Economic and Budget Outlook: Commonwealth of Pennsylvania

Fiscal Years 2015-16 to 2020-21

IFO

January 2016

About the Independent Fiscal Office

The Independent Fiscal Office (IFO) provides revenue projections for use in the state budget process along with impartial and timely analysis of fiscal, economic and budgetary issues to assist Commonwealth residents and the General Assembly in their evaluation of policy decisions. In that capacity, the IFO will not support or oppose any policies it analyzes, and will disclose all methodologies, data sources and assumptions used in published reports and estimates.

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The Independent Fiscal Office was created
by the Act of Nov. 23, 2010 (P.L.1269, No.120).

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INDEPENDENT FISCAL OFFICE

Second Floor, Rachel Carson State Office Building
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January 27, 2016

The Honorable Members of the Pennsylvania General Assembly:

Act 120 of 2010 specifies that the Independent Fiscal Office (IFO) shall "provide an assessment of the state's current fiscal condition and a projection of what the fiscal condition will be during the next five years. The assessment shall take into account the state of the economy, demographics, revenues and expenditures." In fulfillment of that obligation, the IFO submits this report to the residents of the Commonwealth and members of the General Assembly. In accordance with the mission of the office, this report does not make any policy recommendations.

The data and projections presented in this report come from various sources. Economic projections for Pennsylvania are from the IFO, while projections for the U.S. are from the January 2016 forecast by the U.S. Congressional Budget Office. Demographic projections are from the Pennsylvania State Data Center based on 2015 population estimates from the U.S. Census Bureau. Historical revenue and expenditure data are from the Commonwealth's Consolidated Annual Financial Report, the Governor's Executive Budget and various departmental reports. All revenue and expenditure projections are from the IFO. Other data sources are noted in the relevant sections of this report.

In general, appropriations for FY 2015-16 are based on amounts from HB 1460, P.N. 2626. These amounts could change subject to further negotiations. Additional explanation can be found in Section 5 of this report.

The office would like to thank all of the individuals, agencies and organizations who assisted in the production of this report. Questions and comments can be submitted to contact@ifo.state.pa.us.

Sincerely,

MATTHEW J. KNITTEL
Director

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Executive Summary

This report examines the demographic, economic, revenue and expenditure trends that will affect the Commonwealth's fiscal condition through fiscal year (FY) 2020-21. Based on the economic and demographic assumptions used by this report, the evaluation finds that various factors imply a long-term fiscal imbalance.

The demographic forecast projects modest population growth (3.4 percent) over the next decade. From 2015 to 2025, the forecast projects that:

- The number of residents age 19 or younger will contract (-0.5 percent).
- The number of residents age 20 to 64 will contract as well (-2.9 percent).
- The 65 or older age group will expand dramatically (31.5 percent).

Economic growth may be constrained by the projected contraction of the working age population. However, pent-up demand for housing and low energy prices could enhance the outlook for the state and national economies.

From FY 2015-16 to FY 2020-21, the forecast projects that General Fund revenues will increase at an average rate of 3.3 percent per annum. Personal income and sales taxes motivate most revenue gains. By FY 2020-21, those revenue sources will comprise more than three-quarters of General Fund revenues.

Motivated by statutory pension contributions and outlays related to healthcare, expenditures will increase at an average rate of 4.5 percent per annum:

- By FY 2020-21, pension contributions may reach $1.2 billion above current year levels. Excluding pension contributions, expenditures increase by 4.1 percent per annum.
- Expanding service populations (e.g., older residents who need long-term care services) and inflation motivate much of the remaining expenditure growth.

The analysis projects that expenditures will outpace revenues through FY 2020-21 under current laws and policies. The structural imbalance grows each year as tax base expansion is insufficient to maintain the level of real services provided in the current fiscal year.

General Fund Projections[1]

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Beginning Balance[2]	$84	$266	--	--	--	--	--
Available Revenue[3]	29,253	29,422	$30,155	$31,318	$32,465	$33,646	$34,865
Expenditures	-29,200	-30,181	-32,065	-33,573	-34,950	-36,373	-37,594
Current Year Balance	53	-760	-1,910	-2,255	-2,486	-2,727	-2,729
Lapses	130	175	50	75	100	100	100
Ending Balance	**266**	**-318**	**-1,860**	**-2,180**	**-2,386**	**-2,627**	**-2,629**

[1] Figures in millions of dollars. Projections assume the extension of current law and policies.
[2] Beginning balance omitted from FY 2016-17 and thereafter.
[3] Available revenues are net of refunds.

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Section 1: Introduction

This report provides an overview of the demographic, economic, revenue and expenditure trends that will affect the Commonwealth's fiscal condition through fiscal year (FY) 2020-21. The report examines long-term trends to facilitate the assessment of current tax and spending policies. To craft effective policy, policymakers must be aware of potential future imbalances.

The projections contained in this report are best viewed as plausible outcomes from the application of reasonable economic assumptions and demographic trends. Actual revenues and expenditures could deviate significantly from projections due to the uncertainty of economic forecasts and technical factors, such as new federal match rates for spending programs or the adoption of collective bargaining agreements.

The report designates FY 2015-16 as the base year. All revenue and expenditure projections use that year as a reference year and assume that the policy choices embedded therein do not change through FY 2020-21. At the time of publication, final appropriations for the FY 2015-16 base year had not been approved. In general, appropriation levels used for this report reflect amounts approved by the House and Senate as reflected in HB 1460, P.N. 2626. (See the Expenditure Outlook section for further explanation.) Those appropriations, and the revenues that support them, could change subject to further negotiations. Any change would affect the projected deficit for the current fiscal year, and any permanent changes would be carried forward to all future years.

The report assumes that expenditures grow in a manner that is sufficient to maintain the level of services provided in the base year. Hence, all expenditure projections include an inflation adjustment to compensate for rising prices. Relevant service populations are also allowed to expand (e.g., older residents who require long-term care) or contract (e.g., elementary school students) based on demographic projections.

The report projects General Fund revenues and the expenditures supported by those revenues. For this year, the report also includes projections for the Lottery, Tobacco Settlement and Oil and Gas Lease Funds. The report identifies amounts from those funds that are available to support General Fund expenditures. Previous reports had assumed that those funds would support the same relative share of General Fund expenditures over time. However, recent trends suggest that assumption no longer holds. Appendix E provides additional detail regarding those funds.

The remainder of this report proceeds as follows. The Demographic Outlook presents population projections from the Pennsylvania State Data Center. The Economic Outlook presents the baseline economic forecast for Pennsylvania. The Revenue Outlook presents projections of all General Fund revenue sources. The Expenditure Outlook presents expenditure projections funded by General Fund revenues. The Fiscal Outlook compares revenue and expenditure projections to quantify any long-term structural imbalance. Five appendices provide additional detail and context for this report.

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Section 2: Demographic Outlook

Demographics are a fundamental component of economic, revenue and expenditure trends. Demographic trends determine key populations, such as the potential labor force, elementary and secondary students who require educational services and elderly residents who may require long-term care. Demographic projections are generally more reliable than economic forecasts due to the inherent stability of factors that drive population growth, such as fertility and survival rates.

Trends by Age Group

Demographic projections for Pennsylvania reveal the following trends for 2015 through 2025 (see Table 2.1):

- Total population increases by 436,000 (0.3 percent per annum).
- Nursery, pre-school and elementary students (age 0 to 9) decrease by 15,000 (-0.1 percent per annum).
- Middle and high school students (age 10 to 19) increase by less than one thousand residents.
- The 20 to 39 year age cohort increases by 139,000 (0.4 percent per annum). This group includes Millennials in 2025.
- The 40 to 59 year age cohort declines by 438,000 (-1.3 percent per annum). This group includes Generation X in 2025.
- The 60 to 79 year age cohort increases by 663,000 (2.5 percent per annum). This group includes most of the Baby Boom generation in 2025.
- The 80 and over age cohort increases by 86,000 (1.3 percent per annum).

These demographic trends have implications for revenue and expenditure projections discussed later in this report. For revenues, three demographic trends are pertinent:

- The forecast projects that the primary working age population (age 20 to 64) will contract. If labor force participation rates do not increase, then this trend suggests limited growth in wages, output and the personal income tax base.
- The aging population will motivate shifts in spending patterns that restrain growth of the sales tax base. Older residents spend a higher proportion of their disposable income on non-taxable goods and services.
- As life expectancy continues to increase, more retirees may find that they have insufficient savings to maintain their standard of living. These individuals may curtail discretionary spending, or possibly rely on children as a means of support.

For expenditures, two demographic trends are pertinent:

- The forecast projects a minor contraction for residents under age 20 (-14,000) from 2015 to 2025. That trend should help restrain budget pressures for education funding.
- The large increase in the 65 and older age cohort (673,000) implies significant growth in demand for general healthcare and long-term care services.

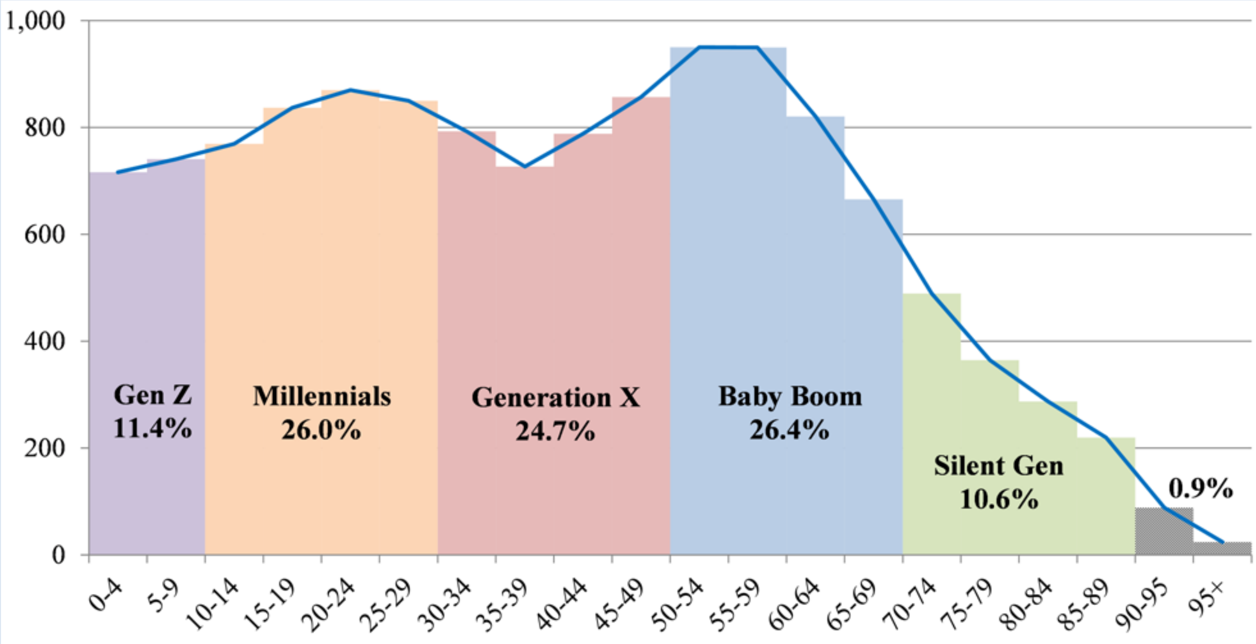
The subsections that follow provide further discussion of demographic trends over the next decade and the two decades that follow. Additional demographic detail can be found in Appendix A.

Table 2.1
Pennsylvania Demographics: 2005 - 2015 - 2025

Age Cohort	Number of Residents (000s)			Gain or Loss (000s)		Avg. Annual Growth	
	2005	2015	2025	2005-15	2015-25	2005-15	2015-25
0-4	722	716	723	-6	7	-0.1%	0.1%
5-9	746	741	719	-6	-22	-0.1	-0.3
10-14	852	769	726	-83	-43	-1.0	-0.6
15-19	906	837	880	-69	44	-0.8	0.5
20-24	817	870	922	53	53	0.6	0.6
25-29	735	850	781	115	-68	1.5	-0.8
30-34	733	792	808	59	16	0.8	0.2
35-39	837	726	866	-111	139	-1.4	1.8
40-44	952	788	795	-164	7	-1.9	0.1
45-49	989	857	720	-132	-137	-1.4	-1.7
50-54	899	950	769	51	-181	0.6	-2.1
55-59	782	950	824	168	-126	2.0	-1.4
60-64	593	820	896	227	76	3.3	0.9
65-69	475	665	865	190	199	3.4	2.7
70-74	426	489	709	63	220	1.4	3.8
75-79	406	364	531	-42	167	-1.1	3.8
80-84	315	287	342	-28	54	-0.9	1.8
85-89	177	220	247	42	27	2.2	1.2
90-94	71	88	97	17	9	2.1	1.0
95+	16	24	19	8	-5	4.2	-2.2
Total	**12,450**	**12,803**	**13,239**	**353**	**436**	**0.3**	**0.3**
Age Cohort Summary							
0-19	3,226	3,062	3,048	-164	-14	-0.5%	0.0%
20-39	3,122	3,238	3,378	116	139	0.4	0.4
40-59	3,622	3,545	3,107	-77	-438	-0.2	-1.3
60-79	1,900	2,338	3,001	439	663	2.1	2.5
80+	580	619	705	39	86	0.6	1.3
Total	**12,450**	**12,803**	**13,239**	**353**	**436**	**0.3**	**0.3**

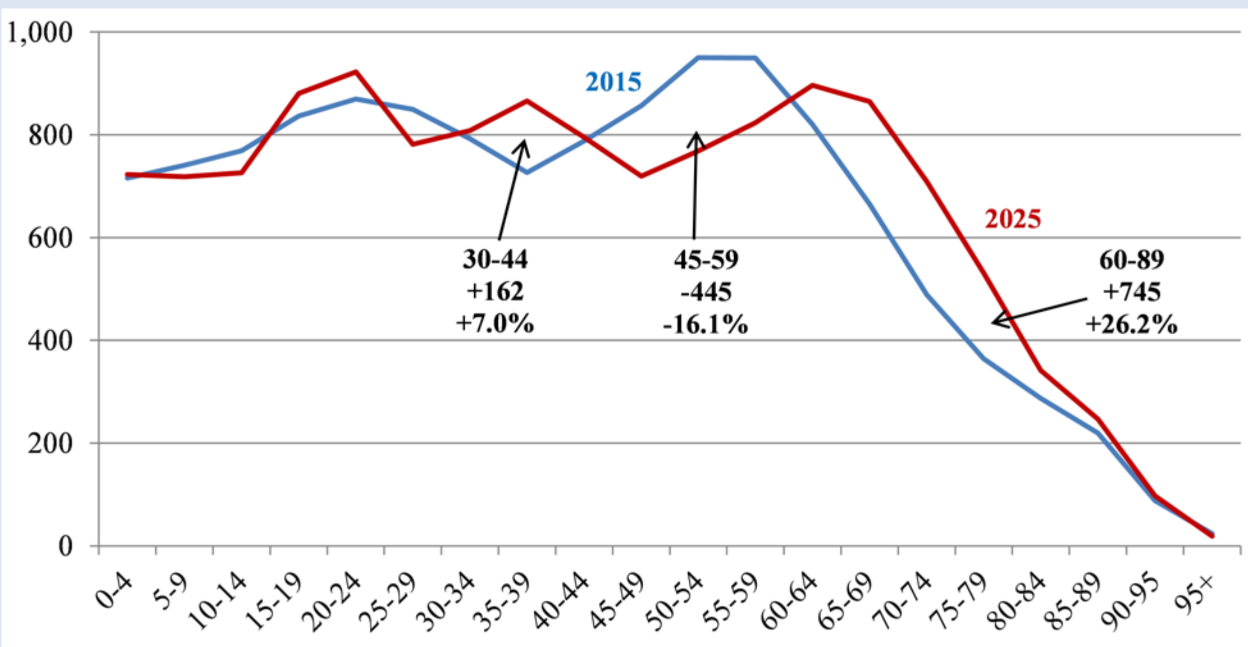
Note: thousands of residents.
Source: Pennsylvania State Data Center. Detail may not sum to total due to rounding.

Figure 2.1
2015 Demographics by Generation



Note: thousands of residents.
Source: Pennsylvania State Data Center.

Figure 2.2
Demographic Distribution: 2015 vs. 2025



Note: thousands of residents.
Source: Pennsylvania State Data Center.

Population Distribution

Figure 2.1 displays the Pennsylvania population distribution for 2015 based on generations. The distribution is characterized by two peaks driven by Baby Boomers (age 50 to 69 in 2015, 26.4 percent of total population) and Millennials (age 10 to 29). Between those generations resides Generation X or the Baby Bust generation. Generation Z and the Silent Generation reside on the upper and lower tails of the distribution.

Figure 2.2 displays the projected shift in the population distribution by 2025. The shift illustrates the more than one-quarter increase in the number of residents age 60 to 89 over the next decade. By contrast, the number of residents age 45 to 59 contracts by 445,000 residents (-16.1 percent) as Generation X ages and displaces Baby Boomers. The number of residents age 30 to 44 expands by 162,000 (7.0 percent) as Millennials age and displace Generation X.

Components of Change

Table 2.2 decomposes the change in the Pennsylvania population from 2015 to 2020 and the two decades that follow into births less deaths (net organic growth), net domestic migration and net international migration. For the next five years, the projections show that:

- Net organic growth comprises somewhat less than half (48.7 percent) of total population gains.
- Net domestic migration adds 6,000 new residents (2.7 percent of gains).
- Net international migration comprises nearly half (48.7 percent) of total population gains.

International migration will play an even larger role in long-term population growth. For 2020 to 2030, the forecast projects that organic population growth will add 128,000 residents, and then turn negative (-49,000) in the following decade. For 2030 to 2040, net international migration fuels all population gains. International migrants are generally younger than the median Pennsylvania resident. Therefore, international migration should provide needed growth to the Pennsylvania labor force.

From 2015 to 2040, the forecast projects that the Pennsylvania population will expand by 904,000 residents (7.1 percent). (See middle and bottom of Table 2.2.) Roughly three-fifths of that net gain will be attributable to residents age 80 or older. Most of the residual gain is due to the expansion of residents age 60 to 79.

The large wave of Baby Boomers reaching retirement age and increasing life expectancies suggests that policymakers should anticipate increased demands for healthcare, long-term care and transportation services during the next decade. Policymakers should also anticipate that, on a current services basis, those expenditures will surpass the expansion of the underlying revenue base. This outcome is due not only to the dramatic growth of the service population (i.e., elderly residents), but also the fact that healthcare inflation typically outpaces general inflation by one or two percentage points. It is likely that trend will continue over the next decade.

Table 2.2
Components of Population Change

	By Source of Change (000s)			Cumulative
	2015-20	2020-30	2030-40	2015-40
Start of Decade or Period	**12,803**	**13,027**	**13,426**	**12,803**
Births less Deaths	109	128	-49	189
Net Domestic Migration	6	9	9	24
Net International Migration	109	262	320	692
End of Decade or Period	**13,027**	**13,426**	**13,707**	**13,707**

	By Age Cohort (000s)			Cumulative
	2015-20	2020-30	2030-40	2015-40
Age 0 to 19	19	-42	35	12
Age 20 to 39	73	51	83	207
Age 40 to 59	-269	-158	117	-310
Age 60 to 79	381	350	-286	445
Age 80 or more	20	199	332	551
All Age Groups	**224**	**400**	**281**	**904**

	Average Annual Growth Rates			Cumulative
	2015-20	2020-30	2030-40	2015-40
Age 0 to 19	0.1%	-0.1%	0.1%	0.4%
Age 20 to 39	0.4	0.2	0.2	6.4
Age 40 to 59	-1.6	-0.5	0.4	-8.7
Age 60 to 79	3.1	1.2	-1.0	19.0
Age 80 or more	0.6	2.7	3.4	89.0
All Age Groups	**0.3**	**0.3**	**0.2**	**7.1**

Note: thousands of residents.
Source: Pennsylvania State Data Center.

Labor Force Contraction

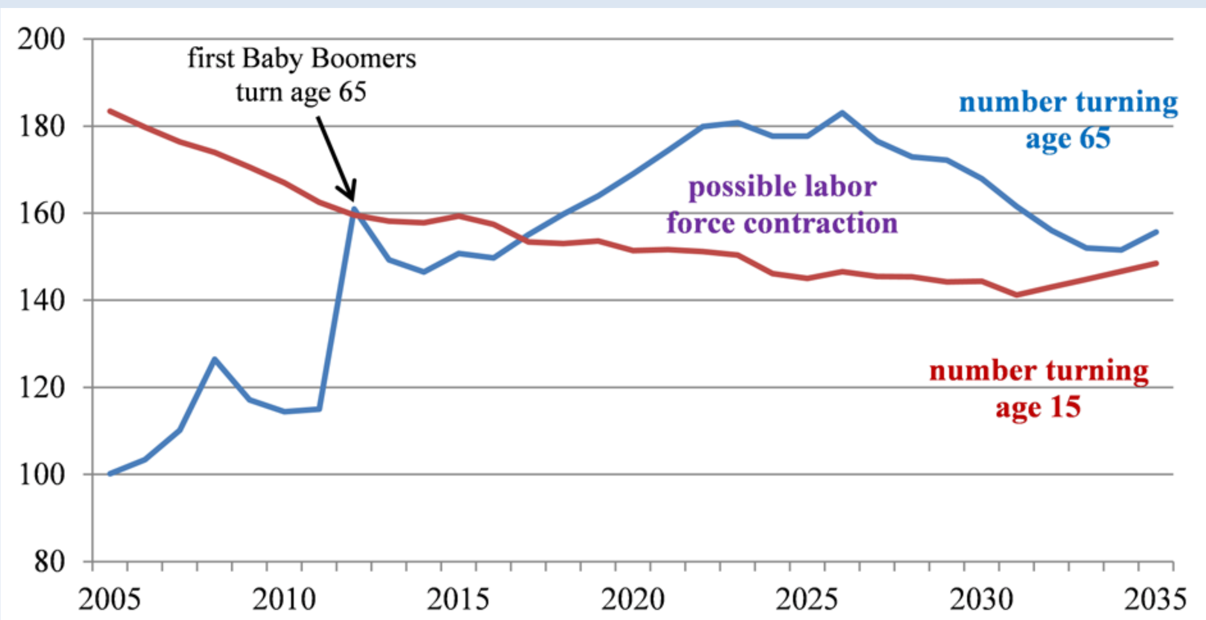
Demographic trends suggest it is possible that the Pennsylvania labor force could contract over the next decade. The labor force includes those currently employed and those actively seeking employment. Labor force contraction could have notable implications for the Pennsylvania economy. Most models assume that economic growth is driven by the expansion of the labor force and labor productivity. A contraction of either factor would suggest limited potential for long-term economic growth.

The Pennsylvania labor force is a function of two factors: (1) the potential labor force and (2) labor force participation rates. The potential labor force includes all residents age 16 or older; therefore, it is a function of demographic trends. The great majority of workers (roughly 95 percent) are between the ages of 15 and 65, so the trends for that age cohort largely determine whether the potential labor force will expand or contract.

Figure 2.3 displays the annual change in the number of residents who have turned age 15 or age 65 since 2005 and those who will turn those ages over the next two decades. The figure illustrates the spike in the number of Pennsylvania residents who turned age 65 in 2012, the first full year in which the leading edge of the Baby Boom generation achieved that milestone. Following a brief lull, the number of residents turning age 65 will increase through 2026.

At the other end of the age spectrum are those turning age 15 who enter the potential labor force. Demographic projections suggest that the number of residents who turn age 15 will decline through 2031.

Figure 2.3
Divergent Demographic Trends



Note: thousands of residents.
Source: Pennsylvania State Data Center. Calculations by IFO.

Labor Force Participation

Given the size of the potential labor force, labor force participation rates will determine the size of the actual Pennsylvania labor force. Residents age 16 or older are part of the labor force if they are employed or actively seek employment, but remain unemployed. The statewide labor force participation rate is equal to the ratio of the labor force to all residents age 16 or older.

From 2000 to 2015 (data through September), Pennsylvania labor force participation rates declined from 64.0 to 62.7 percent, a reduction of 1.3 percentage points. (See Table 2.3.) Many analysts attribute the decline to the aging of the state population, since older residents have lower participation rates. Other analysts note that the severe recession may have encouraged individuals to exit the labor force, and many may have exited permanently.

The underlying detail reveals unique labor force participation rate trends across age groups:

- Participation rates for those under age 24 have generally declined, due in part to higher attendance at post-secondary institutions.
- Participation rates for residents age 25 to 54 have generally declined as well. Preliminary data for 2015 suggest a possible reversal of that trend.
- Participation rates for residents age 65 or older have increased significantly. The data do not reveal whether older residents continue to work due to choice or necessity.

If labor force participation rates do not increase over the next decade, then the size of the Pennsylvania labor force must contract given demographic trends. Over time, a larger labor force increases the potential output of the Pennsylvania economy and provides a solid foundation for future growth. The economic forecast (next section) assumes that labor force participation rates increase modestly for all age groups, with continued strong gains for residents age 65 or older.

Table 2.3
Pennsylvania Labor Force Participation Rates by Age and Gender

Year	Total	Gender		Age Groups (Both Genders)					
		Male	Female	16-19	20-24	25-44	45-54	55-64	65+
2000	64.0%	72.2%	56.7%	52.6%	76.4%	84.2%	83.8%	60.0%	10.9%
2005	64.4	71.2	58.3	46.0	74.9	83.6	83.1	65.2	12.4
2010	63.2	69.9	57.1	40.7	70.6	83.6	81.9	65.4	16.5
2011	63.2	69.7	57.1	45.3	72.3	82.9	80.1	64.1	16.1
2012	64.0	70.6	57.9	41.8	73.6	83.9	80.6	65.5	17.2
2013	63.4	69.6	57.7	40.4	71.1	82.8	80.3	66.1	17.6
2014	62.4	68.3	57.0	40.9	69.9	82.5	79.3	67.3	16.9
2015[1]	62.7	68.3	57.6	40.5	n.a.	82.6	81.0	65.7	18.6

[1] Data for 2015 through September. The 2015 year-to-date figure is constructed from quarterly data and, due to seasonality, may not be comparable to annual averages.
Source: U.S. Bureau of Labor Statistics, Current Population Survey; Pennsylvania Department of Labor and Industry, Center for Workforce Information and Analysis.

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Section 3: Economic Outlook

Six indicators provide a broad snapshot of the Pennsylvania economy: (1) real state gross domestic product (GDP, excludes inflation), (2) nominal GDP, (3) personal income, (4) wages and salaries, (5) the regional consumer price index (CPI-U) and (6) the annual change in payroll employment. These variables motivate most General Fund revenue projections contained in this report. Table 3.1 displays historical and projected average annual growth rates for these measures for the two most recent eight-year intervals (1998-06 and 2006-14) and the forecast period (2014-22).

The projected average annual growth rates for the forecast period exceed certain historical averages. (See Table 3.1.) That outcome is attributable to the severe 2008-09 recession caused by the housing and financial crisis. The economic forecast assumes that the state and national economies do not endure another recession and return to a historical, non-recession rate of expansion. The forecast provides a neutral baseline that can be used by policymakers to assess whether current fiscal policies are sustainable over a long-term horizon.

The economic forecast is based on historical trends for the state and national economies. Key assumptions include the following:

- The Federal Reserve achieves its target inflation rate of 2.0 percent for its preferred inflation measure (personal consumption expenditures).
- The national inflation rate serves as a proxy for the Pennsylvania inflation rate.
- Labor force participation rates increase.
- Wage earners receive raises that exceed inflation (i.e., real wages increase).
- Labor productivity reverts to historical levels.

Further technical details regarding the economic forecast can be found in Appendix B.

The forecast assumes that real economic growth will accelerate slightly in the current year and converge to a long-run average growth rate. (See Table 3.2.) Economic growth is typically measured by the change in real GDP, which includes the value of all final goods and services produced by the Pennsylvania economy during a calendar year. Real economic growth is a function of the change in employment levels and la-

Table 3.1
Average Annual Growth Rates for Pennsylvania Economic Variables

	1998-2006	2006-2014	2014-2022
Real GDP	1.9%	0.7%	2.0%
Nominal GDP	4.5%	2.7%	4.0%
Personal Income	4.5%	3.1%	4.4%
Wages and Salaries	4.0%	2.6%	4.0%
Philadelphia CPI-U	3.0%	1.7%	1.8%
Payroll Job Gains (000s)	32.8	3.9	48.4

Source: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics. Forecast by IFO.

bor productivity. Very recent data from the U.S. Department of Labor reveal a modest acceleration in labor productivity at the national level, and the forecast assumes that trend continues for the U.S. and Pennsylvania.

The data show disinflation for 2015 as measured by the Philadelphia CPI-U, which reflects consumer prices in the Philadelphia metro region. The low rate of inflation is driven by significant reductions in consumer energy costs for gasoline and natural gas. Excluding energy, year-over-year CPI-U growth for 2015 was 1.6 percent. Because energy prices have little room to decline further, inflation quickly reverts towards the Federal Reserve's target rate of 2.0 percent.

Figure 3.1 displays the real and nominal GDP forecasts. For 2015 to 2022, the forecast projects 2.0 percent real growth per annum for the Pennsylvania economy. By comparison, the Congressional Budget Office (January 2016) projects U.S. economic growth of 2.1 percent for the same time period. For non-recession years, Pennsylvania economic growth typically lags the U.S., largely due to demographic factors.

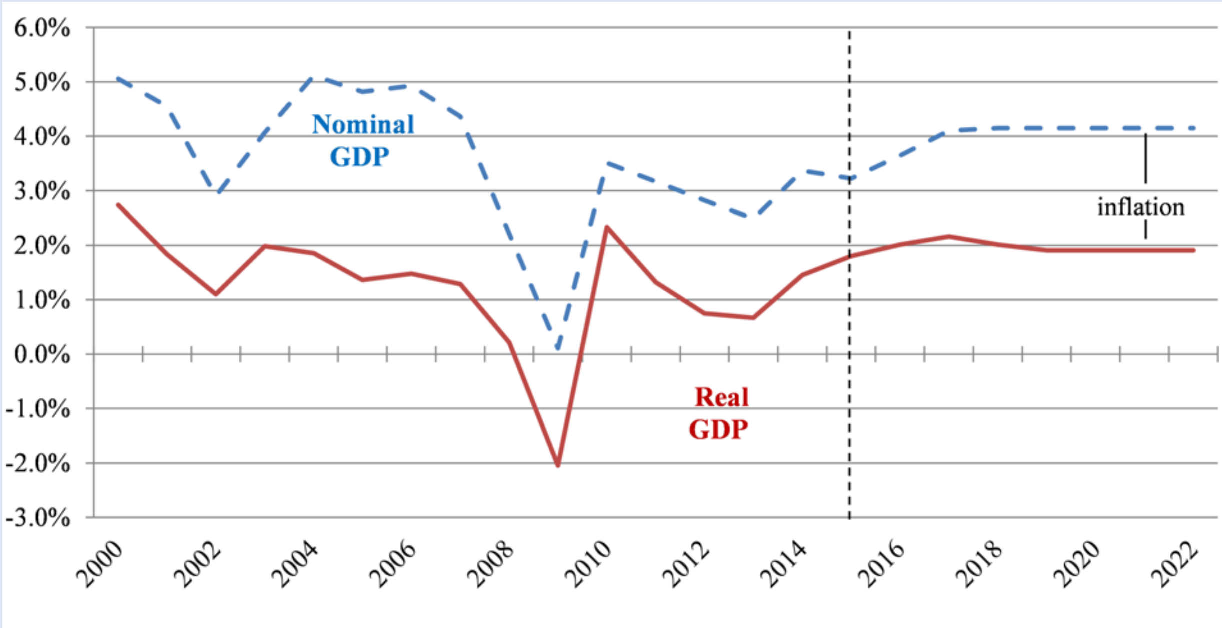
Figure 3.2 illustrates the permanent reduction to economic output from the 2008-09 recession. Previous forecasts had assumed that the Pennsylvania economy would revert back to, and even surpass, trend growth prior to the 2008-09 recession. That outcome was accomplished via the assumption that economic growth would be much stronger than historical trends for several years, prior to reversion to the long-term trend. The current forecast includes only a mild acceleration of economic growth during the next two years, and the additional growth is insufficient to return the state economy to its former trajectory. Therefore, the forecast reflects a permanent reduction in economic output.

Table 3.2
Annual Growth Rates for Pennsylvania Economic Variables

	2014	2015	2016	2017	2018	2019	2020	2021
Real GDP	1.5%	1.8%	2.0%	2.2%	2.0%	1.9%	1.9%	1.9%
Nominal GDP	3.4%	3.2%	3.6%	4.1%	4.2%	4.2%	4.2%	4.2%
Personal Income	3.6%	3.4%	4.3%	4.7%	4.9%	4.9%	4.5%	4.5%
Wages and Salaries	4.0%	3.5%	3.8%	4.1%	4.2%	4.2%	4.1%	4.1%
Philadelphia CPI-U	1.2%	-0.1%	1.6%	2.0%	2.1%	2.2%	2.2%	2.2%
Payroll Job Gains (000s)	45.8	54.8	52.6	50.1	47.6	45.0	45.3	45.6

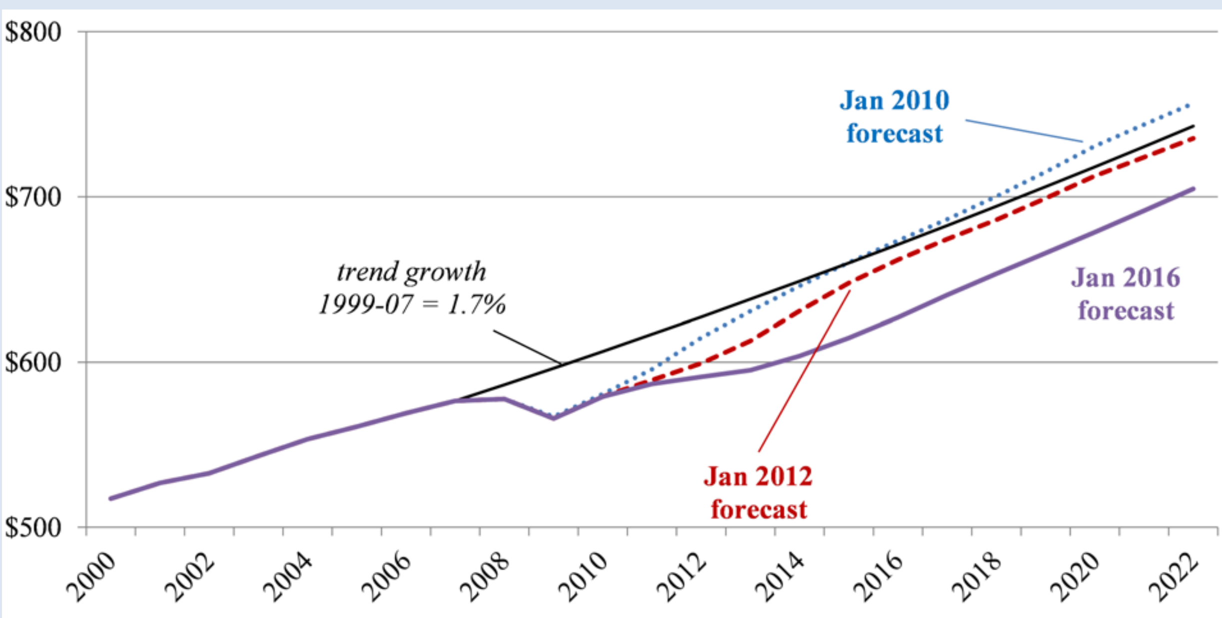
Source: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics. Forecast by IFO.

Figure 3.1
Real and Nominal Growth of the Pennsylvania Economy



Source: U.S. Bureau of Economic Analysis. Forecast by IFO.

Figure 3.2
Pennsylvania Real GDP Permanently Lower



Note: billions of dollars.
Source: U.S. Bureau of Economic Analysis. January 2010 and 2012 forecasts by IHS Economics.

Employment Trends

Table 3.3 provides historical and forecast employment detail across sectors. The figures represent non-farm payroll employment and do not include individuals employed in the agriculture or military sectors, or independent contractors, sole proprietors and certain partners in partnership entities. From 2006 to 2014, the payroll employment data show:

- significant contraction for the manufacturing sector;
- contraction for the wholesale-retail, government and construction sectors; and
- significant expansion for the professional service, healthcare and leisure-hospitality sectors.

From 2014 to 2022, the economic forecast projects employment gains of roughly 49,500 payroll jobs per annum. The forecast indicates:

- minor contraction for the local government sector due to the decline in the school age population;
- modest state government job gains that are offset by federal government job losses (postal service); and
- strong expansion by the service sectors: retail trade, professional and business, healthcare and social, and leisure and hospitality.

The projected level of job creation is consistent with historical, non-recession years. However, due to the contraction of the primary working age populace (age 20 to 69), labor force participation rates must increase to facilitate that outcome. The forecast assumes that participation rates for older workers will continue to increase dramatically over the next decade.

Recent employment data provide additional insight into trends across sectors. Preliminary data through December 2015 show gains for most sectors except the mining, information, business services and government sectors. (See Table 3.4.)

Table 3.3
Pennsylvania Non-Farm Payroll Employment

	Employment Levels (000s)				Change in Employment (000s)		
Sector	**1998**	**2006**	**2014**	**2022**	**1998-06**	**2006-14**	**2014-22**
Construction	221	261	231	261	40	-30	31
Manufacturing	874	671	567	581	-203	-103	13
Wholesale and Retail	870	893	860	909	23	-33	50
Professional and Business	572	685	759	835	113	73	76
Healthcare and Social	705	837	951	1,041	132	113	90
Leisure and Hospitality	430	492	539	598	62	47	60
State and Federal Gov't	271	266	253	253	-5	-13	0
Local Gov't	443	489	458	447	45	-30	-11
All Other	1,111	1,167	1,173	1,252	55	6	80
Total	**5,497**	**5,760**	**5,790**	**6,177**	**263**	**30**	**387**

Source: U.S. Bureau of Labor Statistics. Forecast by IFO. Excludes the agriculture and military sectors, as well as self-employed individuals.

Other trends include:

- The construction (3.1 percent gain) and transportation (2.6 percent) sectors registered the strongest relative gains.
- The retail sector adds roughly 7,100 jobs after several years of contraction or very modest expansion.
- The healthcare and leisure-hospitality sectors continue to be the largest job generators for the Pennsylvania economy.
- The local government sector continues to contract. Most job losses are related to local education. Employment for municipal governments expands in 2015 after several years of contraction.

Table 3.4
Recent Pennsylvania Non-Farm Payroll Employment Gains and Losses

	Employment Levels (000s)			Change in Employment (000s)		
Sector	**2013**	**2014**	**2015**	**2013**	**2014**	**2015**
Mining and Logging	36.0	37.4	36.4	-1.1	1.4	-1.1
Construction	225.7	230.9	238.3	-0.2	5.3	7.3
Manufacturing	564.6	567.3	567.9	-2.8	2.7	0.6
Wholesale	224.7	225.9	227.6	-0.1	1.1	1.7
Retail	631.8	634.0	641.1	-1.2	2.2	7.1
Transport and Utilities	244.0	250.3	256.9	2.3	6.2	6.7
Information	87.8	85.3	84.7	-2.5	-2.5	-0.7
Finance and Insurance	254.1	254.6	258.1	3.0	0.5	3.5
Real Estate	59.1	60.5	60.3	0.7	1.4	-0.2
Professional Services	324.0	328.8	337.5	6.8	4.8	8.8
Management	132.9	133.1	132.9	2.7	0.2	-0.2
Business Services	291.4	296.9	295.8	5.6	5.5	-1.1
Education	227.3	230.3	233.5	0.3	3.1	3.2
Health and Social	935.9	950.6	961.6	6.9	14.7	11.0
Leisure and Hospitality	532.4	538.5	549.3	8.1	6.0	10.8
Other Services	252.2	254.4	256.3	-1.8	2.3	1.8
Government	720.6	711.6	707.0	-11.9	-9.0	-4.6
Federal	96.9	95.7	95.4	-3.4	-1.1	-0.4
State	157.4	157.4	158.2	-1.1	0.0	0.7
Local	466.3	458.4	453.4	-7.5	-7.9	-5.0
Total	**5,744.4**	**5,790.2**	**5,845.0**	**14.6**	**45.8**	**54.8**

Note: Figures for 2015 are preliminary. Detail may not sum to total due to rounding.
Source: U.S. Bureau of Labor Statistics, Current Employment Survey. Excludes agriculture and military sectors.

Pennsylvania Income Trends

Pennsylvania current income includes five types of income: (1) wages and salaries, (2) business income (sole proprietorships, S corporations and partnerships), (3) capital income (interest, rent, capital gains and dividends), (4) retirement income (Social Security, pensions and IRAs) and (5) income maintenance (unemployment compensation, disability, veterans' benefits, Supplemental Nutrition Assistance Program and Supplemental Security Income).

Table 3.5 displays income snapshots for 2006, 2014 and 2022. Notable trends include the following:

- From 2006 to 2014, wages grew by 2.7 percent per annum. The forecast projects that wage growth will increase to 4.0 percent per annum through 2022.
- Business income is sensitive to economic expansions and contractions because much of the income is profits. The forecast projects business income will expand at a rate (4.8 percent per annum) that exceeds wage growth (4.0 percent) because business profits generally increase (or contract) at a faster rate than wages paid to employees.
- The forecast projects robust growth for capital income (5.7 percent per annum) compared to recent years. Higher interest rates and interest income motivate much of that result. Strong capital gains are also a factor as an expanding cohort of retirees sells assets to generate income.
- Retirement income also outpaces economic growth as the number of residents over age 65 expands at an average rate of 2.5 percent per annum. The forecast assumes those retirees receive an annual cost-of-living-allowance of 2.4 percent per annum for most years based on the Congressional Budget Office national economic forecast.

Over time, retirement and maintenance income will comprise a larger share of total Pennsylvania income. By 2022, the forecast projects that those income sources will comprise nearly 22 percent of income earned or received by Pennsylvania residents. That income will largely be unaffected by trends in the Pennsylvania economy.

Table 3.5
Pennsylvania Current Income

	Levels ($ billions)			Composition of Income			Avg. Ann. Growth	
Income Source	**2006**	**2014**	**2022**	**2006**	**2014**	**2022**	**2006-14**	**2014-22**
Wages-Salaries[1]	$247.9	$305.6	$418.3	59.6%	59.6%	57.5%	2.7%	4.0%
Net Business	43.1	50.8	74.2	10.4	9.9	10.2	2.6	4.8
Capital	52.1	48.9	76.4	12.5	9.5	10.5	-0.9	5.7
Retirement	57.0	84.0	129.1	13.7	16.4	17.8	5.0	5.5
Maintenance[2]	15.8	23.7	29.0	3.8	4.6	4.0	5.2	2.6
Current Income	**415.9**	**513.0**	**727.0**	**100.0**	**100.0**	**100.0**	**2.7**	**4.4**

Note: Figures exclude income that has been accrued but not realized.
[1] Includes the U.S. Bureau of Economic Analysis resident adjustment.
[2] Includes Supplemental Security Income, disability insurance, Earned Income Tax Credit, Supplemental Nutrition Assistance Program, unemployment compensation and veterans' benefits.
Source: Internal Revenue Service, U.S. Bureau of Economic Analysis and various federal and state agencies. See Appendix B for further detail.

Sources of Retirement Income

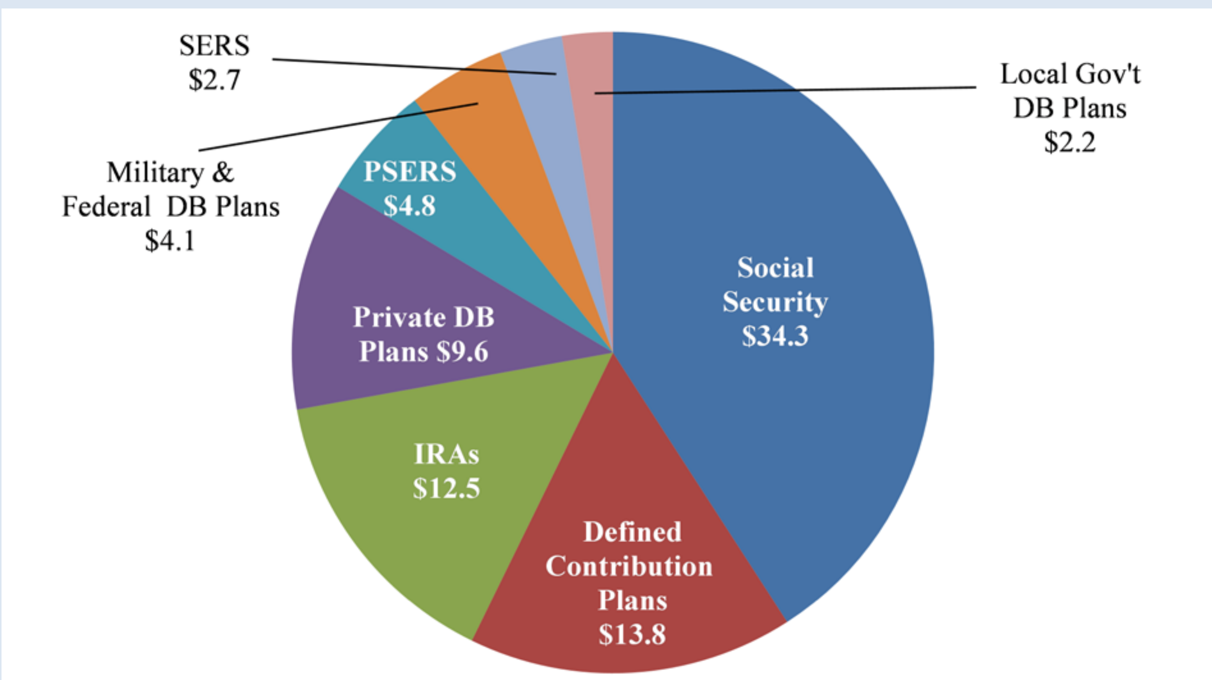
Retirement income will play a more prominent role in the Pennsylvania economy in the coming decade. Figure 3.3 provides additional detail on the sources of retirement income for 2014. By far, Social Security comprised the largest portion of retirement income (42 percent, excludes disability benefits). Data from the U.S. Social Security Administration show that 2.2 million residents received retirement or survivor benefits.

Income from defined contribution plans and annuities ($13.8 billion) was the next largest source of retirement income. The forecast projects that this income source will expand rapidly due to the retirement of Baby Boomers.

Withdrawals or disbursements from IRAs ($12.5 billion) was the third largest source of retirement income. For 2013, federal tax return data show that the average IRA withdrawal or disbursement reported on Pennsylvania tax returns was $14,200. Although individuals of any age could withdraw funds from an IRA, federal tax data show that filers age 55 or older reported the great majority (87.9 percent) of withdrawals.

Defined benefit (DB) plans comprise residual retirement income. Private plans ($9.6 billion) account for roughly half the total, while military and federal ($4.1 billion), PSERS ($4.8 billion, resident portion only, excludes lump sum disbursements), SERS ($2.6 billion, resident portion only) and local government ($2.2 billion) plans comprise the residual. The forecast projects modest growth for most defined benefit plans. An exception is PSERS because the number of annuitants is projected to expand at an average rate of 2.2 percent per annum through 2022.

Figure 3.3
Sources of Pennsylvania Retirement Income – 2014



Note: dollar amounts in billions. The amount for defined contribution plans includes annuities.
Sources: U.S. Social Security Administration, U.S. Bureau of Economic Analysis, Internal Revenue Service and various other federal and state agencies. See Appendix B for further detail.

Retiree Spending Patterns

The forecast projects that somewhat more than one-sixth of income will be retirement income by 2022. If wage and capital (e.g., interest, dividends and capital gains) income are also included, then residents age 65 or older will likely earn, receive or realize more than one-quarter of all income. An implication of that trend is that the sales and use tax base will expand at a rate that is slower than the overall economy, due to the spending patterns of older consumers.

Table 3.6 displays U.S. consumer spending patterns for different age groups. The top half of the table displays trends for items that are generally taxable. The data show that older consumers allocate less of their total purchases on items subject to sales tax, such as dining out or car purchases. If a greater share of income accrues to those individuals, then sales tax collections will reflect that shift through modest growth.

The bottom half of the table displays spending patterns for goods and services not subject to sales tax. As consumers age, they spend a much higher proportion of their disposable income on non-taxable healthcare, or make cash contributions to charities or family members.

This income shift reinforces the general erosion of the sales tax base over time, as consumers gradually spend more of their disposable income on non-taxable services, as opposed to taxable goods.

Table 3.6
U.S. Consumer Spending Patterns by Age Group

	Allocation of Spending by Age Group					
	25-34	35-44	45-54	55-64	65-74	75+
Generally Taxable	**25.1%**	**23.6%**	**23.7%**	**22.4%**	**21.7%**	**15.2%**
Dining Out	6.4	6.3	6.0	5.3	5.5	3.9
Alcohol and Tobacco	1.9	1.5	1.8	1.8	1.6	0.9
Cell Phones	2.4	2.3	2.2	1.9	1.5	0.9
Home Furnishings	3.3	3.2	3.3	3.7	3.7	2.5
Car Purchases and Repairs	11.2	10.3	10.4	9.7	9.4	7.0
Generally Non-Taxable	**62.0%**	**63.4%**	**61.4%**	**64.6%**	**66.2%**	**73.1%**
Housing	39.9	39.3	36.1	36.7	35.3	37.3
Food at Home	8.4	8.7	8.5	8.5	8.4	8.4
Healthcare	5.5	6.7	7.5	9.5	12.5	15.4
Gasoline	5.9	5.8	5.6	5.5	4.9	3.6
Cash Contributions	2.3	2.8	3.7	4.4	5.1	8.4
All Other	**12.9%**	**13.0%**	**15.0%**	**13.0%**	**12.1%**	**11.7%**

Note: Computations exclude expenditures on payroll taxes and pensions.
Source: Consumer Expenditure Survey, U.S. Bureau of Labor Statistics. Data pertain to calendar year 2013.

Retiree Income by Source

Table 3.5 from the previous subsection displays income sources for all Pennsylvania residents. Those tabulations were compiled from various data sources such as federal tax returns and federal and state agencies. A separate data source provides insight into the income sources that comprise total income for retirees only. That data source is the March annual social and economic supplement to the Current Population Survey. The special monthly survey includes 24,800 U.S. residents age 65 or older, and 785 Pennsylvania residents. The sample responses can be weighted to represent the population age 65 or older for the U.S. or Pennsylvania.

Table 3.7 displays tabulations from that data source for five income quintiles that each contain roughly the same number of individuals age 65 or older. For 2014, the data show that Social Security comprises the majority of income for Pennsylvania residents who are in the lowest (84.9 percent) or second lowest (84.8 percent) income quintile. The lowest income quintile reported very minimal income from defined benefit or contribution plans, IRAs, or capital such as stocks or bonds. By contrast, wage or business earnings comprise a significant share of income for the highest income quintile, and defined benefit plans comprise roughly one-fifth of income for the two highest quintiles. Results for the U.S. are broadly similar to Pennsylvania.

It should be noted that the tabulations in Table 3.7 generally understate the relative importance of pension and IRA income. That result can be demonstrated through a comparison of total amounts reported by survey respondents to amounts reported on federal tax returns. The tabulations also exclude capital gains, which comprised nearly one-tenth of total income reported by U.S. income tax filers age 65 or older. Nearly all capital gains income would be reported by the highest income quintile. Therefore, Social Security income comprises an even lower share of total income for the top income quintile.

The tabulations from Table 3.7 pertain to individuals age 65 or older, and not married couples or households.[1] For Pennsylvania, approximately 54 percent of residents age 65 older are married, and for those individuals, the amounts from Table 3.7 could be roughly doubled (on average, and depending on income quintile) to derive the income of a married couple. Individuals may also reside with family members, friends or other individuals, and share common household costs such as rent or utility bills.

For the purpose of evaluating economic or income security, it is useful to consider the role of retirement income relative to total family income. Family income includes income from two or more people related by birth, marriage or adoption residing in the same housing unit.[2] For 2012, a recent AARP, Inc. study finds that more than half (56.3 percent, 1.08 million residents) of Pennsylvanians age 65 or older relied on Social Security to provide 50 percent or more of total family income. For roughly one-quarter (24.8 percent), Social Security provided more than 90 percent of total family income.[3] Due to longer life spans and the absence of spousal income, the data show that widowed older women had the highest rate of reliance on Social Security, as more than one-third (35.1 percent) of those women relied on that income source for more than 90 percent of their family income. For divorced older women, the reliance rate was also high (26.3 percent), although lower than widow-

[1] For 2014, the average Pennsylvania retired worker received a Social Security benefit of $16,100, but some may receive considerably less depending on their work history. Data from the U.S. Social Security Administration.

[2] See U.S. Census Bureau, "Income: Frequently Asked Questions."

[3] See "Social Security Is a Critical Income Source for Americans: State-Level Estimates, 2010-12," AARP Public Policy Institute, Fact Sheet 300 (January 2014).

ers. For married women, the figure was less than one-fifth (19.8 percent).

It is likely that Social Security will play a more prominent role for retirees in the future. Factors that will contribute to that outcome include the following:

- Due to the continued extension of lifespans, more retirees will consume their savings held in defined contribution plans, IRAs or miscellaneous stock and bond holdings.
- A declining proportion of new retirees can rely on fixed defined pension benefits. A recent study found that defined benefit pensions comprised two-thirds of tax-preferred savings in 1978, but fell to 34 percent by 2014.[4] By contrast, defined contribution assets tripled from 20 to 58 percent. Currently, only 13 percent of U.S. workers participate in a defined benefit plan, down from 32 percent in 1989.[5]
- Over the past two decades, the real net worth of households between ages 55 to 64 has declined, mainly due to lower home equity.[6] Home equity is especially important for lower and middle income households near retirement age, supplying roughly one-half of total net worth. Many older homeowners have not fully recouped the home losses from the recent recession, or have higher amounts of home equity loans or student loans compared to those who have already entered retirement.

The general shift from defined benefit to defined contribution plans shifts decisions about savings, investment options and distributions from employers to individuals. It also affords individuals the opportunity to borrow against those plans, an option that is generally not available through most defined benefit plans.

[4] See "Ten Economic Facts About Financial Well-Being in Retirement," The Hamilton Project (June 2015).
[5] See "Pension Participation by All Workers, by Type of Plan, 1989-2013," Center for Retirement Research (2014).
[6] See *supra* note 4.

Table 3.7
Composition of Income for Individuals Age 65 and Older by Income Group

	Pennsylvania						
Income Quintile	**Earnings**	**Social Security**	**All DB Pensions**	**DCs, IRAs, Annuities**	**Capital Income[1]**	**Other Income[2]**	**Total Income**
$0 - $10,999	1.0%	84.9%	0.9%	1.0%	3.2%	8.8%	100.0%
$11,000 - $18,999	2.4	84.8	4.6	3.6	3.4	1.1	100.0
$19,000 - $28,999	6.4	68.0	13.7	3.4	5.1	3.4	100.0
$29,000 - $49,999	21.0	41.5	21.6	6.3	6.3	3.2	100.0
$50,000 +	43.0	16.4	20.6	9.8	6.8	3.4	100.0
Total	**27.7**	**38.0**	**17.7**	**7.2**	**6.0**	**3.4**	**100.0**

	United States						
Income Quintile	**Earnings**	**Social Security**	**All DB Pensions**	**DCs, IRAs, Annuities**	**Capital Income[1]**	**Other Income[2]**	**Total Income**
$0 - $10,499	2.2%	82.1%	1.6%	0.7%	2.9%	10.6%	100.0%
$10,500 - $16,999	3.3	86.1	3.0	0.8	2.8	3.9	100.0
$17,000 - $27,999	8.8	69.8	9.4	2.0	4.4	5.6	100.0
$28,000 - $49,999	20.4	40.1	21.3	4.2	6.9	7.2	100.0
$50,000 +	42.1	15.0	19.4	4.9	13.7	4.8	100.0
Total	**29.0**	**35.1**	**16.6**	**3.9**	**9.9**	**5.5**	**100.0**

Notes: Data are for individuals. Married units would have roughly twice the income of an individual.
[1] Capital income includes dividends, interest, rents and royalties.
[2] Other income includes veterans' benefits, disability and cash transfers.
Source: U.S. Census Bureau DataFerrett. Current Population Survey, March Annual Social and Economic Supplement Micro-data file, March 2015. Calculations by IFO.

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Section 4: Revenue Outlook

For FY 2014-15, General Fund revenues totaled $30.6 billion, including an unusual $100 million inheritance tax payment, $227 million in one-time special fund transfers and $380 million from a reduction in the holding period for escheats. For FY 2015-16, the forecast projects General Fund revenues of $30.9 billion, a $0.3 billion (1.1 percent) increase over the prior fiscal year. (See Table 4.1.) The forecast projects that revenues will grow at an average rate of 3.3 percent per annum through FY 2020-21. Major trends include:

- As the Baby Boom generation retires and the 65 or older age cohort expands dramatically, a larger share of personal income will be attributable to sources not subject to the personal income tax (e.g., pensions and Social Security). In addition, this age group spends a higher share of their income on healthcare, prescription drugs and other items that are not subject to sales tax.
- The complete phase-out of the capital stock and franchise tax (CSFT) will impact corporate net income tax (CNIT) revenues over the next two years as unused CSFT credits are transferred to CNIT.
- Revenue sources that have outpaced recent economic growth due to pent-up demand (motor vehicle sales and realty transfer taxes) will return to more typical rates of growth during the forecast period.
- Certain economic incentive programs (Neighborhood Improvement Zone, City Revitalization and Improvement Zone and Innovate PA) will restrain tax revenue growth over the next five years.

Major sources of General Fund revenue include: personal income, sales and use, corporate net income, gross receipts, inheritance and cigarette taxes. The text that follows provides a brief outlook for each of those taxes. The final subsection provides an overview of all other revenue sources. Historical detail for General Fund revenues can be found in Appendix C.

Table 4.1
General Fund Revenues

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Personal Income	$12,107	$12,772	$13,213	$13,799	$14,447	$15,126	$15,824
Sales and Use	9,493	9,830	10,178	10,553	10,913	11,279	11,650
Corporate Income	2,811	2,739	2,775	2,827	2,934	3,028	3,134
Gross Receipts	1,262	1,276	1,282	1,292	1,301	1,310	1,319
Inheritance	1,002	926	960	986	1,004	1,022	1,042
Cigarette	927	912	891	859	826	806	784
All Other	2,989	2,467	2,226	2,393	2,470	2,552	2,643
Total	**30,593**	**30,922**	**31,525**	**32,708**	**33,895**	**35,121**	**36,395**
Growth Rate	6.9%	1.1%	2.0%	3.8%	3.6%	3.6%	3.6%

Note: figures in dollar millions.

Figure 4.1 displays cumulative growth rates for state economic growth (GDP), personal income, sales and use and corporate net income tax revenues. For the purpose of this comparison, FY 1998-99 is used as the base year and dollar amounts for that year are set equal to one.

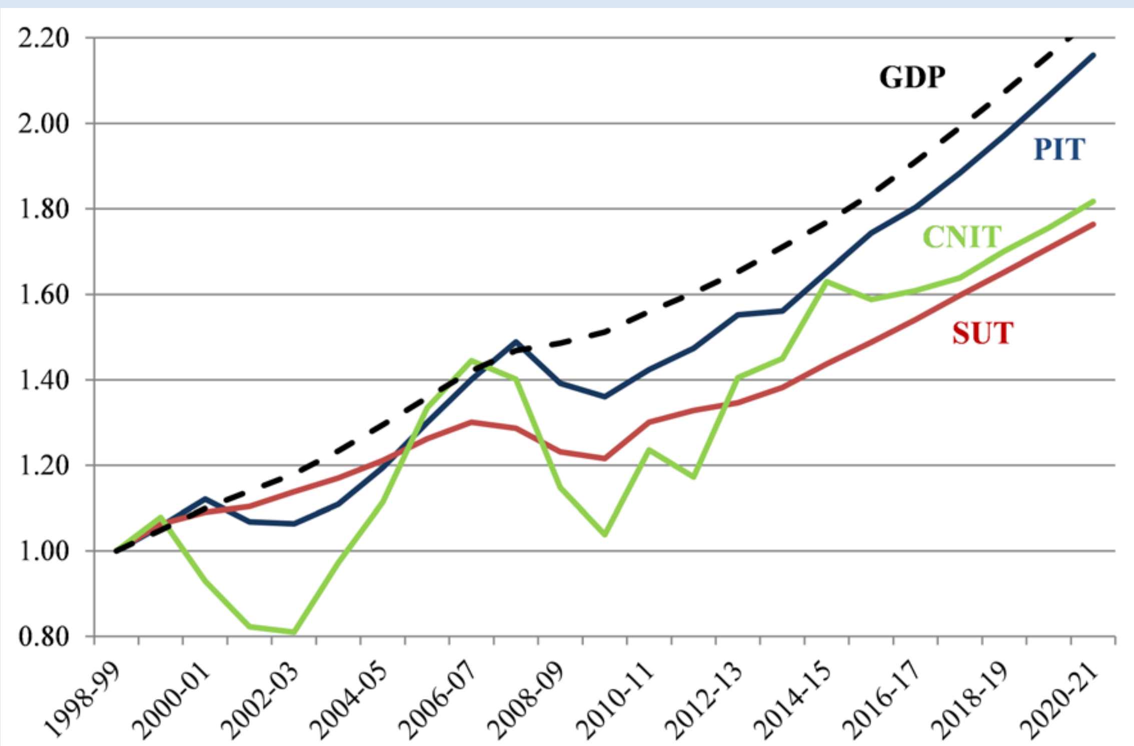
Figure 4.1 illustrates that all three major revenue sources have failed to keep pace with the general expansion of the Pennsylvania economy. Different factors motivate the divergence depending on the revenue source. This simple comparison does not imply that tax revenues should grow at the same rate as the overall economy. The state GDP comparison merely provides a convenient benchmark to assess historical growth patterns.

The personal income tax (PIT) tracks closest to statewide economic growth because wages drive most PIT remittances (withholding) and also comprise more than half of the economic activity included in state GDP. In FY 2008-09 and FY 2009-10, revenues declined due to the severe housing and financial recession. Since then, PIT revenues have generally expanded at the same rate as the state economy. The forecast projects that trend will continue.

The sales and use tax (SUT) base has slowly eroded across all years. Spending patterns have gradually shifted towards non-taxable goods and services, partly due to the aging Pennsylvania population. Moreover, a growing share of taxable items are purchased on-line from vendors that do not have nexus in Pennsylvania, and many consumers fail to remit the associated use tax. The forecast assumes that both trends will continue.

The CNIT achieved a decade peak in FY 1999-00 due to several years of productivity gains and the "dot com" expansion. Revenues then de-

Figure 4.1
Cumulative Growth of Major Tax Revenues and State GDP



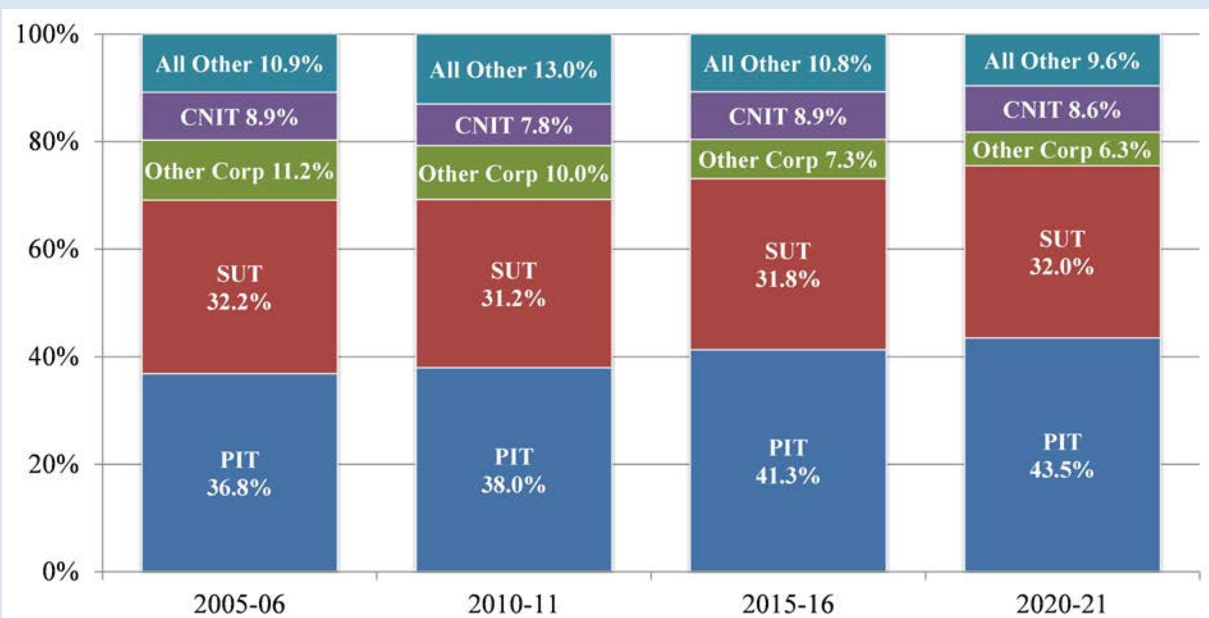
Note: PIT data are adjusted from FY 1998-99 to FY 2004-05 to simulate a tax rate of 3.07 percent.
Source: Historical state GDP data from U.S. Bureau of Economic Analysis. Forecasts by IFO.

clined abruptly, followed by a rapid acceleration as national profits achieved a historically high share of the economy in 2006 (11.8 percent of GDP). A second profits contraction then ensued, with CNIT achieving a full recovery in FY 2014-15 (primarily the result of collections associated with tax year 2014). After FY 2017-18, the forecast projects that CNIT revenues will begin to more closely track statewide economic growth.

Figure 4.2 displays the composition of General Fund revenues at five-year intervals from FY 2005-06 through FY 2020-21. Although SUT and CNIT are projected to maintain their share of General Fund revenues over the forecast period, the portion generated by the PIT is projected to increase to 43.5 percent in FY 2020-21, up from 36.8 percent in FY 2005-06. The increase in PIT revenues is offset by declines in the share of revenue generated by the "All Other" (inheritance, cigarette, realty transfer, liquor and non-tax revenues) and "Other Corp" (gross receipts, insurance premiums and bank shares) categories.

Over the past decade, the Pennsylvania tax base that supports General Fund revenues has shifted away from certain levies on businesses (the phase out of the CSFT) and consumption (declining cigarette tax revenues) towards income taxation. Despite the increased reliance on the PIT, the latest data from the U.S. Census Bureau (FY 2013-14) show that Pennsylvania state income taxes generally comprise a smaller share of total state taxes, licenses and fees compared to other states. That outcome is likely due to the relatively low state tax rate.

Figure 4.2
Composition of General Fund Revenues



Personal Income Tax

The Commonwealth levies a 3.07 percent personal income tax (PIT) on resident and non-resident individuals, and income from estates and trusts and pass-through business entities. Eight categories of income comprise taxable income: (1) compensation for labor services (e.g., wages, salaries, options and bonuses), (2) net profits from business operations, (3) net capital gains, (4) rent and royalty income, (5) dividends, (6) interest, (7) gambling and lottery proceeds and (8) gains or income distributed from estates or trusts. Losses may only be used to offset gains within the same class of income.

The forecast projects that PIT revenues will grow at an average rate of 4.4 percent per annum from FY 2015-16 to FY 2020-21. Withholding revenues expand at a slower rate (3.9 percent) than non-withholding (5.8 percent). The forecast includes strong growth in FY 2015-16 withholding payments due to the unusual occurrence of 53 weekly due dates (Wednesdays) in that fiscal year. This strength is reversed in FY 2016-17, as the number of due dates returns to normal. The extra due date adds roughly $110 million to FY 2015-16 withholding revenues.

Sales and Use Tax

The Commonwealth levies a 6.0 percent sales and use tax on the retail sale of tangible personal property and certain services. Major exemptions include clothing, certain foods, prescription and non-prescription drugs and residential heating fuels. Sales and use tax revenues are projected to grow at an average rate of 3.5 percent per annum from FY 2015-16 to FY 2020-21.

Non-motor vehicle revenues will expand at a rate of 3.6 percent per annum during the forecast period. The latest data from the U.S. Bureau of Economic Analysis show that expenditures on services comprised 68.8 percent of total Pennsylvania personal consumption in 2014, up from 66.0 percent in 2004. The shift in spending patterns from taxable goods to non-taxable services will continue to erode the sales tax base over the next five years.

Motor vehicle collections expand at a rate of 2.3 percent per annum during the forecast period. From FY 2010-11 to FY 2014-15, motor vehicle revenues grew at an average rate of 5.7 percent per annum. Recent data suggest that revenues will not maintain this high rate of growth.

Table 4.2
Personal Income and Sales and Use Tax Revenues

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Personal Income							
Withholding	$9,072	$9,467	$9,723	$10,131	$10,557	$10,990	$11,440
Quarterly	1,642	1,825	1,932	2,036	2,165	2,303	2,439
Annuals	1,394	1,480	1,558	1,631	1,726	1,833	1,945
Total Revenue	**12,107**	**12,772**	**13,213**	**13,799**	**14,447**	**15,126**	**15,824**
Growth Rate	5.9%	5.5%	3.5%	4.4%	4.7%	4.7%	4.6%
Sales and Use							
Non-Motor	$8,167	$8,467	$8,789	$9,131	$9,460	$9,791	$10,124
Motor	1,326	1,363	1,389	1,421	1,453	1,487	1,526
Total Revenue	**9,493**	**9,830**	**10,178**	**10,553**	**10,913**	**11,279**	**11,650**
Growth Rate	4.0%	3.5%	3.5%	3.7%	3.4%	3.4%	3.3%

Note: figures in dollar millions.

Corporate Net Income Tax

The Commonwealth levies a flat 9.99 percent tax on the net income of corporations with nexus in Pennsylvania. Pass through entities such as S corporations, partnerships and sole proprietorships are not subject to this separate entity level tax. Banks, savings institutions, insurance companies and non-profits are also exempt from the corporate net income tax (CNIT).

The forecast projects that CNIT revenues will expand at an average rate of 2.7 percent per annum. Several factors constrain revenue growth:

- Unused depreciation deductions remain to be claimed due to Pennsylvania's treatment of federal 50 percent bonus depreciation. The forecast assumes that federal 50 percent bonus depreciation is extended indefinitely.
- A higher net operating loss deduction threshold allows firms to more quickly use existing and future net operating losses.
- The expiration of the capital stock and franchise tax (CSFT) beginning with tax year 2016 results in the transfer of a portion of unused CSFT credits to CNIT. Those credits will reduce CNIT revenues in FY 2016-17 and FY 2017-18.
- After several years of national profits comprising an unusually high share of U.S. GDP, the forecast assumes that profits return to a historical share of the economy.

Gross Receipts Tax

The gross receipts tax is primarily levied on gross receipts from sales of electricity (59 mills) and telecommunications services (50 mills) within Pennsylvania. In FY 2014-15, electricity and telecommunications comprised roughly 68 and 32 percent of the tax base, respectively.

The forecast projects flat revenue growth due to (1) modest electricity sales growth (1.0 percent per annum) from advances in energy efficient technologies and low natural gas prices and (2) the continued long-term decline of the telecommunications tax base.

Table 4.3
Corporate Net Income and Gross Receipts Tax Revenues

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Corp. Net Income	**$2,811**	**$2,739**	**$2,775**	**$2,827**	**$2,934**	**$3,028**	**$3,134**
Growth Rate	12.4%	-2.6%	1.3%	1.9%	3.8%	3.2%	3.5%
Gross Receipts	**$1,262**	**$1,276**	**$1,282**	**$1,292**	**$1,301**	**$1,310**	**$1,319**
Growth Rate	-1.4%	1.1%	0.5%	0.8%	0.7%	0.7%	0.7%

Note: figures in dollar millions.

Inheritance Tax

The Commonwealth levies an inheritance tax on the value of property transferred from a decedent's estate to a beneficiary by will or intestacy. The tax rate varies based on the relationship of the beneficiary to the decedent. Transfers between spouses or from a child (under 21 years of age) to a parent are taxed at a rate of zero percent. Other lineal transfers (parent to child, grandparent to grandchild, etc.) are taxed at a rate of 4.5 percent, transfers between siblings are taxed at a rate of 12.0 percent and all other transfers are subject to a 15.0 percent tax. Transfers to government entities and certain transfers to charitable organizations are not subject to tax.

Inheritance tax growth rates for FY 2014-15 and FY 2015-16 are impacted by a large inheritance tax payment received in October 2014. After adjusting for this payment, the base growth rates for those fiscal years are 2.8 percent and 2.6 percent, respectively. Recent inheritance tax collections have benefited from strong stock market growth; both the Dow Jones Industrial Average and the S&P 500 Index have more than doubled since the end of the recession in 2009. This aggressive growth began to decelerate by the end of 2015, and is expected to continue at a lower pace over the forecast horizon, producing slower inheritance collections. From FY 2015-16 to FY 2020-21, the forecast projects average growth of 2.4 percent per annum.

Cigarette Tax

The cigarette tax is levied at a rate of 8 cents per cigarette or $1.60 per pack (20 cigarettes per pack). For FY 2015-16 to FY 2020-21, the forecast projects an average decline of 3.0 percent per annum. The forecast incorporates the impact of the Philadelphia cigarette tax (enacted October 2014), which imposes a $2 per pack local tax in addition to the state tax. The impact reduces state cigarette tax revenues by roughly $23 million per annum due to the overall reduction in demand caused by the higher city tax. The Philadelphia cigarette tax expires in FY 2019-20, which has a modest positive impact on state cigarette tax collections in the final two years of the forecast window.

Table 4.4
Inheritance and Cigarette Tax Revenues

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Inheritance	**$1,002**	**$926**	**$960**	**$986**	**$1,004**	**$1,022**	**$1,042**
Growth Rate	14.2%	-7.6%	3.7%	2.7%	1.8%	1.8%	2.0%
Cigarette	**$927**	**$912**	**$891**	**$859**	**$826**	**$806**	**$784**
Growth Rate	-5.1%	-1.6%	-2.3%	-3.6%	-3.8%	-2.5%	-2.7%

Note: figures in dollar millions.

All Other Revenue Sources

The remaining General Fund revenues come from the 13 sources listed in Table 4.5. The forecast projects that revenues from those sources will grow at a rate of 1.4 percent per annum through FY 2020-21. Notable trends include the following:

- Escheats collections will continue to be impacted by the reduction in the holding period from five to three years (included in licenses, fees and miscellaneous). In addition to an uptick in claim payments associated with higher remittances in FY 2014-15, the forecast incorporates a permanent "pick-up" from the change in escheats law.
- The forecast for FY 2017-18 includes increased table games tax revenues and the $24.8 million table games certification fee associated with the opening of the remaining Category 2 casino. It is assumed that the $50 million slots license fee associated with this casino opening is received in FY 2015-16, but deposited into the Gaming Fund based on current statute.
- The capital stock and franchise tax is eliminated for tax years beginning on or after January 1, 2016.
- Insurance premiums tax (IPT) credits prepurchased under the Innovate PA program begin to impact IPT revenues in FY 2016-17. The forecast assumes that those credits reduce IPT collections by $15 million annually until the full $100 million of marketed tax credits has been applied against the tax.
- The Neighborhood Improvement Zone (NIZ) and City Revitalization and Improvement Zone (CRIZ) programs have a growing impact on the minor and repealed category during the forecast period. These programs reduce collections by $39.6 million in FY 2015-16 and $69.1 million in FY 2020-21.

Table 4.5
Other General Fund Revenue Sources

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Capital Stock & Fran.	$242	$136	$0	$0	$0	$0	$0
Utility Property	38	40	42	43	45	47	49
Insurance Premiums	454	468	451	469	489	510	531
Financial Institutions	294	328	334	344	354	365	376
Other Selective Bus.[1]	15	4	5	5	5	5	5
Malt Beverage	24	25	25	25	25	25	25
Liquor	334	349	364	379	396	413	430
Realty Transfer	414	473	496	520	541	564	588
Table Games	96	101	105	110	115	118	122
Minor and Repealed	-23	-25	-32	-33	-41	-49	-52
Liquor Store Profits	80	100	80	80	80	80	80
Licenses, Fees & Misc.	950	396	285	376	385	396	408
Fines, Penalties & Int.	70	72	74	75	77	78	80
Total	**2,989**	**2,467**	**2,226**	**2,393**	**2,470**	**2,552**	**2,643**
Growth Rate	24.3%	-17.5%	-9.8%	7.5%	3.2%	3.3%	3.6%

Note: figures in dollar millions.
[1] Includes the accelerated deposits clearing account.

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Section 5: Expenditure Outlook

For FY 2015-16, total General Fund appropriations are $30.2 billion, a 3.4 percent increase over FY 2014-15. The text in this section uses the terms expenditure and appropriation interchangeably. However, the spending authority granted to a particular department or agency need not equal actual expenditures for that year. Unused spending authority is reflected as a lapse and will reduce (increase) any budget shortfall (surplus). Lapses are discussed further in the next section.

As noted in the Introduction, expenditures for the FY 2015-16 base year generally are the amounts appropriated by the House and Senate as reflected in HB 1460, P.N. 2626. The following exceptions apply:

- If the amount approved by the governor is less than the amount appropriated in HB 1460, but it is the same as SB 1073, P.N. 1459 (referred to as the framework agreement), then the amount approved by the governor was used. For the affected line items, this exception reduces base year expenditures by $82 million below the level appropriated in HB 1460.
- Non-preferred appropriations were not addressed in HB 1460; therefore, the amounts provided in the framework agreement were used for the state-related institutions.

For most line items, the amounts from HB 1460 were equal to the amounts contained in the framework agreement. Excluding line item vetoes, the framework agreement exceeded HB 1460 by $525 million: $227 million due to the basic education subsidy and Ready to Learn

Table 5.1
General Fund Expenditures by Agency

	2014-15[1]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Agency							
Human Services	$11,399	$11,600	$12,435	$13,173	$13,840	$14,643	$15,283
Education[2]	11,564	12,030	12,713	13,261	13,782	14,228	14,610
Corrections	2,134	2,233	2,334	2,406	2,462	2,528	2,595
Treasury	1,144	1,182	1,278	1,349	1,420	1,452	1,510
PHEAA[3]	391	353	360	368	377	386	395
All Other	2,567	2,783	2,945	3,016	3,069	3,137	3,201
Total	**29,200**	**30,181**	**32,065**	**33,573**	**34,950**	**36,373**	**37,594**
Growth Rates							
Human Services	3.2%	1.8%	7.2%	5.9%	5.1%	5.8%	4.4%
Education	4.0	4.0	5.7	4.3	3.9	3.2	2.7
Corrections	6.8	4.7	4.5	3.1	2.3	2.7	2.7
Treasury	2.5	3.3	8.1	5.6	5.3	2.2	4.0
PHEAA[3]	6.2	-9.8	2.0	2.2	2.3	2.4	2.4
All Other	-6.7	8.4	5.8	2.4	1.8	2.2	2.0
Total	**2.8**	**3.4**	**6.2**	**4.7**	**4.1**	**4.1**	**3.4**

Note: figures in dollar millions.
[1] Includes supplemental appropriations.
[2] Includes the State System of Higher Education and Thaddeus Stevens College of Technology.
[3] Pennsylvania Higher Education Assistance Agency.

Block Grant, and the remainder due to all other line items.

The base amounts are subject to further negotiation and could change for the current fiscal year. The amounts also include various policy initiatives that temporarily reduce FY 2015-16 appropriation levels.

From FY 2015-16 to FY 2020-21, General Fund expenditures increase at an average rate of 4.5 percent per annum. The overall trends are driven by the Departments of Human Services (DHS) and Education, as those two agencies comprise roughly four-fifths of total General Fund expenditures. (See Table 5.1.) Three factors motivate the trends in General Fund expenditures:

- expanding or contracting service populations (e.g., school age children);
- growth in employee wages, healthcare and pension contributions; and

Table 5.2
General Fund Expenditures by Expenditure Category

	2014-15[1]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Expenditure Type							
Personnel							
Wages[2]	$2,258	$2,361	$2,436	$2,489	$2,550	$2,617	$2,683
Pensions - SERS	533	676	820	865	859	865	868
Pensions - PSERS	1,158	1,725	2,108	2,346	2,513	2,676	2,750
Retiree Health Benefits	317	339	359	376	394	414	434
Healthcare Benefits[3]	629	660	689	714	739	767	796
Pre-K-12 Education	9,079	8,918	9,189	9,468	9,789	10,035	10,307
Medical Assistance	5,149	5,109	5,434	5,847	6,195	6,656	6,933
Long-Term Living	1,407	1,523	1,596	1,661	1,727	1,797	1,871
Intellectual Disability	1,454	1,773	1,938	2,101	2,258	2,421	2,602
Other Human Services	1,160	1,030	1,230	1,265	1,305	1,347	1,391
Debt Service	1,097	1,128	1,225	1,295	1,365	1,395	1,452
All Other	4,960	4,940	5,039	5,146	5,256	5,381	5,506
Total	**29,200**	**30,181**	**32,065**	**33,573**	**34,950**	**36,373**	**37,594**
Growth Rates							
Personnel							
Wages[2]		4.6%	3.2%	2.2%	2.5%	2.6%	2.5%
Pensions - SERS		26.9	21.3	5.5	-0.7	0.7	0.3
Pensions - PSERS		49.0	22.2	11.3	7.1	6.5	2.8
Retiree Health Benefits		6.7	6.0	4.8	4.8	5.0	4.9
Healthcare Benefits[3]		5.0	4.4	3.5	3.6	3.8	3.7
Pre-K-12 Education		-1.8	3.0	3.0	3.4	2.5	2.7
Medical Assistance		-0.8	6.4	7.6	5.9	7.4	4.2
Long-Term Living		8.2	4.8	4.0	4.0	4.1	4.1
Intellectual Disability		21.9	9.3	8.4	7.4	7.2	7.5
Other Human Services		-11.2	19.3	2.8	3.2	3.2	3.2
Debt Service		2.8	8.7	5.7	5.4	2.2	4.1
All Other		-0.4	2.0	2.1	2.1	2.4	2.3
Total		**3.4**	**6.2**	**4.7**	**4.1**	**4.1**	**3.4**

Note: figures in dollar millions.
[1] Includes supplemental appropriations.
[2] Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).
[3] Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits.

- various inflation adjustments, so that projected expenditures purchase the same real amount of goods and services over time.

Table 5.2 provides detail based on expenditure category. Notable trends include:

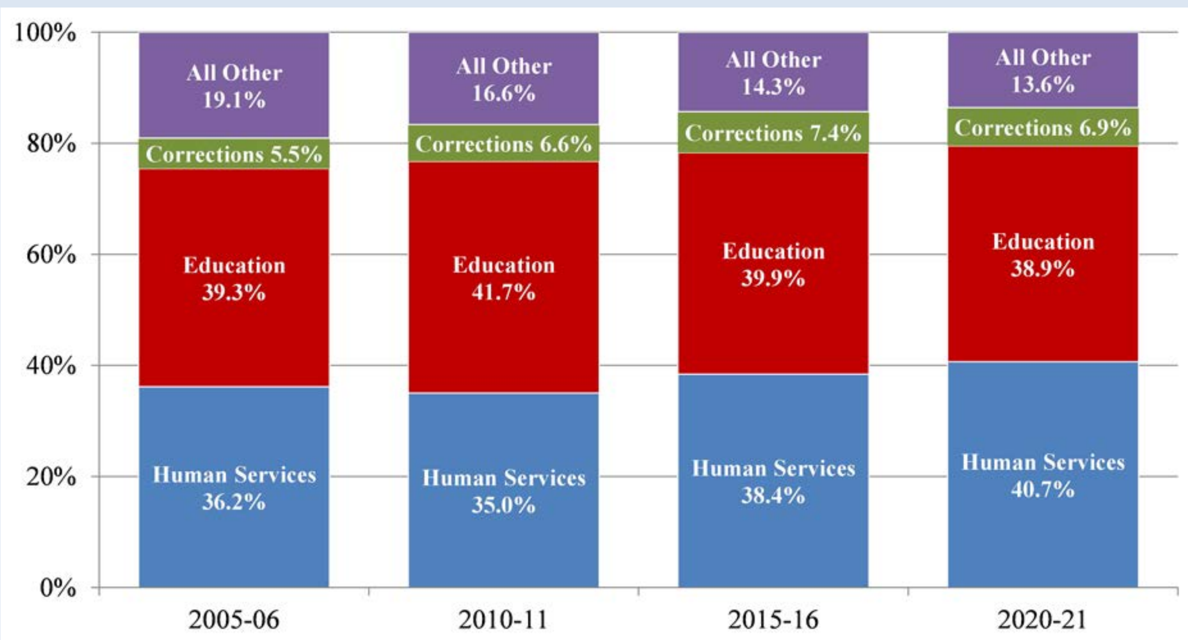
- The growth of pension contributions declines dramatically after FY 2016-17.
- Retiree health benefits grow by 5.1 percent per annum. Recent data from the Office of Administration suggest that the pool of retirees who qualify for health benefits could expand by 1.5 percent per annum.
- Debt service expands at a relatively quick pace due to rising interest rates and churning debt obligations.
- Long-Term Living expands rapidly due to growth in the 65 or older age cohort and reduced support from the Lottery Fund.
- Pre-K-12 expenditures grow modestly due to contraction of the school age population.

Figure 5.1 displays the changing composition of General Fund expenditures since FY 2005-06. Over the past ten years, the share of DHS expenditures has increased by roughly two percentage points, and the forecast projects continued expansion. By contrast, the share of expenditures for the "All Other" category has contracted significantly.

Table 5.3 (next page) lists the economic and demographic forecasts used to extrapolate General Fund expenditures from the FY 2015-16 base year through FY 2020-21. Projected expenditures are a function of (1) service populations, (2) inflation and (3) various technical factors (e.g., the increasing state share under Medicaid expansion). Many factors could cause actual expenditures to deviate from the projections. For example, expenditures need not receive any adjustment for inflation; that determination will be made by policymakers.

When possible, base year expenditures were disaggregated into five categories across all agencies: (1) wages, (2) pensions, (3) healthcare and other benefits, (4) retiree healthcare benefits and (5) other expenditures (e.g., grants and subsidies, non-personnel expenses). Those categories

Figure 5.1
Composition of General Fund Expenditures



Source: Historical data from the Executive Budget (various years). Forecasts and calculations by IFO.

were forecast separately for each agency using the extrapolators displayed below and then combined at the agency level. Although certain appropriations have not changed for recent years, the forecast assumes those amounts increase based on the service population they support and inflation to maintain a constant level of services.

Wage compensation comprises roughly eight percent of total General Fund expenditures. For each agency, wages were extrapolated using two factors. The first factor is an agency-specific employee longevity factor computed from data published by the Office of the Budget (not shown). For all agencies, that factor is negative due to retirements at the upper end of the pay scale that are replaced by younger workers who receive lower wages. The second factor is a general factor that reflects (1) a cost of living increase and (2) an average step increase. The forecast assumes that factor is the same across all agencies (2.4 to 3.2 percent per annum). The wage forecast assumes that employees will receive a real wage increase of approximately 1.0 percentage point above general inflation.

The SERS pension extrapolator represents the mandatory increase in pension contributions based on statute. The SERS extrapolator in Table 5.3 does not reflect the projected growth in wages or personnel. Hence, the total growth in pension contributions would equal the product of the growth rates for SERS contribution rates, wages and the assumed growth in the state complement (0.3 percent per annum).

Based on recent historical trends, the forecast assumes that healthcare inflation exceeds general inflation by 1.5 percentage points. The retiree healthcare extrapolator includes an inflationary increase for healthcare costs and growth in the number of retirees who are eligible to receive benefits. Recent data from the Office of Administration suggest that eligible retirees could increase by 1.5 percent per annum.

Non-personnel expenses include items such as computers, office supplies and utilities. The forecast assumes those expenditures grow at the same rate as the regional CPI-U. Non-personnel expenses also include grants or subsidies made to local units and institutions. Forecasts for grants and subsidies such as the basic education subsidy assume that the service population grows with demographic projections and the average cost to provide services grows with a relevant inflation measure.

The pages that follow provide additional detail for pensions, and the Departments of Human Services, Education, Corrections, Treasury and Conservation and Natural Resources.

Table 5.3
General Fund Expenditure Extrapolators

	2016-17	2017-18	2018-19	2019-20	2020-21
Demographic Groups					
Age 5 to 14	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
Age 20 to 64	0.2	0.2	0.2	0.2	0.2
Age 65 and Older	2.8	2.8	2.8	2.8	2.8
All Residents	0.3	0.3	0.3	0.4	0.4
Personnel Expenses					
Wages	2.3%	2.8%	3.2%	3.2%	3.2%
Pensions - SERS	18.0	3.1	-3.3	-2.0	-2.3
Retiree Healthcare	4.8	5.1	5.2	5.2	5.2
Healthcare Benefits	3.3	3.6	3.7	3.7	3.7
Non-Personnel Expenses	1.8%	2.1%	2.2%	2.2%	2.2%

Source: Demographic projections from the Pennsylvania State Data Center. Other forecasts by IFO.

Pensions

Mandated employer contributions for state employee and school employee pensions will consume a growing share of General Fund expenditures through FY 2020-21. Payments to the State Employees' Retirement System (SERS) and the Public School Employees' Retirement System (PSERS) are projected to increase from $1.7 billion (5.8 percent of appropriations) in FY 2014-15 to $3.6 billion (9.6 percent) by FY 2020-21.

Pension contribution projections are based on (1) the underlying rate of change applied to personnel costs of the employer and (2) the ratio of the employer contribution rate in the forecast year to the rate in the preceding year. The Commonwealth reimburses school districts for a portion of their employer contributions, and the PSERS projection represents the state share (55.8 percent for FY 2014-15).

Table 5.4 displays the most recent publicly available estimates for employer contribution rates for the two pension systems. Table 5.5 displays estimates for SERS and PSERS contributions.

The SERS projections in Table 5.5 represent only the amounts paid from General Fund appropriations. In addition to appropriations, state agencies use other sources such as augmentations, federal funds and transfers from other state funds to make employer contributions. For FY 2014-15, agencies making employer contributions from General Fund appropriations made additional contributions of $204 million from those other sources. The forecast assumes that the other sources will supply the same share of funding as supplied in the base year. If those funds are not sufficient, then General Fund appropriations may need to absorb part of the shortfall.

Table 5.4
Employer Contribution Rates

Fiscal	Employer Rate[1]		% Growth in Rate	
Year	SERS	PSERS	SERS	PSERS
2012-13	11.50	12.36	43.7%	42.9%
2013-14	16.00	16.93	39.1	37.0
2014-15	20.50	21.40	28.1	26.4
2015-16	25.00	25.84	22.0	20.7
2016-17	29.50	30.03	18.0	16.2
2017-18	30.41	32.04	3.1	6.7
2018-19	29.40	33.27	-3.3	3.8
2019-20	28.82	34.20	-2.0	2.8
2020-21	28.15	33.51	-2.3	-2.0

[1] Expressed as a percentage of payroll.
Sources: Rates are from SERS and PSERS.

Table 5.5
Employer Pension Contributions – State General Fund Share

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
SERS	$533	$676	$820	$865	$859	$865	$868
PSERS[1]	1,158	1,725	2,108	2,346	2,513	2,676	2,750
Total	**1,690**	**2,401**	**2,928**	**3,211**	**3,372**	**3,542**	**3,619**
Growth Rate	18.3%	42.1%	22.0%	9.7%	5.0%	5.0%	2.2%

Note: figures in dollar millions.
[1] FY 2014-15 reflects a $225 million transfer from the Tobacco Settlement Investment Advisory Board.

Human Services

The Department of Human Services (DHS) provides access to medical and other services to the Commonwealth's most vulnerable residents. The provision of Medicaid services is the largest expenditure for DHS. Medicaid is a joint state/federal program that plays an important role in the provision of (1) physical and behavioral healthcare services to eligible low-income individuals and families and (2) long-term care and home and community-based services to eligible residents who have physical or cognitive disabilities. Medicaid services are provided through various programs grouped under the Medical Assistance (MA), Long-Term Living (LTL) and Intellectual Disabilities categories.

For FY 2015-16, baseline expenditures for DHS are projected to be $11.6 billion, a $201 million (1.8 percent) increase from the prior fiscal year. Through FY 2020-21, the forecast projects that expenditures will increase to $15.3 billion, an increase of 5.7 percent per annum. Table 5.6 provides additional details.

The MA and LTL program groups comprise roughly three-fifths of the department's General Fund expenditures. The forecasts are based on increases in (1) average costs per enrollee and (2) the service population. For FY 2016-17, the projections assume costs per enrollee will increase 2.0 percentage points faster than the healthcare benefits extrapolator in Table 5.3. The differential falls to 0.75 percentage points in FY 2017-18 and FY 2018-19 and zero for FY 2019-20 and later years. Increases in the service population track the Commonwealth's growth in:

- total population (0.3 percent per annum) for MA programs (excluding Medicaid expansion); and
- the age 60 or older population (2.6 percent per annum) for LTL programs.

The forecast projects that the combined expenditures for the MA and LTL programs will increase at a rate of 6.7 percent per annum through FY 2020-21. In addition to cost and enrollment assumptions, the following components are reflected in the forecast. The text that follows provides additional detail.

- The share of funding provided by special funds is reduced relative to the share they provided in FY 2014-15.
- The forecast reflects the transition to full Medicaid expansion.
- Augmenting revenues from the Medicaid managed care organization (MCO) gross receipts tax and various facility assessments support a constant share of expenditures.
- Payments to Medicaid MCOs include a resumption of twelve monthly payments for the coverage of MA recipients.

General Fund expenditures for the MA and LTL program groups are partially offset by expenditures from the Tobacco Settlement Fund and the Lottery Fund. For FY 2015-16, the forecast projects a $266 million reduction in special fund monies available to supplement General Fund expenditures. The reduction is absorbed by General Fund appropriations. Appendix E contains additional information regarding the relevant special fund forecasts.

The MA forecast includes the projected impact from transition to full Medicaid expansion, which was completed in September 2015. The program, authorized under the Affordable Care Act, provides MA coverage to eligible adults with incomes up to 138 percent of the federal poverty level. Full Medicaid expansion replaced the former Healthy PA program.

For FY 2015-16, DHS projects that 623,000 eligible adults will be covered under Medicaid expansion. By FY 2019-20, DHS estimates over 681,000 adults will be enrolled in the program.

The MA forecast is based on current enrollment trends, which are below initial projections. Savings are achieved with the transition of previously state-funded General Assistance recipients to MA, paid entirely with federal funds. Beginning with calendar year 2017, the Commonwealth is responsible for 5 percent of the costs from all eligible enrollees. That share increases to 10 percent in 2020 and maintains that level in future years.

Other funds that support MA and LTL programs include augmenting revenues from various facility assessments (e.g., hospitals and nursing homes) and the gross receipts tax on Medicaid MCOs. Recent legislation (Act 92 of 2015) replaced the gross receipts tax on Medicaid MCOs with a monthly, per-member assessment on all MCOs. The new assessment is effective July 1, 2016 through June 30, 2020. The same legislation extended the hospital assessment through June 30, 2018. The forecast assumes that the augmenting facility assessments and MCO per-member assessment, along with the corresponding federal matching revenues, supply the same share of funding for total DHS expenditures as supplied in the base year.

For FY 2014-15, DHS appropriations reflect a one-month delay for payments made to the Medicaid MCOs. The delay, which resulted in eleven payments for that fiscal year, produced a one-time reduction in expenditures of approximately $400 million. The resumption of twelve monthly payments for FY 2015-16 increases General Fund appropriations for the forecast years.

All other programs administered by DHS (e.g., Intellectual Disabilities and Mental Health) assume that (1) service populations expand from the base year based on the relevant demographic forecast and (2) the average cost to supply services grows with a relevant inflation factor.

Table 5.6
General Fund Expenditures - Department of Human Services

	2014-15[1]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Wages[2]	$312	$321	$327	$336	$346	$357	$368
Pensions	103	128	154	163	163	164	165
Retiree Healthcare	60	63	66	69	73	77	81
Healthcare Benefits[3]	178	182	189	196	204	212	221
All Other							
Medical Assistance	5,149	5,109	5,434	5,847	6,195	6,656	6,933
Long-Term Living	1,454	1,773	1,938	2,101	2,258	2,421	2,602
Intellectual Disabilities	1,407	1,523	1,596	1,661	1,727	1,797	1,871
Other Human Services	1,160	1,030	1,223	1,250	1,282	1,316	1,350
Mental Health	637	663	685	710	738	767	797
Child Development	452	452	459	467	476	485	495
Income Maintenance	300	278	284	290	297	305	312
Human Services Support	72	63	64	66	67	69	70
Children's Health Insurance[4]	116	15	16	16	17	17	18
Total	**11,399**	**11,600**	**12,435**	**13,173**	**13,840**	**14,643**	**15,283**
Growth Rate	3.2%	1.8%	7.2%	5.9%	5.1%	5.8%	4.4%

Note: figures in dollar millions.
[1] Includes supplemental appropriations.
[2] Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).
[3] Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits.
[4] Children's Health Insurance was included in the Department of Insurance in FY 2014-15.

Education

The Pennsylvania Department of Education (PDE) provides resources, support and oversight to the state's 500 school districts to help schools meet the needs of the Commonwealth's public, private and non-public school students. Based on demographic trends for the school-age population, the forecast assumes that the number of public school students will decline from 1.74 million in FY 2014-15 to 1.68 million by FY 2020-21. (See Table 5.7.) Holding the ratio of public school students to staff constant (14.4), the total number of public school staff is also projected to fall from 146,900 in FY 2014-15 to 142,000 in FY 2020-21.

For FY 2015-16, base year appropriations are $12.0 billion, a $466 million (4.0 percent) increase from the prior fiscal year. The forecast separates appropriations into the two categories that follow.

Pre-Kindergarten through Grade 12

Most education expenditures (roughly 89 percent) are dedicated for Pre-K-12 purposes. These expenditures include the basic education subsidy, the state share of school employees' retirement contributions, special education, pupil transportation, school employees' Social Security, Pre-K expenditures and other miscellaneous expenditures. Demographic projections from the Pennsylvania State Data Center show that the 5-14 year age cohort will contract by 0.6 percent per annum through FY 2020-21. Despite this modest growth, Pre-K-12 expenditures expand at a relatively quick pace (4.2 percent per annum) due to strong growth in school employees' retirement contributions (9.8 percent per annum). The large basic education and special education subsidies expand at a rate of 2.3 percent per annum to maintain a current level of service. That projection is motivated by the demographic contraction and general wage growth because labor costs comprise the great majority of expenses for students who receive education services.

Table 5.7
Pennsylvania K-12 Enrollment and Staffing Levels

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
School Enrollment							
Traditional Public Schools[1]	1,606.8	1,595.1	1,584.4	1,574.1	1,564.3	1,555.1	1,546.2
Charter Schools	132.8	134.6	135.6	136.2	136.3	135.8	135.2
Total School Enrollment[2]	**1,739.6**	**1,729.7**	**1,720.0**	**1,710.2**	**1,700.6**	**1,691.0**	**1,681.4**
Growth Rate	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
Public School Staff							
Administrative	7.1	7.1	7.0	7.0	7.0	6.9	6.9
Teachers	120.9	120.2	119.6	118.9	118.2	117.5	116.9
Coordinators	15.7	15.6	15.5	15.4	15.3	15.2	15.2
Other	7.2	7.1	7.1	7.1	7.0	7.0	6.9
Total Public School Staff[3]	**146.9**	**146.1**	**145.2**	**144.4**	**143.6**	**142.8**	**142.0**
Pupil / Teacher Ratio[4]	14.4	14.4	14.4	14.4	14.4	14.4	14.4

Note: thousands of students or staff.
[1] Includes all students in school districts, state juvenile correctional institutions and comprehensive CTCs.
[2] Excludes roughly 220,000 students in non-public schools in which tuition is paid privately.
[3] Detail does not sum to total due to individuals who appear in more than one category.
[4] Public and charter school students and teachers only.
Source: FY 2014-15 from the Department of Education. Projections by IFO.

Post-Secondary

Post-secondary expenditures include state-owned and state-related universities, community colleges and Thaddeus Stevens College of Technology. For the base year, these expenditures comprise roughly 10 percent of total expenditures by PDE. To maintain a constant level of service, the forecast assumes that school enrollment grows at the same rate as the 20-24 year age cohort (i.e., a constant share of that age cohort attends a post-secondary institution). The forecast also assumes that underlying costs grow at the same rate as inflation. Through FY 2020-21, post-secondary expenditures increase at an average rate of 2.3 percent per annum.

Table 5.8
General Fund Expenditures - Department of Education

	2014-15[1]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Pre-K through Grade 12							
Basic Education Subsidy[2]	5,530	5,630	5,727	5,854	6,005	6,162	6,323
School Employees' Retirement	1,158	1,725	2,108	2,346	2,513	2,676	2,750
Special Education	1,047	1,077	1,095	1,120	1,148	1,178	1,209
Pupil Transportation	547	549	556	564	573	582	592
School Employees' Social Sec.[3]	516	437	542	547	559	576	593
Pre-K[4]	374	404	411	420	429	438	448
All Other[5]	1,066	821	858	964	1,075	1,099	1,142
Total Pre-K through Grade 12	10,237	10,643	11,298	11,814	12,302	12,712	13,057
Post-Secondary							
State-Related Universities	521	549	559	572	585	599	613
Community Colleges[6]	269	281	286	293	299	307	314
State System of Higher Education	413	433	442	452	462	473	484
Thaddeus Stevens College of Tech.	12	13	13	13	14	14	14
Total Post-Secondary	1,215	1,276	1,301	1,330	1,361	1,393	1,426
Personnel & General Operating[7]	29	28	29	30	31	32	33
Libraries[8]	59	60	61	63	65	66	68
All Other	23	23	23	24	24	25	25
Grand Total	**11,564**	**12,030**	**12,713**	**13,261**	**13,782**	**14,228**	**14,610**
Growth Rate	4.0%	4.0%	5.7%	4.3%	3.9%	3.2%	2.7%

Note: figures in dollar millions.
[1] Includes supplemental appropriations.
[2] Includes basic education funding and basic education formula enhancements.
[3] Includes a $15.0 million supplemental for FY 2014-15.
[4] Includes early intervention, Pre-K Counts and Head Start supplemental assistance.
[5] Includes non-personnel costs from Ready to Learn Block Grant, authority rentals and sinking fund requirements, special education-approved private schools, services to non-public schools, non-public and charter school pupil transportation, career and technical education, Pennsylvania assessment, tuition for orphans and children placed in private homes, PA Charter School for the Deaf and Blind, school food services, textbooks, materials and equipment for non-public schools, Safe School Initiative, youth development centers-education, teacher professional development, information and technology improvement, career and technical education equipment grants, mobile science and math education programs, payments in lieu of taxes and Office of Safe School Advocate (originally in Executive Offices in the FY 2014-15 budget).
[6] Includes community colleges, transfer to Community College Capital Fund, and regional community colleges services.
[7] Includes general government operations line as well as PDE personnel costs from all other line items.
[8] Includes non-personnel costs from various library line items.

Corrections

The Department of Corrections (DOC) provides for the care and supervision of all offenders under its jurisdiction and facilitates their re-entry into society. Table 5.9 displays a time series of the inmate population under the jurisdiction of the DOC and the parolee population under the supervision of the Board of Probation and Parole.

From 2005 to 2011, the inmate population grew at an average rate of 3.3 percent per annum, while the parolee population grew by 3.4 percent per annum. The rapid expansion of the inmate population led to structural and data-driven changes reflected in the Justice Reinvestment Initiative (2012). The primary purpose of the initiative was to divert technical parole violators (TPVs) from state prisons to contracted county jails and community corrections centers. It also sought to increase law enforcement grants to deter crime, streamline the interaction between DOC and Probation and Parole, and use performance-based measures to determine funding for community corrections centers.

From 2011 to 2015, the inmate population contracted at a rate of 0.8 percent per annum, while the parolee population expanded at a rate of 4.5 percent per annum due to the shifting of inmates between the two agencies. Overall, the Justice Reinvestment Initiative shifts inmates from DOC to Probation and Parole and reduces costs. For FY 2014-15, the average cost of an inmate was $42,500 (includes all costs, including indirect costs and overhead), more than ten times the amount of an average parolee ($3,800).

The *FY 2015-16 Executive Budget* assumes further reductions in the inmate population from the initiative. For the purpose of this report, the forecast assumes that the full impact of the initiative is largely reflected in the most recent inmate data, and no change in the inmate population is assumed over the forecast window.

The DOC appropriations can be separated into four categories: General Government Operations (1.6 percent of total appropriations in FY 2014-15), Medical Care (10.7 percent), Inmate Education and Training (1.9 percent) and State Correctional Institutions (85.8 percent). A small transfer was also made to the Justice Reinvestment Fund ($1.0 million), which expires in FY 2018-19.

Table 5.9
Populations - Department of Corrections and Board of Probation and Parole

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Inmate Population	46,028	49,307	51,487	51,321	51,638	51,184	51,512	50,756	49,914
Annual Change	1,578	3,279	2,180	-166	317	-454	328	-756	-842
Percent Change	3.6%	7.1%	4.4%	-0.3%	0.6%	-0.9%	0.6%	-1.5%	-1.7%
Parolee Population	29,568	32,097	31,179	32,378	34,745	35,982	37,971	39,726	41,437
Annual Change	425	2,529	-918	1,199	2,367	1,237	1,989	1,755	1,711
Percent Change	1.5%	8.6%	-2.9%	3.8%	7.3%	3.6%	5.5%	4.6%	4.3%

Note: Parolee population is reported on a fiscal year basis. Data for 2015 are from the December monthly reports.
Sources: Pennsylvania Department of Corrections, Annual Statistical Report (various years). Pennsylvania Board of Probation and Parole, Monthly Statistics (various years). Executive Budget (various years).

From FY 2014-15 to FY 2015-16, DOC expenditures increased by $101 million (4.7 percent). Much of that increase (51 percent) was due to employer contributions for pensions and a one-time pharmaceutical rebate of $18 million (all non-personnel related) for Medical Care, which reduced expenditures in FY 2014-15.

From FY 2015-16 to FY 2020-21, the forecast projects that expenditures will grow by 3.0 percent per annum to maintain current services. The wage forecast (2.5 percent per annum) expands modestly due to the assumption of no change in the inmate population. The pension forecast (5.0 percent) grows with wages and the mandatory increase in SERS contribution rates. Retiree healthcare (5.1 percent) and healthcare benefits (3.5 percent) are affected by relatively strong healthcare inflation.

Medical Care costs for inmates are projected to grow at a rate of 3.6 percent per annum. Most Medical Care costs (roughly 95 percent) are related to medical, mental and dental services and drugs. Therefore, the analysis uses the healthcare extrapolator and the inmate population to project that item.

The All Other category includes miscellaneous spending such as utilities, food, supplies and inmate payroll. The forecast projects average growth of 1.9 percent per annum for those types of expenditures.

Table 5.10
General Fund Expenditures – Department of Corrections

	2014-15[1]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Wages[2]	$997	$1,011	$1,029	$1,053	$1,082	$1,112	$1,142
Pensions	220	272	327	345	343	345	347
Retiree Healthcare	134	140	147	154	162	170	179
Healthcare Benefits[3]	222	228	235	243	252	262	271
Medical Care	127	150	155	161	167	173	179
All Other	433	433	440	449	456	466	476
Total	**2,133**	**2,234**	**2,334**	**2,406**	**2,462**	**2,528**	**2,595**
Growth Rate	6.8%	4.7%	4.5%	3.1%	2.3%	2.7%	2.7%

Note: figures in dollar millions.
[1] Includes supplemental appropriations.
[2] Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).
[3] Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits.

Treasury

The Pennsylvania Department of Treasury is responsible for the receipt and disbursement of funds on behalf of the Commonwealth, as well as the deposit, investment and safe keeping of monies and securities belonging to the state of Pennsylvania. Treasury invests those funds in pooled money accounts, bonds and various securities. Treasury also manages debt issuances on behalf of the Commonwealth, in order to provide funding for long-term budget projects and to meet short-term cash flow needs.

Debt Issuances

The Commonwealth may authorize debt for a variety of purposes and terms. General obligation bonds (20 year) are the largest source of debt issuance and are backed by the full faith and credit of the Commonwealth. These bonds may be financed with revenue from the General Fund or any of the various special funds (e.g., highway projects funded via the Motor License Fund and Growing Greener initiatives funded via the Environmental Stewardship Fund). The source of repayment is established by statute and generally determined based on how the borrowed funds will be used. This section discusses debt financed with General Fund revenue.

General obligation bonds are issued to meet cash flow needs, and are dedicated for specific projects. Each year these bonds are authorized in an amount necessary to cover that year's cash flow related to currently authorized projects. Therefore, the lag between approval of a project and the bond issue that provides funding can vary greatly based on the project schedule and the agency that administers the funds.

Bond Ratings

The debt service obligations created by bond issuances are the primary determinant of Treasury's budget, as approximately 96 percent of its General Fund expenditures are used for that purpose. The amount of debt service associated with each issue is a function of interest rates, and the rates assigned to an issue are based largely on the bond rating specified for that particular issue. The ratings are assigned by a rating agency prior to the issuance of a bond, and can also be updated periodically via public release.

Although Pennsylvania's bond ratings have remained unchanged since this time last year, its credit rating continues to show signs of weakness and is likely the reason that certain maturities in the May 2015 bond issue required insur-

Table 5.11
Debt Service Payments

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Projected Bond Issues[1]	n.a.	$1,235	$1,280	$1,250	$1,135	$1,128	$1,128
New Debt Service[2]	n.a.	0	126	222	315	404	496
Existing Debt Service[3]	n.a.	1,128	1,099	1,073	1,050	991	956
Total Debt Service	**$1,097**	**1,128**	**1,225**	**1,295**	**1,365**	**1,395**	**1,452**
Growth Rate	n.a.	2.8%	8.7%	5.7%	5.4%	2.2%	4.1%

Note: figures in dollar millions.
[1] Based on IFO projections of future bond issues. These projections include a reduction in RACP over time and a stabilization of borrowing related to buildings and structures.
[2] Debt service related to bond issue projections. This estimate does not include payments for debt incurred prior to FY 2015-16 and is adjusted to account for General Fund debt service payments that originate from non-General Fund sources.
[3] Debt service related to bonds issued prior to FY 2015-16 and adjusted to account for General Fund debt service payments that originate from non-General Fund sources.

Table 5.12 Pennsylvania Bond Ratings			
	Assigned Ratings		
Bond Issue	Moody's	S&P	Fitch
March 2009	Aa2	AA	AA
May 2009	Aa2	AA	AA
January 2010	Aa2	AA	AA
May 2010	**Aa1**	AA	**AA+**
December 2010	Aa1	No Rating	AA+
October 2011	Aa1	AA	AA+
April 2012	Aa1	AA	AA+
April 2013	**Aa2**	AA	AA+
October 2013	Aa2	AA	**AA**
April 2014	Aa2	AA	AA
February 2015	**Aa3**	**AA-**	**AA-**
May 2015[1]	Aa3	AA-	AA-
Current Rating	**Aa3**	**AA-**	**AA-**

[1] Certain maturities were insured by a municipal bond insurance policy and therefore received a higher rating by Moody's (A2) and Standard & Poor's (AA).

ance by a municipal bond insurance policy. In addition, Moody's officially revised the Pennsylvania outlook to negative in October 2015, citing the continued budget impasse, the failure to address the structural budget gap and the contentious political environment. Rating agencies continue to warn that the lack of financial reserves and rapidly growing unfunded pension liability could result in further reductions to the ratings assigned to Pennsylvania general obligation bonds.

Forecast

The baseline debt service projections detailed in Table 5.11 maintain current levels of capital project funding for the buildings and structures category, and reflect a continued reduction in borrowing related to the Redevelopment Assistance Capital Projects program. The forecast also incorporates rising interest rates over the forecast period. This increase is related to an anticipated general rise in interest rates, and does not include any additional increases related to a further reduction in the Commonwealth's debt rating. A sensitivity analysis suggests that an interest rate that is 0.5 percentage points higher than the baseline rate beginning with bonds issued in FY 2015-16 would increase borrowing costs by roughly $1 billion over the next 20 years (through FY 2035-36). The impact of any change is linear, so that an increase of 1.0 percentage point would raise costs by roughly $2 billion. Total Treasury expenditures are projected to increase from $1.2 billion in FY 2015-16 to $1.5 billion in FY 2020-21, an increase of 5.0 percent per annum.

Table 5.13
General Fund Expenditures – Department of Treasury

	2014-15[1]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Wages[2]	$14	$14	$14	$14	$15	$15	$16
Pensions	4	5	6	6	6	6	6
Retiree Healthcare	3	3	3	3	3	3	4
Healthcare Benefits[3]	4	4	5	5	5	5	5
Debt Service	1,097	1,128	1,225	1,295	1,365	1,395	1,452
All Other	24	29	26	26	27	27	28
Total	**1,144**	**1,182**	**1,278**	**1,349**	**1,420**	**1,452**	**1,510**
Growth Rate	2.5%	3.3%	8.1%	5.6%	5.3%	2.2%	4.0%

Note: figures in dollar millions.
[1] FY 2014-15 is the amount appropriated.
[2] Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).
[3] Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits.

Conservation and Natural Resources

The Department of Conservation and Natural Resources (DCNR) manages the Commonwealth's system of parks and forests. The mission of DCNR is to conserve and sustain Pennsylvania's natural resources for the use and enjoyment of present and future generations.

Most of DCNR's operating expenses are funded through the General Fund and the Oil and Gas Lease Fund. In recent years, the share of expenditures supported by the Oil and Gas Lease Fund has increased. For example, in FY 2008-09, the majority of DCNR funding was supplied by the General Fund ($113.0 million), and a smaller portion was supplied by the Oil and Gas Lease Fund ($11.8 million). By FY 2014-15, the General Fund amount had declined to $14.5 million, while the Oil and Gas Lease Fund amount increased substantially to $122.6 million.

The DCNR General Fund appropriation depends on the ability of the Oil and Gas Lease Fund to support the department's expenditures. Appendix E contains a balance sheet that projects the amount of funds in the Oil and Gas Lease Fund that are available to be appropriated to the department. Those amounts are subtracted from estimates of the department's total personnel, operating and other expenditures from both funds. The residual amount represents the expenditures that must be supported by the General Fund.

The forecast reflects a significant reduction in revenue from the Oil and Gas Lease Fund for FY 2015-16 to FY 2017-18. After that year, General Fund appropriations decline as Oil and Gas Lease Fund revenues begin to recover. The anticipated recovery is driven by higher natural gas prices, which are currently at historic lows due to insufficient pipeline capacity that would allow the delivery of gas to out-of-state markets.

Table 5.14
General Fund Expenditures – Department of Conservation and Natural Resources

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Wages[1]	$6	$39	$68	$63	$55	$49	$40
Pensions	1	6	13	13	12	10	8
Retiree Healthcare	1	3	7	7	6	5	5
Healthcare Benefits[2]	1	7	14	13	11	10	8
All Other	6	7	19	16	12	9	5
Total	**15**	**62**	**121**	**111**	**96**	**84**	**67**
Growth Rate	-46.4%	328.1%	95.1%	-8.5%	-13.4%	-12.3%	-20.8%

Note: figures in dollar millions.
[1] Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).
[2] Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits.

All Other Expenditures

The forecasts for all other agencies or departments use the extrapolators from Table 5.3. Most expenditures increase by 2.5 to 3.5 percent per annum over the forecast window. Notable assumptions across agencies include:

- The forecast assumes the $65.1 million of appropriations for the Legislature that was line-item vetoed in the FY 2014-15 budget will be reinstated beginning in FY 2015-16 and for all future fiscal years.
- Most expenditures made by the State Police (76.2 percent for FY 2014-15) are supported by non-General Fund sources, such as the Motor License Fund. The analysis assumes that the Motor License Fund maintains the current level of support.
- The Board of Probation and Parole forecast uses the growth of the parolee population as the demographic extrapolator. The parolee population is projected to grow at an average rate of 1.3 percent per annum.

Table 5.15
General Fund Expenditures - All Others

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
PHEAA	$391	$353	$360	$368	$377	$386	$395
Judiciary	317	342	360	371	377	388	399
Legislature	265	329	345	356	365	376	386
State Police	221	246	260	268	274	282	289
Community & Economic Dev.	204	214	214	218	223	228	233
Health	200	209	215	220	225	230	236
Revenue	177	174	180	184	189	194	199
Executive Offices	182	170	175	180	184	188	193
Probation & Parole	156	167	177	184	190	197	203
Environmental Protection	139	144	150	155	158	163	167
Agriculture	127	137	140	144	147	150	154
General Services	121	125	129	133	136	140	143
Military & Veterans Affairs	121	129	134	138	142	146	150
All Others	321	334	346	354	362	371	381
Total	**2,944**	**3,074**	**3,184**	**3,273**	**3,350**	**3,438**	**3,529**
Growth Rate	0.3%	4.4%	3.6%	2.8%	2.3%	2.6%	2.6%

Note: figures in dollar millions.

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Section 6: Fiscal Outlook

The data and analysis presented in this report facilitate an assessment of the Commonwealth's fiscal outlook over the next five fiscal years. Previous sections discussed demographic and economic trends that are relevant to the outlook. The report uses those trends to make projections of revenues and expenditures on the basis of current law and policy. This section combines those projections to identify any long-term structural surplus or deficit. A structural imbalance implies that the imbalance remains after unusual economic conditions or other factors (e.g., one-time revenue transfers) are no longer relevant. By definition, a structural imbalance cannot be eliminated by temporary measures.

The Commonwealth has operated with a structural imbalance in the General Fund for several years, largely due to the 2008-09 recession and the tepid recovery. The ongoing budget challenges, and the various temporary measures used to deal with them, were detailed in prior economic and budget outlooks.[7] Many of the revenue and expenditure measures used for the FY 2014-15 budget pose challenges for the current fiscal year.

Table 6.1 shows a current year balance of -$760 million based on net revenues of $29.4 billion and expenditures of $30.2 billion. However, the General Fund ending balance for FY 2015-16 is projected to be -$318 million due to a carryover of $266 million from FY 2014-15 and net supplemental appropriations and lapses of $175 million. The following factors contribute to the current year imbalance:

- Gross revenues increase by $329 million compared to the prior year. Tax revenues in-

Table 6.1
General Fund Balance Sheet

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Beginning Balance[1]	$84	$266	--	--	--	--	--
Current Year Revenues	$30,593	$30,922	$31,525	$32,708	$33,895	$35,121	$36,395
Less Refund Reserve	-1,340	-1,500	-1,370	-1,390	-1,430	-1,475	-1,530
Net Revenues	29,253	29,422	30,155	31,318	32,465	33,646	34,865
State Expenditures[2]	-29,200	-30,181	-32,065	-33,573	-34,950	-36,373	-37,594
Current Year Balance	53	-760	-1,910	-2,255	-2,486	-2,727	-2,729
Lapses[3]	130	175	50	75	100	100	100
Ending Balance	**266**	**-318**	**-1,860**	**-2,180**	**-2,386**	**-2,627**	**-2,629**

Note: figures in dollar millions.
[1] Beginning balance omitted for FY 2016-17 and thereafter.
[2] Based on appropriations and executive authorizations. Includes supplemental appropriations.
[3] Current year lapses plus prior year lapses.

[7] See "Pennsylvania's Economic & Budget Outlook: Fiscal Years 2014-15 to 2019-20," pages 37-38 (November 2014).

crease by $861 million, but they are offset by a decline of $532 million in non-tax revenues. Certain prior year non-tax revenues from (1) transfers of special funds ($227 million) and (2) changes in the holding period for unclaimed property ($380 million) will not be repeated.

- The refund reserve increases by $160 million compared to the prior year due to sharply higher refunds in the first six months of the fiscal year. The change in the reserve limits the increase in net revenue (gross revenue less refunds) to only $169 million.
- General Fund pension costs increase by $711 million due to higher employer contribution rates and replacement of a $225 million Tobacco Settlement Fund transfer made in the prior fiscal year.
- Special fund (Lottery, Tobacco Settlement and Oil and Gas Lease) support declines by $316 million compared to the prior year for expenditures in the departments of Human Services and Conservation and Natural Resources. General Fund appropriations pick up the difference.

Various one-time measures utilized for FY 2015-16 reduce the growth in overall expenditures. The appropriations contained in HB 1460, P.N. 2626 were based on changing the timing of reimbursements for county child welfare (Department of Human Services) and school employees' Social Security (Department of Education). It also eliminated the appropriation for authority rentals and sinking fund requirements (Department of Education) with the expectation that debt would be issued to address state reimbursement for school district debt approved pursuant to the PlanCon process. These measures are estimated to reduce expenditures by $560 million in the current year. The county child welfare and school employees' Social Security savings will not be repeated in future years. The PlanCon savings would be offset in future years by principal and interest payments on any debt issued.[8]

For FY 2016-17, the imbalance grows to -$1.9 billion as net revenues increase by $733 million and expenditures grow by $1.9 billion. The increased expenditures are motivated by pension contributions and higher costs for the Department of Human Services. Additional details are as follows:

- Department of Human Services non-personnel expenditures increase by $793 million due to growth in Medical Assistance and Long-Term Living and the one-time reduction of county child welfare appropriations in the prior year.
- Pension contributions increase by $527 million.
- Non-pension personnel expenditures increase by $125 million.
- Pre-K-12 expenditures, excluding pensions, increase by $271 million, including potential debt service for PlanCon-related debt.

For FY 2017-18 to FY 2020-21, the imbalance grows more slowly and begins to stabilize, reaching -$2.6 billion by the end of the forecast period. Expenditures increase at an average rate of 4.1 percent per annum and net revenues increase at an average rate of 3.7 percent.

Table 6.1 summarizes the potential disparity between revenues and expenditures that grows from -$318 million in FY 2015-16 to -$2.6 billion by FY 2020-21. The disparity is characterized as potential due to the Commonwealth's balanced budget requirement. Each year, state officials consider changes in law or policy to bring the budget into balance. The size of the

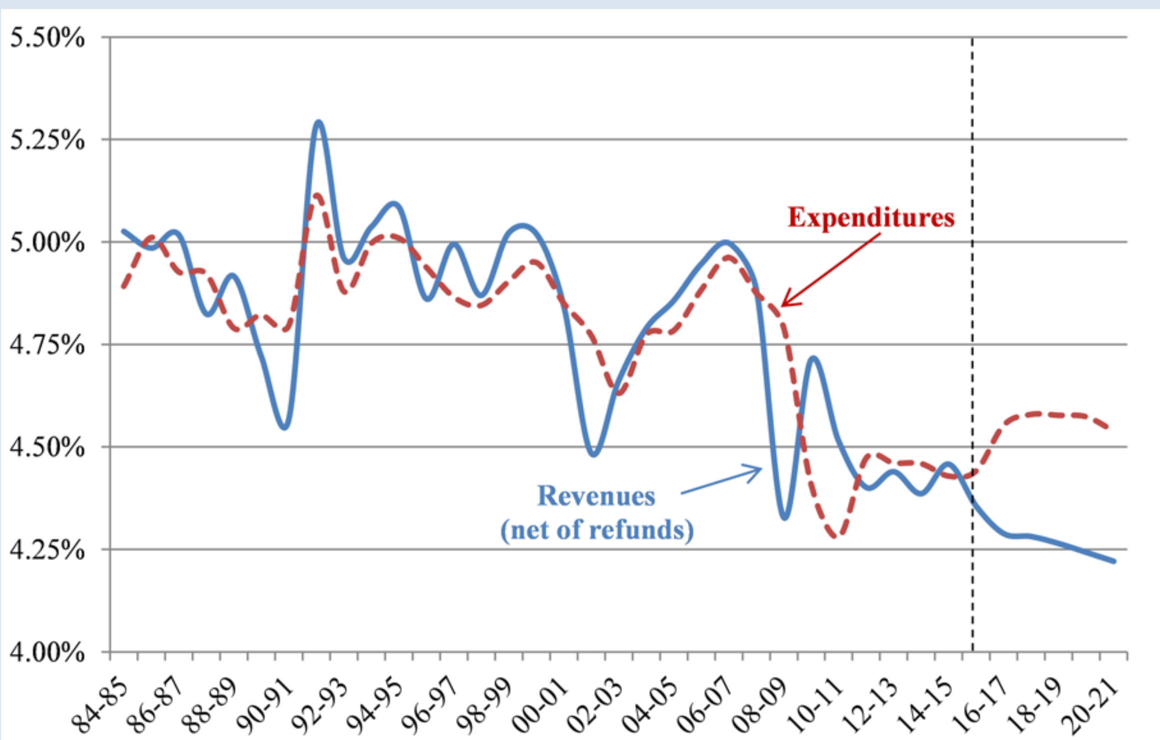
[8] Legislation to provide for the debt issuance is pending, but has not been enacted. The Office of the Budget has indicated that the issuance of debt for PlanCon-related costs will require a comprehensive budget agreement.

projected disparity reflects the difficult choices that policymakers will confront in future budgets.

A useful convention to depict long-term budget trends is to display General Fund revenues and expenditures relative to the total size of the Pennsylvania economy. Figure 6.1 displays actual and projected revenues and expenditures as a share of the state economy (nominal gross domestic product) from FY 1984-85 to FY 2020-21. The share for both revenues and expenditures declined dramatically with the 2008-09 recession, and they have not returned to their previous share of the economy. The five-year outlook projects a continuation of this long-term decline, motivated by past policy choices and demographic trends.

The projected imbalance for the current fiscal year (-$318 million) will not occur due to the statutory requirement that the budget must be in balance upon enactment. Policymakers have many ways in which they could address the imbalance. If policymakers adopt temporary measures, then the long-term imbalance would be largely unaffected. If they enact permanent changes to revenue or spending levels, then those changes would have implications for all future years.

Figure 6.1
General Fund Revenues and Expenditures as a Share of State GDP



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Appendix A: Demographics

The demographics appendix contains three tables.

Table A.1 displays annual population projections by age group.

Table A.2 displays the share of Pennsylvanians who are married or have never been married by age group for 2007, 2010 and 2013. The data reveal a sharp increase in the share of residents who have never been married for the 25 to 34 age group (10.1 percentage point increase) and 35 to 44 age group (3.5 percentage points). The tabulations are based on a U.S. Census Bureau survey started in 2005.

Table A.3 displays homeownership status by age group for the same years. The data reveal an increase in renters for all age groups under age 65. The most significant increase occurred in the under 35 age group (6.2 percentage point increase) and the 35-44 age group (6.0 percentage point increase).

Table A.1
Pennsylvania Population Projections 2015 to 2025

Age	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
0-4	716	715	715	714	713	712	715	717	719	721	723
5-9	741	737	733	729	725	721	721	720	720	719	719
10-14	769	764	759	754	749	744	741	737	733	730	726
15-19	837	850	863	876	889	903	898	894	889	885	880
20-24	870	868	866	864	862	860	872	884	897	910	922
25-29	850	838	827	816	806	795	792	790	787	784	781
30-34	792	806	819	833	847	862	851	840	829	819	808
35-39	726	740	753	767	781	796	809	823	837	851	866
40-44	788	775	762	750	737	725	739	752	766	780	795
45-49	857	841	826	811	796	781	768	756	744	732	720
50-54	950	927	905	884	863	842	827	812	797	783	769
55-59	950	945	941	936	932	928	906	885	864	843	824
60-64	820	838	857	876	895	915	911	908	904	900	896
65-69	665	685	706	727	749	772	789	808	826	845	865
70-74	489	511	533	557	582	608	627	647	667	688	709
75-79	364	376	387	399	412	424	444	464	486	508	531
80-84	287	288	288	289	290	291	300	310	320	331	342
85+	332	335	338	341	345	348	351	354	357	360	364
Total	**12,803**	**12,847**	**12,892**	**12,937**	**12,982**	**13,027**	**13,069**	**13,111**	**13,153**	**13,196**	**13,239**

Note: thousands of residents.
Source: Pennsylvania State Data Center for years 2015, 2020 and 2025. Other years are interpolations by IFO.

Table A.2
Marital Status by Age in Pennsylvania

Age Category/ Marital Status	2007 Residents	2007 +/-[1]	2007 Share of Total	2010 Residents	2010 +/-[1]	2010 Share of Total	2013 Residents	2013 +/-[1]	2013 Share of Total
Age 16-24									
Married[3]	85.9	6.8	5.5%	68.9	6.2	4.3%	56.5	6.2	3.6%
Never Married	1,472.5	20.0	94.0	1,541.1	13.4	95.2	1,509.7	12.8	96.0
Other[2,3]	8.7	2.2	0.6	9.0	2.1	0.6	6.7	1.6	0.4
Total	**1,567.1**	**19.7**	**100.0**	**1,619.0**	**11.6**	**100.0**	**1,573.0**	**11.1**	**100.0**
Age 25-34									
Married	682.4	18.4	47.3	635.8	13.7	42.2	616.1	13.9	38.6
Never Married	646.9	18.9	44.9	767.5	15.8	51.0	877.3	16.5	55.0
Other[2]	112.3	7.3	7.8	102.0	6.0	6.8	102.1	6.7	6.4
Total	**1,441.5**	**17.3**	**100.0**	**1,505.3**	**9.3**	**100.0**	**1,595.5**	**9.8**	**100.0**
Age 35-44									
Married	1,122.1	19.0	64.5	1,007.8	13.6	62.3	928.8	15.9	60.3
Never Married	353.4	13.6	20.3	354.8	11.8	21.9	366.4	12.4	23.8
Other[2]	263.9	12.5	15.2	254.1	9.9	15.7	244.5	9.6	15.9
Total	**1,739.4**	**21.1**	**100.0**	**1,616.7**	**8.2**	**100.0**	**1,539.8**	**9.6**	**100.0**
Age 45-54									
Married	1,272.6	22.2	66.9	1,229.5	16.9	63.7	1,154.2	17.1	62.5
Never Married	251.6	10.0	13.2	293.9	11.0	15.2	297.0	10.6	16.1
Other[2]	378.9	11.2	19.9	406.5	11.7	21.1	396.2	10.7	21.4
Total	**1,903.0**	**17.7**	**100.0**	**1,929.9**	**7.7**	**100.0**	**1,847.4**	**9.0**	**100.0**
Age 55-64									
Married	976.0	20.9	67.8	1,083.8	13.6	66.3	1,148.6	14.7	66.1
Never Married	118.2	6.7	8.2	171.7	7.1	10.5	186.8	8.8	10.7
Other[2]	344.6	12.9	24.0	380.3	11.9	23.3	403.3	12.0	23.2
Total	**1,438.8**	**17.7**	**100.0**	**1,635.8**	**5.7**	**100.0**	**1,738.7**	**6.4**	**100.0**
Age 65+									
Married	986.9	15.2	52.1	1,009.9	12.8	51.3	1,125.2	13.5	53.8
Never Married	122.5	7.2	6.5	126.5	6.3	6.4	133.4	6.8	6.4
Other[2]	785.8	15.5	41.5	830.5	12.7	42.2	833.1	13.6	39.8
Total	**1,895.2**	**20.9**	**100.0**	**1,966.9**	**4.7**	**100.0**	**2,091.6**	**5.1**	**100.0**
Total									
Married	5,125.9	43.3	51.3	5,035.8	35.3	49.0	5,029.4	34.6	48.4
Never Married	2,965.0	28.8	29.7	3,255.5	26.8	31.7	3,370.5	25.2	32.5
Other[2]	1,894.2	30.2	19.0	1,982.3	25.4	19.3	1,986.0	25.6	19.1
Total	**9,985.1**	**24.8**	**100.0**	**10,273.6**	**8.1**	**100.0**	**10,385.9**	**8.6**	**100.0**

Note: thousands of residents.
[1] Represents the 90 percent confidence interval.
[2] Other includes widowed, divorced or separated.
[3] Due to the large confidence interval within this category/age group, caution should be used when using these data.
Source: U.S. Census Bureau. American Community Survey One Year Public Use Microdata Sample, various years.

Table A.3
Pennsylvania Households by Age of Householder or Spouse and Ownership Category[1]

Householder or Spouse Age[3]/ Ownership Category	2007			2010			2013		
	House-holds	+/-[2]	Share of Total	House-holds	+/-[2]	Share of Total	House-holds	+/-[2]	Share of Total
Age <34									
Owned (no mortgage)	39.6	4.3	5.0%	35.1	3.0	4.4%	39.0	4.6	5.0%
Owned (with mortgage)	293.1	9.0	37.0	264.8	9.2	33.4	239.7	7.3	30.7
Rented[4]	460.4	13.0	58.1	493.7	12.9	62.2	501.5	15.2	64.3
Total	**793.0**	**14.1**	**100.0**	**793.6**	**11.3**	**100.0**	**780.2**	**16.0**	**100.0**
Age 35-44									
Owned (no mortgage)	72.5	4.5	8.1	62.9	5.4	7.7	73.2	5.8	9.3
Owned (with mortgage)	560.6	13.7	62.4	494.4	10.9	60.8	431.1	10.3	55.1
Rented[4]	265.2	11.9	29.5	256.0	9.2	31.5	278.4	11.6	35.6
Total	**898.4**	**15.1**	**100.0**	**813.3**	**9.3**	**100.0**	**782.7**	**10.1**	**100.0**
Age 45-54									
Owned (no mortgage)	186.9	7.8	17.3	175.4	7.8	16.5	165.8	7.4	16.7
Owned (with mortgage)	665.4	14.5	61.4	636.4	11.4	59.7	581.6	13.3	58.7
Rented[4]	230.7	9.9	21.3	254.4	8.5	23.9	244.2	9.6	24.6
Total	**1,083.0**	**14.4**	**100.0**	**1,066.1**	**11.1**	**100.0**	**991.7**	**13.0**	**100.0**
Age 55-64									
Owned (no mortgage)	283.0	8.9	32.1	303.9	9.5	30.9	324.3	9.2	31.5
Owned (with mortgage)	447.0	10.5	50.7	499.3	9.5	50.7	500.5	10.3	48.6
Rented[4]	150.8	7.9	17.1	181.4	8.5	18.4	205.7	9.0	20.0
Total	**880.8**	**11.4**	**100.0**	**984.6**	**9.0**	**100.0**	**1,030.5**	**8.9**	**100.0**
Age 65+									
Owned (no mortgage)	710.5	12.4	58.3	721.3	10.3	56.4	725.7	12.3	53.6
Owned (with mortgage)	233.7	7.7	19.2	275.3	9.3	21.5	332.3	0.0	24.5
Rented[4]	274.1	8.6	22.5	281.9	9.4	22.0	295.9	10.2	21.9
Total	**1,218.3**	**12.7**	**100.0**	**1,278.4**	**8.9**	**100.0**	**1,353.9**	**10.9**	**100.0**
Total									
Owned (no mortgage)	1,292.5	18.4	26.5	1,298.6	16.0	26.3	1,328.0	17.8	26.9
Owned (with mortgage)	2,199.7	20.3	45.1	2,170.2	20.6	44.0	2,085.2	21.5	42.2
Rented[4]	1,381.2	21.4	28.3	1,467.3	18.5	29.7	1,525.8	20.2	30.9
Total	**4,873.5**	**12.0**	**100.0**	**4,936.0**	**14.2**	**100.0**	**4,938.9**	**14.4**	**100.0**

Note: thousands of households.
[1] Excludes households living in institutional and non-institutional group quarters as well as vacant homes.
[2] Represents the 90 percent confidence interval.
[3] The age used is the oldest age of the householder (primary household member) or his or her spouse (if married).
[4] Households staying in a home that they do not own are included in the “rented" category, even if no rent is remitted.
Source: U.S. Census Bureau. American Community Survey One Year Public Use Microdata Sample, various years.

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Appendix B: Economics

The economic forecast used for this report follows the general methodology used by the U.S. Congressional Budget Office (CBO). The approach is a simplified "growth accounting" framework, where real economic output or Gross Domestic Product (GDP) is equal to the product of (1) growth in employment and (2) growth in average worker output, also known as labor productivity. For example, if the number of individuals employed grows by 1.0 percentage point and the average productivity of all workers grows by 0.5 percentage points, then real economic growth would equal (1.01) * (1.005) - 1.0, or 1.5 percentage points. Hence, an increase (decrease) in employment growth or labor productivity will translate into higher (lower) economic growth.

The state economic forecast is built upon four basic assumptions. They are as follows:

- The Federal Reserve achieves its target inflation rate of 2.0 percentage points, as measured by the personal consumption expenditures price index. Based on historical trends, the more widely-used consumer price index (CPI-U) would increase at a slightly faster pace, and the analysis assumes that rate is 2.2 percentage points.
- Regional inflation, as measured by the Philadelphia CPI-U, grows at the same rate as the U.S. CPI-U.
- Statewide labor productivity reverts to a historical average, and is consistent with U.S. projections.
- The average worker's wages grow by inflation plus a modest premium that is consistent with historical trends for the U.S. and Pennsylvania.

The economic forecast is somewhat different than forecasts typically issued by government entities or private firms. The forecast assumes that certain economic variables revert to historical rates of growth that are consistent with (1) forecasts for the U.S. economy and (2) demographic projections supplied by the Pennsylvania State Data Center. The primary purpose of the forecast is to serve as a neutral benchmark against which policymakers could assess the sustainability of fiscal policies over a five-year time horizon. Therefore, the economic forecast employs a simple methodology and does not attempt to capture the many intricacies of the Pennsylvania economy that may ultimately drive economic growth.

The model first establishes the real growth rate of the Pennsylvania economy, which is a function of employment growth and labor productivity. During the previous decade, the Pennsylvania economy generated an average of 40,000 to 50,000 new jobs per year for non-recession years. The forecast assumes that trend continues through 2022. This assumption yields an upward trend in the employment to population ratio, which is consistent with recent historical data. (See Table B.1.) The data reveal a significant decline in that ratio in 2009, but general recovery since that point. This trend is also consistent with the assumption of higher labor force participation rates, which was discussed in the economics chapter of this report.

The middle of Table B.1 displays the average output per worker, and the growth in that metric, which may also generally be viewed as labor productivity. For 2014, the average worker produced $104,300 of output or production. The forecast assumes that labor productivity accelerates in 2016 and 2017, prior to reversion to a historical rate of growth of roughly 1.1 to 1.2

percent per annum. That level and trend is consistent with the national economic forecast published by the CBO in January 2016. Typically, Pennsylvania worker productivity lags the U.S. by a small amount.

The employment and worker productivity forecasts yield real economic growth of roughly 2.0 percent per annum. That rate is somewhat stronger than recent historical years, but it is consistent with the U.S. forecasts issued by the CBO and IHS Economics. Those forecasts assume average U.S. economic growth of 2.4 to 2.6 percent per annum for 2015 through 2022. Historically, the Pennsylvania economy has expanded at a rate that is approximately 0.5 percentage points lower than the nation. That differential is largely driven by slower demographic growth in Pennsylvania.

The bottom of Table B.1 displays the forecast for the Philadelphia CPI-U. As noted, the forecast assumes that the regional inflation measure follows the level and trends of the national inflation forecast. The CBO forecast assumes that the national CPI-U will increase at an average rate of 2.3 percent per annum from 2015 to 2022. The average regional rate used by this report is slightly lower (2.1 percent).

The final primary economic variable is total wages and salaries paid to workers. The Pennsylvania forecast assumes that wages for the average worker will increase by the rate of inflation, plus a modest premium so that the purchasing power of those wages increases over time. For this analysis, that premium ranges from 1.1 to 1.3 percent per annum. The CBO forecast also includes a premium for U.S. workers, and the premium generally ranges from 1.3 to 1.5 percent per annum. The Pennsylvania premium is consistent with historical state trends. However, it should be noted that the premium is an average gain across all workers, and may not be shared equally by all workers across the income spectrum.

Given these assumptions, the average wage for all workers increases by roughly 3.3 percent per annum. If employment expands by 0.8 percent per annum, then total wages paid to all workers will increase by the product of those growth rates, or roughly 4.2 percent per annum. Similar to the other forecasts, Pennsylvania wages and salaries expand at a somewhat slower pace than the CBO national forecast (4.5 percent) of total wages.

Data Sources

Various sources were used to construct the Current Income measure referenced in the economics section of this report. These sources are noted below, as well as the many sources used to derive the estimate of Pennsylvania retirement income. Further detail regarding the Pennsylvania Current Income metric can be found in the Independent Fiscal Office's release entitled *Revenue Estimate Methodology* (May 2015).

Wages and Salaries - Data are from the U.S. Bureau of Economic Analysis Table SA4: http://www.bea.gov/regional/index.htm. Includes the resident adjustment for individuals who live in the state, but work in another state.

All Capital Income - Data are from the federal tax returns filed by Pennsylvania dents: https://www.irs.gov/uac/SOI-Tax-Stats-Historic-Table-2. Capital income includes dividends, interest (taxable and tax-exempt), rents, royalties, estates and trusts and capital gains. All amounts are grossed up for non-compliance based on IRS compliance studies.

Business Net Income - Data are from the federal tax returns filed by Pennsylvania residents: https://www.irs.gov/uac/SOI-Tax-Stats-Historic-Table-2. Business net income includes the net income of sole proprietors (file a federal Schedule C, includes independent contractors), partnerships and S corporations. Amounts do not include unused net operating losses carried forward from previous years. All amounts are grossed up for non-compliance based on IRS compliance studies.

Retirement Income - Data are from various sources. SERS data are from the annual actuarial report: http://sers.pa.gov/newsroom_facts.aspx. Figures exclude 10 percent of payments that are paid to individuals who do not reside in the state. PSERS data are from the annual actuarial report: http://www.psers.state.pa.us/content/publications/financial/cafr/cafr15/2015%20CAFR%20-%20Actuarial%20Section.pdf.

Figures exclude lump sum withdrawals (assumed to be rolled over to an IRA) and 9 percent of benefit payments that are paid to individuals who do not reside in the state. Military pensions are from the Department of fense: http://actuary.defense.gov/. Federal pensions are from the Office of Personnel Management: http://catalog.data.gov/dataset/fiscal-year-employee-and-survivor-annuitants-by-geographic-distribution. Local pensions are from the U.S. Census Bureau, Annual Survey of Public Pensions: https://www.census.gov/govs/retire/. Private defined pensions are from the U.S. Bureau of Economic Analysis, National Income and Product Tables 7.20 through 7.25. Exact figures are not available for individual states. The analysis assumes that the Pennsylvania share is equal to the share of Pennsylvania taxable pension amounts reported on federal tax returns (4.2 percent for 2013). Defined contribution plans use the same data source, tables and methodology, as well as information from the Investment Company Institute. The analysis assumes that Pennsylvania is 4.2 percent of the national total and that rollovers to IRAs comprise slightly more than one-third (36 percent) of the total benefit payouts reported, and hence, are not counted as income in that year.[9] Annuities are assumed to comprise eight percent of defined benefit and defined contribution income based on retirement asset data published by the Investment Company Institute. Individual retirement account data are from federal tax returns and include a gross up for non-compliance.

Income Maintenance - Data are from two sources. Data for Social Security (retirement and disability) benefits are from the U.S. Social Security Administration Annual Statistical Supplement: https://www.ssa.gov/policy/docs/statcomps/supplement/. Data for all other income (veterans' benefits, unemployment compensation, Supplemental Nutrition Assistance Program, Earned Income Tax Credit, Supplemental Security Income, Worker's Compensation and railroad retirement benefits) are from the U.S. Bureau of Economic Analysis, regional data, Table SA35: http://www.bea.gov/regional/index.htm.

[9] This assumption is based upon the paper by Saeblehaus and Weiner, "Disposition of Lump-Sum Pension Distributions: Evidence from Tax Returns," National Tax Journal, Volume 52, No.3 (September 1999).

Table B.1
Pennsylvania Economic Variables

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Payroll Employment[1]	5,802	5,803	5,620	5,625	5,690	5,730	5,744	5,790	5,845	5,898	5,948	5,995	6,040	6,086	6,131
Change	42	1	-184	5	65	40	15	46	55	53	50	48	45	45	46
Growth Rate	0.7%	0.0%	-3.2%	0.1%	1.2%	0.7%	0.3%	0.8%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%
Residents: Age 20 to 69[1]	7,945	8,005	8,074	8,130	8,177	8,219	8,256	8,276	8,268	8,263	8,261	8,261	8,263	8,268	8,276
Employ / Population	0.730	0.725	0.696	0.692	0.696	0.697	0.696	0.700	0.707	0.714	0.720	0.726	0.731	0.736	0.741
Real Output per Worker[1]	99.4	99.6	100.7	104.1	103.1	103.2	103.6	104.3	105.2	106.3	107.7	109.0	110.2	111.5	112.8
Growth Rate	0.6%	0.2%	1.2%	3.4%	-1.0%	0.0%	0.4%	0.7%	0.8%	1.1%	1.3%	1.2%	1.2%	1.2%	1.1%
Real GDP[2]	576.5	577.7	565.9	585.8	586.8	591.2	595.1	603.7	614.6	627.0	640.5	653.4	665.9	678.6	691.5
Growth Rate	1.3%	0.2%	-2.0%	3.5%	0.2%	0.7%	0.7%	1.5%	1.8%	2.0%	2.2%	2.0%	1.9%	1.9%	1.9%
Philadelphia CPI-U	216.8	224.2	223.5	227.7	233.8	238.1	240.9	244.1	243.9	247.8	252.7	258.0	263.7	269.5	275.4
Growth Rate	2.0%	3.4%	-0.3%	1.9%	2.7%	1.8%	1.2%	1.3%	-0.1%	1.6%	2.0%	2.1%	2.2%	2.2%	2.2%
Wages-Salaries[2]	253.5	260.3	254.5	259.8	270.0	280.1	285.1	296.5	306.9	318.5	331.6	345.3	359.7	374.4	389.8
Growth Rate	5.3%	2.7%	-2.2%	2.1%	3.9%	3.7%	1.8%	4.0%	3.5%	3.8%	4.1%	4.2%	4.2%	4.1%	4.1%
Average Wage[1]	43.7	44.9	45.3	46.2	47.5	48.9	49.6	51.2	52.5	54.0	55.7	57.6	59.5	61.5	63.6
Growth Rate	4.6%	2.7%	1.0%	2.0%	2.7%	3.0%	1.5%	3.2%	2.5%	2.9%	3.2%	3.3%	3.4%	3.3%	3.3%

[1] Thousands of units or dollars.
[2] Billions of dollars.

Pennsylvania Energy Prices

Pennsylvania energy prices have declined during the past year. (See Table B.2.) In particular, gasoline and natural gas recorded strong reductions due to abundant market supply. Residential electricity is the only energy price that increased during the past year.

For residential, commercial and industrial consumers, natural gas prices are lower now than they were in 2005. The prices for residential and commercial natural gas have decreased consistently since 2008 due to (1) shale gas development that produced strong production gains and (2) the lack of sufficient pipeline capacity to export excess regional supply to other markets. Regular gasoline prices have also declined, falling by 30.6 percent in the past year due to strong domestic production and excess supply on the international market.

Electricity prices have been more stable, in part because electricity generators use various fuel sources; therefore, the price is not dictated by the dynamics of any single commodity market. Most analysts expect energy prices to remain low for 2016.

Table B.2
Pennsylvania Energy Prices

Calendar Year	Natural Gas ($/mcf) Residential	Natural Gas ($/mcf) Commercial	Natural Gas ($/mcf) Industrial	Gasoline Avg. Price[1]	Electricity Price (c/KWh) Residential	Electricity Price (c/KWh) Commercial	Electricity Price (c/KWh) Industrial
2001	$11.51	$10.67	$7.18	$1.44	$9.68	$8.62	$5.76
2002	9.46	7.70	6.29	1.37	9.74	8.50	5.83
2003	10.87	9.26	8.12	1.59	9.59	8.62	5.80
2004	12.27	10.60	8.97	1.88	9.58	8.51	5.87
2005	14.21	13.04	11.25	2.30	9.86	8.50	6.29
2006	16.45	14.30	12.30	2.62	10.35	8.94	6.63
2007	14.66	12.77	10.64	2.79	10.95	9.20	6.87
2008	16.22	14.29	12.09	3.27	11.35	9.39	7.03
2009	14.74	11.83	9.19	2.37	11.65	9.55	7.21
2010	12.90	10.47	8.23	2.79	12.70	10.10	7.66
2011	12.46	10.42	9.86	3.56	13.26	10.03	7.73
2012	11.99	10.24	9.58	3.68	12.75	9.44	7.23
2013	11.63	10.11	9.13	3.56	12.79	9.25	6.97
2014	11.77	10.13	9.95	3.43	13.34	9.72	7.42
2015[2]	11.39	9.58	9.70	2.38	13.68	9.58	7.19
Average Annual Growth Rate							
2005-2010	-1.9%	-4.3%	-6.1%	4.0%	5.2%	3.5%	4.0%
2010-2015	-2.5%	-1.7%	3.6%	-2.9%	1.3%	-1.2%	-1.6%
2005-2015	-2.2%	-3.0%	-1.5%	0.4%	3.3%	1.2%	1.3%

[1] Dollars per gallon. Average price for Central Atlantic Region.
[2] Values for 2015 are estimated based on partial-year data.
Source: U.S. Energy Information Administration.

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Appendix C: Revenues

Table C.1
General Fund Revenues

FY Ending	Amount ($ millions) Corporate Net Income	Other Corporate	Sales and Use	Personal Income	All Other	General Fund	Regional CPI-U (levels)	Nominal State GDP ($ billions)
1995	$1,906	$2,172	$5,527	$5,083	$1,537	$16,225	156.9	$320.6
1996	1,626	2,113	5,682	5,374	1,543	16,339	160.7	333.5
1997	1,697	2,212	6,037	5,746	1,629	17,321	165.0	347.3
1998	1,703	2,295	6,152	6,236	1,736	18,123	167.2	364.0
1999	1,725	2,363	6,606	6,684	1,850	19,227	169.8	381.1
2000	1,860	2,333	7,018	7,066	1,980	20,257	174.4	399.6
2001	1,603	2,260	7,204	7,492	2,003	20,562	179.1	418.8
2002	1,419	2,183	7,293	7,139	2,027	20,060	182.7	434.3
2003	1,397	2,354	7,520	7,106	2,938	21,315	187.0	449.5
2004	1,678	2,673	7,729	7,734	3,015	22,828	192.1	470.2
2005	1,921	2,830	8,000	8,747	2,810	24,309	200.6	493.5
2006	2,302	2,888	8,334	9,524	2,806	25,854	208.5	517.5
2007	2,493	2,984	8,591	10,262	3,121	27,449	214.1	541.5
2008	2,418	3,040	8,497	10,908	3,066	27,928	221.1	559.2
2009	1,980	2,854	8,136	10,199	2,361	25,530	223.1	565.6
2010	1,791	2,788	8,029	9,969	5,071	27,648	226.1	575.9
2011	2,132	2,761	8,590	10,436	3,579	27,497	230.3	595.1
2012	2,022	2,941	8,772	10,801	3,141	27,678	236.0	612.9
2013	2,423	2,766	8,894	11,371	3,192	28,647	239.9	629.1
2014	2,502	2,397	9,130	11,437	3,142	28,607	242.5	647.6
2015	2,811	2,305	9,493	12,107	3,875	30,593	244.1	668.9
2016	2,739	2,252	9,830	12,772	3,328	30,922	245.8	691.9
2017	2,775	2,112	10,178	13,213	3,247	31,525	250.2	718.7
2018	2,827	2,152	10,553	13,7799	3,378	32,708	255.4	748.4
2019	2,934	2,193	10,913	14,447	3,408	33,895	260.9	779.4
2020	3,028	2,236	11,279	15,126	3,453	35,121	266.6	811.8
2021	3,134	2,280	11,650	15,824	3,508	36,395	272.5	845.5
Average Annual Growth Rates								
1995 to 2005	0.1%	2.7%	3.8%	5.6%	6.2%	4.1%	2.5%	4.4%
2005 to 2015	3.9%	-2.0%	1.7%	3.3%	3.3%	2.3%	2.0%	3.1%
2015 to 2021	1.8%	-0.2%	3.5%	4.6%	-1.6%	2.9%	1.8%	4.0%

Source: Executive Budget, various years. Projections by IFO.

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Appendix D: Expenditures

Table D.1
General Fund Expenditures

FY Ending	Amount ($ millions)						Regional CPI-U (levels)	Nominal State GDP ($ billions)
	Education	Human Services	Corrections	Treasury	All Other	General Fund		
1995	$6,670	$5,221	$721	$547	$2,516	$15,675	156.9	$320.6
1996	6,963	5,319	827	472	2,582	16,163	160.7	333.5
1997	7,027	5,363	894	586	2,596	16,467	165.0	347.3
1998	7,214	5,553	977	649	2,838	17,230	167.2	364.0
1999	7,511	5,853	1,042	788	3,069	18,263	169.8	381.1
2000	7,640	6,189	1,130	656	3,680	19,295	174.4	399.6
2001	8,041	6,480	1,161	414	3,766	19,862	179.1	418.8
2002	8,277	6,669	1,151	586	3,747	20,429	182.7	434.3
2003	8,509	6,530	1,247	393	3,721	20,400	187.0	449.5
2004	8,754	7,440	1,299	713	3,680	21,885	192.1	470.2
2005	9,407	7,886	1,331	450	3,980	23,054	200.6	493.5
2006	9,687	8,918	1,358	769	3,933	24,665	208.5	517.5
2007	10,461	9,304	1,420	900	4,212	26,298	214.1	541.5
2008	11,060	8,617	1,600	923	4,768	26,968	221.1	559.2
2009[1]	11,273	8,590	1,606	955	4,660	27,084	223.1	565.6
2010[1]	10,588	8,577	1,593	976	3,209	24,942	226.1	575.9
2011[1]	10,455	8,780	1,663	1,023	3,146	25,067	230.3	595.1
2012	10,491	10,495	1,856	1,090	3,097	27,031	236.0	612.9
2013	10,967	10,623	1,867	1,139	3,122	27,717	239.9	629.1
2014	11,114	11,045	1,998	1,117	3,121	28,395	242.5	647.6
2015[2]	11,564	11,288	2,134	1,144	3,069	29,200	244.1	668.9
2016	12,030	11,586	2,233	1,182	3,149	30,181	245.8	691.9
2017	12,713	12,421	2,334	1,278	3,319	32,118	250.2	718.7
2018	13,261	13,158	2,406	1,349	3,399	33,735	255.4	748.4
2019	13,782	13,825	2,462	1,420	3,461	35,080	260.9	779.4
2020	14,228	14,628	2,528	1,452	3,538	36,562	266.6	811.8
2021	14,610	15,268	2,595	1,510	3,612	37,828	272.5	845.5
Average Annual Growth Rates								
1995 to 2005	3.5%	4.2%	6.3%	-1.9%	4.7%	3.9%	2.5%	4.4%
2005 to 2015	2.1%	3.7%	4.8%	9.8%	-2.6%	2.4%	2.0%	3.1%
2015 to 2021	4.0%	5.2%	3.3%	4.7%	2.7%	4.4%	1.8%	4.0%

[1] Excludes expenditures supported by federal funds provided under the American Recovery and Reinvestment Act of 2009 (ARRA). The excluded ARRA amounts are: $1.2 billion (FY 2008-09), $2.7 billion (FY 2009-10) and $3.1 billion (FY 2010-11).
[2] FY Ending 2015 includes supplemental appropriations.
Source: Executive Budget, various years. Projections by IFO.

Table D.2
Total State Complement

	Fiscal Year Ending									Change	
	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2006-10**	**2010-14**
Human Services	19,958	18,871	18,599	18,620	18,197	17,858	17,048	16,898	16,721	-1,761	-1,476
Corrections	15,324	15,750	15,866	15,866	16,215	16,180	16,157	15,965	15,925	891	-290
Transportation	12,259	12,011	12,011	12,011	11,876	11,876	11,876	11,876	11,883	-383	7
State Police	6,161	6,413	6,430	6,385	6,359	6,359	6,378	6,514	6,531	198	172
Labor and Industry	5,842	5,570	5,576	5,581	5,790	5,764	5,948	5,916	5,898	-52	108
Liquor Control Board	3,258	3,258	3,258	3,258	3,276	3,276	3,276	3,276	3,270	18	-6
Environmental Protection	3,132	3,079	3,127	3,018	2,835	2,839	2,770	2,770	2,708	-297	-127
Military and Veterans Affairs	2,475	2,474	2,483	2,483	2,336	2,312	2,236	2,218	2,226	-139	-110
Revenue	2,270	2,373	2,385	2,385	2,128	2,128	2,128	2,012	2,001	-142	-127
Executive Offices	2,341	2,321	2,369	2,421	2,106	2,066	2,042	1,887	1,789	-235	-317
Health	1,589	1,610	1,635	1,636	1,582	1,529	1,495	1,395	1,336	-7	-246
Conservation & Natural Resources	1,407	1,407	1,408	1,408	1,362	1,389	1,389	1,383	1,403	-45	41
Probation and Parole Board	1,039	1,117	1,175	1,175	1,173	1,173	1,228	1,244	1,264	134	91
General Services	1,419	1,335	1,392	1,392	1,246	1,138	1,061	999	1,003	-173	-243
Game Commission	732	707	707	707	698	698	708	708	708	-34	10
Agriculture	659	690	710	710	612	604	596	594	592	-47	-20
Education	766	756	758	760	603	590	544	551	535	-163	-68
Public Utility Commission	523	509	519	519	519	519	532	520	520	-4	1
State	527	533	532	532	531	523	506	499	496	4	-35
Fish & Boat Commission	431	432	432	432	432	432	432	432	432	1	0
School Employees Retire. Syst.	290	306	310	310	310	310	310	314	314	20	4
Comm. and Economic Develop.	362	364	375	376	343	320	294	315	307	-19	-36
Insurance	410	403	403	388	334	317	309	289	273	-76	-61
Historical & Museum Com.	329	323	307	300	212	200	218	210	210	-117	-2
All Others[1]	1,165	1,158	1,213	1,214	1,108	1,073	1,102	1,135	1,127	-57	19
Total	**84,668**	**83,770**	**83,980**	**83,887**	**82,183**	**81,473**	**80,583**	**79,920**	**79,472**	**-2,485**	**-2,711**
Total PA Employment (000s)[2]	5,734	5,782	5,815	5,720	5,594	5,664	5,714	5,735	5,761	-140	167
State Complement Share	1.48%	1.45%	1.44%	1.47%	1.47%	1.44%	1.41%	1.39%	1.38%	n.a.	n.a.

[1] All Other includes: Banking and Securities, Emergency Management Agency, Civil Service Commission, Department of Aging, Securities Commission, Governor's Office, Milk Marketing Board, Municipal Employes' Retirement, Infrastructure Investment Authority, Environmental Hearing Board, Lt. Governor's Office, Drug & Alcohol Programs and SERS.
[2] Total Pennsylvania employment is the average payroll employment over each fiscal year.
Source: Executive Budget (various years) and U.S. Bureau of Labor Statistics.

Table D.3
Department of Human Services Populations Receiving Benefits

	Fiscal Year Ending										Change 2006-15	
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Number	AAGR[1]
Medical Assistance[2]	1,833.8	1,883.2	1,881.1	1,985.9	2,117.9	2,234.9	2,278.9	2,277.9	2,293.6	2,471.7	637.9	3.4%
CHIP[2,3]	138.7	152.2	167.6	183.6	196.5	193.3	194.4	189.7	185.3	155.2	16.5	1.3%
Long-Term Care[2]	80.2	81.1	81.5	82.4	82.9	77.4	59.9	56.3	49.8	50.4	-29.8	-5.0%
Cash Assistance[2]	278.9	250.7	225.8	221.7	240.7	284.2	248.3	180.2	165.8	166.0	-112.9	-5.6%
Mental Health Services	418.7	517.4	526.0	525.1	530.4	649.4	655.6	720.1	696.8	761.6	342.9	6.9%
Substance Abuse Services	91.5	100.3	113.6	113.7	112.6	147.5	125.5	159.9	111.7	122.8	31.3	3.3%
State Mental Hospitals	3.6	3.6	3.5	3.0	2.8	2.7	2.8	2.4	2.4	2.3	-1.3	-4.7%
Intellectual Disabilities	49.5	54.2	55.3	57.3	57.4	57.5	57.6	53.6	53.6	54.7	5.2	1.1%
Youth Development Centers	1.6	1.6	1.5	1.4	1.2	1.1	1.0	0.8	0.8	0.8	-0.9	-8.1%

Note: thousands of recipients.
[1] Average annual growth rate.
[2] Represents average monthly enrollments. For Medical Assistance, includes those eligible under Medicaid expansion.
[3] CHIP is administered by the Department of Insurance.
Source: Executive Budget (various years) and Department of Human Services reports.

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Appendix E: Other Funds

This report facilitates an assessment of the Commonwealth's fiscal condition by providing a detailed analysis of General Fund revenues and expenditures for the current fiscal year and the next five fiscal years. In addition to the General Fund, the Commonwealth maintains numerous special funds dedicated to specific purposes. In general, this report does not address those funds; however, three special funds have unique implications for General Fund expenditures.

For recent fiscal years, General Fund appropriations for the Departments of Human Services and Conservation and Natural Resources have been supplemented by the Lottery Fund (Human Services), the Tobacco Settlement Fund (Human Services) and the Oil and Gas Lease Fund (Conservation and Natural Resources). Table E.1 displays a ten-year history and forecast for special funds that augment General Fund expenditures. The use of special funds increased noticeably in FY 2011-12, reaching a peak in FY 2014-15.

Due to the interrelation between these special funds and certain General Fund appropriations, this appendix projects revenues and expenditures for the Lottery Fund, Tobacco Settlement Fund and Oil and Gas Lease Fund for FY 2015-16 through FY 2020-21. These forecasts inform the projection of General Fund appropriations found in the body of the report. To the extent that special funds cannot sustain the same level of funding provided in prior years, the analysis assumes that future General Fund appropriations will increase to make up the difference.

Table E.1
Ten-Year History of Selected Special Fund Expenditures

Fiscal Year	Lottery[1]	Tobacco[2]	Oil & Gas[3]	Total
2005-06	$0	$164	$5	$169
2006-07	249	170	4	423
2007-08	249	206	4	459
2008-09	301	248	12	561
2009-10	178	263	19	460
2010-11	178	228	24	430
2011-12	178	290	60	528
2012-13	309	255	68	632
2013-14	330	256	102	688
2014-15	477	364	137	978
2015-16	310	251	87	648
2016-17	310	226	34	570
2017-18	275	236	49	560
2018-19	268	231	68	567
2019-20	265	226	85	576
2020-21	255	221	107	583

Note: figures in dollar millions.
[1] Includes MA Long-Term Care, Home and Community-Based Services and MA Transportation.
[2] Includes MA for Workers with Disabilities, Long-Term Care, Home and Community-Based Services and Uncompensated Care.
[3] Includes General Government, State Parks and State Forests.

Lottery Fund

The majority of Lottery Fund revenues support programs that address the needs of a growing elderly population in Pennsylvania. The Departments of Human Services (DHS), Revenue and Transportation receive both General and Lottery Fund appropriations. Lottery monies fund the entire budget for the Department of Aging, as it does not receive any General Fund appropriations.

For FY 2014-15, expenditures ($1.941 billion) exceeded net revenues ($1.756 billion), which reduced the fund balance from $201 million at the beginning of the fiscal year to an estimated $16 million at the end of the year. (See Table E.2.) Going forward, the low ending balance and modest net revenue growth will limit the ability of the Lottery Fund to supplement General Fund appropriations for DHS programs.

Gross ticket sales are projected to grow at an average rate of 2.5 percent per annum for FY 2015-16 through FY 2020-21:

- Instant ticket sales grow by 4.1 percent per annum, based on trends in disposable current income and the 18 or older population who may legally purchase tickets.
- For FY 2015-16, the multi-state Powerball game reached its highest prize value ($1.5 billion), leading to extraordinary sales growth (36.5 percent from FY 2014-15). Excluding that year, multi-state lottery sales grow by 2.2 percent per annum through FY 2020-21, based on demographic and income trends.
- All other game (in-state lottery, numbers and raffle) sales decline by -1.0 percent per annum. The main driver of this contraction is sales of numbers games, which decline by -2.7 percent per annum.

The forecast projects that net revenues (gross ticket sales less prizes, commissions, transfers and other amounts) will grow at an average rate of 1.5 percent per annum from FY 2015-16 to FY 2020-21. It assumes that a $75 million balance sheet reserve is maintained throughout the forecast period, consistent with historical treatment.

The forecast also reflects the following assumptions:

- Expenditures that are funded through disbursements from the Lottery Fund, with the exception of those for DHS, are based on the growth in the relevant service populations and an inflationary adjustment.
- DHS appropriations are held flat, with the exception of Medical Assistance – Long-Term Care, which is adjusted as necessary to maintain a fund balance of at least $2 million. Reductions in this line item are absorbed by the General Fund.

The forecast projects that total appropriations will increase by 1.7 percent per annum from FY 2015-16 through FY 2020-21. (See Table E.2.) The department details are as follows:

- Department of Aging appropriations grow by 3.2 percent per annum. Those revenues are earmarked for general operations (2.4 percent growth per annum), PENNCARE (4.9 percent), Pre-Admissions Assessment (4.9 percent), Caregiver Support (4.9 percent), Alzheimer's Outreach (4.9 percent), Pharmaceutical Assistance Fund (-0.6 percent) and grants for senior citizens (4.9 percent). The Pharmaceutical Assistance Fund forecast is provided by the department, while other programs are projected based on trends for the 65 or older age cohort or the total population and the CPI-U.
- Department of Revenue appropriations grow by 1.9 percent per annum. Approximately two-thirds of appropriations are used for administrative and advertising expenses,

vendor commissions and the payment of prize monies (2.9 percent growth per annum). The forecast projects that those operational costs grow in line with total game sales, but at a slightly faster pace as a somewhat larger share of prize payouts are made by the department, and not by retailers. The remainder is earmarked for the Property Tax Rent Rebate (PTRR) program for general operations and rebate claims (-0.3 percent). The PTRR forecast declines due to the program's statutorily set income eligibility. As incomes rise over time, more households will exceed the income limits.

- Department of Transportation appropriations grow by 4.9 percent per annum. The revenues are earmarked for the Older Pennsylvanians Shared Ride program and a transfer to the Public Transportation Trust Fund. The forecast for those transfers is based on the change in the CPI-U and the growth of the 65 or older age cohort.

- The residual funds available to support DHS appropriations decline by 3.8 percent per annum. The Home and Community-Based Services and Medical Assistance - Transportation Services programs are held flat. The projections for Medical Assistance - Long-Term Care decline based on the availability of Lottery Funds after other program costs are taken into account. Reductions in this line item are absorbed by the General Fund.

Table E.2
Lottery Fund Balance Sheet

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Beginning Balance	$201	$16	$38	$6	$2	$2	$2
Reserve from Prior Year	75	75	75	75	75	75	75
Total	**276**	**91**	**113**	**81**	**77**	**77**	**77**
Gross Ticket Sales	3,820	4,094	4,135	4,265	4,390	4,513	4,635
Less Field Paid Prizes & Comm.	-2,256	-2,373	-2,424	-2,511	-2,595	-2,678	-2,760
Transfers, Earnings and Lapses[1]	192	168	169	159	157	157	157
Net Revenue	**1,756**	**1,889**	**1,880**	**1,913**	**1,952**	**1,992**	**2,032**
Funds Available	**2,032**	**1,980**	**1,993**	**1,994**	**2,029**	**2,069**	**2,109**
Aging	487	524	550	563	577	592	613
Human Services	477	310	310	275	268	265	255
Revenue[2]	797	851	861	879	897	915	933
Transportation	180	182	190	200	210	220	231
Total Expenditures	**1,941**	**1,867**	**1,911**	**1,917**	**1,952**	**1,992**	**2,032**
Current Year Reserve	**-75**	**-75**	**-75**	**-75**	**-75**	**-75**	**-75**
Ending Balance	**16**	**38**	**6**	**2**	**2**	**2**	**2**

Note: figures in dollar millions.
[1] Includes a prior year lapse of $27.9 million in FY 2014-15.
[2] Includes a lapse of -$6.5 million for FY 2014-15.

Tobacco Settlement Fund

The Tobacco Settlement Fund receives monies paid to the Commonwealth under the Tobacco Master Settlement Agreement. The agreement ended litigation between certain large tobacco companies and state attorneys general regarding the advertising, marketing and promotion of tobacco products, as well as the costs incurred by state Medicaid programs to treat smoking-related illnesses. The revenues received by the fund generally are used for health-related programs.

For FY 2014-15, expenditures ($671 million) exceeded revenues ($343 million), which reduced the fund balance from $350 million at the beginning of the fiscal year to an estimated $22 million at the end of the year. A large portion of the reduction in the fund balance was due to a one-time transfer to the Public School Employees Retirement System ($225 million).

Tobacco Settlement Fund revenue projections for FY 2015-16 through FY 2019-20 were provided by the Office of the Budget. Revenues are comprised of gross settlements and strategic contribution payments. The last strategic contribution payment is expected to be received in the spring of 2017.

The forecast reflects the following assumptions:

- Expenditures, with the exception of the Department of Human Services (DHS), are held constant for the entire forecast period. This is consistent with the projection of flat revenues.
- The Medical Assistance – Long-Term Care line item under DHS is adjusted as necessary to maintain a fund balance of at least $2 million. Reductions in this line item are absorbed by the General Fund.

Table E.3
Tobacco Settlement Fund Balance Sheet

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Beginning Balance	**$350**	**$22**	**$2**	**$2**	**$2**	**$2**	**$2**
Gross Settlements	322	292	287	317	312	307	302
Strategic Contributions	21	20	20	0	0	0	0
Interest[1]	0	0	0	0	0	0	0
Total Revenues	**343**	**312**	**307**	**317**	**312**	**307**	**302**
Funds Available	**693**	**334**	**309**	**319**	**314**	**309**	**304**
Transfer to PSERS	225	0	0	0	0	0	0
Comm. & Econ. Development	4	3	3	3	3	3	3
Health	78	78	78	78	78	78	78
Human Services	364	251	226	236	231	226	221
Total Expenditures	**671**	**332**	**307**	**317**	**312**	**307**	**302**
Ending Balance	**22**	**2**	**2**	**2**	**2**	**2**	**2**

Note: figures in dollar millions.
[1] Amount less than $500,000.

Oil and Gas Lease Fund

The Oil and Gas Lease Fund (OGLF) receives monies from the leasing of state lands for oil and gas drilling, in the form of rents, royalties, bonus payments and interest. The OGLF revenues support programs related to environmental conservation. Disbursements from the fund are made to the Department of Conservation and Natural Resources (DCNR), with priority given to state park and state forest programs, and the Marcellus Legacy Fund, which supports other conservation-related programs.

For FY 2014-15, expenditures ($172 million) exceeded revenues ($115 million), which reduced the fund balance from $114 million at the beginning of the fiscal year to an estimated $57 million at the end of the year. The decline in the fund balance results from lower-than-expected royalty revenue and a shift in DCNR's reliance from the General Fund to the OGLF.

The forecast projects that royalty revenues will decline in the near-term, and then gradually return to a level closer to the historical baseline. The reduction in royalty revenues is due to the recent dramatic reduction in the price of natural gas. The forecast assumes that the price will remain depressed until additional pipeline capacity becomes available in 2017 and 2018.

The revenue projection uses a combination of data provided by DCNR, the Department of Environmental Protection and BENTEK Energy. Royalties are forecasted using expected trends in price, production, and pipeline capacity through the forecast horizon, with adjustments to reflect actual prices received from sales of the gas extracted from state lands. Rentals and bonus payments are projected to remain flat.

The forecast reflects the following assumptions:

- Expenditures from the fund represent statutory provisions for (1) an executive authorization of up to $50 million annually for DCNR, and (2) transfers to the Marcellus Legacy Fund, which are $35 million for FY 2014-15, $40 million for FY 2015-16 and $50 million for FY 2016-17 and thereafter.
- The remaining funds are available for appropriation to DCNR after providing for a fund balance of at least $2 million.

Table E.4
Oil and Gas Lease Fund Balance Sheet

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Beginning Balance	**$114**	**$57**	**$1**	**$2**	**$2**	**$2**	**$2**
Rents, Royalties and Interest	115	71	85	99	118	135	157
Total Revenues	**115**	**71**	**85**	**99**	**118**	**135**	**157**
Funds Available	**229**	**128**	**86**	**101**	**120**	**137**	**159**
Conservation & Nat. Resources	137[1]	87	34	49	68	85	107
Transfer to Marcellus Legacy Fund	35	40	50	50	50	50	50
Total Expenditures	**172**	**127**	**84**	**99**	**118**	**135**	**157**
Ending Balance	**57**	**1**	**2**	**2**	**2**	**2**	**2**

Note: figures in dollar millions.
[1] Includes funds authorized in prior fiscal years and expended or committed in FY 2014-15.