commonwealth created this program in part to reinstate Medicaid coverage for certain persons who lost coverage from the "on-budget" MassHealth Basic program during the state's fiscal crisis. Initially, the Commonwealth paid for the program out of "off-budget" funds allocated to the Uncompensated Care Pool on a federal fiscal year cycle.

In FY 2006, the Massachusetts Legislature brought the MassHealth Essential program "on-budget," brought its funding into line with the state budgetary year, and included its funding in the General Appropriation Act. Because this program in part replaced some of the costs of the "on-budget" MassHealth Basic program, because this program is simply one of the Commonwealth's MassHealth insurance programs, and also because the Legislature has now formally brought the MassHealth Essential program "on-budget", we include MassHealth Essential costs in our Medicaid spending totals for those years when it was "off-budget."

The nursing home assessment is another "off-budget" Medicaid item. This assessment comprises dollars paid by nursing facilities into the Health Care Quality Improvement Trust. The federal government matches these funds in accordance with the federal reimbursement procedures for the Medicaid program. The Medicaid program then pays these dollars back to the nursing facilities in the form of enhanced Medicaid rates. These rate transactions do not involve state dollars, so the Comptroller's figures do not include these expenditures in the Medicaid spending totals. We also do not include these dollars in our Medicaid totals in our analysis.[6]

[6] Just as the nursing home assessment is "off-budget", the Medicaid dollars paid to managed care organizations and hospitals as supplemental payments are not included in the analysis. These dollars flow through off-budget accounts and are not included in the Comptroller's expenditure figures. We also do not include these payments in our Medicaid expenditure totals.

Adjusting for accounting technicalities

The accounting methods used by the Commonwealth for tracking Medicaid spending create another complication for our analysis, but this is a complication we address by focusing on long-term trends and making specific adjustments in the Medicaid expenditure numbers reported by the Comptroller. Medicaid spending in the course of a year will vary based on the timing of actual payments of Medicaid bills. Statutory basis financial reporting counts a two-year old bill when the bill is paid, not when the service was delivered.

Furthermore, in individual years there have been circumstances that influence that particular year's Medicaid spending, and distort year-to-year analysis. For instance, in FY 2000, the Medicaid program made a one-time payment to correct for a deficiency in its accounting system. In prior years, the accounting system could only pay medical bills from providers for 364 days (52 weeks) per year. In FY 2000, a one-time billing for a "53rd" week adjusted for this problem, but distorted the program's spending for that one year.[7]

The "accounts payable period" also affects Medicaid spending totals as reported by the Comptroller. The accounts payable period is the time period after the close of the fiscal year on June 30 in which a department can still spend money appropriated during the previous fiscal year for services received on or before June 30. It is like a "grace period" for bill payment. The accounts payable period for the Medicaid program is usually July 1 through September 15.

In FY 2005, there was a change in the implementation of the accounts payable accounting period. In this fiscal year, the Medicaid program returned to the state treasury unspent money on June 30, 2005. Accordingly, comparing the FY 2005 actual spending totals to spending totals in previous years would not be a comparison of equivalent time periods. Prior year spending totals would account for services provided for a full fiscal year, whereas the spending totals in FY 2005 would reflect significantly less than one year's worth of payments. For FY 2005, we have adjusted the total so that it includes payments for a comparable amount of time as the other years.

Although statutory basis accounting presents challenges for analyzing Medicaid spending, by making specific adjustments and looking at Medicaid spending in the context of long-term trends rather than in year-to-year increments, we can accommodate these challenges. Looking at long-term trends in Medicaid spending allows us to differentiate actual spending changes from short-term fluctuations associated with the timing of bill payments and other similar factors.

Accounting for drug rebates

Another technical accounting change in the Medicaid program that has had a very significant impact on the Medicaid "bottom line" is the documenting of "retained revenue." The Massachusetts Medicaid program may offset its expenditures through money received from the

[7] Commonwealth of Massachusetts, Official Statement, May 9, 2001, p. A-30.

recovery of liens, estate recoveries, third party recoveries, pharmaceutical rebates, or returns from similar rate adjustments or settlements. Instead of these revenues reverting to the state treasury, the Medicaid program may retain these revenues and then spend them.

The Commonwealth accounts for these retained revenues in an identified line item (see Figure 3). The inclusion of these figures has led to better transparency in understanding the revenues and expenditures associated with the Medicaid program. Nevertheless, the expenditures associated with these revenues do not always represent a new expenditure of state dollars. In particular, retained revenues include the amount generated by pharmaceutical manufacturer's rebates paid to the Medicaid program. The way these rebates are accounted for has the effect of artificially increasing the total Medicaid budget, because rebates are a price discount rather than a new revenue.[8] In a simplified example, if a given medication costs $15 dollars per dose, and the pharmaceutical company provides the state with a rebate of $5 dollars a dose, the net cost to the state is $10 a dose. The state records this as a $15 expenditure, with $5 of revenue that helps to pay the expense. To track Medicaid spending, however, we adjust for these retained revenues by recording the net cost of $10 (in this example), rather than a cost of $15 and revenue of $5.

Figure 3
Medicaid Retained Revenue Expenditures and Drug Rebates ($ millions)

Fiscal Year	Retained Revenue Expenditures	Drug Rebates
1994	62.9	57.0
1995	65.0	47.0
1996	64.5	60.2
1997	64.1	72.9
1998	58.7	100.6
1999	65.0	124.5
2000	75.0	143.0
2001	70.0	162.2
2002	70.0	200.6
2003	70.0	199.1
2004	70.0	260.2
2005	197.3	291.6

Sources: Office of the Comptroller, Office of Medicaid

In our adjustments to the figures reported by the Office of the Comptroller, we do not include the drug rebate totals as revenues, and we do not include the value of the drug rebate totals in our spending totals. This accounting adjustment, which is necessary for making accurate year-to-year spending comparisons, has a significant impact on Medicaid spending totals. If we did not make this adjustment, reported spending on the Medicaid program would be overstated in FY 2005 by $292 million.

[8] In not considering these rebates as revenue, we follow the Internal Revenue Service's common sense principle that rebates are not actually income, they are discounts. If an individual receives a rebate after purchasing a product, that amount is not considered taxable income. Similarly, if the state receives a rebate when purchasing drugs, that amount is a discount, not new revenue.

The Bottom Line: Adjusted Medicaid Spending

The total adjusted spending numbers (see Figure 4) indicate that between FY 1994 and FY 2005, Medicaid spending increased from $3.3 billion to $5.9 billion. See the chart in Appendix A for a compilation of the adjustments we have made to the official Medicaid spending numbers.

Figure 4
Adjusted Medicaid Spending

Fiscal Year	SBFR Reported Spending ($ millions)	Adjustments ($ millions)	Adjusted Spending ($ millions)	Annual Change
1994	3,313.1	(57.0)	3,256.1	
1995	3,398.2	(47.0)	3,351.2	2.9%
1996	3,415.9	(60.2)	3,355.8	0.1%
1997	3,455.5	(72.9)	3,382.6	0.8%
1998	3,665.8	(101.4)	3,564.4	5.4%
1999	3,856.5	(124.5)	3,732.0	4.7%
2000	4,270.0	(143.0)	4,127.0	10.6%
2001	4,642.3	(162.2)	4,480.1	8.6%
2002	5,259.3	(200.6)	5,058.7	12.9%
2003	5,485.1	(199.1)	5,286.0	4.5%
2004	5,742.4	(198.7)	5,543.7	4.9%
2005	5,977.2	(50.3)	5,926.9	6.9%
Avg. annual growth rate 1994-2005:				**5.6%**

Sources: Executive Office of Administration and Finance, Office of Medicaid, Massachusetts Budget and Policy Center

There was a wide range in the annual rates of growth in Medicaid spending: almost no nominal growth between FY 1995 and FY 1996, and growth of almost 13 percent between FY 2001 and FY 2002 when the economic recession hit. There was also wide variability in the Medicaid spending growth rate between the first and second halves of the economic cycle. Between FY 1994 and FY 1999, Medicaid spending grew on average 2.8 percent per year. Between FY 2000 and FY 2005, Medicaid spending grew on average 7.5 percent per year. Over the course of the entire period analyzed, the average annual growth rate in Medicaid spending was 5.6 percent.[9]

[9] Because of the wide variation in the rates of change in Medicaid spending year to year, it is most useful to look at the long-term trends in the program rather than annual changes. Instead of focusing on annual changes, we focus on the average annual 5.6 percent growth in spending in the program.

Section 2 Understanding the Medicaid Spending Growth Rate

In the previous section, we determined that Medicaid spending grew on average 5.6 percent annually between Fiscal Years 1994 and 2005. In order to place this number in context, in this section we compare Medicaid spending growth to the growth in the Commonwealth's economy. A state's capacity to support public services is ultimately dependent on the strength of its economy. If the costs of one service the government provides — like health care — grow faster than the state's economy, there will likely be long-run fiscal stress on the state budget. To maintain a balanced budget in such circumstances, the state would have to reduce spending in other areas, or raise taxes to generate revenues to support increased costs.

We show that Medicaid spending grew only slightly faster than the state economy over the past economic cycle, and that as a share of the economy, Medicaid spending remains virtually unchanged. We also put the Medicaid spending growth rate in the context of other health care indicators, and show that Medicaid spending growth was not out of line with health care inflation during that period.

Personal Income

Personal income is a common proxy for the level of economic activity and taxable resources available in a particular state. According to the Bureau of Economic Analysis (BEA) at the U.S. Department of Commerce, "personal income" is "the income received by all persons [in a given area — in this instance, a state] from all sources."[10]

Between FY 1994 and FY 2005, personal income in Massachusetts grew from $156.4 billion to $277.1 billion (see Figure 5). Personal income grew on average six percent annually between FY 1994 and FY 1999, and only 3.9 percent between FY 2000 and FY 2005. This represents an average annual growth rate of 5.3 percent over the entire period. During this same period, inflation measured on average 2.5 percent annually. This means that the real rate of growth in personal income (the increase in income after accounting for inflation) was 2.85 percent a year.

[10] Personal income is the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance. As such, personal income may more accurately reflect the economic resources available within the Commonwealth than Gross State Product (GSP), another measure of the state economy. (Neither of these measures includes income derived from capital gains, which if counted, would provide a still better depiction of the resources within Massachusetts). Because many fiscal policy analysts and other researchers often use state personal income as a proxy for the level of economic activity in a state, we use that measure here. These numbers have been adjusted to reflect the Commonwealth's fiscal year. See U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts, http://www.bea.doc.gov/bea/regional/definitions/nextpage.cfm?key=Personal%20income.

The real growth rate in this economic cycle is consistent with historic trends. The average real growth rate of personal income in Massachusetts over the last fifty-five years has been 2.81 percent. This means that over both the medium- and long-terms, public programs such as Medicaid should not be seen as consuming a growing share of the state's resources if their cost growth exceeds inflation by less than 2.8 percent.

Figure 5

Massachusetts Personal Income and Inflation Rates

Fiscal Year	Personal Income ($ millions)	Annual Change	Inflation Rate
1994	156,420.5		
1995	164,731.0	5.3%	2.7%
1996	173,323.3	5.2%	2.9%
1997	184,432.5	6.4%	1.8%
1998	196,471.3	6.5%	1.7%
1999	209,712.3	6.7%	2.9%
2000	228,384.8	8.9%	3.4%
2001	247,027.5	8.2%	1.8%
2002	249,234.3	0.9%	2.2%
2003	251,086.8	0.7%	2.2%
2004	262,174.8	4.4%	3.0%
2005	277,148.0	5.7%	2.8%
Avg. annual growth rate 1994-2005:		**5.3%**	**2.5%**

Sources: U.S. Department of Commerce, U.S. Department of Labor

Medicaid Spending as a Share of Personal Income

To determine whether Medicaid spending grew more quickly than the Commonwealth's capacity to support such spending between Fiscal Years 1994 and 2005, we look at Medicaid spending as a share of personal income.

Figure 6
Medicaid Spending as a Share of Personal Income

Fiscal Year	Medicaid Spending ($ millions)	Personal Income ($ millions)	Share
1994	3,256.1	156,420.5	2.08%
1995	3,351.2	164,731.0	2.03%
1996	3,355.8	173,323.3	1.94%
1997	3,382.6	184,432.5	1.83%
1998	3,564.4	196,471.3	1.81%
1999	3,732.0	209,712.3	1.78%
2000	4,127.0	228,384.8	1.81%
2001	4,480.1	247,027.5	1.81%
2002	5,058.7	249,234.3	2.03%
2003	5,286.0	251,086.8	2.11%
2004	5,543.7	262,174.8	2.11%
2005	5,926.9	277,148.0	2.14%

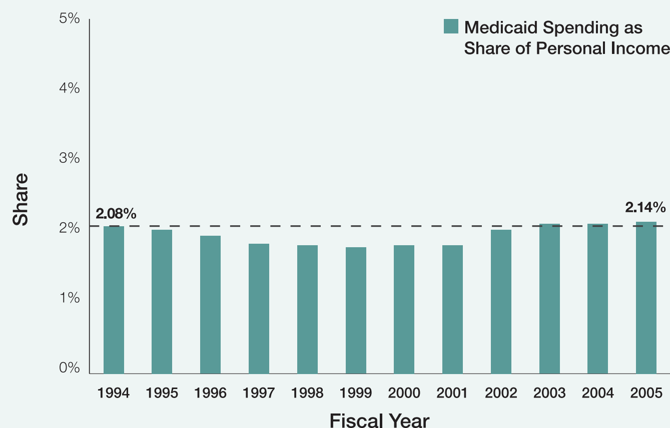
It is notable that Medicaid spending as a share of personal income in FY 2005 is almost the same as in FY 1994 (see Figure 6); it has increased by less than 0.06 percentage points, from 2.08 percent to 2.14 percent. In other words, even though Medicaid spending has grown, the economy of Massachusetts has grown at roughly the same pace over the period analyzed.

In fact, reducing Medicaid spending in FY 2005 by only $158 million would put Medicaid spending as a share of personal income at its FY 1994 level. Because roughly half of total Medicaid spending is reimbursed by federal Medicaid dollars, the net effect on the state treasury of the slight increase in Medicaid spending as a share of personal income would be approximately $79 million, less than one-half of one percent of the Commonwealth's budget for the year.

Over the entire period between FY 1994 and FY 2005, Medicaid's share of the state economy as measured by personal income has varied by little more than 0.3 percentage points, ranging from a low of just under 1.8 percent to a high of just above 2.1 percent (see Figure 7).

Whether or not the absolute level of Medicaid spending was sufficient to fund the full needs of the program, the increases in Medicaid spending alone over the period of time analyzed did not exceed economic growth by enough to cause significant fiscal problems for the state.

Figure 7
Medicaid Spending Is Still the Same Share of Personal Income



Medicaid Spending Growth in the Context of Health Care Trends

Medicaid spending over the course of the last economic cycle grew at similar rate to the Massachusetts economy, but at a slower pace than health care costs overall. Although for a variety of reasons these indicators are not directly comparable, they provide some context for the rate of Medicaid spending growth in the larger health care economy.

From 1994 to 2004 national health expenditures grew on average 6.9 percent annually. National health expenditures were 13.7 percent of gross domestic product in 1994, and 16.0 percent of gross domestic product in 2004.[11] Annual health inflation between 1994 and 2004, as measured by health spending per capita, was 5.7 percent, more than double the rate of inflation (2.5 percent) in the economy as a whole.[12]

Nationally, private health insurance premiums rose on average close to seven percent annually between 1994 and 2004, and they rose by more than 11 percent on average between 2000 and 2004.[13] National Medicaid spending grew from $130.8 billion to $295.9 billion between federal Fiscal Years 1993 and 2004, an average annual growth rate of 7.7 percent.[14]

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[11] Data from the Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group, at http://www.cms.hhs.gov/NationalHealthExpendData/Centers (see Historical; NHE summary including share of GDP, CY 1960-2004; file nhegdp04.zip). See http://www.kff.org/insurance/7031/ti2004-1-set.cfm.

[12] Data from Kaiser Family Foundation calculations using NHE data from Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group, at http://www.cms.hhs.gov/NationalHealthExpendData/ (see Historical; NHE summary including share of GDP, CY 1960-2004; file nhegdp04.zip), and CPI data from Bureau of Labor Statistics at ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt (All Urban Consumers, All Items, 1982-1984=100, Not Seasonally Adjusted, U.S. city average). See http://www.kff.org/insurance/7031/ti2004-1-3.cfm.

[13] Data from Kaiser Family Foundation/Health Research and Educational Trust, *Employer Health Benefits*, 2004 Annual Survey, September 2004, Exhibit 1.2, p. 18. See http://www.kff.org/insurance/7031/ti2004-3-3.cfm.

[14] Data from the Kaiser Commission on Medicaid and the Uninsured estimates prepared by the Urban Institute using data from the Center for Medicaid and State Operations, Centers for Medicare and Medicaid Services, Financial Management Reports (tabulations from Form HCFA-64/CMS-64), 2004. See http://www.kff.org/insurance/7031/ti2004-1-12.cfm.

Understanding Revenues

In the previous section, we compared Medicaid spending growth to the rate of growth in the state's economy. This analysis allowed us to determine that the Medicaid program grew on average 5.6 percent annually, in line with the 5.3 percent average annual growth rate of the economy as a whole. In this section, we examine trends in state revenues between Fiscal Years 1994 and 2005, so that we can compare trends in Medicaid spending to trends in state revenues. We show that, though Medicaid spending grew roughly in line with the state economy, state revenues did not.

What Do We Mean by "State Revenues"?

By comparing Medicaid spending to state revenues, we focus on Medicaid spending as a share of the total resources available, rather than of the amount actually spent from each year's budget. Each year the Commonwealth decides how best to allocate revenues — to appropriate dollars through the budgetary process on programs such as Medicaid, to set aside dollars into reserve for future use, or to return dollars to taxpayers in the form of tax cuts. Annual appropriations cannot exceed revenues because of the constitutional requirement for a balanced budget. However, sometimes the revenues coming into the Commonwealth are not sufficient to meet actual spending in a particular year, and the state must use money from reserve funds to pay its bills. In a year in which revenues exceed projected spending, in contrast, the state might put some revenues into reserve. In both of these situations, the state's total budgeted appropriations do not accurately reflect the capacity of the state's economy to pay for Medicaid or other programs. Total revenues are a better indicator of the resources available for the state to pay for its budget.

The *Statutory Basis Financial Report* (SBFR) published by the Office of the State Comptroller includes the total amount of revenue collected by the Commonwealth from various sources for FY 1994 through FY 2005. These totals include the revenue generated by taxes and assessments, as well as revenues received from federal grants and reimbursements and other forms of miscellaneous revenues.

The chart in Appendix B compiles adjustments we have made to the Commonwealth's actual reported revenues. Just as it is necessary to create an "apples to apples" comparison of

Figure 8
State Revenues

Fiscal Year	Actual Revenues ($ millions)	Annual Change
1994	15,667.6	
1995	16,649.0	6.3%
1996	17,685.1	6.2%
1997	18,252.7	3.2%
1998	20,103.4	10.1%
1999	20,458.9	1.8%
2000	22,183.2	8.4%
2001	23,595.8	6.4%
2002	21,802.3	-7.6%
2003	22,763.8	4.4%
2004	24,417.9	7.3%
2005	25,286.3	3.6%
Avg. annual growth rate 1994-2005:		**4.4%**

Sources: Office of the Comptroller, Executive Office of Administration and Finance, Massachusetts Budget and Policy Center

Medicaid spending from year to year, it is necessary to create comparable annual figures for actual state revenues.

Total Adjusted State Revenues

Over the entire period of analysis, between FY 1994 and FY 2005, there was enormous variability in the annual rate of growth in state revenues — ranging from the high of 10.1 percent during the end of the economic expansion of the 1990s, to a low of -7.6 percent during the recession (see Figure 8). Over the course of the entire period, the average annual growth rate was 4.4 percent.

The revenues available to the Commonwealth are primarily a function of two major factors: the robustness of the Massachusetts economy, and tax policies that allow the Commonwealth to collect revenues from a variety of sources. Notable about the trend in actual revenues collected by the Commonwealth is that during the economic boom of the late 1990s, revenues increased, even as the Commonwealth was phasing in numerous tax cuts enacted during that period. The strength of the economy hid the impact that the tax cuts would have on revenues flowing into the state treasury. It was not until Fiscal Year 2002, when the national and statewide recession hit, that the effect on the state treasury of previous years' tax cuts became apparent.

State Revenues as a Share of Personal Income

To better understand changes in state revenues between Fiscal Years 1994 and 2005, we compare growth in those revenues to growth in the economy as a whole. Since actual revenues are annual intakes to the state treasury based on the implementation of policies in effect from year to year, this analysis will allow us to determine whether the lower growth rate in revenues is primarily a function of changes in the economy or changes in tax policies and other factors that can affect revenue flows.[15]

If there were no significant changes in tax policy and the tax system functioned efficiently, actual state revenues would remain at roughly the same share of the economy over time. On the other hand, changes in tax policy such as those enacted in Massachusetts between 1994 and 2005 had a significant effect on state revenue relative to the economy.

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[15] In addition to fiscal policy choices that increase or decrease actual revenues flowing into the state treasury, there are other factors that affect the amount of revenue the Commonwealth collects from year to year. For instance, the rise in the share of consumer spending on services has reduced sales tax revenues, since, for the most part, the Commonwealth taxes only purchases of tangible goods. Likewise, aggressive tax planning practices by multi-state corporations have suppressed state corporate income tax collections in recent years. Similarly, there are other factors that have increased state resources, such as revenues available due to the multi-state settlement with tobacco companies. The comparison of changes in actual state revenues to changes in growth in the economy will not differentiate the impacts of these factors on state revenues from the impacts of changes in tax policy on state revenues. We use a separate measure later on to measure more directly the estimated impact of tax policy changes on actual state revenues.

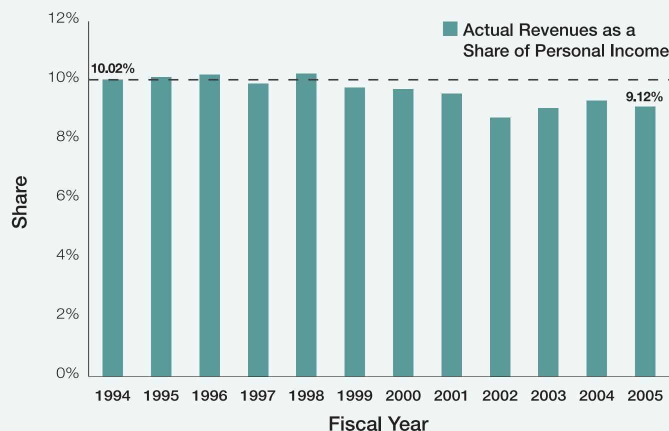
In fact, the share of the economy devoted to state revenues varied from a high of 10.2 percent in 1998 to a low of 8.7 percent in 2002 (see Figure 9). Between FY 1994 and FY 2005, revenue as a share of personal income dropped by almost ten percent, from 10.0 percent of personal income to 9.1 percent (see Figure 10).

Figure 9
State Revenues as a Share of Personal Income

Fiscal Year	Actual Revenues ($ millions)	Personal Income ($ millions)	Share
1994	15,667.6	156,420.5	10.02%
1995	16,649.0	164,731.0	10.11%
1996	17,685.1	173,323.3	10.20%
1997	18,252.7	184,432.5	9.90%
1998	20,103.4	196,471.3	10.23%
1999	20,458.9	209,712.3	9.76%
2000	22,183.2	228,384.8	9.71%
2001	23,595.8	247,027.5	9.55%
2002	21,802.3	249,234.3	8.75%
2003	22,763.8	251,086.8	9.07%
2004	24,417.9	262,174.8	9.31%
2005	25,286.3	277,148.0	9.12%

We will see later on[16] that tax policy choices accounted for most of the decline in revenues as a share of income between FY 1994 and FY 2005. Since tax policy choices involve issues well beyond the scope of this analysis, we focus here only on the degree to which the revenue reductions affected the fiscal capacity of the state.

Figure 10
Actual Revenues Have Dropped as a Share of Personal Income



[16] See Section 5.

In order to quantify the fiscal impact of the reduction in revenue as a share of personal income we calculate what state revenues would have been each year had the Commonwealth continued to collect the same share of personal income as it did in FY 1994 (see Figure 11). During the deepest point in the economic recession in FY 2002, the Commonwealth would have brought in over $3.1 billion in revenues more than it did. In FY 2005, the amount of forgone revenue was more than $2.4 billion. If they had been available, these forgone dollars could have been used to pay for Medicaid, local aid, education or other essential state services.

Figure 11
If Revenues Had Remained at the FY 1994 Share of Personal Income
($ millions)

Fiscal Year	Actual Revenues	Revenues at FY94 Share of Personal Income	Difference (Revenue Forgone)
1994	15,667.6	15,667.6	—
1995	16,649.0	16,500.1	148.9
1996	17,685.1	17,360.7	324.4
1997	18,252.7	18,473.4	-220.8
1998	20,103.4	19,679.3	424.1
1999	20,458.9	21,005.5	-546.7
2000	22,183.2	22,875.9	-692.7
2001	23,595.8	24,743.2	-1,147.4
2002	21,802.3	24,964.2	-3,161.9
2003	22,763.8	25,149.8	-2,386.0
2004	24,417.9	26,260.4	-1,842.5
2005	25,286.3	27,760.2	-2,473.8

Section 4 Understanding the Fiscal Effects of Medicaid Spending Growth

In the previous section, we determined that growth in state revenues did not keep pace with growth in the economy. We have also seen that Medicaid spending has increased only slightly as a share of the economy. In this section, we examine the interaction between the Medicaid spending growth rate and the rate of growth in state revenues. We see how the relationship between Medicaid spending and state revenues may create a perception that Medicaid spending growth is a primary cause of fiscal stress in the state. By looking at both Medicaid spending trends and the reduction in state revenue as a share of personal income, however, we see that Medicaid spending would not have grown significantly as a share of state revenue if revenue had remained a constant share of personal income.

Medicaid Spending as a Share of State Revenues

Looking at Medicaid spending as a share of actual state revenues is one way to analyze the fiscal impact of Medicaid spending on available resources in the state treasury. This particular measure allows us to determine what share of the state's revenues was used to pay for Medicaid, and how this share changed over time. This measure will help us understand why increases in spending on the Medicaid program have been seen as placing an undue burden on the Commonwealth's revenues.

Between Fiscal Year 1994 and Fiscal Year 2005, Medicaid spending as a share of state revenues increased from 20.8 percent to 23.4 percent (see Figure 12). During this period, spending on the Medicaid program appeared to place a growing burden on the state treasury.

The increase in Medicaid spending as a share of state revenue results from Medicaid spending growing faster than revenues (in one year, total revenues actually declined). Compared to the growth rate of the state's economy, however, Medicaid spending has grown at a sustainable rate over the time period studied.

Figure 12
Medicaid Spending as a Share of State Revenues

Fiscal Year	Medicaid Spending ($ millions)	Actual Revenues ($ millions)	Share
1994	3,256.1	15,667.6	20.8%
1995	3,351.2	16,649.0	20.1%
1996	3,355.8	17,685.1	19.0%
1997	3,382.6	18,252.7	18.5%
1998	3,564.4	20,103.4	17.7%
1999	3,732.0	20,458.9	18.2%
2000	4,127.0	22,183.2	18.6%
2001	4,480.1	23,595.8	19.0%
2002	5,058.7	21,802.3	23.2%
2003	5,286.0	22,763.8	23.2%
2004	5,543.7	24,417.9	22.7%
2005	5,926.9	25,286.3	23.4%

The Relationship between Medicaid Spending and State Revenues

Because of the relationship between Medicaid spending growth and state revenues, Medicaid spending appeared to be causing stress on the state budget. It is clear from the data, however, that the growth in Medicaid spending was not the primary cause of this fiscal stress (see Figure 13).

Figure 13
Personal Income, Medicaid Spending, State Revenues
Fiscal Years 1994 and 2005

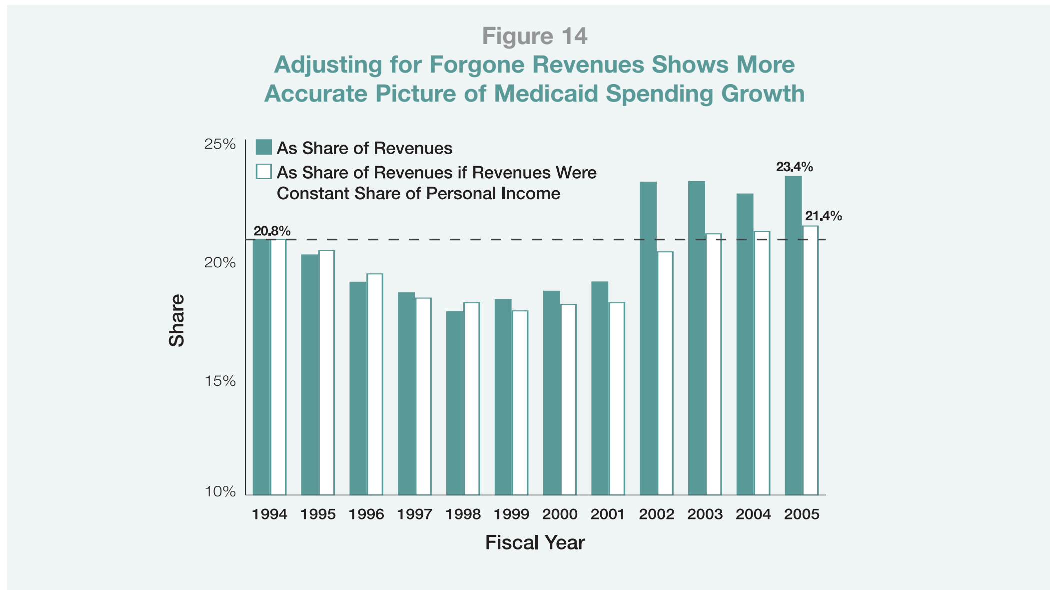
	Fiscal Year 1994	Fiscal Year 2005	Value of Difference
Personal Income	$156,420,500,000	$277,148,000,000	
Medicaid Spending	$3,256,134,289	$5,926,925,834	
Medicaid Spending as a Share of Personal Income	2.08%	2.14%	
Difference between FY 2005 and FY 1994		0.06%	$157,662,176
State Revenues	$15,667,649,765	$25,286,312,621	
State Revenues as a Share of Personal Income	10.02%	9.12%	
Difference between FY 2005 and FY 1994		-0.89%	-$2,473,845,396

From the beginning to the end of the time period we are analyzing, Medicaid spending as a portion of personal income remained almost unchanged, increasing by only 0.06 percentage points. In FY 2005, the Commonwealth spent $158 million more on the Medicaid program as a share of personal income than was spent in FY 1994. Since the federal government shares in the costs of the Medicaid program, the "burden" on the state treasury of Medicaid spending growth was approximately $79 million.

Actual revenues collected by the Commonwealth, however, constitute a significantly smaller share of total state resources now than they did in FY 1994. The value of this 0.9 percentage point difference of personal income in FY 2005 alone is more than $2.4 billion. In other words, the Commonwealth has forgone more than $2.4 billion in revenues that could have been available to fund public services. The impact on the state treasury of the change in actual revenues as a share of personal income is more than fifteen times the impact of Medicaid spending growth.

The relationship between Medicaid spending and revenues alone created an incomplete picture of Medicaid spending growth. Between FY 1994 and FY 2005, Medicaid spending represented a larger share of state revenues, increasing by 2.7 percentage points, from 20.8 percent to 23.4 percent. To create a complete picture, we must include the relationship of Medicaid spending and state revenue

to personal income. If revenues had remained a constant share of personal income, Medicaid spending would have only increased from 20.8 percent of revenues to 21.4 percent of those revenues, an increase of just 0.6 percentage points (see Figure 14).



Furthermore, over the course of the period analyzed, the Medicaid program became a new source of revenue for other state services that had not previously been funded by the federal government. The Commonwealth worked to take advantage of available federal Medicaid reimbursements by identifying elements in the state human service system that could be eligible for Medicaid "federal financial participation." Services and activities which the Commonwealth had been supporting with state dollars exclusively (such as support for certain special education, public health and mental health services) became eligible for federal reimbursement under the provisions of the Medicaid program. Accordingly, to the extent that the growth in federal or other new revenues exceeded the Medicaid spending growth rate, Medicaid spending growth would have even less of an impact on the state treasury.

Between FY 1994 and FY 2005, even though Medicaid spending stayed a relatively constant share of the economy, Medicaid appeared to create a larger fiscal burden because available state resources, as a share of the overall economy, were shrinking.

Section 5 Understanding the Effects of Tax Policy on the State Treasury

In the previous section we determined that, although Medicaid spending growth could be supported by growth in the economy, a declining rate of growth in state revenues caused Medicaid spending to account for an increasing share of public resources, leading to the misperception that Medicaid spending growth was the primary cause of state fiscal stress. In this section, we explain why state revenues were unable to keep pace with the growth in the economy and with the costs of the Medicaid program. Tax policy changes had the effect of reducing state revenues significantly, which we measure by comparing actual state revenues to revenues that would have been available absent tax policy changes. We determine what portion of the reduction in revenues as a share of personal income is attributable to these tax policy changes, and how this led to misperceptions about Medicaid spending growth.

What Do We Mean by "1994 Baseline Revenue"?

"Baseline revenues" estimate what revenues would have been during the period of analysis had there been no tax policy changes. Since baseline revenues assume that tax policy is constant, they roughly mirror the growth in the economy as a whole.

Baseline revenues consist of two elements: the total amount of revenue the Commonwealth collected from a variety of sources each year between FY 1994 and FY 2005 (the actual revenue), and any adjustments to include increases or decreases in tax revenue the Commonwealth would have experienced had there been no changes in tax policy between FY 1994 and FY 2005.[17]

Tax policy choices are influenced by a number of factors, both economic and political: perhaps attempting to increase the amount of money available for certain expenditures, reduce a budget surplus, or reflect a particular political philosophy. These choices, in turn, either enhance or diminish the Commonwealth's ability to support public expenditures. Accounting for any revenue that may have been forgone due to tax cuts or realized through tax increases is critical in our effort to distinguish the actual fiscal strain that Medicaid may have imposed on the treasury from the fiscal strain that tax policy changes may have imposed.

We limit our definition of "baseline" revenue to account solely for explicit changes in tax law over the 1994 to 2005 period. This approach allows us to control specifically for the fiscal policy choices made by policymakers and by the public about how to use the Commonwealth's economic resources.

Over the past decade, there have been changes in tax policy that have had important impacts on the Commonwealth's revenue stream, notable both for the number of changes enacted, and their

[17] It is important to note that we are using FY 1994 as our baseline year. Choosing a different year as a baseline could yield different results, because a different starting point would encompass a different set of fiscal policies enacted during that time. We choose FY 1994 as our baseline year and the beginning of the period under analysis because it represents the same point in an economic cycle relative to FY 2005.

impacts. According to the Department of Revenue, between FY 1994 and FY 2001, the Commonwealth put in place 37 tax cuts. These tax cuts were enacted either by statute or by ballot initiative. These tax cuts ranged widely in scope — from the harbor maintenance tax credit created in 1996 which affected only a limited number of people, to the increase in the personal exemption enacted in 1998 which had an impact on almost every tax payer. These tax cuts also ranged widely in size — from changes in the adoption expenses deduction made in 1999 (costing the Commonwealth $1 million in forgone revenue annually), to the 2001 reduction in the personal income tax rate (which, as enacted, was expected to cost an estimated $1.2 billion annually).

Not all tax policy changes have had the effect of reducing revenue. At the depths of its fiscal crisis in 2002, the Commonwealth adopted a major tax package to generate additional revenue and to help bring its budget into balance. Since 2003, the Commonwealth has also enacted a variety of measures to forestall tax avoidance and to ensure that taxpayers comply with the spirit and intent of Massachusetts tax law.

To calculate 1994 baseline revenue, we start with actual revenues collected by the state and make several calculations. First, we calculate the estimated amount of revenue forgone associated with the tax cuts passed between FY 1994 and FY 2001. Then, we adjust those amounts to reflect additional changes in fiscal policy such as several tax increases and tax loophole closings that had the effect of adding back certain revenues. Appendix C itemizes each of these calculations.

The cumulative effect of changes in tax policy since the 1994 baseline year has been to reduce the Commonwealth's capacity to finance public services. In nominal dollars (not adjusting for inflation), 1994 baseline revenue rose fairly steadily between FY 1994 and FY 2001, before falling sharply during the Commonwealth's fiscal crisis in FY 2002 and FY 2003 (see Figure 15). Over the entire period, baseline revenue would have grown on average 5.2 percent annually.[18]

Figure 15
1994 Baseline Revenues

Fiscal Year	Baseline Revenues ($ millions)	Annual Change
1994	15,667.6	
1995	16,674.0	6.4%
1996	17,802.1	6.8%
1997	18,633.5	4.7%
1998	20,736.6	11.3%
1999	22,212.9	7.1%
2000	24,125.3	8.6%
2001	26,284.0	8.9%
2002	24,612.8	-6.4%
2003	24,461.0	-0.6%
2004	26,289.4	7.5%
2005	27,313.6	3.9%
Avg. annual growth rate 1994-2005:		**5.2%**

Sources: Office of the Comptroller, Executive Office of Administration and Finance, Massachusetts Budget and Policy Center

[18] The annual changes in 2004 and 2005 are somewhat distorted by a large infusion of federal revenue the state received in 2004. This had the effect of making the growth rate number for 2004 higher and the growth rate number for 2005 lower than they would have been had those growth rates simply reflected underlying economic growth and corresponding tax revenue changes.

Actual State Revenues Compared to Baseline Revenues

Not surprisingly, the estimated average annual growth in baseline revenues (5.2 percent), which holds tax policy constant over the period, almost exactly mirrors the average annual growth in personal income (5.3 percent). In contrast, actual revenues grew on average 4.4 percent annually. In dollar terms, the difference between actual and baseline revenues ranged from $25 million in FY 1995 to as much as $2.81 billion in FY 2002 (see Figure 16). In FY 2005, the figure is $2.03 billion, which represents an estimate of the extent to which tax cuts affected the resources available to the Commonwealth to fund public services such as the Medicaid program.

As we determined in the previous section, had revenues remained a constant share of personal income, the Commonwealth would have taken in more than $2.4 billion in revenue in FY 2005. Of this $2.4 billion, the comparison of actual revenue to baseline revenue shows that $2.03 billion of this foregone revenue is due to tax law changes. The remainder is due to elements of the tax system that cause revenue to decline as the economy changes.[19]

Figure 16
Actual State Revenues and 1994 Baseline Revenues
($ millions)

Fiscal Year	Actual Revenues	1994 Baseline Revenues	Difference (Cost of Tax Cuts)
1994	15,667.6	15,667.6	—
1995	16,649.0	16,674.0	-25.0
1996	17,685.1	17,802.1	-117.0
1997	18,252.7	18,633.5	-380.8
1998	20,103.4	20,736.6	-633.2
1999	20,458.9	22,212.9	-1,754.0
2000	22,183.2	24,125.3	-1,942.1
2001	23,595.8	26,284.0	-2,688.2
2002	21,802.3	24,612.8	-2,810.5
2003	22,763.8	24,461.0	-1,697.3
2004	24,417.9	26,289.4	-1,871.5
2005	25,286.3	27,313.6	-2,027.3

[19] See footnote 15.

Medicaid Spending as a Share of 1994 Baseline Revenues

By comparing Medicaid spending to 1994 baseline revenues, we can better determine whether Medicaid cost growth was causing fiscal stress on the state budget, and whether there would have been the same level of fiscal stress had there been no tax policy changes (see Figure 17). When we look at Medicaid spending as a share of baseline revenues, we see that Medicaid spending decreased as a share of baseline revenues during the economic expansion, and increased during the recession. Over the entire period, however, Medicaid spending increased from 20.8 percent to 21.7 percent of 1994 baseline revenues, a difference of less than one percentage point.

Figure 17
Medicaid Spending as a Share of 1994 Baseline Revenues

Fiscal Year	Medicaid Spending ($ millions)	1994 Baseline Revenues ($ millions)	Share
1994	3,256.1	15,667.6	20.8%
1995	3,351.2	16,674.0	20.1%
1996	3,355.8	17,802.1	18.9%
1997	3,382.6	18,633.5	18.2%
1998	3,564.4	20,736.6	17.2%
1999	3,732.0	22,212.9	16.8%
2000	4,127.0	24,125.3	17.1%
2001	4,480.1	26,284.0	17.0%
2002	5,058.7	24,612.8	20.6%
2003	5,286.0	24,461.0	21.6%
2004	5,543.7	26,289.4	21.1%
2005	5,926.9	27,313.6	21.7%

Section 6 **A New Look at Medicaid Spending**

When the relationship among the state's economy, state revenues, and the costs of the Medicaid program are fully considered, it appears that the impact on the state treasury of the increase in Medicaid spending during the last economic cycle was significantly less than the impact of the reduction in state revenues.

Between Fiscal Year 1994 and Fiscal Year 2005, Medicaid spending growth was not much more than the rate of economic growth in the Commonwealth over the same period. Although Medicaid spending as a share of the economy has remained relatively stable, state revenues as a share of the economy have dropped substantially (see Figure 18). Between FY 1994 and FY 2005, Medicaid spending grew an average of 5.6 percent annually. During this same period, personal income grew 5.3 percent per year. Actual state revenues, however, grew at only 4.4 percent per year (see Figure 19). The cost to the Commonwealth of Medicaid spending as a share of the economy during the period analyzed was $79 million. The cost to the Commonwealth of the reduction in actual revenues, however, was close to $2.4 billion.

Figure 18
As Share of Personal Income, Medicaid Spending Has Been Constant, but Actual Revenues Have Dropped

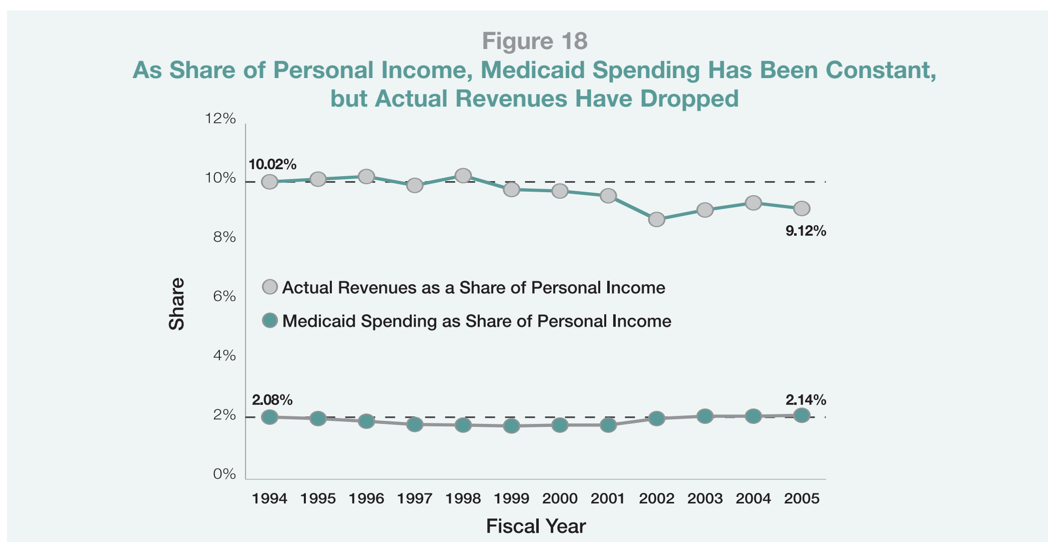
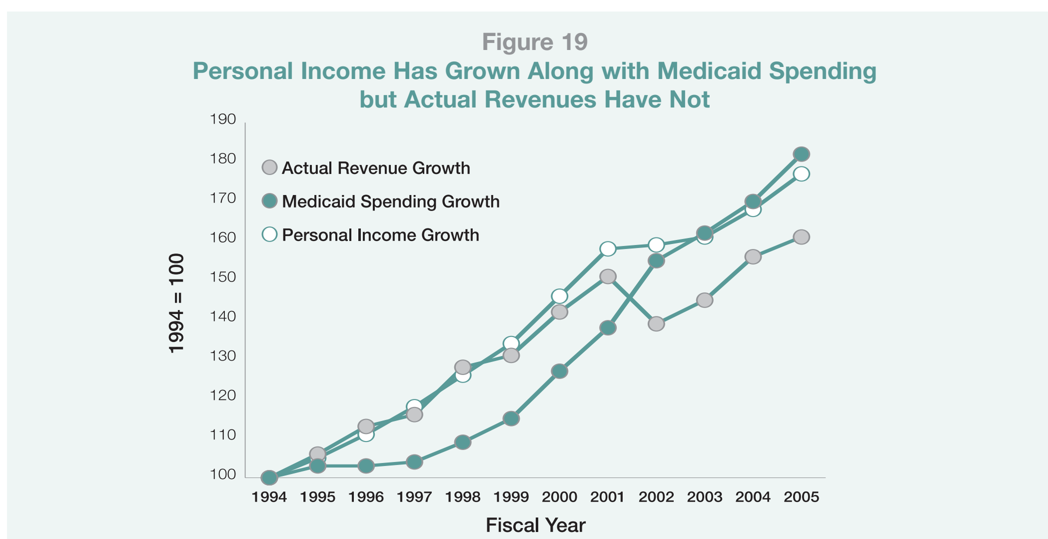
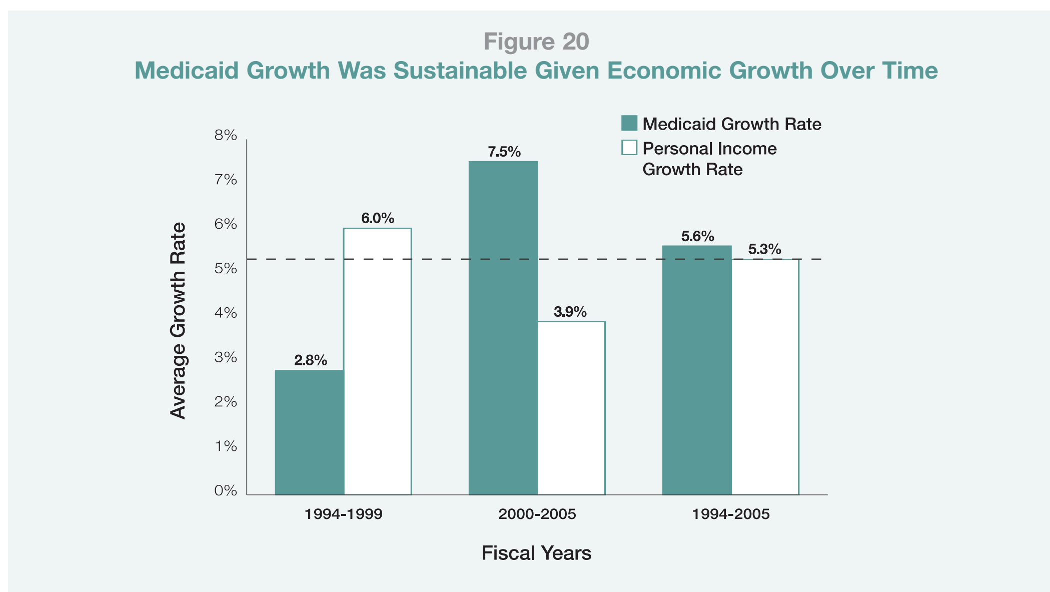


Figure 19
Personal Income Has Grown Along with Medicaid Spending but Actual Revenues Have Not



The perception of the role of Medicaid spending in the state's fiscal crisis is partly a function of looking at Medicaid spending in the short term. As a safety net program, Medicaid's costs tend to run counter to economic cycles. The choices made to cut taxes during the 1990s were partly a reaction to the revenue surpluses caused by a relatively high rate of economic growth coupled with low rates of Medicaid spending, but those trends reflected only one part of the complete cycle. Between FY 1994 and FY 1999, Medicaid spending grew on average at a relatively low 2.8 percent per year, and personal income grew quickly — 6.0 percent (see Figure 20). Between FY 2000 and FY 2005, however, Medicaid spending growth on average increased to 7.5 percent annually, and personal income growth dropped to 3.9 percent. The reversal of Medicaid spending and economic trends, coupled with tax policy changes, led to significant stress on the state's budget in the early part of this decade.



The relationship between trends in Medicaid costs and state revenues is also important for policymakers to keep in mind as they consider fiscal policies that would have a permanent effect on state revenues. During the last economic cycle, Medicaid spending growth would not have grown significantly as a share of the state budget had the budget grown along with the economy. We are once again at a point in the economic cycle — as in the mid-1990s — when we are recovering from a recession and economic growth is accelerating. We know, however, that the economy is cyclical, and Medicaid costs move in a contrasting cycle. Policymakers should be mindful of these cycles, and make fiscal policy decisions that will be sustainable not only during economic expansion, but during the next economic downturn as well.

Looking at the Medicaid program over the course of a full economic cycle, we get a different perspective on the role that this health insurance program plays in the state budget than if we look at it year by year or over even the course of a few years. Although the cyclical nature of the Medicaid

program and the cyclical nature of the economy present particular challenges to those making difficult fiscal policy decisions, it is clear that spending growth in the Medicaid program has not been the primary cause of the Commonwealth's fiscal stress. The costs of this safety net health insurance program grew only slightly faster than the state's economy. Because of tax policy choices, however, state revenues were not able to keep pace with economic growth.

Though Medicaid spending growth over the course of the last economic cycle did not greatly exceed the growth in the economy, we cannot know whether that relationship will continue into the future. In our shared commitment to support the "common wealth," we must consider not only the current strength of the economy, but also long-term trends. We also must understand the relationship between choices about spending on programs such as Medicaid and the flow of revenues that are available to support that spending. This broader perspective gives a more realistic picture of the relative financial burden that Medicaid, which plays a critical role in the lives and well-being of more than one million Massachusetts residents, places on the state's resources.

Appendix A Medicaid Expenditures

Medicaid Expenditures

	1994	1995	1996	1997	1998	1999
Statutory Basis Financial Report Medicaid Expenditures	3,313,126,524	3,398,219,593	3,415,949,249	3,455,530,942	3,665,839,699	3,856,453,068
Adjustments to Statutory Basis Financial Report Medicaid Expenditures						
Comparable Line Items	—	—	—	—	(791,061)	—
Off-budget spending	—	—	—	—	—	—
Drug Rebates	(56,992,235)	(47,002,542)	(60,171,360)	(72,907,371)	(100,620,112)	(124,479,945)
Timing of Payments	—	—	—	—	—	—
Subtotal Adjustments	(56,992,235)	(47,002,542)	(60,171,360)	(72,907,371)	(101,411,173)	(124,479,945)
Total Adjusted Medicaid Expenditures	**3,256,134,289**	**3,351,217,051**	**3,355,777,889**	**3,382,623,571**	**3,564,428,526**	**3,731,973,123**

	2000	2001	2002	2003	2004	2005
Statutory Basis Financial Report Medicaid Expenditures	4,269,990,870	4,642,341,546	5,259,275,263	5,485,112,129	5,742,397,900	5,977,220,781
Adjustments to Statutory Basis Financial Report Medicaid Expenditures						
Comparable Line Items	—	—	—	—	—	—
Off-budget spending	—	—	—	—	61,461,170	131,019,432
Drug Rebates	(142,958,291)	(162,206,918)	(200,555,811)	(199,099,212)	(260,174,763)	(291,614,379)
Timing of Payments	—	—	—	—	—	110,300,000
Subtotal Adjustments	(142,958,291)	(162,206,918)	(200,555,811)	(199,099,212)	(198,713,593)	(50,294,947)
Total Adjusted Medicaid Expenditures	**4,127,032,579**	**4,480,134,628**	**5,058,719,452**	**5,286,012,917**	**5,543,684,307**	**5,926,925,834**

Adjusted State Revenues

In order to compare actual state revenues from year to year, we make several adjustments to the revenues as reported in the *Statutory Basis Financial Reports* (SBFR) published by the Office of the State Comptroller.

Adjusting for dollars from the Tobacco Master Settlement

On November 23, 1998 the Commonwealth and 45 other states were party to a Master Settlement Agreement with five tobacco companies. This settlement resolved litigation these states had brought against the cigarette industry, in part to recover from these companies a portion of the costs associated with smoking-related diseases incurred by the Commonwealth. Among other things, this agreement requires that participating tobacco manufacturers make annual payments to the settling states in perpetuity, as well as five initial payments (for calendar years 1999 through 2003).

The revenues flowing to the Commonwealth are significant: "base payments" to all states would total more than $204 billion through 2025, with more than $8.3 billion allocated for the Commonwealth.[20]

In FY 2000, the Legislature created a permanent trust fund, the Health Care Security Trust, for the purposes of "managing and investing all monies generated by any claim or action undertaken by the attorney general against a manufacturer of cigarettes to recover the amount of medical assistance provided [Medicaid]."[21] The Commonwealth would hold in reserve a share of the money deposited into the Health Care Security Trust. Each year, the Commonwealth would withdraw designated amounts which would be transferred into the Tobacco Settlement Fund to be made available for appropriation. The Tobacco Settlement Fund dollars would "be expended, subject to appropriation, to supplement existing levels of funding for the purpose of funding health related services and programs including, but not limited to, services and programs intended to control or reduce the use of tobacco in the commonwealth."[22]

Despite the language making a commitment to set aside a portion of these dollars annually, beginning in FY 2000 we have included the full amount of the annual Tobacco Settlement Fund dollars received by the Commonwealth in our revenue totals, since the payment represents an increase in the Commonwealth's capacity to fund services.

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[20] See Commonwealth of Massachusetts, Official Statement, March 17, 2005, p. A-21 and http://www.ago.state.ma.us/sp.cfm?pageid=1163.

[21] M.G.L. Ch. 29D, sec. 1.

[22] M.G.L. Ch. 29, sec. 2XX.

Adjusting for Massachusetts Bay Transportation Authority off-budget funding

Prior to FY 2001, the state's annual appropriations included state support for the Massachusetts Bay Transportation Authority. In order to maintain a consistent comparison of state revenues before and after this shift, beginning in FY 2001 we have added back into our revenue total the portion of the annual sales tax revenue now diverted directly to the Massachusetts Bay Transportation Authority or MBTA.

Adjusting for timing of payments

Because unlike other years the FY 2005 Medicaid expenditures do not include spending associated with the Accounts Payable period, we have added in that amount into our total Medicaid expenditures for FY 2005. We have added fifty percent of that same amount into our revenue total for that year to include the federal reimbursement associated with the Accounts Payable expenditures.

Adjusting for drug rebates

In analyzing Medicaid expenditures, we removed from our analysis the amounts associated with the drug rebates that are accounted for by the Commonwealth in the form of retained revenues. In order to ensure that our revenue numbers are comparable with this adjustment to spending, we have removed these amounts from our total revenues.

Actual Revenues

Total Revenues and Other Financing Sources	1994	1995	1996	1997	1998	1999
Taxes	10,606,681,000	11,163,368,000	12,049,183,000	12,864,501,000	14,026,256,000	14,291,463,000
Assessments	213,484,000	229,093,000	238,440,000	226,070,000	255,134,000	264,295,000
Federal grants and reimbursements	2,901,231,000	2,969,722,000	3,039,091,000	3,019,692,000	3,361,181,000	3,442,929,000
Departmental	990,682,000	1,126,833,000	1,077,896,000	1,107,736,000	1,082,591,000	1,073,427,000
Miscellaneous	221,067,000	149,024,000	130,754,000	169,223,000	189,295,000	217,002,000
Subtotal Revenues	14,933,145,000	15,638,040,000	16,535,364,000	17,387,222,000	18,914,457,000	19,289,116,000
Transfers*	791,497,000	1,057,937,000	1,209,939,000	938,355,000	1,289,531,000	1,294,255,000
Subtotal Other Financing Sources	791,497,000	1,057,937,000	1,209,939,000	938,355,000	1,289,531,000	1,294,255,000
Total Revenues and Other Financing Sources	**15,724,642,000**	**16,695,977,000**	**17,745,303,000**	**18,325,577,000**	**20,203,988,000**	**20,583,371,000**
Adjustments to Revenues and Other Financing Sources						
Full Value of Tobacco Settlement	—	—	—	—	—	—
MBTA Off-Budget Revenues	—	—	—	—	—	—
Off-Budget School Building Assistance	—	—	—	—	—	—
Drug Rebate Adjustment	(56,992,235)	(47,002,542)	(60,171,360)	(72,907,371)	(100,620,112)	(124,479,945)
Timing of Payments Adjustment	—	—	—	—	—	—
Total Adjustments to Revenues and Other Financing Sources	(56,992,235)	(47,002,542)	(60,171,360)	(72,907,371)	(100,620,112)	(124,479,945)
Total Actual Revenues	**15,667,649,765**	**16,648,974,458**	**17,685,131,640**	**18,252,669,629**	**20,103,367,888**	**20,458,891,055**

Total Revenues and Other Financing Sources	2000	2001	2002	2003	2004	2005
Taxes	15,688,616,000	16,074,655,000	13,622,710,000	14,279,567,000	15,268,976,000	15,987,399,000
Assessments	109,074,000	92,503,000	129,354,000	107,069,000	126,621,000	122,303,000
Federal grants and reimbursements	3,645,550,000	3,974,158,000	4,334,934,000	4,523,648,000	5,098,536,000	4,696,883,000
Departmental	1,096,388,000	1,162,839,000	1,205,629,000	1,366,705,000	1,729,992,000	1,840,320,000
Miscellaneous	269,879,000	285,016,000	265,492,000	138,204,000	124,860,000	172,139,000
Subtotal Revenues	20,809,507,000	21,589,171,000	19,558,119,000	20,415,193,000	22,348,985,000	22,819,044,000
Transfers*	1,190,403,000	1,271,767,000	1,475,910,000	1,563,340,000	1,391,158,000	1,345,807,000
Subtotal Other Financing Sources	1,190,403,000	1,271,767,000	1,475,910,000	1,563,340,000	1,391,158,000	1,345,807,000
Total Revenues and Other Financing Sources	**21,999,910,000**	**22,860,938,000**	**21,034,029,000**	**21,978,533,000**	**23,740,143,000**	**24,164,851,000**
Adjustments to Revenues and Other Financing Sources						
Full Value of Tobacco Settlement	326,235,000	242,470,000	304,518,000	300,039,000	253,621,000	257,417,000
MBTA Off-Budget Revenues	—	654,593,000	664,350,000	684,281,000	684,281,000	704,809,000
Off-Budget School Building Assistance	—	—	—	—	—	395,700,000
Drug Rebate Adjustment	(142,958,291)	(162,206,918)	(200,555,811)	(199,099,212)	(260,174,763)	(291,614,379)
Timing of Payments Adjustment	—	—	—	—	—	55,150,000
Total Adjustments to Revenues and Other Financing Sources	183,276,709	734,856,082	768,312,189	785,220,788	677,727,237	1,121,461,621
Total Actual Revenues	**22,183,186,709**	**23,595,794,082**	**21,802,341,189**	**22,763,753,788**	**24,417,870,237**	**25,286,312,621**

* This amount includes Lottery revenues accounted for separately beginning in Fiscal Year 1997.

Appendix C Baseline Revenues

In order to develop 1994 baseline revenues and to make them comparable from year to year, we start with adjusted actual state revenues (as described in Appendix B). We have then made several adjustments to these revenues in order to take into account the impact of tax policy changes since FY 1994.

Gross impact of tax cuts: Fiscal Years 1994-2001

In February 2002, the Massachusetts Department of Revenue released a list of the 42 tax cuts put in place since July 1990, along with estimates of the revenue loss associated with each tax cut for each fiscal year from 1992 through 2004.[23] We have calculated the total gross impact of the tax cuts as simply the sum of these annual estimates for those tax cuts enacted since FY 1994. Because the estimates of these tax cuts goes only through 2004, to estimate the impact of these tax cuts in FY 2005, we have assumed that the impact would have grown between FY 2004 and FY 2005 as Massachusetts tax collections did generally (7.1 percent).

Adjustments to gross impacts of tax cuts

While tax cuts have predominated in state fiscal policy since FY 1994, the Commonwealth has enacted several changes in tax law to generate additional revenue over the course of the past decade or so. In our calculations of 1994 baseline revenue we have added back the amounts associated with three changes.

Cigarette Tax Increases

- In 1996, as part of a broad health care reform initiative, the Commonwealth increased the excise tax on cigarettes from 51 cents per pack to 76 cents per pack. As part of a larger tax package designed to help close the Commonwealth's projected $2.7 billion budget deficit for FY 2003 (see below), in 2002 the Commonwealth raised the cigarette tax once more, from 76 cents per pack to $1.51 per pack.

Tax Package of 2002

- In 2002, the Commonwealth adopted a deficit-reduction tax package, consisting of five main elements: 1) a freeze in the personal income tax rate at 5.3 percent; 2) a 25 percent reduction in the personal exemption for all taxpayers; 3) the elimination of the preferential tax rate for capital gains income; 4) the suspension of the charitable contribution deduction; and 5) an increase in the cigarette tax (see above). Upon enactment, the Commonwealth expected this tax package to generate approximately $1.1 to $1.2 billion per year. As FY 2005 estimates of the revenue impact for this tax package are unavailable, we have assumed that the effect of the 2002 tax package grew at the same rate between FY 2004 and FY 2005 as Massachusetts tax collections did generally (7.1 percent).

[23] Massachusetts Department of Revenue, *FY1992-FY2004 Estimated Value of Tax Cuts Enacted Under Weld/Cellucci/Swift, as of January 2002*. While this particular set of estimates is now several years old, it remains the only comprehensive assessment of the revenue impact of the tax cuts of the 1990s.

Loophole Closings

- Over the past several years, the Commonwealth has made considerable progress in reforming its tax system to prevent tax avoidance. These changes made since 2003 include the prohibition of the use of passive investment companies to reduce Massachusetts tax liabilities, as well as improvements in the manner in which Massachusetts treats non-business income for tax purposes. We have added back into our calculations the values associated with these loophole closings.

1994 Baseline Revenues

	1994	1995	1996	1997	1998	1999
Actual Revenues	**15,667,649,765**	**16,648,974,458**	**17,685,131,640**	**18,252,669,629**	**20,103,367,888**	**20,458,891,055**
Gross Impact of FY 1994-2001 Tax Cuts	—	25,000,000	117,000,000	445,000,000	730,000,000	1,846,000,000
Adjustments						
1996, 2002 Cigarette Tax Increases	—	—	—	(64,170,063)	(96,786,785)	(91,969,762)
2002 Tax Package (except cigarette tax increase)	—	—	—	—	—	—
2003, 2004 Loophole Closings, Other Reforms	—	—	—	—	—	—
Subtotal Adjustments	—	—	—	(64,170,063)	(96,786,785)	(91,969,762)
Total Impact of Changes in Tax Policy	—	25,000,000	117,000,000	380,829,937	633,213,215	1,754,030,238
1994 Baseline Revenues	**15,667,649,765**	**16,673,974,458**	**17,802,131,640**	**18,633,499,566**	**20,736,581,104**	**22,212,921,293**

	2000	2001	2002	2003	2004	2005
Actual Revenues	**22,183,186,709**	**23,595,794,082**	**21,802,341,189**	**22,763,753,788**	**24,417,870,237**	**25,286,312,621**
Gross Impact of FY 1994-2001 Tax Cuts	2,032,000,000	2,775,000,000	2,899,000,000	3,411,000,000	3,707,000,000	4,008,770,190
Adjustments						
1996, 2002 Cigarette Tax Increases	(89,915,062)	(86,817,816)	(88,497,463)	(263,732,728)	(274,974,304)	(274,415,935)
2002 Tax Package (except cigarette tax increase)	—	—	—	(1,255,000,000)	(1,361,000,000)	(1,429,637,251)
2003, 2004 Loophole Closings, Other Reforms	—	—	—	(195,000,000)	(199,500,000)	(277,400,000)
Subtotal Adjustments	(89,915,062)	(86,817,816)	(88,497,463)	(1,713,732,728)	(1,835,474,304)	(1,981,453,186)
Total Impact of Changes in Tax Policy	1,942,084,938	2,688,182,184	2,810,502,537	1,697,267,272	1,871,525,696	2,027,317,005
1994 Baseline Revenues	**24,125,271,647**	**26,283,976,266**	**24,612,843,726**	**24,461,021,060**	**26,289,395,933**	**27,313,629,625**

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