Independent Fiscal Office

# Analysis of Proposal to Replace School Property Taxes: House Bill 76 and Senate Bill 76 of 2013

October 1, 2013

Special Report 2013-7

## 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.


**Independent Fiscal Office**
**Rachel Carson Office Building, 2nd Floor**
**400 Market Street**
**Harrisburg, PA 17105**

| | |
|---|---|
| **Telephone:** | **717-230-8293** |
| **E-mail:** | **contact@ifo.state.pa.us** |
| **Website:** | **www.ifo.state.pa.us** |
| **Staff Contacts:** | **Matthew Knittel, Director** |
| | **Mark Ryan, Deputy Director** |


IFO


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

- This page was intentionally left blank. -

**INDEPENDENT FISCAL OFFICE**

**Second Floor, Rachel Carson State Office Building**
**400 Market Street**
**Harrisburg, Pennsylvania 17105**

October 1, 2013

To: The Honorable Kerry Benninghoff, The Honorable John Blake, The Honorable Michael Brubaker and The Honorable Phyllis Mundy

This report presents the results from an analysis of House Bill 76 and Senate Bill 76 performed by the Independent Fiscal Office (IFO). The proposed legislation eliminates local school district property taxes and replaces those funds with sales and use and personal income taxes, as well as monies redirected from the Property Tax Relief Fund.

This analysis projects revenues under the proposed legislation and compares them to revenues projected under current law. These estimates encompass the fiscal impact on state funds as well as the impact on the local entities that are directly affected by provisions in the bills. The analysis specifically examines the general impact on school district funding relative to current law. Appendices provide further detail at the end of this report.

Per IFO policy, this report will be posted to the office website three days following transmittal. The IFO welcomes any questions, comments or suggestions regarding the content and methodology of this analysis.

Sincerely,

MATTHEW KNITTEL
Director

- This page was intentionally left blank. -

# Table of Contents

# Section 1: Introduction

This report provides an analysis of a proposal that replaces local school district property taxes with state-funded distributions. The distributions would come from increases to certain state taxes and the redirection of other funds. For this analysis, the Independent Fiscal Office (IFO) projects the net fiscal impact of the proposal and the impact on the various state funds and local entities directly affected by its provisions.

The proposal has been introduced as two separate pieces of legislation (House Bill 76, P.N. 1167 and Senate Bill 76, P.N. 673), and the bills are currently pending before the General Assembly. The two bills are identical for the purpose of this analysis, and all references to "the proposal" include both pieces of legislation.

## Overview of the Proposal

The proposal makes numerous changes to current law, but the components that relate to this fiscal analysis can be summarized as follows:

- The proposal repeals the ability of school districts to levy a property tax after December 31, 2013, except that districts may retain a property tax sufficient to service debt that was in existence on December 31, 2012.
- School districts receive distributions from a new Education Stabilization Fund (ESF) in lieu of their ability to levy a property tax. For the first year, the distributions are based on fiscal year (FY) 2013-14 property tax collections, less FY 2013-14 debt service, adjusted by a cost of living factor. Thereafter, distributions are based on the prior year, adjusted annually by a cost of living factor.
- Four revenue sources would fund the new ESF:
  - An expansion of the state sales and use tax base to include additional goods and services.
  - An increase in the state sales and use tax rate from 6 to 7 percent.
  - An increase in the state personal income tax rate from 3.07 to 4.34 percent.
  - A redirection of monies currently deposited into the Property Tax Relief Fund.

## Summary of Results

This report projects the fiscal impact, which is the difference between revenues collected under current law and revenues collected under the proposal. The analysis finds that there is no discernible fiscal impact in the first year (FY 2014-15), but the proposal has a negative net fiscal impact over the subsequent four years contained in the forecast. A simulation of the proposal using eleven years of historical data from FY 2002-03 to FY 2012-13 confirms this general pattern.

**Table 1.1**
**Net Fiscal Impact of House Bill 76 / Senate Bill 76**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Education Stabilization Fund | $354 | $720 | $1,056 | $1,380 | $1,716 |
| School Districts[1] | -304 | -1,098 | -1,761 | -2,311 | -2,813 |
| Other Impacts[2] | -53 | -15 | 17 | 41 | 66 |
| **Net Fiscal Impact** | **-3** | **-393** | **-688** | **-890** | **-1,031** |

[1] Includes the impact of replacing property taxes for all school districts and eliminating non-property taxes levied to fund the School District of Philadelphia.
[2] Includes the impact on the General Fund and special funds.

## General Approach

The proposal is highly complex and has many provisions that interact. To maintain clarity, the analysis first presents the general revenue implications of the proposal in Section 2. The proposal also includes numerous transfers between funds. Section 3 provides detail regarding the deposit of new tax revenues into specific funds, the transfers of monies between various funds and the impact of the proposal on school districts. Section 4 provides an analysis of historical trends for sales, income and school property tax revenues. Section 5 concludes the analysis with a historical simulation that assumes the proposal is enacted on January 1, 2002. Three appendices provide further detail for readers interested in the methodologies and data sources used to derive the estimates contained in this analysis. The final appendix presents historical property tax data.

# Section 2: Impact of Major Provisions

House Bill 76, P.N. 1167 and Senate Bill 76, P.N. 673 propose extensive changes to the mechanism used to fund Pennsylvania school districts. The bills prohibit the levy of most school property taxes and, in lieu of such taxes, provide school districts with state distributions drawn from a newly created Education Stabilization Fund (ESF).[1]

This section of the analysis provides detail on the revenue sources supporting the ESF, the calculation of the school property tax replacement baseline and the mechanics of the ESF distributions to school districts. The proposal identifies the following major revenue sources for the ESF:

- Revenues from the sales and use tax rate increase and base expansion.[2]
- Revenues from the personal income tax rate increase.
- Monies redirected from the Property Tax Relief Fund.

For each tax source, the text provides a brief description of (1) the provisions that affect tax revenues, (2) the general methodology and assumptions used to estimate revenue impacts and (3) any secondary revenue effects of the proposal. For redirected monies, the text identifies the programs or political subdivisions that would be affected by the redirected funds. Appendices A through D contain additional information about the assumptions, data sources and methodology used to develop the projections in this report.

The proposal makes substantive changes to the Pennsylvania tax code and could impact the long-term growth rate of the Pennsylvania economy. However, this analysis does not include macroeconomic "feedback" effects, such as the potential impact on long-term economic growth or employment levels. The analysis assumes that total after-tax consumption remains constant unless changes to tax law, such as the property tax cut, alter the amount of disposable income available. Due to this convention, an increase in sales tax revenues implies a corresponding reduction in business sales.

All revenue estimates include behavioral responses that result from changes to the tax code. The analysis also includes ancillary or secondary effects from changes to tax law. Secondary effects occur when a change in one tax source has implications for another tax source. For example, the elimination of school property taxes increases disposable income and spending, so it will also increase sales tax revenues. When possible, the analysis separately itemizes these secondary effects.

To derive estimates of "baseline" (i.e., current law) revenues, the analysis uses the economic assumptions provided by IHS Global Insight for August 2013. The economic forecast used for this analysis assumes that the Pennsylvania economy returns to full output and employment levels by calendar year 2018. The economic forecast is as follows:

---

[1] School districts may levy sufficient property tax to service debt in existence on December 31, 2012.

[2] Sales and use tax is commonly referred to as sales tax. Sales tax is used throughout the remainder of this analysis.

**Table 2.1**
**Pennsylvania Economic Forecast**

| | Calendar Year Growth Rates or Levels | | | | | | |
|---|---|---|---|---|---|---|---|
| | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** |
| Real Gross State Product | 0.8% | 2.0% | 2.9% | 2.5% | 2.4% | 2.2% | 2.2% |
| CPI-U (PA-DE-NJ-MD) | 1.0% | 1.4% | 1.6% | 1.7% | 1.6% | 1.6% | 1.7% |
| Nominal Wages | 2.2% | 4.0% | 4.3% | 4.2% | 4.0% | 3.8% | 3.7% |
| Payroll Employment | 0.5% | 1.1% | 1.5% | 1.5% | 1.1% | 0.8% | 0.7% |
| Unemployment Rate | 7.6% | 7.2% | 6.6% | 6.0% | 5.7% | 5.5% | 5.3% |

The analysis uses a five-year budget window that extends through FY 2018-19. The five-year budget window serves two purposes. First, it displays results when the forecast assumes that the economy reverts to a normal rate of growth. Second, the five-year budget window allows tax changes to become "fully phased in." For example, the analysis assumes that compliance rates for newly taxed goods and services will increase over time as taxpayers become aware of their new tax obligations. The Department of Revenue will need to educate taxpayers and hire support staff to process new taxpayers impacted by the sales tax base expansion.[3]

## Sales Tax Base Expansion and Rate Increase

Description

The proposal provides for the expansion of the sales tax base and an increase in the tax rate from 6 to 7 percent. Under the proposal, all goods and services are subject to tax unless specifically exempted. The new levy is effective January 1, 2014. Other miscellaneous changes to sales tax law include: (1) a $300 annual cap on vendor discounts and (2) an expansion of the exemption for purchases made by certain educational entities (non-public schools, charter schools, cyber charter schools, vocational schools and supervisor and home education programs).

Revenue Impact

In order to estimate the sales tax revenues deposited into the ESF, the analysis makes several assumptions. First, the analysis assumes that the sponsors intend to deposit the sales tax revenues received under current law into the General Fund and deposit new revenues from the rate increase and base expansion into the ESF. It is unclear whether the language in the proposal is sufficient to achieve that goal or whether the Department of Revenue could administer the provision as written.[4] The analysis also

[3] The Department of Revenue estimates that 117,000 new sales tax licensees will need to register with the department. For the sales tax base expansion, the department projects that it will require an additional 31 staff. The projected cost for labor, mailings and computer programming is approximately $4 million.

[4] The proposal contains a number of provisions that are vague or unclear. This analysis highlights some of those provisions when discussing the fiscal impact (see pages 34-35 in Appendix A). However, a legal review of the

assumes that the tax increase is fully passed forward to consumers, and consumers purchase fewer taxable items in response to higher tax rates. Furthermore, it assumes a minor increase in non-compliance rates due to the higher tax rate.

The analysis finds that the rate increase from 6 to 7 percent against the current tax base generates $1.58 billion in FY 2014-15 and $1.83 billion in FY 2018-19. (See Table 2.2.) Following the rate increase, the analysis considers the revenue impact of the sales tax base expansion. The proposal provides that all goods and services will be taxed unless specifically exempted. Despite that broad language, there are certain instances where it is not clear which services should be included in the base expansion. For the purpose of this analysis, the following factors were used to determine which services to include in the base expansion: (1) the ability to administer the taxation of certain services by the Department of Revenue, (2) the ability of sellers to recharacterize sales to effectively escape taxation and (3) the provision of health services by non-profit vs. for-profit entities. (See Appendix A.)

The analysis projects that the base expansion generates $4.31 billion in FY 2014-15 and $5.24 billion in FY 2018-19. For FY 2014-15, significant base expansion items include certain food items ($1.30 billion), recreation ($601 million), clothing over $50 ($415 million), non-prescription drugs ($133 million) and certain health care and nursing services ($716 million).

The property tax cut generates additional sales tax revenues as individuals spend the increase in disposable income. The analysis estimates that this secondary effect increases sales tax by $53 million in FY 2014-15 and $78 million in FY 2018-19. Gross sales tax revenues total $5.95 billion in FY 2014-15 and $7.15 billion in FY 2018-19, which are deposited into the ESF.

The analysis assumes that the proposal eliminates the 0.947 percent transfer to the Public Transportation Assistance Fund but maintains the 4.4 percent transfer to Public Transportation Trust Fund.[5] The transfers to the Public Transportation Trust Fund total $262 million in FY 2014-15 and $315 million in FY 2018-19. Net sales tax revenues total $5.69 billion in FY 2014-15 and $6.83 billion in FY 2018-19.

---

proposal is beyond the scope of this report. A more detailed listing of drafting issues is contained in an analysis prepared by the Department of Revenue. That analysis can be accessed at www.ifo.state.pa.us/resources/PDF/DOR Analysis_HB76_June2013.pdf. See pages 6 through 11 of the Department's document for more information.

[5] More detail on the Public Transportation Assistance Fund and Public Transportation Trust Fund can be found on page 30.

**Table 2.2**
**Sales Tax: Rate Increase and Base Expansion**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| **Rate Increase (6% to 7%)** | **$1,583** | **$1,649** | **$1,714** | **$1,774** | **$1,828** |
| Base Expansion at 7% Rate | | | | | |
| Goods | | | | | |
| Food – Excludes WIC Items | 1,299 | 1,358 | 1,414 | 1,469 | 1,530 |
| Food Exemption for SNAP | -143 | -143 | -142 | -139 | -136 |
| Candy and Gum | 88 | 92 | 97 | 102 | 106 |
| Personal Hygiene Products | 68 | 71 | 74 | 77 | 80 |
| Newspapers and Magazines | 33 | 34 | 35 | 36 | 37 |
| Clothing and Footwear over $50 | 415 | 437 | 461 | 488 | 519 |
| Non-prescription Drugs | 133 | 139 | 145 | 151 | 156 |
| All Other | 62 | 65 | 69 | 72 | 75 |
| Services | | | | | |
| Personal Services | 235 | 247 | 260 | 272 | 285 |
| Business Services | 90 | 94 | 99 | 104 | 109 |
| Recreation Services | 601 | 626 | 651 | 675 | 700 |
| Health Services | 716 | 763 | 813 | 864 | 915 |
| Professional Services | 370 | 390 | 409 | 429 | 449 |
| Transportation and Storage | 72 | 76 | 80 | 84 | 88 |
| Waste Management | 127 | 133 | 140 | 147 | 154 |
| Education | 98 | 104 | 109 | 114 | 120 |
| Miscellaneous Provisions | | | | | |
| Miscellaneous Goods and Services | 18 | 19 | 19 | 19 | 20 |
| Expand Exempt Entities | -37 | -38 | -40 | -42 | -43 |
| Cap on Vendor Discounts | 67 | 70 | 73 | 76 | 78 |
| **Base Expansion Subtotal** | **4,312** | **4,537** | **4,766** | **4,998** | **5,242** |
| Secondary Effects | 53 | 60 | 67 | 73 | 78 |
| **Gross Sales Tax** | **5,948** | **6,246** | **6,547** | **6,845** | **7,148** |
| Transfers to PTTF[1] | -262 | -275 | -288 | -301 | -315 |
| **Net Sales Tax to ESF** | **5,686** | **5,971** | **6,259** | **6,544** | **6,833** |

[1] Public Transportation Trust Fund.

## Personal Income Tax Rate Increase

Description

The proposal increases the state personal income tax rate from 3.07 to 4.34 percent. The proposal does not alter any other personal income tax provision. It also stipulates that school districts may levy, assess and collect a local personal income or earned income tax for general purposes. Local units may specify the rate, which voters must approve by referendum. The proposal provides for tax forgiveness of the levy depending on the income level of residents.

Revenue Impact

Because the Commonwealth levies a flat personal income tax rate, the methodology for the rate increase is straightforward. The analysis increases the current law baseline by the percentage increase in the tax rate (1.27 / 3.07 or 41.4 percent). The analysis then assumes minor reductions in the number of hours worked and the tax compliance rate due to the rate increase. The personal income tax rate increase generates $4.92 billion in FY 2014-15 and $5.85 billion in FY 2018-19.[6] (See Table 2.3.)

For eligible taxpayers, the tax forgiveness credit generally eliminates any tax increase. A similar result likely holds for most individuals claiming the resident credit as the Pennsylvania income tax rate remains lower than non-reciprocal states such as New York and Delaware.

If the income tax rate increases, overpayments of tax liability by business owners and individuals would increase as well, thereby triggering higher refunds.[7] The final estimate includes the increase in refunds that would be carried on the balance sheet and paid from the General Fund. The estimate also includes a minor secondary effect from the property tax cut and sales tax increase. On net, those provisions increase the disposable income of consumers, which increases spending and the income of pass through entities.

**Table 2.3**
**Personal Income Tax: Rate Increase**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Rate Increase (3.07% to 4.34%) | $4,908 | $5,142 | $5,370 | $5,602 | $5,834 |
| Secondary Effects | 9 | 11 | 11 | 12 | 13 |
| **Total Personal Income Tax to ESF** | **4,917** | **5,153** | **5,381** | **5,614** | **5,847** |
| Refund Impact on General Fund | -180 | -229 | -240 | -251 | -261 |

[6] The analysis does not include the impact of personal income or earned income taxes that may be levied by school districts under the proposal.
[7] This analysis assumes that the fiscal impact of higher refunds will be reflected in the General Fund. The legislation does not clearly specify the treatment of such refunds.

## Property Tax Relief Fund Transfers

The proposal redirects all monies that currently are transferred to or received by the Property Tax Relief Fund to the ESF. These monies include transfers from the State Gaming Fund for property tax relief, repayments of loans from the Property Tax Relief Reserve Fund and interest earnings.

The transfers from the State Gaming Fund are used for the following purposes under Special Session Act 1 of 2006. The amounts in parentheses are the values certified for FY 2013-14.[8]

- School property tax reductions for homesteads and farmsteads. ($509 million)
- Sterling Act credit reimbursements for school districts to supplement the homestead and farmstead exclusions provided to taxpayers in those districts. ($17 million)
- Philadelphia resident and nonresident wage tax reduction. ($86 million)
- Enhancements to the Property Tax and Rent Rebate (PTRR) program. ($137 million)
- Supplemental property tax rebates for certain PTRR claimants with household income equal to or less than $30,000 who also meet one of the following criteria: ($30 million)
    - Claimants whose property taxes exceed 15 percent of their household income.
    - Claimants residing in Philadelphia, Pittsburgh or Scranton.

The Taxpayer Relief Act (hereafter referred to as "Act 1") provides Philadelphia with property tax reduction allocations to reduce the city's resident and nonresident wage taxes.[9] The act requires that the wage tax reductions be maintained as long as the allocations are made to the city. According to Philadelphia's finance director, the allocations support a 0.2 percentage point reduction in each of the taxes.

Under Act 1, the monies supporting enhancements to the PTRR program and the associated supplemental rebates are transferred to the State Lottery Fund. The proposal does not change the PTRR program or supplemental rebates, but the transfers supporting the expenditures are redirected to the ESF. Rebates under the PTRR program would be reduced slightly with the enactment of the proposal, but the structure of the rebate program limits the savings. County and municipal property taxes would remain in place, and claimants would continue to be eligible for rebates based on those taxes. Claimants currently receive rebates equal to the first $250 to $650 of property taxes they pay, depending on household income. A claimant's rebate would be reduced only if the county, municipal and school district property taxes remaining after the enactment of this proposal are less than their current rebate. The Department of Revenue estimates that enactment of the proposal would reduce Lottery Fund expenditures for PTRR and supplemental rebates by roughly $41 million annually beginning in FY 2015-16.

---

[8] A copy of the FY 2013-14 certification can be obtained at: http://www.pa.gov/portal/server.pt/document/1332215/budget_secretary_certifies_more_than_%24778_million_for_statewide_property_tax_relief_pdf.

[9] The act of Jun. 27, 2006, Special Session 1, P.L. 1873, No. 1, known as the Taxpayer Relief Act. See section 703 for the provisions related to cities of the first class.

## School Property Tax Replacement and Education Stabilization Fund Distributions

Description

The proposal provides for the elimination of school property taxes and the replacement of those monies with state-funded distributions from the ESF. The following narrative describes this funding mechanism.

School Property Tax Replacement

The proposal repeals the authority of school districts to levy, assess and collect any tax on real property for school purposes as of January 1, 2014. The proposal provides that no school district shall incur electoral debt, lease rental debt or lease non-electoral debt after the effective date. School districts must identify the dollar amount of outstanding debt as of December 31, 2012 and certify that amount with the Department of Revenue. School districts may continue to levy taxes on real property for the purpose of retiring certified debt. The analysis assumes that such taxes may be levied until the debt is fully retired.

The analysis projects a school property tax replacement baseline to represent the revenues that school districts would receive under current law, but not under the proposal. The baseline includes (1) the school property tax forecast, (2) a phase-out for property taxes servicing certified debt and (3) a phase-out for the collection of prior year delinquent taxes. The phase-outs represent the property taxes that would continue to be collected even after their general replacement on January 1, 2014. For example, as noted above, the proposal allows school districts to levy property taxes to service debt in existence on December 31, 2012. In addition, school districts will continue to collect delinquent taxes if the taxes were levied before January 1, 2014. The differential between the school property tax forecast and the phase-outs represent school property taxes that would be replaced under the proposal. Table 2.4 provides a summary of the components of the school property tax replacement baseline.

**Table 2.4**
**School Property Tax Replacement Baseline**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| School Property Tax Forecast - Total | $13,683 | $14,292 | $14,824 | $15,323 | $15,864 |
| Phase-out - Prior Year Delinquent Taxes | -459 | -264 | -99 | 0 | 0 |
| Phase-out - Debt Service | -2,039 | -1,900 | -1,761 | -1,622 | -1,483 |
| **School Property Tax Replacement Baseline** | **11,185** | **12,128** | **12,964** | **13,701** | **14,381** |

Distributions to School Districts from the Education Stabilization Fund

The proposal requires the Pennsylvania Department of Education (PDE) to make quarterly distributions from the ESF to school districts. The distributions are governed by a formula that uses FY 2013-14 property tax collections (as opposed to levies) as the base year. The school property taxes collected in the base year are reduced by payments in that year to service debt that was in existence on December 31, 2012. The proposal does not reduce the base year amount by delinquent taxes collected for prior years, therefore the base year value will deviate from the FY 2013-14 school property tax replacement baseline reported in Appendix C.[10]

The distributions for FY 2014-15 are equal to the base year amount adjusted by the cost of living factor. The cost of living factor is equal to the lesser of the percentage increase in the CPI-U (PA-DE-NJ-MD) for the preceding calendar year or the percentage increase in sales tax collected for the preceding calendar year. For FY 2015-16 and thereafter, the distributions are equal to the distributions made in the prior year, adjusted by the cost of living factor.

**Table 2.5**
**Distributions to School Districts from the Education Stabilization Fund**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Base Year or Prior Year Value | $10,963 | $11,073 | $11,228 | $11,408 | $11,602 |
| Cost of Living Factor (CPI-U) | 1.0% | 1.4% | 1.6% | 1.7% | 1.6% |
| **Distributions to School Districts** | **11,073** | **11,228** | **11,408** | **11,602** | **11,788** |

Additional Prohibition for School Districts of the First Class

The proposal prohibits a city of the first class from imposing, or continuing to impose, any tax for the use of a school district of the first class after December 31, 2013. The prohibition includes the real property tax and all other taxes levied for the use of a school district of the first class. The Philadelphia non-property taxes affected by the prohibition include the liquor by the drink tax, the business use and occupancy tax and the nonbusiness income tax. Projected revenues from these taxes are $192 million in FY 2014-15 and $220 million in FY 2018-19.[11] These amounts are not included in Table 2.4, nor are they included in the distributions in Table 2.5. The prohibition on non-property taxes does not apply to any other school district.

---

[10] See Table C.1 on page 52. The FY 2013-14 base year amount of $10,963 million is calculated as the difference between the property tax forecast ($13,141 million) and the phase-out for debt service ($2,178 million). The base year amount includes $529 million in property tax reduction allocations transferred to school districts for property tax relief.

[11] Act 52 of 2013 provides that up to $120 million from the local sales tax levied by a city of the first class may be paid to a school district of the first class contingent upon a written certification by the Secretary of Education. The potential impact on the local sales tax is not included in the projected revenues.

## Secondary Effects from Tax Law Changes

The estimates from the previous sections capture the immediate impact of various tax law changes. For example, the analysis finds that property taxes would decline by $11.2 billion for FY 2014-15, but that estimate does not include the impact from how residents would use the additional income. Most of the property tax cut would be spent, much of it on taxable items under the sales tax base expansion. Similarly, the personal income tax estimate only reflects the revenue from the higher tax rate, but does not include the impact from how that money would have been spent by taxpayers and the foregone sales tax collections.

This section describes and estimates the secondary effects from primary tax law changes. The effects are secondary because they are much smaller than the primary impact and occur because individuals and businesses have more or less income or profits. Even if all primary tax changes offset (i.e., those changes are revenue neutral), there may still be revenue implications from secondary effects due to the different reliance of taxes levied on sales, income or property.

### Sales Tax

Due to the proposed sales tax rate increase and base expansion, consumers will reduce their consumption of higher and newly taxed items because the relative price has increased. Based on consumer response assumptions, the analysis includes a reduction in the quantity of those items that are purchased under the proposal.[12] The analysis assumes that (1) total spending (inclusive of sales tax) does not change if disposable income does not also change and (2) the increase in sales tax is fully passed forward to consumers. Hence, new sales tax revenue implies an equal dollar reduction in business sales.

The primary effect of the rate increase and base expansion is that sales tax revenues increase by $5.7 billion for FY 2014-15. The analysis assumes that (1) business sales fall by an equal amount, (2) profits comprise 5.5 percent of business sales and (3) the reduction in sales is split evenly between pass through entities (i.e., S corporations, partnerships and sole proprietors) and corporations. The reduction in business income yields approximately a -$10 million secondary impact for personal and corporate income taxes.[13]

---

[12] Most normal products and services have an elasticity of 0.5 to 1.0. The elasticity measures how responsive consumers are to prices changes. An elasticity equal to one implies that a one percent increase in the price will reduce the quantity purchased by one percent. The analysis uses an elasticity of 0.4, so that a seven percent increase in the after-tax price of a good or service reduces quantity purchased by 2.8 percent (7.0 times 0.4). The analysis uses a relatively low elasticity due to (1) the very broad base expansion and (2) many purchases might simply shift to goods that are already taxed since their relative price changes very little due to the rate increase. The elasticity is used to capture “leakage” from the tax base to non-taxed products.

[13] The analysis assumes an effective tax rate of 3.5 percent for owners and shareholders of pass through entities and 7.5 percent for corporations. The rates do not equal the statutory rates of 4.34 (under the proposal) and 9.99 percent because some of the increase in profits merely reduces losses, and does not increase taxable income. The analysis also assumes a profit margin of 5.5 percent on the increase in business sales based on federal tax data for non-financial corporations. See http://www.irs.gov/uac/SOI-Tax-Stats-Returns-of-Active-Corporations-Table-6.

Personal Income Tax

The higher income tax rate reduces disposable income and reduces purchases of taxable and non-taxable goods and services. The primary effect of the tax change increases personal income tax revenues by $4.7 billion (net of refunds) for FY 2014-15. The analysis assumes that 80 percent of the increase in personal income tax would have been spent and 70 percent of that amount would have been spent on taxable goods and services under the sales tax base expansion.[14] This implies a secondary effect on sales tax of -$185 million ($4.7 billion times 80 percent times 70 percent times 7 percent) for FY 2014-15. The analysis also includes a $9 million reduction due to lower business income from the reduced sales.

Property Tax

The elimination of school property taxes increases the disposable income of homeowners, landlords or renters and businesses. The primary effect of the tax change reduces property tax by $11.2 billion for FY 2014-15. The analysis assumes that 70 percent of the property tax cut accrues to homeowners ($7.8 billion). Due to the reduction in itemized deductions on Schedule A of the federal income tax return, the analysis projects that federal income taxes will increase by $310 million for homeowners. Therefore, the net increase in disposable income for homeowners is $7.5 billion. The analysis assumes that homeowners spend 80 percent of the increase in disposable income and 70 percent is spent on taxable items under the base expansion. The additional spending from the property tax cut increases sales tax revenue by roughly $295 million for FY 2014-15.

The analysis assumes that 30 percent of the property tax cut accrues to businesses: half to pass through entities ($1.7 billion) and half to corporations ($1.7 billion). For pass though entities, the property tax cut flows through to individual partners, shareholders and owners as higher business income. However, business income will also fall because pass through entities pay a portion of the higher sales tax in their role as a final consumer of certain goods (roughly $300 million). The net change to federal taxable income ($1.4 billion) is further reduced by 15 percent because some partners and shareholders do not reside in Pennsylvania. The analysis then applies an effective income tax rate of 3.5 percent to the increase in the federal taxable income of pass through entities that flows through to owners, for a secondary impact of $41 million ($1.4 billion times 3.5 percent times 85 percent) for personal income tax. Owners and shareholders would also spend most of that income in their capacity as consumers (after the deduction of additional federal and state income taxes) yielding a further impact of $36 million for sales tax in FY 2014-15.

Finally, the elimination of property taxes also increases the business income of C corporations ($1.7 billion). The analysis assumes that 42 percent of the $1.7 billion increase in net income is reported on the state corporate income tax return (due to apportionment) yielding a secondary impact of $44 million in

[14] The 70 percent share assumption is based on an analysis of consumer spending patterns excluding outlays unlikely to be affected by incremental changes in disposable income, such as mortgage and rent payments, utilities and basic food items. See Appendix A for further discussion of this assumption. For all estimates, the analysis assumes that the sales tax base expansion and higher tax rate is "stacked first" so that changes that follow (personal income and property tax) are scored relative to those changes.

corporate net income tax for FY 2014-15.[15] For C corporations, any corresponding sales tax impact from higher spending due to the increase in after-tax income is less clear because the firm need not pass through higher after-tax profits as dividends that can be spent. It may simply retain the higher earnings. Moreover, a significant portion of the increase in after-tax profits accrues to multistate firms and could leak from the state economy. For these reasons, the analysis does not attempt to compute a corresponding sales tax offset for C corporations.

Summary of Secondary Effects for Sales, Income and Property Taxes

The net impact of the secondary effects increases state tax revenues by $212 million for FY 2014-15. (See Table 2.6.) Although the tax revenue from the primary tax changes largely offset, the secondary effects increase state revenues due to the change in method of taxation. The change in the sales tax does not affect disposable income, or the amount of income that is available to be spent. The tax increase merely changes relative prices and consumers will adjust their purchases away from newly taxed and higher taxed items towards non-taxed items. This reduction in consumer purchases acts as a penalty from the tax increase. The sales tax increase generally has no implications for property taxes and minor implications for income taxes.[16]

Conversely, the net change in property and income taxes does not alter relative prices but rather increases disposable income that consumers may spend, and that has implications for sales tax revenues. As noted, the analysis assumes that most of that new income is spent.

Although these secondary impacts increase revenues, it should be emphasized that the new tax system penalizes consumers because both taxed and non-taxed purchases will fall, and that penalty is not included in the analysis. Consumers are penalized due to higher after-tax prices and, for many, higher federal income taxes. Both reduce purchasing power and cause a reduction in the consumption of taxable and non-taxable goods and services.

[15] The apportionment factor is based on corporate income tax return data for tax year 2006. The factor is a weighted average based on the reported property factor in the apportionment formula. Compared to tax liabilities, Pennsylvania-only firms will receive a disproportionate share of the property tax cut because all property is located within the state.

[16] The analysis does not include any macroeconomic effects on employment and overall economic growth.

**Table 2.6**
**Secondary Tax Impacts**
(fiscal year, $ millions)

| Tax Affected | Description | 2014-15 Impact[1] |
|---|---|---|
| **Personal Income Tax /Corporate Net Income Tax** | | |
| | Higher or expanded sales tax increases after-tax prices. Consumers reduce purchases and business income declines. | -$10 |
| | Higher personal income tax rate reduces disposable income. Consumers reduce purchases and business income declines. | -9 |
| | Property taxes paid by businesses decline. The reduced expenses increase the taxable profits of corporate and pass through entities. | 85 |
| **Sales and Use Tax** | | |
| | Higher personal income tax rate reduces disposable income. Consumers spend less on taxable goods and services. | -185 |
| | Property taxes paid by individuals decline and increases disposable income. Consumers spend more on taxable goods and services. | 295 |
| | Property taxes paid by businesses decline and increases the taxable profits of pass through entities. Disposable income increases for these owners/shareholders and they spend more on taxable goods and services. | 36 |
| **Total** | | **212** |

[1] Includes amounts deposited into the General Fund and ESF.

Realty Transfer Tax

Economic theory suggests that the present value of all future property taxes should be capitalized or built-in to the value of a home. However, research finds that only a portion of those taxes are actually reflected in a home's value. Based on empirical research, the analysis assumes that the property tax cut will increase the value of homes by roughly 10 percent.[17] Those home gains will not occur immediately, but will take many years to fully materialize. If home values increase, then state and local realty transfer tax revenues should increase by a similar magnitude. The analysis assumes those taxes increase by two percent for FY 2014-15 ($10 million) and then increase each year to eight percent by FY 2018-19 ($52 million).

[17] More specifically, the analysis assumes an average property tax cut of $2,200 per homeowner, a median home price of $180,000, a capitalization rate of one-third and a four percent discount rate.

# Section 3: Fiscal Impact by Fund or Entity

This section provides detail regarding the proposal's complex funding structure by displaying the impact on the affected state funds and political subdivisions. Table 3.1 provides a summary of the fiscal impact, allowing the reader to quickly gauge how the proposal affects current-law revenues and expenditures. The notes in the table help demonstrate how the proposal shifts monies between various funds and local entities. Tables 3.2 through 3.9 provide additional detail for the affected funds and local entities.

The analysis finds that the proposal has a negative net fiscal impact over the forecast period. In the first fiscal year, there is no discernible fiscal impact. However, the subsequent four years reveal a growing gap between the revenues generated by the proposal and the school property taxes it replaces. The detail shows that deposits to the Education Stabilization Fund (ESF) exceed the disbursements to school districts. This occurs because (1) ESF revenues grow faster than school district distributions and (2) the distribution formula does not permit the ESF to allocate all of its revenues. Furthermore, the ESF distributions received by school districts fall short of the property taxes that would be eliminated, creating a negative fiscal impact for the districts. This holds even if all of the monies deposited into the ESF are disbursed to school districts. The discrepancy between ESF revenues and the school property tax replacement is the primary reason for the negative net fiscal impact.

The structure of the proposal contributes to the fiscal impact. The analysis projects that about 18 percent of school property tax would be retained in FY 2014-15 in order to service debt incurred on or before December 31, 2012. Initially, the retained property tax helps reduce the negative fiscal impact. As debt is retired and debt service declines, the property taxes permitted to be levied for debt service also decline. This phase-down contributes to a school property tax replacement baseline that grows faster than the revenues supporting ESF.

**Table 3.1**
**Overview of Property Tax Replacement**
**Impacted Funds and Political Subdivisions**
(fiscal year, $ millions)

| | Note | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|---|
| **Education Stabilization Fund** | | | | | | |
| Tax Revenues | | $10,865 | $11,399 | $11,928 | $12,459 | $12,995 |
| Transfer from Prop. Tax Relief Fund | A | 824 | 824 | 824 | 824 | 824 |
| Transfer to Public Trans. Trust Fund | B | -262 | -275 | -288 | -301 | -315 |
| Distributions to School Districts | C | -11,073 | -11,228 | -11,408 | -11,602 | -11,788 |
| **School District Property Taxes** | | | | | | |
| Distributions from the ESF | C | 11,073 | 11,228 | 11,408 | 11,602 | 11,788 |
| Property Tax Replacement | D | -11,185 | -12,128 | -12,964 | -13,701 | -14,381 |
| **General Fund** | | | | | | |
| Tax Refunds | | -180 | -229 | -240 | -251 | -261 |
| PTAF Transfers | E | 96 | 100 | 104 | 108 | 111 |
| Tax Revenues | | 160 | 193 | 221 | 241 | 260 |
| **Property Tax Relief Fund** | | | | | | |
| Redirected to ESF | A | -824 | -824 | -824 | -824 | -824 |
| Lottery Fund | F | 168 | 169 | 170 | 171 | 172 |
| Property Tax Relief / Sterling Act | D | 529 | 529 | 529 | 529 | 529 |
| City of Philadelphia | G | 86 | 86 | 86 | 86 | 86 |
| **Lottery Fund** | | | | | | |
| Property Tax / Rent Rebate (PTRR) | F | -168 | -169 | -170 | -171 | -172 |
| PTRR Program Savings | | 0 | 41 | 43 | 45 | 47 |
| **Public Transportation Funding** | | | | | | |
| Public Trans. Assistance Fund | E | -96 | -100 | -104 | -108 | -111 |
| Public Trans. Trust Fund | B | 262 | 275 | 288 | 301 | 315 |
| **Philadelphia** | | | | | | |
| Act 1 Wage Tax Reduction Funding | G | -86 | -86 | -86 | -86 | -86 |
| School District Taxes (non-property) | | -192 | -198 | -205 | -212 | -220 |
| **TOTAL** | | **-3** | **-393** | **-688** | **-890** | **-1,031** |

Notes:

A A portion of the state tax on slots proceeds currently is transferred from the Gaming Fund to the Property Tax Relief Fund. Under the proposal, those monies would be transferred to the ESF instead of the Property Tax Relief Fund.

B The proposal transfers 4.4 percent of sales tax revenue from the ESF to the Public Transportation Trust Fund. See the text preceding Table 3.7 for additional discussion.

C The distributions are expenses to the ESF and revenues to school districts.

D The property tax replacement baseline includes the monies from the Property Tax Relief Fund that are dedicated to school district property tax relief. These monies are not broken out separately in the school district portion of this table.

E The elimination of the current 0.947 percent transfer of sales tax revenue increases General Fund revenues and reduces funding for the Public Transportation Assistance Fund. See the text preceding Table 3.7 for additional discussion.

F Monies that the proposal redirects from the Property Tax Relief Fund to the ESF include monies that are transferred currently to support the PTRR program (and supplemental rebates) in the Lottery Fund. See the text preceding Table 3.6 for additional discussion.

G Monies that the proposal redirects from the Property Tax Relief Fund to the ESF include monies that are transferred currently to Philadelphia to support resident and nonresident wage tax reductions. See the text preceding Table 3.8 for additional discussion.

## Education Stabilization Fund

The proposal creates the ESF to hold the proceeds dedicated to school property tax relief. Such proceeds include revenues from the expanded sales tax base, the higher sales tax rate and the higher personal income tax rate, as well as monies that would otherwise be transferred to or deposited into the Property Tax Relief Fund. For FY 2014-15, distributions from the ESF use a formula that takes into account property taxes and debt service for FY 2013-14, with an adjustment for the percentage change in the regional consumer price index (CPI) or sales tax collections, whichever is less. In subsequent years, the distributions are based on the amount distributed in the prior year, adjusted by the percentage change in the CPI or sales tax collections, whichever is less.

The two main revenue sources for the ESF, sales and personal income taxes, are shared with the General Fund. The specific allocation of revenues for these shared sources is governed by ambiguous and vague language in the proposal. For the purpose of this report, the analysis assumes that new revenues from these taxes are deposited into the ESF and that the General Fund continues to receive the revenues projected under current law.[18] Additional detail regarding the allocation of revenues between the ESF and the General Fund can be found in the General Fund discussion in this section.

**Table 3.2**
**Education Stabilization Fund**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| **Receipts** | | | | | |
| Sales Tax - Rate and Base Expansion | $5,948 | $6,246 | $6,547 | $6,845 | $7,148 |
| Personal Income Tax - Rate Increase | 4,917 | 5,153 | 5,381 | 5,614 | 5,847 |
| Property Tax Relief Fund - Transfers | 824 | 824 | 824 | 824 | 824 |
| **Subtotal - Receipts** | **11,689** | **12,223** | **12,752** | **13,283** | **13,819** |
| **Transfers and Disbursements** | | | | | |
| Transfer to Public Transportation Trust Fund | 262 | 275 | 288 | 301 | 315 |
| Distributions to School Districts | 11,073 | 11,228 | 11,408 | 11,602 | 11,788 |
| **Subtotal - Transfers and Disbursements** | **11,335** | **11,503** | **11,696** | **11,903** | **12,103** |
| **Receipts Less Transfers and Disbursements** | **354** | **720** | **1,056** | **1,380** | **1,716** |

[18] The proposal repeals the transfer of sales tax revenues from the General Fund to the Public Transportation Assistance Fund. This transfer is dealt with separately.

## School District Property Tax

Table 3.3 displays the difference between the distributions school districts would receive from the ESF and the property tax revenues they would receive under current law. Current law revenues are adjusted to reflect the retention of property taxes used to pay debt service on debt issued on or before December 31, 2012, as well as the residual collection of delinquent property taxes that were levied prior to January 1, 2014. The adjusted series is referred to as the school property tax replacement baseline in Table 3.3.

Under the proposal, the cost of living factor for the ESF distributions to school districts is equal to the lesser of the growth in the regional CPI or the growth in the sales tax base for the preceding calendar year. The CPI grows more slowly than the sales tax base in the forecast; therefore, the CPI is used for the cost of living factor. The growth in the CPI is significantly lower than the growth in the school property tax replacement baseline, leading to a growing disparity between the distributions school districts would receive under the proposal and the property tax revenues they would receive under current law.

**Table 3.3**
**School Districts**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Distributions from the ESF | $11,073 | $11,228 | $11,408 | $11,602 | $11,788 |
| School Property Tax Replacement Baseline | 11,185 | 12,128 | 12,964 | 13,701 | 14,381 |
| **Change in School District Revenues** | **-112** | **-900** | **-1,556** | **-2,099** | **-2,593** |

## General Fund

Some of the provisions governing revenue deposits, refunds or transfers are subject to multiple interpretations due to wording that is unclear or contradictory. Therefore, the analysis utilizes certain assumptions.[19] Others performing their own fiscal analysis may choose different assumptions based on their reading of the proposal.

The net fiscal impact determined by this analysis is not affected by these assumptions because all of the revenues and costs are accounted for within the detail. For example, this analysis assumes that the new revenues generated by the higher sales tax rate and expanded base are deposited into the ESF, and the General Fund is held harmless. However, the Department of Revenue read the proposal to require that some sales tax revenue currently deposited into the General Fund instead be deposited into the ESF, creating a sizable loss for the General Fund and substantial gain for the ESF.[20] Both interpretations are reasonable and both analyses fully account for the sales tax revenues raised by the proposal; the revenues simply appear in different locations (funds).

Under the assumptions used by this analysis, the primary impacts on the General Fund occur because: (1) all personal income tax refunds, including those attributable to the higher tax rate under the proposal, are paid out of the General Fund; (2) the proposal eliminates the 0.947 percent transfer of sales tax revenues from the General Fund to the Public Transportation Assistance Fund; and (3) there are various secondary revenue impacts associated with the elimination of school property taxes and higher sales and personal income taxes. (Additional detail on the secondary revenue effects can be found at the end of Section 2.)

**Table 3.4**
**General Fund**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Personal Income Tax Refunds | -$180 | -$229 | -$240 | -$251 | -$261 |
| Elimination of Sales Tax Transfers to the PTAF[1] | 96 | 100 | 104 | 108 | 111 |
| Secondary Effects from Property Tax Elimination | | | | | |
| Sales Tax | 93 | 107 | 118 | 125 | 133 |
| Realty Transfer Tax | 10 | 23 | 36 | 44 | 52 |
| Personal and Corporate Net Income Taxes | 57 | 63 | 67 | 72 | 75 |
| **Subtotal - Secondary Revenue Effects** | **160** | **193** | **221** | **241** | **260** |
| **Net General Fund Impact** | **76** | **64** | **85** | **98** | **110** |

[1] Public Transportation Assistance Fund.

[19] The assumptions are outlined in this subsection and in the subsection discussing the ESF.
[20] The Department of Revenue analysis can be accessed at www.ifo.state.pa.us/resources/PDF/DOR Analysis_HB76_June2013.pdf. See Attachment B of the Department's analysis.

## Property Tax Relief Fund

The proposal redirects monies that currently are transferred to the Property Tax Relief Fund from the State Gaming Fund. These monies would now be transferred to the ESF. The monies deposited into the ESF also include loan repayments to the Property Tax Relief Reserve Fund and any interest earnings. The deposit of these monies into the ESF eliminates the current transfers from the Property Tax Relief Fund for the PTRR program, general property tax relief for school districts, Sterling Act credit reimbursement for school districts and funds for wage tax reduction in the City of Philadelphia.

**Table 3.5**
**Property Tax Relief Fund**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Redirected to Education Stabilization Fund | | | | | |
| Transfer from the State Gaming Fund | -$816 | -$816 | -$816 | -$816 | -$816 |
| Loan Repayments - Reserve Fund | -7 | -7 | -7 | -7 | -7 |
| Interest | -1 | -1 | -1 | -1 | -1 |
| **Subtotal - Redirected Funds** | **-824** | **-824** | **-824** | **-824** | **-824** |
| | | | | | |
| Eliminated Transfers | | | | | |
| Lottery Fund | 168 | 169 | 170 | 171 | 172 |
| General Prop. Tax Relief (school districts) | 509 | 509 | 509 | 509 | 509 |
| Philadelphia Wage Tax Reduction | 86 | 86 | 86 | 86 | 86 |
| Sterling Act Credit Reimbursement | 20 | 20 | 20 | 20 | 20 |
| **Subtotal - Reduced Transfers** | **783** | **784** | **785** | **786** | **787** |
| | | | | | |
| **Net Property Tax Relief Fund Impact** | **-41** | **-40** | **-39** | **-38** | **-37** |

## Lottery Fund

Under current law, the Lottery Fund receives transfers from the Property Tax Relief Fund to support the PTRR program as well as supplemental property tax rebates for certain high-burden taxpayers and eligible seniors residing in certain cities. The proposal redirects those transfers to the ESF.

The replacement of school property taxes reduces Lottery Fund expenditures for the PTRR and supplemental rebates, but the reduction would not equal the loss of the monies transferred from the Property Tax Relief Fund. Due to the structure of the PTRR, the program still rebates county and municipal property taxes to eligible claimants. A reduction in the rebate occurs for a claimant only if the property taxes remaining after the replacement of school property taxes are less than the amount of the maximum rebate.

**Table 3.6**
**Lottery Fund**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Property Tax Relief Fund Transfers | | | | | |
| Funding for PTRR Enhancements | -$138 | -$139 | -$140 | -$141 | -$142 |
| Funding for Supplemental PTRR | -30 | -30 | -30 | -30 | -30 |
| **Subtotal - Property Tax Relief Transfers** | **-168** | **-169** | **-170** | **-171** | **-172** |
| Reduction of PTRR Payments | 0 | 41 | 43 | 45 | 47 |
| **Net Lottery Fund Impact** | **-168** | **-128** | **-127** | **-126** | **-125** |

## Public Transportation Funding

The proposal repeals the 0.947 percent transfer of sales tax revenues from the General Fund to the Public Transportation Assistance Fund. This repeal is reflected in this analysis as a reduction to the Public Transportation Assistance Fund and a gain to the General Fund. It should be noted that some of the proceeds of the Public Transportation Assistance Fund are transferred to the Public Transportation Trust Fund under current law.

The proposal appears to maintain the current 4.4 percent transfer of sales tax revenues to the Public Transportation Trust Fund. The transfer is mandated by 74 Pa.C.S. §1506(c), and that provision is not repealed by the proposal. The proposal could be read to apply the transfer to all sales tax imposed under the proposal. However, the proposal has multiple, interrelated provisions that may apply, and a reasonable argument could be made that the transfer is repealed.

For the purpose of this analysis, the transfer is applied to all sales tax revenues, including those deposited into the General Fund and those deposited into the ESF. Due to the assumptions regarding the split of sales tax revenue between the ESF and the General Fund, there is no General Fund impact relating to the transfer because current law is maintained. However, the assumption reduces funds available to the ESF and results in additional funding for the Public Transportation Trust Fund.

Under an alternate assumption in which the transfer is repealed, the net fiscal impact would not change. Instead, the analysis would show a loss to the Public Transportation Trust Fund and a gain to the General Fund that reflects the retention of monies that are currently transferred to the Public Transportation Trust Fund. In addition, the analysis would show the ESF receiving higher sales tax revenues because its share of the tax would not be subject to the transfer.

**Table 3.7**
**Public Transportation Funds**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Public Transportation Assistance Fund Transfers | -$96 | -$100 | -$104 | -$108 | -$111 |
| Public Transportation Trust Fund Transfers | 262 | 275 | 288 | 301 | 315 |

## Philadelphia – Act 1 Allocations and Non-property Taxes Supporting the School District

The proposal eliminates the transfer from the Property Tax Relief Fund that supports resident and nonresident wage tax relief in Philadelphia. The amounts provided from the fund equate to 0.2 percentage point reductions for both taxes.

The proposal prohibits the City of Philadelphia from levying any tax for use by the Philadelphia School District. The table below includes the elimination of the liquor tax, the business use and occupancy tax and the nonbusiness income tax. The elimination of the property tax levied for the Philadelphia School District is included in Table 3.3 with the other school districts.

**Table 3.8**
**Philadelphia**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Elimination of PTRF[1] Transfers | -$86 | -$86 | -$86 | -$86 | -$86 |
| Elimination of School District Taxes | -192 | -198 | -205 | -212 | -220 |
| **Net Impact on Philadelphia** | **-278** | **-284** | **-291** | **-298** | **-306** |

[1] Property Tax Relief Fund.

## Other Fiscal Impacts

The analysis projects impacts for federal income taxes paid by Pennsylvania residents and tax collections for local governments. These amounts are not included in the estimates for the net fiscal impact of the proposal because they do not affect state revenues.

- The proposal reduces deductions for individuals who itemize on the federal income tax return and increases federal tax liability. In general, the lower deduction for property taxes is not offset by the higher deduction for state and local income taxes. Partnerships, S corporations and sole proprietorships would also realize a federal income tax increase because the lower deduction for state property taxes increases federal taxable income. (See Appendix B.)
- The expansion of the state sales tax base also expands the base for local sales tax. Allegheny County (1 percent) and Philadelphia (2 percent) are the only two political subdivisions that have a local sales tax.
- Similar to state realty transfer tax collections, local realty transfer tax collections would also increase. The analysis assumes that home prices would increase by ten percent over many years.

**Table 3.9**
**Other Fiscal Impacts**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| **Federal Income Tax Increase** | | | | | |
| Individuals | $303 | $318 | $333 | $347 | $362 |
| Pass-Through Entity Owners/Shareholders | 290 | 304 | 318 | 332 | 346 |
| **Expansion of Local Sales Tax Base** | | | | | |
| Allegheny County | 57 | 60 | 63 | 66 | 70 |
| Philadelphia | 86 | 91 | 96 | 101 | 106 |
| **Local Realty Transfer Taxes** | | | | | |
| Effect on Real Estate Prices | 10 | 23 | 36 | 44 | 52 |

# Section 4: Revenue Volatility Analysis

Due to their different bases, all taxes exhibit unique growth trends. While some tax revenues grow more slowly than the economy, they may provide a more stable and predictable source of funds. By contrast, other taxes are more sensitive to economic conditions and may exhibit large revenue swings. This section examines growth trends of sales, personal income and school property taxes over the past two decades. For comparative purposes, regional inflation (CPI) and general growth of the Pennsylvania economy (gross state product or GSP, includes inflation) are also displayed. It is noted that these historical trends may not be indicative of future trends. The data in Table 4.1 and graphs in Figures 4.1 and 4.2 accompany the text in this section.

## Sales Tax

The sales tax is a 6 percent tax levied on certain goods and services and motor vehicles. This tax source comprises approximately 30 percent of total General Fund tax revenues. Historical data reveal the following trends:[21]

- From FY 1993-94 to FY 2012-13, sales tax grew at an average rate of 3.2 percent per annum.
- From FY 1993-94 to 2001-02, sales tax expanded by 4.7 percent per annum. In four of the eight years, the annual growth rate exceeded 6.0 percent, easily surpassing inflation and general economic growth.
- From FY 2001-02 to FY 2007-08, the average growth rate of sales tax was moderate (3.3 percent per annum) and only slightly exceeded inflation (3.1 percent) but underperformed general economic growth (4.5 percent). Two factors likely contributed to this trend: (1) increasing internet sales and (2) base erosion from increased demand for services and other non-taxable items.
- From FY 2007-08 to FY 2012-13, sales tax grew at an average rate of 0.9 percent per annum. Due to the Great Recession, sales tax revenues declined in FY 2008-09 (-4.2 percent) and FY 2009-10 (-1.4 percent). Both inflation and the economy grew at a faster rate than sales tax revenues during these years.

## Personal Income Tax

The personal income tax is a 3.07 percent tax levied on the taxable income of resident and non-resident individuals, estates and trusts and pass-through business entities. Wages and salaries comprise roughly three-fourths of taxable income reported on the tax return.[22] Historical data reveal the following trends:

---

[21] The growth rates from Table 4.1 are gross figures that exclude any transfers. The amount for FY 2010-11 was adjusted to remove the shift in revenues due to the change in payment method. Therefore, actual growth rates may not align with the computed growth rates from Table 4.1.

- From FY 1993-94 to FY 2012-13, personal income taxes grew at an average rate of 4.1 percent per annum. That growth rate outperformed both inflation and general economic growth.
- From FY 2007-08 to FY 2012-13, personal income taxes (0.8 percent per annum) underperformed both inflation (2.1 percent) and general economic growth (2.3 percent).
- Over the past two decades, the personal income tax has seen relatively large fluctuations in year-to-year growth rates due to the economic cycle. Figure 4.2 illustrates the strong declines in annual growth rates during recession years (e.g., FY 2008-09, -6.5 percent) followed by equally strong growth rates during recovery or expansion years (e.g., FY 2005-06, 8.8 percent).

## School District Property Tax

School districts levy property taxes for both debt and operating purposes. Property tax revenues are equal to the product of the applicable millage rate and the property tax base (the assessed value of a property). The tax is levied on both homeowners and business owners at the same millage rate. Historical data reveal the following trends:

- From FY 1993-94 to FY 2012-13, total school district property taxes (the sum of current, delinquent and interim real estate taxes as well as property tax relief allocations) have grown at an average rate of 4.9 percent per annum. This exceeds average annual GSP growth (3.9 percent) and inflation (2.5 percent) over the same time period.
- Property taxes are less volatile than other sources of revenue because they are based on the assessed values of property and have a high compliance rate.
- In the years prior to the recession (FY 2001-02 through FY 2007-08), total school district property taxes grew at an average rate of 6.4 percent per annum. The robust growth is partially explained by new construction brought on by the housing boom. Property taxes remained stable though the housing bust because few counties reassessed, preserving the value of the tax base.
- Special Session Act 1 of 2006 restricts the ability of school districts to raise their millage rates. These restrictions, and a possible lag-effect from the recession, may explain average annual property tax growth of 3.3 percent since FY 2007-08. That rate was still greater than inflation (2.1 percent) and average GSP growth (2.3 percent) over the same period.

## Summary

As shown in Table 4.1 and Figures 4.1 and 4.2, sales and personal income taxes have been more volatile than school district property taxes over the past two decades. Year-to-year annual growth rates for sales taxes have ranged from -4.2 percent (FY 2008-09) to 7.9 percent (FY 1994-95). Personal income tax exhibited an even wider range of annual growth rates, ranging from -6.5 percent (FY 2008-09) to 8.8

[22] The personal income tax rate has remained constant since it was increased from 2.80 to 3.07 percent in 2004. In order to assess the volatility of the personal income tax, the analysis adjusted personal income tax collections from FY 1993-94 through FY 2004-05 to reflect a 3.07 percent rate.

percent (FY 2005-06). By comparison, school district property tax annual growth rates were dispersed over a more narrow range from 2.6 percent (FY 2012-13) to 7.2 percent (FY 2004-05). The upper end of that range is unusual and due in large part to the housing boom that occurred in the mid-2000s. All three revenue sources have outpaced inflation over the long-run with school district property taxes outpacing both sales and personal income taxes.

**Table 4.1**
**Personal Income Tax, Sales and Use Tax and School District Property Tax Collections Growth**
**FY 1993-94 through FY 2012-13**

| Fiscal Year | Sales[1] | Personal Income[2] | School Dist. Property | CPI | GSP |
|---|---|---|---|---|---|
| 1994-95 | 7.9% | 4.3% | 5.4% | 2.8% | 5.2% |
| 1995-96 | 2.9 | 5.7 | 3.4 | 2.4 | 3.6 |
| 1996-97 | 7.5 | 6.9 | 5.0 | 2.8 | 4.2 |
| 1997-98 | 1.9 | 8.5 | 4.0 | 1.6 | 5.6 |
| 1998-99 | 7.3 | 7.2 | 4.8 | 1.5 | 5.3 |
| 1999-00 | 6.2 | 5.7 | 4.2 | 2.5 | 4.1 |
| 2000-01 | 2.6 | 6.0 | 5.4 | 2.8 | 3.4 |
| 2001-02 | 1.2 | -4.7 | 5.5 | 2.5 | 3.5 |
| 2002-03 | 3.1 | -0.5 | 7.9 | 2.9 | 3.8 |
| 2003-04 | 3.2 | 4.3 | 7.0 | 2.8 | 4.9 |
| 2004-05 | 3.5 | 7.7 | 7.2 | 3.4 | 4.2 |
| 2005-06 | 4.1 | 8.8 | 5.9 | 3.6 | 4.9 |
| 2006-07 | 3.1 | 7.7 | 5.7 | 2.3 | 4.6 |
| 2007-08 | 2.6 | 6.3 | 4.5 | 3.6 | 4.6 |
| 2008-09 | -4.2 | -6.5 | 4.6 | 2.3 | -0.1 |
| 2009-10 | -1.4 | -2.3 | 3.0 | 1.4 | 1.4 |
| 2010-11 | 4.0 | 4.7 | 3.6 | 2.2 | 4.0 |
| 2011-12 | 5.1 | 3.5 | 2.7 | 3.4 | 3.7 |
| 2012-13 | 1.4 | 5.3 | 2.6 | 1.4 | 2.7 |
| Average Annual Growth | | | | | |
| FY 1993-94 to FY 2012-13 | 3.2 | 4.1 | 4.9 | 2.5 | 3.9 |
| FY 1993-94 to FY 2001-02 | 4.7 | 4.9 | 4.7 | 2.4 | 4.4 |
| FY 2001-02 to FY 2007-08 | 3.3 | 5.7 | 6.4 | 3.1 | 4.5 |
| FY 2007-08 to FY 2012-13 | 0.9 | 0.8 | 3.3 | 2.1 | 2.3 |

[1] Sales tax figures are gross of transfers. The FY 2010-11 amount was adjusted to remove the impact from changing the payment method.
[2] For FY 1993-94 to FY 2004-05, the analysis adjusts the personal income tax to simulate a tax rate of 3.07 percent from 1993 through 2003.

**Figure 4.1**
**Cumulative Growth in Personal Income, Sales and Property Tax over Time**[1]

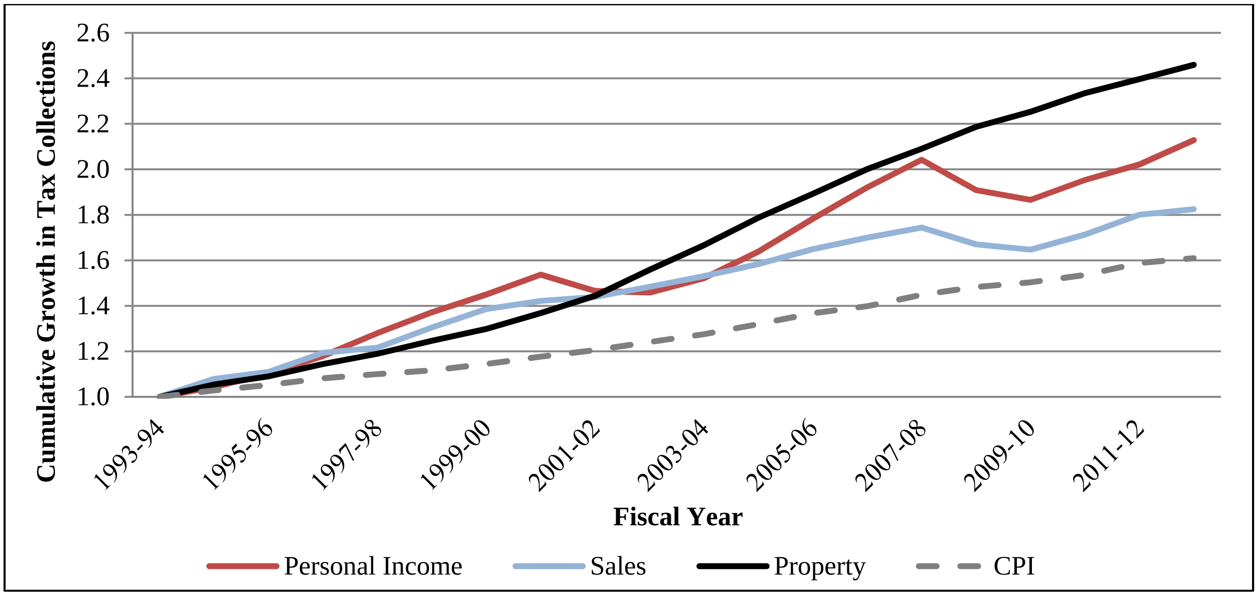
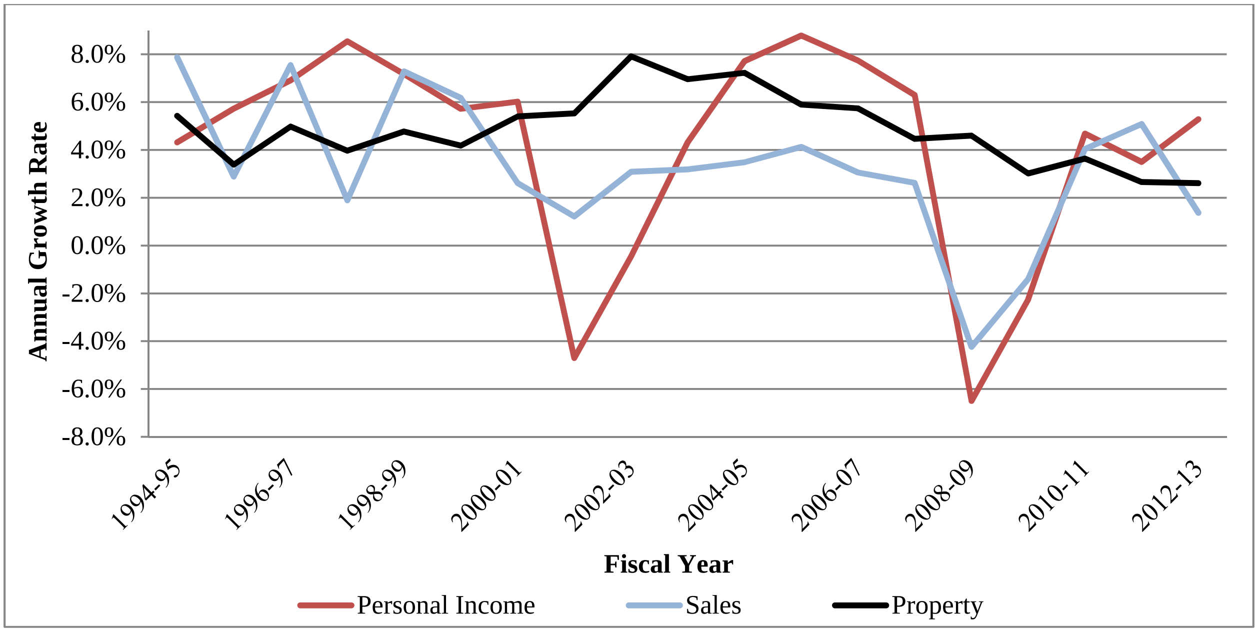



**Figure 4.2**
**Annual Growth Rate of Personal Income, Sales and Property Tax over Time**[1]




[1] For FY 1993-94 to FY 2004-05, the analysis adjusts personal income tax to simulate a tax rate of 3.07 percent from 1993 through 2003. Sales tax figures are gross of transfers. The FY 2010-11 amount was adjusted to remove the impact from changing the payment method. These adjustments are reflected in the figures above.

# Section 5: Historical Simulation

This section of the analysis presents the results from a simulation that applies the proposed changes in school district funding to actual historical conditions. The purpose of this simplified simulation is to illustrate the impact of the proposal on school district funding, as well the Education Stabilization Fund (ESF). This simulation assumes:

- The proposal is effective January 1, 2002.
- School districts issue no new debt after FY 2001-02, and the debt service ($1,353 million) declines by 6 percent of the FY 2001-02 amount ($81.2 million) in each subsequent fiscal year.
- Sales tax transfers for public transportation are constant at 4.4 percent for the entire period.

The historical impact of the sales tax rate increase and base expansion is derived from the sales tax estimates displayed earlier in this report and projected back in time based on a mix of actual and interpolated data points, all recalibrated to align with actual FY 2012-13 sales tax collections.[23] The impact of a January 1, 2002 increase in the personal income tax rate is estimated based on actual collections during the period (adjusted for the lower rate prior to 2004) and various minor behavioral adjustments discussed in the previous sections.

The historical simulation has three parts. They are as follows:

- The simulation estimates the impact of the proposed revenue enhancements (i.e., the increase in the sales tax rate, expansion of the sales tax base, increase in the personal income tax rate and the modified distributions from the existing Property Tax Relief Fund to school districts). Collectively, these enhancements represent the total funding raised by the proposal and reflect monies flowing into the ESF.
- The analysis calculates a historical school district property tax replacement estimate. This figure includes the receipt of historical delinquent tax payments and an adjustment for the loss of future delinquent payments. (Delinquent property tax payments are phased out as a result of the elimination of the school district's ability to levy property taxes.)
- The analysis calculates the distributions from the ESF to the school districts under the parameters outlined in the proposal. (See Table 5.1.)

---

[23] The estimated sales tax on newly taxed goods (e.g., groceries and clothing) is based on historical data from the U.S. Bureau of Economic Analysis for each fiscal year. The sales tax on newly taxed services is tied to the 2002 and 2007 Economic Census, with the interim years interpolated and adjusted to reflect variations in actual sales tax collections during the period. The entire calculation is then calibrated upward by $75 million in FY 2002-03 in order to bring the estimates in line with actual FY 2012-13 collections.

Under this simulation, the newly generated revenue transferred to the ESF in FY 2002-03 grows steadily through FY 2012-13, with the exception of a one-year decline in FY 2009-10. However, the property tax replacement baseline grows more quickly in almost every year and does not experience the FY 2009-10 dip. Although the increased revenue generated by the proposal exceeds the property tax replacement baseline by $0.4 billion in FY 2002-03, the mismatched growth rates cause the property tax replacement to exceed revenues by a $1.6 billion by FY 2012-13. This gap continues to grow in subsequent years.

The difference between the property tax replacement baseline and the replacement revenues can be decomposed into two parts. The first part relates to a phase-out of debt service. After FY 2001-02, school districts retain their ability to levy property taxes, but only to the extent that the revenue is needed to fund existing debt service. As that debt is retired, school districts lose their ability to levy those taxes. New capital projects that previously would have been funded through the issuance of additional debt must now be funded from a district's operating budget. The second part is the residual difference (not associated with debt service) that can be attributed to a reduced operating budget. That part occurs because the operating portion of the property tax collections grow faster than the sales and income taxes that will replace it. As noted in the previous section, the unusual housing bubble from the previous decade contributes to that result. (See Table 4.1.)

The proposal provides a formula to distribute funds from the ESF to the school districts. The formula uses FY 2001-02 school district collections (includes debt and delinquent taxes) as the base year and those amounts grow each year by the lesser of (1) the percentage change in the regional CPI for the prior calendar year or (2) the growth in sales tax revenue for the prior calendar year. Under the historical simulation, the property tax replacement exceeds the distribution by $0.3 billion in FY 2002-03. By FY 2012-13, the difference grows to $4.2 billion under the parameters of the simulation. The simulation finds that the increased revenues over the historical period are insufficient to fund the property tax replacement, and the revenue differential is further compounded by the accumulation of funds in the ESF. These funds are available but cannot be distributed under the language in the proposal.

To illustrate, the simulation estimates that revenue deposited into the ESF in FY 2012-13 would have totaled $10.2 billion, compared to a property tax replacement of $11.8 billion. Under the proposed distribution formula, only $7.6 billion could be dispersed to school districts. The remaining $2.6 billion would remain in the ESF and school districts would receive $4.2 billion less than their funding under current law.

In general, the simulation finds that replacement tax revenues will meet or exceed the property tax replacement baseline in the initial year of implementation. After the first year, the steady growth in the property tax baseline exceeds the more volatile growth of the replacement revenues. Although there can be one-year anomalies where the tax revenues outpace the property tax baseline, the gap between the revenues and the property taxes that they must replace generally widens with each passing year. This is consistent with the forecast provided in earlier sections of this analysis.

Note that in the simulation, an effective date of January 1, 2002 results in a surplus of $0.4 billion in the first full fiscal year of implementation (FY 2002-03), while an effective date of January 1, 2014 generates no discernible fiscal impact for the same first year of implementation (FY 2014-15). The difference is generated because the implied average growth between the FY 2002-03 and the FY 2014-15 property tax baselines (4.6 percent per annum) outpaces the average growth in the replacement revenues (3.3 percent per annum) during the same period. As the gap between the property tax baseline and the replacement revenues grows, the surplus is eliminated. Overall, the relatively strong growth of property taxes over the past decade requires a higher level of replacement revenues.

**Table 5.1**
**Historical Simulation of School District Funding under the Proposal**
(fiscal year, $ millions)

| | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **(A) ESF Revenues** | | | | | | | | | | | |
| Sales Tax - Rate & Base Expansion | $3,888 | $4,046 | $4,215 | $4,405 | $4,583 | $4,753 | $4,784 | $4,743 | $4,921 | $5,163 | $5,261 |
| Personal Income Tax - Rate Increase | 3,034 | 3,152 | 3,380 | 3,686 | 3,997 | 4,216 | 3,947 | 3,838 | 4,025 | 4,129 | 4,392 |
| Property Tax Relief Fund - Transfers to SD[1] | 0 | 0 | 0 | 0 | 0 | 0 | 526 | 527 | 530 | 526 | 529 |
| **Sub-Total (A)** | **6,922** | **7,198** | **7,595** | **8,091** | **8,579** | **8,970** | **9,258** | **9,107** | **9,476** | **9,819** | **10,183** |
| Annual Growth Rate | | 4.0% | 5.5% | 6.5% | 6.0% | 4.6% | 3.2% | -1.6% | 4.0% | 3.6% | 3.7% |
| **(B) SD Funding Under Current Law** | | | | | | | | | | | |
| Actual SD Property Tax Replacement[2] | | | | | | | | | | | |
| **Sub-Total (B)** | **6,495** | **7,264** | **8,081** | **8,777** | **9,421** | **9,966** | **10,019** | **10,442** | **10,945** | **11,351** | **11,753** |
| Annual Growth Rate | | 11.8% | 11.3% | 8.6% | 7.3% | 5.8% | 0.5% | 4.2% | 4.8% | 3.7% | 3.5% |
| **Net Available Funding (A) – (B)[3]** | **427** | **-66** | **-486** | **-687** | **-842** | **-997** | **-761** | **-1,335** | **-1,469** | **-1,533** | **-1,570** |
| Portion Related to Operating Budget | 508 | 97 | -243 | -362 | -436 | -509 | -193 | -685 | -738 | -721 | -677 |
| Portion Related to Debt Service | -81 | -162 | -244 | -325 | -406 | -487 | -568 | -649 | -731 | -812 | -893 |
| **(C) Amount of Distributions to SDs[4]** | | | | | | | | | | | |
| **Sub-Total (C)** | **6,236** | **6,374** | **6,546** | **6,762** | **6,999** | **7,223** | **7,389** | **7,416** | **7,224** | **7,319** | **7,561** |
| Applicable Cost of Living Factor[5] | 1.8% | 2.2% | 2.7% | 3.3% | 3.5% | 3.2% | 2.3% | 0.4% | -2.6% | 1.3% | 3.3% |
| *CPI for Prior Calendar Year* | *2.9%* | *2.6%* | *2.7%* | *3.3%* | *3.5%* | *3.2%* | *2.3%* | *4.1%* | *0.7%* | *1.8%* | *3.3%* |
| *Sales Tax Growth for Prior Calendar Year[6]* | *1.8%* | *2.2%* | *3.8%* | *3.7%* | *4.0%* | *3.8%* | *3.3%* | *0.4%* | *-2.6%* | *1.3%* | *4.7%* |
| **Net Actual Funding (C) – (B)[7]** | **-259** | **-890** | **-1,535** | **-2,015** | **-2,422** | **-2,743** | **-2,630** | **-3,026** | **-3,721** | **-4,032** | **-4,192** |
| Incremental Change from Prior Year | | -631 | -645 | -480 | -407 | -321 | 113 | -396 | -695 | -311 | -160 |

[1] Reflects funds currently transferred to the school district (SD) and dedicated to general property tax relief and Sterling Act reimbursements only.
[2] Includes delinquent tax payments and an adjustment for the loss of future delinquent tax payments. New debt is not issued after 2001-02 and existing debt service declines by 6 percent per year.
[3] New school district funding less the actual school district property tax replacement. This represents the difference between net funding available under the proposal and actual school district funding.
[4] Based on the base year distribution for FY 2001-02 ($6,129 million) and adjusted by the applicable cost of living factor.
[5] The lesser of (1) the change in the regional CPI-U (PA-DE-NJ-MD) for the prior calendar year or (2) the growth in actual sales tax collections for the prior calendar year.
[6] The sales tax growth is estimated based on actual revenues adjusted for the sales tax rate increase and base expansion.
[7] Distributions from the ESF less the property tax replacement. This amount reflects the difference between the distributions from the ESF and the funding under current law.

# Appendix A:  Sales and Use Tax

## Sales Tax Base Expansion

This section provides an overview of the types of goods and services included in the sales and use tax base expansion. They include:

Newly Taxable Goods

- All food and beverage items currently not taxable, except for items that qualify for the Women, Infants and Children (WIC) program (e.g., certain cereals, cheese, eggs, fruit, milk and bread), as well as any purchases made through the Supplemental Nutrition and Assistance Program (SNAP, formerly food stamps).
- All clothing, shoes and apparel that sell for more than $50 at retail (not indexed to inflation).
- Various personal hygiene products such as toothpaste, toothbrushes, toilet paper, diapers, pre-moistened wipes and other miscellaneous products.
- Non-prescription drugs and medicines such as pain relievers, cold medicines, aspirins and antacids. Other sundry pharmaceutical items such as ice bags, gauze, slings, cough drops, contact lens solution, vitamins, diet supplements and pills are also taxed.[24] (Medical devices such as eyeglasses, hearing aids, wheelchairs, dentures, walkers and canes remain exempt.)
- Caskets, burial vaults and markers for gravesites.
- Textbooks purchased by individuals.
- All magazines not purchased at a retail establishment and all newspapers (includes electronic subscriptions).
- All candy and gum (includes sales made through vending machines).
- The sale of horses delivered out of state and horses used exclusively for commercial racing activities, as well as feed, bedding and grooming supplies for such horses.
- State and federal flags and direct mail order catalogs.

Newly Taxable Services (excludes all business to business sales unless noted)

- Legal services (domestic relations and criminal matters remain exempt).
- Architectural, engineering and related.
- Accounting, auditing and bookkeeping.
- Specialized design and customized programming.

---

[24] For a complete list of medical and pharmaceutical items that are currently not taxed, see the Department of Revenue's Retailer's Guide: http://www.revenue.state.pa.us/portal/server.pt/community/sales___use_tax/14702.

- Advertising and public relations.
- Services to buildings and dwellings.
- Scientific, environmental and consulting.
- Information.
- Scientific research and development.
- Parking lot and garage services.
- Investment counseling and advice (includes businesses).
- Amusements and recreation (includes businesses).
- Waste management services (includes businesses).
- Towing services.
- Intrastate transportation of persons.
- Educational services (meals and activity fees only, excludes payments for tuition).
- Veterinarian services.
- Basic and expanded basic cable/satellite (includes businesses).
- Certain laundry (linens and industrial launderers) (includes businesses).
- Funeral and cremation.
- Personal care (e.g., beauty parlors, barbers, nail care and diet centers).
- Nursing and residential care facilities.
- Social assistance (e.g., community housing and vocational rehabilitation).
- Day care services.

<u>Ambiguous Language Regarding Taxation of Certain Services</u>

Despite the broad language contained within the proposal, there are certain instances where it is not clear which services should be included in the base expansion, because the imposition of tax on these services may not be administratively feasible or may not coincide with the intention of the bill's sponsors. These services include:

- Intrastate transport of freight by a Pennsylvania company would be taxable because the proposal does not specifically exclude it. Due to administrability concerns, the analysis excludes those services from the base expansion.
- The proposal excludes "the sale at retail of tuition," but does not explicitly define tuition. The analysis excludes payments for any type of educational service. Hence, the exemption includes educational services not typically considered "tuition" such as instruction provided by business and secretarial schools, computer training, flight training, fine arts schools, sports and recreational instruction, exam preparation and automobile driving schools.

- The proposal exempts tuition, but it does not exempt payments for board and activity fees. The analysis includes those payments in the base expansion, but excludes room charges because they resemble rental payments, which are exempt under the base expansion.
- The proposal exempts "the sale at retail of medical or dental services, including charges for office visits" and "the sale at retail or use of goods or services that are part of a Medicare Part B transaction." This exemption is too broadly defined to allow precise estimation of the health or social services that would be subject to tax under the base expansion. Following consultation with the Department of Revenue, the analysis includes all services for Home Health Care, Other Ambulatory Health Care, Nursing and Residential Care Facilities and Social Assistance (e.g., family services, relief services and day cares) in the base expansion. However, the analysis excludes services provided by tax-exempt or charitable entities (except day care services). It should be stressed that the revenue estimate for this service category is very sensitive to this "bright line" distinction. In general, sales of goods and services by non-profit entities need not be excluded from the base expansion if the purchasing entity is also not exempt.
- The proposal does not specifically exempt certain services purchased by homeowners such as electrical, plumbing and HVAC services. The analysis assumes those services are not taxed.

## Data Sources and Methodology for Sales Tax Base Expansion

This section documents the data sources and methodologies used to estimate the revenue impact of the sales tax base expansion. Three primary data sources were used for that purpose: (1) U.S. Personal Consumption Expenditures (Table 2.4.5U in the National Income and Product Accounts, U.S. Bureau of Economic Analysis), (2) the annual Consumer Expenditure Survey (Northeast Region, U.S. Department of Labor) and (3) the 2007 Economic Census for Pennsylvania (U.S. Census Bureau).[25,26,27] Personal Consumption Expenditures details total spending on a broad array of goods and services purchased by U.S. consumers. The Consumer Expenditure Survey provides detail on average consumer expenditures for various good and services based on age, income level or region. The 2007 Economic Census for Pennsylvania provides detail regarding total business sales by industry for firms with establishments in the Commonwealth. Finally, certain estimates also utilize industry specific data sources. Those instances are noted in the relevant sections.

On occasion, new business activity taxed under the sales tax base expansion will not appear under the primary NAIC for that industry. For example, sports venues that receive revenues for their parking facilities are included in the Spectator Sports (NAIC 7112) and not parking lots and garages (NAIC 81293). In these cases, some revenues were shifted between NAIC categories. To inform those adjustments, the analysis used data from the Product Lines Statistics by Kind of Business for the United States and States: 2007 (part of the 2007 Economic Census). Adjustments were made to industries if government entities also provide services because government receipts are not included in the Economic

---

[25] U.S. Personal Consumption Expenditures are available at: http://www.bea.gov/national/consumer_spending.htm.
[26] The Consumer Expenditure Survey can be found at: http://www.bls.gov/cex/home.htm.
[27] The 2007 Economic Census is available at: http://www.census.gov/econ/census07/.

Census. As provided in the bill, business to business sales of certain services are exempt (i.e., business services and professional services). Data from the Input-Output tables published by the U.S. Bureau of Economic Analysis, Department of Commerce was used to make these business to business carve outs.

Food

The estimate uses data from U.S. Personal Consumption Expenditures, and it apportions national data to Pennsylvania based on the Commonwealth's share of U.S. income. The exclusion for WIC items uses detail supplied by the Bureau of Economic Analysis (Table 2.4.5U – I-O, Personal Consumption Expenditures by Type of Product with 2002 Input-Output Commodity Composition) and the Bureau of Labor Statistics (Consumer Expenditure Survey 2012 public-use microdata). The exclusion for Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps) uses data from the Department of Agriculture regarding the dollar amount of SNAP benefits distributed to Pennsylvania. The projection of SNAP benefits uses the national forecast from the Congressional Budget Office.[28] Due to the historically high level of current benefits, the exclusion for SNAP purchases declines over time.

Candy and Gum

The estimate uses data from U.S. Personal Consumption Expenditures, specifically the Sugar and Sweets category. The estimate apportions national data to Pennsylvania based on the Commonwealth's share of U.S. personal income.

Personal Hygiene Products

This category includes products such as toothbrushes, toothpaste, dental floss, disposable diapers, pre-moistened wipes, incontinence products, toilet paper and feminine hygiene products. The estimate assumes that four products comprise the great majority of these types of hygiene expenditures: disposable diapers, toothpaste, feminine hygiene products and toilet paper. For those items, the estimate uses an average annual cost multiplied by the relevant population that would use such products. For example, average annual diaper expenses for a baby or infant was multiplied by the resident population 0 to 2.5 years of age. A 25 percent gross up is then applied to account for all other items. Data sources used to inform this estimate are provided in the footnote.[29]

Newspapers and Magazines

The estimate uses data from the 2007 Economic Census for Pennsylvania (NAIC 511) and the Magazine Publishers of America. The estimate apportions newspaper subscriptions, periodical subscriptions and

[28]See http://www.cbo.gov/publication/43072.
[29]See http://www.realdiaperassociation.org/diaperfacts.php.
http://www.statista.com/statistics/192660/us-toothpaste-sales-via-different-sales-channels-in-2010-and-2011/.
http://www.mooncupsandkeepers.com/article_cost.html.
http://www.usatoday.com/money/advertising/2008-01-08-toilet-paper-marketing_N.htm.

sales revenue to Pennsylvania based on the Commonwealth's share of U.S. personal income. Total periodical subscriptions and sales were reduced to account for the exclusion of single copy sales.

Clothing and Footwear

The estimate uses data from U.S. Personal Consumption Expenditures for the clothing and footwear category and data from the Connecticut Office of Fiscal Analysis (OFA). The estimate carves out items that sell at retail for less than $50 by applying a percentage derived from the OFA's annual report (and adjusted to Pennsylvania's median income) to total expenditures on clothing and footwear.

Non-Prescription Drugs

The estimate uses data from U.S. Personal Consumption Expenditures for the "non-prescription drugs" and the "other medical products category." The non-prescription drugs category includes internal and respiratory over-the-counter drugs (e.g., pain relievers, cold medicine and antacids), vitamins, dietary supplements and aids, non-prescription medical equipment and sundry supplies. The other medical products category includes certain non-durable medical equipment. The estimate apportions national expenditures to Pennsylvania based on the Commonwealth's share of U.S. personal income.

Caskets and Burial Vaults

The estimate uses national average price data and cremation statistics from the National Funeral Directors Association as well as state demographic projections from IHS Global Insight.[30] The number of burials, found by multiplying the number of deaths in Pennsylvania by the share of decedents that are buried, was multiplied by the average cost of a casket and burial vault. This estimate also includes projections for markers and urns.

Textbooks

The estimate uses data from U.S. Personal Consumption Expenditures, specifically the "educational books" category, as well as data from the National Center for Education Statistics (Department of Education).[31] To derive Pennsylvania's share of the national expenditures on textbooks, an average cost per student was first multiplied by the estimated number of post-secondary students enrolled in Title IV institutions who would purchase textbooks. The estimate of annual Pennsylvania textbook expenditure was then divided by U.S. textbook expenditure to compute Pennsylvania's share of the national expenditures on textbooks.

---

[30] See http://www.nfda.org/media-center/statisticsreports.html#fcosts.
[31] See http://nces.ed.gov/programs/digest/.

Personal Services

The estimate uses data from the 2007 Economic Census for Pennsylvania for the following categories: Linen and Uniform Supply (NAIC 81233), Personal Care Services (8121) and Other Personal Services (8129) less Parking Lots and Garages (81293, which is broken out separately). Additionally, parking receipts from Spectator Sports (7112), Museums, Historical Sites, Zoos and Parks (712) and Amusement Parks and Arcades (7131) are added to this estimate to account for parking fees related to recreational activities.

The estimate for Funeral and Cremation services multiplies the average cost of a funeral or cremation by the projected number of decedents cremated or buried. The average cost of a funeral or cremation is from the National Funeral Directors Association. The number of deaths by method of disposition is from the Pennsylvania Department of Health. The share of decedents electing burial or cremation is based on actual burials and cremations for 2010. Those percentages are then applied to the Pennsylvania death forecast from IHS Global Insight to derive projections of the number of decedents cremated or buried. The estimate is increased by five percent to account for pet cremation and burial services.

Business Services

The estimate uses data from the 2007 Economic Census for Advertising and Public Relations (5418), Other Services to Buildings and Dwellings (56179), Consultation (5416), Scientific Research and Development (5417), Information (519), Custom Programming and Data Processing (5415) and Administrative Services (561). The Administrative Services (561) sub-sector includes Office Administrative Services (5611), Facilities Support Services (5612), Telephone Call Centers (56142), Travel Arrangement and Reservation Services (5615), Investigation and Security Services (5616) and Other Support Services (5619).

Recreation Services

The estimate uses data from the 2007 Economic Census for Spectator Sports (7112), Theater, Dance and Musical Arts (7111), Amusement and Gambling (713), and Museums, Historical Sites, Zoos and Parks (712). The estimate for Amusement and Gambling (713) includes Amusement Parks and Arcades (7131), Other Amusement and Recreation Industries (7139), Motion Picture Theaters (512131), Drive-in Motion Picture Theaters (513132) and the admissions or cover charges for Drinking Places (Alcoholic Beverages) (7224). The estimate reduces expenditures for these categories to exclude items such as parking and concession receipts, which are included elsewhere. A gross up was applied to Spectator Sports (7112) and Theater, Dance and Musical Arts (7111) to include admissions from colleges.

Basic Cable

The estimate uses annual rate data for basic and expanded basic programming services (cable and satellite) from Table 3: Historical Averages 1995-2012, in the Federal Communications Commission report on Cable Industry Prices. For residential cable services, the estimate assumes a cable saturation rate of 84.7 percent based upon 2013 research from the Consumer Electronics Association (U.S. Household

Television Usage Update) and the most recent data on cable pricing and competition from the Federal Communications Commission. The number of occupied households uses data from the U.S. Census Bureau. The estimate also includes revenues attributable to hotels and motels, nursing home and care facilities and other taxable business establishments.

Electronic Media

The estimate uses data from the Recording Industry Association of America and the Association of American Publishers. This category includes eBooks and digital shipments/downloads of music. The estimate apportions national expenditures to Pennsylvania based on the Commonwealth's share of the U.S. income. The estimate applies a nexus adjustment to reflect low use tax compliance rates.

Home Health Services

The estimate uses data from the 2007 Economic Census for Home Health Care Services (6216) and Other Ambulatory Health Care Services (6219). It excludes sales to government and tax-exempt entities. A small carve out is made to account for emergency medical transport services covered by Medicare Part B.

Nursing Services

The estimate uses data from the 2007 Economic Census for Nursing and Residential Care Facilities (623). It excludes sales to government and tax-exempt entities. The estimate assumes that certain nursing and residential care facilities will begin to itemize room charges over time, and avoid sales tax on those charges. The analysis assumes that only the service portion of any charge would be subject to tax, and the share that elect to itemize those charges increases each year.

Social Assistance Services

The estimate uses data from the 2007 Economic Census for Individual and Family Services (6241), Community Food and Housing, and Other Relief Services (6242) and Vocational Rehabilitation Services (6243). It excludes sales to government and tax-exempt entities.

Day Care Services

The estimate uses data from the 2007 Economic Census for Child Day Care Services (6244). It includes sales by government and tax-exempt entities.

Certain Legal Services

The estimate uses data from the 2007 Economic Census for Pennsylvania for Legal Services (5411). The estimate excludes sales related to domestic relations and criminal matters.

Architecture & Engineering Services

The estimate uses data from the 2007 Economic Census for Architectural, Engineering and Related Services (5413).

Accounting & Auditing Services

The estimate uses data from the 2007 Economic Census for Accounting, Tax Preparation, Bookkeeping and Payroll Services (5412).

Specialized Design Services

The estimate uses data from the 2007 Economic Census for Specialized Design Services (5414).

All Other Professional Services

The estimate uses data from the 2007 Economic Census for Other Professional, Scientific and Technical Services (5419) less Veterinary Services (54194).

Veterinary Services

The estimate uses data from the 2007 U.S. Economic Census for Veterinary Services (54194).

Agents and Promoters

The estimate uses data from the 2007 Economic Census for Promoters of Performing Arts, Sports, and Similar Events (7113) and Agents and Managers for Artists, Athletes, Entertainers and Other Public Figures (7114).

Investment Advice

The estimate uses data from the 2007 Economic Census for Investment Advice (52393).

Transportation and Warehousing

The estimate for Air, Rail, & Water Transportation uses data from the 2007 Economic Census for Scheduled Air Transportation (4811), Non-Scheduled Chartered Passenger Air Transportation (481211), Rail Transportation (Amtrak FY 2012 Ridership), Deep Sea, Coastal, and Great Lakes Water Transportation (4831) and Inland Water Transportation (4832).

The estimate for Transit & Ground Transportation uses data from the 2007 Economic Census for Used Household and Office Goods Moving (48421), Urban Transit Systems (4851), Interurban and Rural Bus Transportation (4852), Taxi and Limousine Service (4853), Charter Bus Industry (4855) and Other Transit and Ground Passenger Transportation (4859).

The estimates for Scenic & Sightseeing and Towing use data from the 2007 Economic Census for Scenic and Sightseeing Transportation (487) and Motor Vehicle Towing (48841).

All transportation and warehousing estimates account for intrastate transport of persons only.

<u>Waste Management</u>

The estimate uses data from the 2007 Economic Census for Waste Collection (5621). There is no business to business exemption for these services.

<u>Board & Activity Fees</u>

The estimate uses data from the National Center for Education Statistics, the U.S. News and World Report and individual institutions. This category includes board and fees from institutions (Commonwealth System of Higher Education, Pennsylvania State System of Higher Education, private doctoral universities and private baccalaureate and master's institutions) that offer academic degrees. A gross-up is applied to account for fees from other types of institutions (for profit, < two year, two year, etc.) The estimate uses data on average meal plan expenses, and the share of students who are full-time, part-time, undergraduate and graduate from Pennsylvania educational institutions. The estimate assumes that one-third of projected activity fees will be recharacterized as tuition.

## Assumptions Used for Sales Tax Estimates

<u>Sales Tax Compliance</u>

The analysis assumes an implicit baseline sales tax compliance rate of 94 percent under current law. The few studies that examine state sales tax compliance find non-compliance rates of 2 to 12 percent for typical goods subject to sales tax. Tax compliance studies find that tax compliance is inversely related to tax rates. The estimate assumes that the tax compliance rate would fall by one-half percentage point in response to the higher rate.

For items newly taxed, the analysis uses one of two compliance rates depending on the good or service taxed: 85 or 93.5 (current law) percent. The lower compliance rate increases by one percentage point per year over five years as taxpayers become more familiar with their new tax obligations, and the Department of Revenue hires additional staff necessary to maintain adequate enforcement levels. The analysis applies the current law compliance rate to goods sold by firms that already have systems in place to collect and remit sales tax (e.g., certain food items). The lower compliance rate is used for services that will frequently be supplied by small firms (e.g., day care services, barbers and nail salons). Compliance research finds that such firms have much lower compliance rates compared to large firms that sell goods.

Price Elasticities and Behavior

The analysis assumes that sales taxes on newly taxable items are fully passed forward to final consumers, causing a reduction in quantity purchased.[32] To derive that reduction, the analysis applies price elasticities to the computed pre-tax purchases. In theory, each newly taxed good or service will have a unique price elasticity. However, because the base expansion applies to a broad array of goods and services, the analysis uses a single "average" elasticity of 0.8, which generally represents an average level for most consumer expenditures. An example demonstrates the impact from applying price elasticities. Assume that 100 units of a good are sold at a pre-tax price of $10 that has a price elasticity of 0.8. If the new 7 percent tax is levied and fully passed forward to consumers, then the price increases to $10.70 and the quantity demanded falls by 0.8 times 7 percent, or 5.6 percent. Total spending on the newly taxed good would fall by roughly the same percentage. However, the analysis also assumes that one-half of the reduction in expenditures shifts to goods that were already taxed (the relative price does not change), so that those purchases are still taxed. The other half shifts to non-taxed alternatives or possibly leaks from the state economy.

Nexus Issues

For many services that are taxed under the base expansion, it is unclear to whom the service will be delivered. The service estimates for the base expansion use data from the 2007 Economic Census for Pennsylvania, which lists the total sales across industries. Sales figures include sales to out-of-state service recipients who would not be subject to tax under the base expansion. There are no data regarding the share of those sales. The analysis applies a ten percent reduction to all service estimates to eliminate non-taxability due to nexus issues.

[32] There would also be a small impact on currently taxed goods and services.

**Table A.1**
**Sales Tax Base Expansion Detail**
(fiscal year, $ millions)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| **Goods** | | | | | |
| Food - Excluding WIC Purchases | $1,299 | $1,358 | $1,414 | $1,469 | $1,530 |
| Food Exemption for SNAP | -143 | -143 | -142 | -139 | -136 |
| Candy and Gum | 88 | 92 | 97 | 102 | 106 |
| Personal Hygiene | 68 | 71 | 74 | 77 | 80 |
| Newspapers and Magazines | 33 | 34 | 35 | 36 | 37 |
| Clothing and Footwear Over $50 | 415 | 437 | 461 | 488 | 519 |
| Non-Prescription Drugs | 133 | 139 | 145 | 151 | 156 |
| Caskets and Burial Vaults | 29 | 31 | 32 | 34 | 35 |
| Textbooks | 30 | 31 | 33 | 34 | 36 |
| Flags and Catalogs | 3 | 3 | 4 | 4 | 4 |
| **Services** | | | | | |
| Personal | | | | | |
| Dry Cleaning and Laundry | 38 | 40 | 42 | 44 | 46 |
| Personal Care | 98 | 103 | 109 | 114 | 119 |
| Funeral Parlor and Cremation | 34 | 36 | 38 | 40 | 42 |
| Other Personal | 14 | 15 | 15 | 16 | 17 |
| Parking Lots and Garages | 50 | 53 | 56 | 58 | 61 |
| Business | | | | | |
| Advertising and Public Relations | 1 | 1 | 1 | 1 | 1 |
| Maintenance Services for Buildings/Homes | 13 | 13 | 14 | 15 | 15 |
| Consulting | - | - | - | - | - |
| Scientific Research | 22 | 24 | 25 | 26 | 27 |
| Information | 15 | 15 | 16 | 17 | 18 |
| Administrative | 39 | 42 | 44 | 46 | 48 |
| Recreation | | | | | |
| Spectator Sports Admissions | 136 | 143 | 151 | 158 | 165 |
| Theater, Dance, Music, Arts | 21 | 22 | 23 | 24 | 25 |
| Amusement and Gambling | 183 | 193 | 202 | 212 | 222 |
| Museums, Zoos and Parks | 25 | 26 | 28 | 29 | 30 |
| Basic Cable | 225 | 229 | 232 | 236 | 240 |
| Electronic Media | 11 | 13 | 15 | 16 | 17 |
| Health Services (excludes sales by non-profits) | | | | | |
| Home Health Care | 158 | 168 | 180 | 192 | 204 |
| Nursing | 388 | 415 | 443 | 472 | 501 |
| Social Assistance | 49 | 52 | 56 | 59 | 63 |
| Day Care (includes non-profits) | 122 | 128 | 134 | 141 | 148 |
| Professional | | | | | |
| Legal | 128 | 135 | 142 | 149 | 156 |
| Architecture and Engineering | - | - | - | - | - |
| Accounting, Auditing and Design | 38 | 40 | 42 | 44 | 46 |
| All Other Professional Services | 65 | 68 | 72 | 75 | 79 |
| Veterinary Fees | 55 | 58 | 61 | 64 | 67 |
| Investment Services | 34 | 36 | 37 | 39 | 41 |
| Agents and Promoters | 50 | 53 | 55 | 58 | 61 |

**Table A.1 – Continued…**

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| Transportation | | | | | |
| Air, Rail and Water Transport | 20 | 21 | 22 | 23 | 24 |
| Transit and Ground Passenger | 40 | 42 | 45 | 47 | 49 |
| Scenic and Sightseeing | 4 | 4 | 4 | 4 | 4 |
| Towing | 8 | 9 | 9 | 10 | 10 |
| Waste Management and Remediation | 127 | 133 | 140 | 147 | 154 |
| Education - Meals and Activity Fees | 98 | 104 | 109 | 114 | 120 |
| **Miscellaneous Items** | | | | | |
| Various Provisions | 6 | 7 | 7 | 7 | 8 |
| Investment in Metal Bullion and Coins | 12 | 12 | 12 | 12 | 12 |
| Expansion of Exempt Entities | -37 | -38 | -40 | -42 | -43 |
| Cap on Vendor Discounts | 67 | 70 | 73 | 76 | 78 |

**Table A.2**
**Itemization of Newly Taxable Services from HB 76 and SB 76**

| NAICs Code | | | | Newly | |
|---|---|---|---|---|---|
| **Sector** | **Subsector** | **Industry** | **Description** | **Taxable?** | **Notes** |
| **48-49** | | | **Transportation and Warehousing** | | |
| | 481 | | Air Transportation | yes | 1 |
| | | 4811 | Scheduled Air Transportation | yes | 1 |
| | | 4812 | Nonscheduled Air Transportation | yes | 1 |
| | 482 | | Rail Transportation | yes | 1 |
| | 483 | | Water Transportation | yes | 1 |
| | | 4831 | Deep Sea, Coastal, and Great Lakes Water Transportation | yes | 1 |
| | | 4832 | Inland Water Transportation | yes | 1 |
| | 484 | | Truck Transportation | | |
| | | 4841 | General Freight Trucking | | |
| | | 4842 | Specialized Freight Trucking | | |
| | 485 | | Transit and Ground Passenger Transportation | yes | 1 |
| | | 4851 | Urban Transit Systems | yes | 1 |
| | | 4852 | Interurban and Rural Bus Transportation | yes | 1 |
| | | 4853 | Taxi and Limousine Service | yes | 1 |
| | | 4854 | School and Employee Bus Transportation | | |
| | | 4855 | Charter Bus Industry | yes | 1 |
| | | 4859 | Other Transit and Ground Passenger Transportation | partial | 1 |
| | 486 | | Pipeline Transportation | | |
| | | 4861 | Pipeline Transportation of Crude Oil | | |
| | | 4862 | Pipeline Transportation of Natural Gas | | |
| | | 4869 | Other Pipeline Transportation | | |
| | 487 | | Scenic and Sightseeing Transportation | | |
| | | 4871 | Scenic and Sightseeing Transportation, Land | yes | |
| | | 4872 | Scenic and Sightseeing Transportation, Water | yes | |
| | | 4879 | Scenic and Sightseeing Transportation, Other | yes | |
| | 488 | | Support Activities for Transportation | | |
| | | 4881 | Support Activities for Air Transportation | | |
| | | 4882 | Support Activities for Rail Transportation | | |
| | | 4883 | Support Activities for Water Transportation | | |
| | | 4884 | Support Activities for Road Transportation | partial | 2 |
| | | 4885 | Freight Transportation Arrangement | | |
| | | 4889 | Other Support Activities for Transportation | | |
| | 491 | | Postal Service | | |
| | 492 | | Couriers and Messengers | | |
| | | 4921 | Couriers and Express Delivery Services | | |
| | | 4922 | Local Messengers and Local Delivery | | |
| | 493 | | Warehousing and Storage | | 3 |
| | | | | | |
| **51** | | | **Information** | | |
| | 511 | | Publishing Industries (except Internet) | | |
| | | 5111 | Newspaper, Periodical, Book, and Directory Publishers | yes | 4 |
| | | 5112 | Software Publishers | yes | |
| | 512 | | Motion Picture and Sound Recording Industries | | |
| | | 5121 | Motion Picture and Video Industries | partial | 5 |
| | | 5122 | Sound Recording Industries | | |
| | 515 | | Broadcasting (except Internet) | | |

| NAICs Code | | | | Newly | |
| --- | --- | --- | --- | --- | --- |
| Sector | Subsector | Industry | Description | Taxable? | Notes |
| | | 5151 | Radio and Television Broadcasting | | |
| | | 5152 | Cable and Other Subscription Programming | partial | 6 |
| | 517 | | Telecommunications | | |
| | | 5171 | Wired Telecommunications Carriers | | |
| | | 5172 | Wireless Telecommunications Carriers (except Satellite) | | |
| | | 5174 | Satellite Telecommunications | | |
| | 518 | | Data Processing, Hosting, and Related Services | | |
| | 519 | | Other Information Services | yes | 7 |
| | | | | | |
| **52** | | | **Finance and Insurance** | | |
| | 521 | | Monetary Authorities-Central Bank | | |
| | 522 | | Credit Intermediation and Related Activities | | |
| | | 5221 | Depository Credit Intermediation | | |
| | | 5222 | Non-depository Credit Intermediation | | |
| | | 5223 | Activities Related to Credit Intermediation | | |
| | 523 | | Securities, Commodity Contracts, and Other | | |
| | | 5231 | Securities, Commodity Contracts and Brokerage | | |
| | | 5232 | Securities and Commodity Exchanges | | |
| | | 5239 | Other Financial Investment Activities | partial | 8 |
| | 524 | | Insurance Carriers and Related Activities | | |
| | | 5241 | Insurance Carriers | | |
| | | 5242 | Agencies, Brokerages, and Other Insurance Related Activities | | |
| | 525 | | Funds, Trusts, and Other Financial Vehicles | | |
| | | 5251 | Insurance and Employee Benefit Funds | | |
| | | 5259 | Other Investment Pools and Funds | | |
| | | | | | |
| **53** | | | **Real Estate and Rental and Leasing** | | |
| | 531 | | Real Estate | | |
| | | 5311 | Lessors of Real Estate | | |
| | | 5312 | Offices of Real Estate Agents and Brokers | | |
| | | 5313 | Activities Related to Real Estate | | |
| | 532 | | Rental and Leasing Services | | |
| | | 5321 | Automotive Equipment Rental and Leasing | | |
| | | 5322 | Consumer Goods Rental | | |
| | | 5323 | General Rental Centers | | |
| | | 5324 | Commercial and Industrial Machinery and Equipment Rental | | |
| | 533 | | Lessors of Nonfinancial Intangible Assets | | |
| | | | | | |
| **54** | | | **Professional, Scientific, and Technical Services** | | 7 |
| | 541 | | Professional, Scientific, and Technical Services | | |
| | | 5411 | Legal Services | partial | 7 |
| | | 5412 | Accounting, Tax Preparation, Bookkeeping, and Payroll Services | yes | |
| | | 5413 | Architectural, Engineering, and Related Services | yes | |
| | | 5414 | Specialized Design Services | yes | |
| | | 5415 | Computer Systems Design and Related Services | yes | |
| | | 5416 | Management, Scientific, and Technical Consulting Services | yes | |
| | | 5417 | Scientific Research and Development Services | yes | |
| | | 5418 | Advertising, Public Relations, and Related Services | yes | |
| | | 5419 | Other Professional, Scientific, and Technical Services | yes | |

| NAICs Code | | | | Newly | |
|---|---|---|---|---|---|
| Sector | Subsector | Industry | Description | Taxable? | Notes |
| **55** | | | **Management of Companies and Enterprises** | | 9 |
| | | | | | |
| **56** | | | **Administrative and Support and Waste Management** | | |
| | 561 | | Administrative and Support Services | | |
| | | 5611 | Office Administrative Services | yes | 7 |
| | | 5612 | Facilities Support Services | yes | 10 |
| | | 5613 | Employment Services | | 11 |
| | | 5614 | Business Support Services | partial | 11 |
| | | 5615 | Travel Arrangement and Reservation Services | yes | 7 |
| | | 5616 | Investigation and Security Services | yes | 7 |
| | | 5617 | Services to Buildings and Dwellings | partial | 11 |
| | | 5619 | Other Support Services | yes | 7 |
| | 562 | | Waste Management and Remediation Services | | |
| | | 5621 | Waste Collection | yes | 12 |
| | | 5622 | Waste Treatment and Disposal | | |
| | | 5629 | Remediation and Other Waste Management Services | | |
| | | | | | |
| **61** | | | **Educational Services** | | |
| | 611 | | Educational Services | | |
| | | 6111 | Elementary and Secondary Schools | | |
| | | 6112 | Junior Colleges | partial | 13 |
| | | 6113 | Colleges, Universities, and Professional Schools | partial | 13 |
| | | 6114 | Business Schools and Computer and Management Training | | |
| | | 6115 | Technical and Trade Schools | | |
| | | 6116 | Other Schools and Instruction | | |
| | | 6117 | Educational Support Services | | |
| | | | | | |
| **62** | | | **Health Care and Social Assistance** | | |
| | 621 | | Ambulatory Health Care Services | | |
| | | 6211 | Offices of Physicians | | |
| | | 6212 | Offices of Dentists | | |
| | | 6213 | Offices of Other Health Practitioners | | |
| | | 6214 | Outpatient Care Centers | | |
| | | 6215 | Medical and Diagnostic Laboratories | | |
| | | 6216 | Home Health Care Services | yes | 14 |
| | | 6219 | Other Ambulatory Health Care Services | partial | 14 |
| | 622 | | Hospitals | | |
| | | 6221 | General Medical and Surgical Hospitals | | |
| | | 6222 | Psychiatric and Substance Abuse Hospitals | | |
| | | 6223 | Specialty (except Psychiatric and Substance Abuse) Hospitals | | |
| | 623 | | Nursing and Residential Care Facilities | | |
| | | 6231 | Nursing Care Facilities (Skilled Nursing Facilities) | yes | 14 |
| | | 6232 | Dev. Disability, Mental Health, and Substance Abuse Facilities | yes | 14 |
| | | 6233 | Retirement Communities and Assisted Living Facilities for Elderly | yes | 14 |
| | | 6239 | Other Residential Care Facilities | yes | 14 |
| | 624 | | Social Assistance | | |
| | | 6241 | Individual and Family Services | yes | 14 |
| | | 6242 | Community Food and Housing, and Other Relief Services | yes | 14 |
| | | 6243 | Vocational Rehabilitation Services | yes | 14 |
| | | 6244 | Child Day Care Services | yes | |

| NAICs Code | | | | Newly | |
|---|---|---|---|---|---|
| **Sector** | **Subsector** | **Industry** | **Description** | **Taxable?** | **Notes** |
| **71** | | | **Arts, Entertainment, and Recreation** | | |
| | 711 | | Performing Arts, Spectator Sports, and Related Industries | | |
| | | 7111 | Performing Arts Companies | yes | |
| | | 7112 | Spectator Sports | yes | |
| | | 7113 | Promoters of Performing Arts, Sports, and Similar Events | yes | |
| | | 7114 | Agents and Managers for Artists, Athletes, Entertainers | yes | |
| | | 7115 | Independent Artists, Writers, and Performers | | |
| | 712 | | Museums, Historical Sites, and Similar Institutions | yes | |
| | 713 | | Amusement, Gambling, and Recreation Industries | | |
| | | 7131 | Amusement Parks and Arcades | yes | |
| | | 7132 | Gambling Industries | | |
| | | 7139 | Other Amusement and Recreation Industries | yes | 15 |
| **72** | | | **Accommodation and Food Services** | | |
| | 721 | | Accommodations | | |
| | | 7211 | Traveler Accommodation | | |
| | | 7212 | RV (Recreational Vehicle) Parks and Recreational Camps | | |
| | | 7213 | Rooming and Boarding Houses | | |
| | 722 | | Food Services and Drinking Places | | |
| | | 7223 | Special Food Services | | |
| | | 7224 | Drinking Places (Alcoholic Beverages) | partial | 16 |
| | | 7225 | Restaurants and Other Eating Places | | |
| **81** | | | **Other Services (except Public Administration)** | | |
| | 811 | | Repair and Maintenance | | 11 |
| | | 8111 | Automotive Repair and Maintenance | | |
| | | 8112 | Electronic and Precision Equipment Repair and Maintenance | | |
| | | 8113 | Commercial and Industrial Machinery and Equipment Repair | | |
| | | 8114 | Personal and Household Goods Repair and Maintenance | | |
| | 812 | | Personal and Laundry Services | | |
| | | 8121 | Personal Care Services | yes | |
| | | 8122 | Death Care Services | yes | 17 |
| | | 8123 | Dry Cleaning and Laundry Services | partial | 18 |
| | | 8129 | Other Personal Services | yes | |

Notes

1. intrastate transport only, persons only
2. vehicle towing services only
3. assumed nontaxable due to administrability concerns
4. all newspaper and magazine subscriptions
5. movie theaters included with amusements
6. basic and expanded basic programming services only
7. exclude all business to business services
8. investment advice and counseling
9. generally bank holding companies
10. much provided to exempt gov't entities
11. generally already subject to tax
12. no business to business carve out for sub-sector
13. non-tuition fees and meal plans
14. for profit entities only
15. drive-ins and motion picture theatres moved here
16. fees for drinking establishments
17. micro data used
18. includes linens and uniforms

# Appendix B: State and Federal Income Tax

## State Personal Income Tax

The proposal increases the personal income tax rate from 3.07 to 4.34 percent. The personal income tax revenue estimate assumes that the tax forgiveness and resident tax credits increase proportionally with the tax rate (1.27/3.07 x 100 = 41.4 percent), thereby offsetting any additional tax for residents claiming those credits under current law. The tax forgiveness credit is a credit granted to low income residents. The credit refunds a specified percentage of taxes (10 percent to 100 percent) depending on the taxpayer's income and family size. The resident tax credit is a credit for residents who work in non-reciprocal states and pay taxes in those states. To prevent individuals from paying state taxes twice (once to the state they work in and once to Pennsylvania), residents working in non-reciprocal states may claim a tax credit for taxes paid to the other state.

The estimate for the personal income tax rate increase includes certain adjustments to reflect behavioral responses. Research by the Congressional Budget Office suggests that the wage elasticity for an average worker is 0.19.[33] That figure implies that a one percentage point decline in after-tax wage income would reduce the number of hours worked by 0.19 percent. The model assumes that after-tax wage income is 77 percent of gross wages. Hence, the revenue estimate for the personal income tax rate increase was reduced by 0.313 percent ([1.27 / 77] x 0.19) to reflect the reduced incentives to work from higher tax rates.[34] This adjustment reduced revenues from the rate increase by $40 million for FY 2014-15.

The estimate also includes an adjustment for higher non-compliance under the tax rate increase. Research shows a positive relation between non-compliance and tax rates. The model assumes an underlying personal income tax compliance rate of 95 percent that declines to 94.6 percent under the proposal. Hence, the entire personal income tax baseline falls by 0.42 percent (.40/95) in response to the 41.4 percent increase in tax rate, or $73 million for FY 2014-15.

The personal income tax rate increase estimate includes any refunds paid from the General Fund. In general, refunds will also increase as taxpayers overpay their final tax liability by a greater amount to avoid potential penalties. For this analysis, the increase in refunds is paid from the General Fund, while the increase in personal income tax collections accrues to the ESF.

---

[33] Congressional Budget Office. "How the Supply of Labor Responds to Changes in Fiscal Policy." October 2012. http://www.cbo.gov/publication/43674.

[34] This reduction was only taken on the employee withholding (i.e., earned compensation) part of personal income tax.

## Federal Personal Income Tax

Pennsylvanians who itemize for federal income taxes will generally realize a federal income tax increase under the proposal. For tax year 2011, federal income tax data show that 1.68 million residents claimed $9.82 billion in state and local income tax deductions on Schedule A of the federal income tax return (average of $5,855).[35] Due to the increase in the state personal income tax rate, the analysis assumes that the state portion of the federal deduction for state and local income taxes would increase by 1.27 / 3.07 or 41.3 percent ($4.1 billion). Data from the U.S. Census show that the state share of total state and local income taxes paid by Pennsylvania residents is 73.3 percent. Therefore, the analysis assumes that the federal itemized deduction increases by $3.0 billion (73.3 percent times $4.1 billion) for tax year 2011. Federal income tax data suggest a marginal income tax rate of 28 percent for taxpayers who claim this deduction. Hence, the net decrease in federal income tax is $0.83 billion.

Federal tax data also show that 1.72 million residents claimed $7.78 billion of real estate tax deductions (average of $4,529) for tax year 2011. The analysis assumes that the elimination of local school property taxes reduces the federal itemized deduction for real estate taxes by 61 percent ($4.74 billion). It is not completely eliminated because levies for municipalities and existing debt service remain under the proposal. Federal income tax data suggest a marginal income tax rate of 25 percent for taxpayers who claim this deduction.[36] Hence, the net increase in federal income tax is $1.19 billion.

Combining the two effects suggests a net increase in federal tax liability of roughly $350 million for tax year 2011. Normal growth and the increase in higher income tax rates for tax year 2013 imply significant growth in federal tax liability for higher income individuals from 2011 to 2014. The analysis assumes that the computed tax increase grows by 15 percent ($405 million) during that time period. However, certain taxpayers may no longer itemize, but would switch to the standard deduction method. Hence, the computed tax increase is reduced by one quarter, yielding a net federal tax increase of $305 million for tax year 2014.

Owners and shareholders of pass through business entities (i.e., partnerships, s corporations, and sole proprietorships) will also realize a federal income tax increase. The analysis assumes that 30 percent ($3.4 billion for FY 2014-15) of the property tax cut accrues to businesses, one half to pass through entities ($1.7 billion) and one half to corporations ($1.7 billion). The tax cut increases federal business income, but is partially offset by higher sales tax ($0.3 billion) paid by businesses under the proposal. On net, federal business income will increase ($1.4 billion). The analysis assumes that 85 percent of the income accrues to residents and is taxed at a federal income tax rate of 25 percent, yielding a $290 million federal income tax increase for owners and shareholders of pass through entities.

[35] See http://www.irs.gov/uac/SOI-Tax-Stats---Historic-Table-2.
[36] Both itemized deductions are skewed towards higher income individuals: roughly 54 percent of the property tax deduction and 71 percent of the income tax deduction were claimed by taxpayers reporting federal AGI in excess of $100,000.

# Appendix C: School District Property Tax Forecast and Methodology

This appendix outlines the methodology used to forecast the school district property tax baseline. The forecast relies on provisions of Special Session Act 1 of 2006, the Taxpayer Relief Act, (hereafter referred to as "Act 1") as the underlying basis to project school district property taxes.[37] Act 1 places an effective cap on the amount of revenue a school district may levy from increases in its millage rate.[38] Due to the cap, historical growth patterns would likely overstate school district property tax collections in future years.

The Act 1 provisions limiting school district property taxes have two components: (1) an adjusted index for each school district that establishes percentage limits in the allowable millage rate increase; and (2) exceptions to the adjusted index that school districts may use to seek increases above the adjusted index. Exceptions are limited to certain prescribed circumstances, such as increases in pension costs. This analysis predicts that the Act 1 Index will steadily increase over the forecast horizon based on current economic projections from the Pennsylvania Department of Labor and Industry and IHS Global Insight. The analysis assumes that the use of exceptions will increase due to modest increases in the index combined with sharply increasing employer contributions for public school employee pensions.

The property tax reduction allocations provided to school districts under Act 1 are also built into the school district property tax forecast. The allocations represent property taxes that the school districts levy, yet payments are received from state funds rather than property owners.

Table C.1 on the following page presents the individual components of the school district property tax forecast under current law as well as the property taxes that would be replaced under the proposal. Following the table is a line-by-line synopsis of each individual component. The data used for the forecast are from the Pennsylvania Department of Education (PDE). FY 2011-12 represents the most recent data on school district property tax collections and debt service payments. Later years are projections by the IFO.

---

[37] The act of Jun. 27, 2006, Special Session 1, P.L. 1873, No. 1, known as the Taxpayer Relief Act. See section 333 for the statutory provisions limiting the increases in millage rates of school property taxes.

[38] School districts may exceed the Act 1 limitations by seeking the approval of the voters at a referendum, but such occurrences have been very rare. This analysis does not incorporate the approval of referenda.

**Table C.1**
**School District Property Tax Forecast**
(fiscal year, $ millions)

| | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|---|
| Property Tax - Prior Year | $12,315 | $12,700 | $13,224 | $13,812 | $14,327 | $14,809 |
| Revenue from Assessment Growth | 123 | 127 | 132 | 138 | 143 | 148 |
| **Prior Year Tax Adjusted for Growth** | **12,438** | **12,827** | **13,356** | **13,950** | **14,470** | **14,957** |
| **Act 1 Index Growth** | | | | | | |
| Aggregate Index Growth – Amount | 249 | 321 | 387 | 405 | 449 | 509 |
| Index Utilization Factor | 70% | 75% | 75% | 70% | 65% | 65% |
| **Net Index Growth** | **174** | **241** | **290** | **284** | **292** | **331** |
| **Act 1 Exceptions** | | | | | | |
| Pension Exception | 83 | 145 | 143 | 59 | 1 | 1 |
| Special Education Exception | 57 | 58 | 60 | 62 | 64 | 66 |
| Debt Exception | 6 | 5 | 4 | 3 | 2 | 1 |
| **Exceptions Sub-total** | **146** | **208** | **207** | **124** | **67** | **68** |
| **Exceptions Utilization Factor** | **60%** | **75%** | **80%** | **75%** | **70%** | **70%** |
| **Net Exceptions** | **88** | **156** | **166** | **93** | **47** | **44** |
| **Total Act 1 Revenue Growth** | **262** | **397** | **456** | **377** | **339** | **375** |
| Property Tax Forecast – Current Year | 12,700 | 13,224 | 13,812 | 14,327 | 14,809 | 15,332 |
| Delinquent Taxes Collected – Current Year | 441 | 459 | 480 | 497 | 514 | 532 |
| **Property Tax Forecast (Current & Delinquent)** | **13,141** | **13,683** | **14,292** | **14,824** | **15,323** | **15,864** |
| Phase-out – Delinquent Taxes | -441 | -459 | -264 | -99 | 0 | 0 |
| Phase-out – Debt Service | -2,178 | -2,039 | -1,900 | -1,761 | -1,622 | -1,483 |
| **Property Tax Subject to Replacement** | **10,522** | **11,185** | **12,128** | **12,964** | **13,701** | **14,381** |

Property Tax – Prior Year

This row displays the current and interim property taxes collected in the prior year under current law without adjustments for debt service. Actual revenue collections for FY 2012-13 have not yet been reported by the PDE. However, the millage rates by school district for FY 2012-13 are available. Thus, the forecast was derived by applying the growth rates in millage for FY 2012-13, for all districts, to the districts' actual FY 2011-12 collections.

Additional calculations were performed for multi-county school districts to derive a weighted average growth in millage based on the percentage of property within each county. These data are available from the State Tax Equalization Board (STEB).[39] For school districts in counties that conducted a reassessment

[39] See State Tax Equalization Board (STEB), http://www.newpa.com/local-government/steb.

and school districts that operate on a calendar year basis (i.e., school districts in Perry County, Pittsburgh School District and Scranton School District), growth rates or actual collections were supplied by individual districts. The base year amount also includes $525.8 million in property taxes levied by school districts and allocated as state property tax relief from the Property Tax Relief Fund.

Revenue from Assessment Growth

Assessment growth represents the underlying change in assessments, net of reductions. Assessment growth generates additional property tax revenues prior to any change in millage rates. Assessment growth can occur for many reasons including: new construction, remodeling and reassessments or assessment appeals. Appeals that result in assessment reductions reduce assessment growth.

The analysis assumes that net assessments grow by 1.0 percent per annum, which primarily represents the underlying growth from new construction. The Independent Fiscal Office (IFO) examined school district data on interim property tax assessments in an attempt to determine the levels of such growth. However, the data were determined to be unreliable due to inconsistencies between counties in their treatment of new construction and differences in reporting by school districts.

The alternative method examined millage rate increases in districts that did not implement a reassessment between FY 2010-11 and FY 2011-12. This method isolated the aggregate amount of property tax collections for those districts that could not be explained by millage rate increases. The difference between the projected and actual collections using this method was attributed to underlying assessment growth. The 1.0 percent assumption may prove to be conservative. An analysis of data prior to the recession suggests annual growth rates of 1.5 to 2.0 percent.

Prior Year Tax Adjusted for Growth

This is equal to the sum of Property Tax – Prior Year and Revenue from Assessment Growth.

Aggregate Index Growth – Amount

The aggregate index growth is the amount by which total school district property tax collections could increase, assuming that each school district increases its property tax rate to the maximum amount allowed under its Act 1 adjusted index.[40] The Act 1 adjusted index for each district is determined by the Act 1 base index and the district's Market Value / Personal Income Aid Ratio (MV/PIA Ratio). For school districts with a MV/PIA Ratio greater than 0.4 in the prior year, the adjusted index is calculated by multiplying the base index for the current year by the sum of 0.75 and the school district's MV/PIA Ratio. School districts with an MV/PIA Ratio of less than 0.4 are assigned the base index.

The forecast of the Act 1 base index through FY 2018-19 required two separate forecasts for the two components that comprise the base index. The base index is equal to the average of the percentage change

[40] The Act 1 index does not apply to the City of Philadelphia School District. Property tax growth for the district was calculated using historical data and growth rates.

in the Statewide Average Weekly Wage (SAWW) and the Employer Cost Index (ECI) for secondary and elementary schools.

The SAWW is forecast by the Pennsylvania Department of Labor and Industry and is now calculated using a three-year average for FY 2013-14 and future years. The ECI for elementary and secondary schools was calculated using historical data from the Bureau of Labor Statistics (BLS) and forecast data from IHS Global Insight. Historical data yielded the average shares of the ECI that are wages and benefits. Those shares are then assumed constant moving forward with the forecast wages and benefits from IHS Global Insight.

**Table C.2**
**History and Forecast of the Act 1 Base Index (and Components)**

| Fiscal Year | SAWW | ECI | Act 1 Base Index |
|---|---|---|---|
| 2006-07 | 4.2% | 3.5% | 3.9% |
| 2007-08 | 2.8 | 4.0 | 3.4 |
| 2008-09 | 4.3 | 4.5 | 4.4 |
| 2009-10 | 4.6 | 3.6 | 4.1 |
| 2010-11 | 2.7 | 3.0 | 2.9 |
| 2011-12 | 0.9 | 1.9 | 1.4 |
| 2012-13 | 2.1 | 1.3 | 1.7 |
| 2013-14 | 2.0 | 1.4 | 1.7 |
| 2014-15 | 2.6 | 1.6 | 2.1 |
| 2015-16 | 2.3 | 2.5 | 2.4 |
| 2016-17 | 2.3 | 2.6 | 2.4 |
| 2017-18 | 2.2 | 2.9 | 2.6 |
| 2018-19 | 2.7 | 2.9 | 2.8 |

MV/PIA Ratios for each school district were forecast using 15 years of historical data from PDE. MV/PIA Ratios that exceeded two standard deviations from a school district's average MV/PIA Ratio were replaced with the average of the prior and subsequent years. Future MV/PIA Ratios were then forecast using time-series forecasting software that minimizes mean square error.

The following aggregate growth rates were calculated using a forecast of the adjusted Act 1 index for each school district:

| 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| 2.0% | 2.5% | 2.9% | 2.9% | 3.1% | 3.4% |

Index Utilization Factor

Not all school districts increase millage rates to the maximum permitted by their Act 1 adjusted index. The index utilization factor makes an allowance for this by incorporating only a portion of the baseline growth into the property tax forecast. The forecast assumes that the utilization factor increases over time as school district budget pressures increase due to pension contributions, federal and state funding constraints and diminishing fund balances. The utilization factor declines after the employer share of pension costs levels off. The net index growth is equal to the aggregate index growth multiplied by the index utilization factor.

Net Index Growth

This is the product of Aggregate Index Growth – Amount and Index Utilization Factor.

Pension Exception

Exceptions for pension contributions are expected to increase sharply in future years as employer contribution rates continue to steadily increase. The forecast assumes the following employer rates as reported by the Public School Employees Retirement System (PSERS) actuarial evaluation for the fiscal year ending June 30, 2012.

| 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|---|
| 16.93% | 21.31% | 25.80% | 28.30% | 29.15% | 30.14% |

For FY 2013-14, the forecast uses pension exceptions approved by PDE. For subsequent fiscal years, the IFO projects the pension exception based on actual FY 2011-12 aggregate school district salaries, future employer contribution rates, adjusted Act 1 indexes for each school district (IFO forecast) and the estimated state reimbursement for pension payments.[41]

Special Education Exception

For FY 2013-14, the forecast uses the four-year average of special education exceptions approved by PDE. For subsequent years, the special education exceptions are increased by the aggregate Act 1 adjusted index growth rate.

Debt Exception

The grandfathered debt exception is phased out over the forecast horizon under the proposal.

Exceptions Utilization Factor

The forecast assumes the rate of exceptions used will increase substantially over FY 2012-13 amounts due to significant growth in pension contributions, federal and state funding constraints and diminishing fund balances.[42]

---

[41] The act of Jun. 30, 2011, P.L. 148, No. 25 provides that the pension exception shall be calculated using the salaries in the current year or FY 2011-12, whichever is less. This analysis assumes that the FY 2011-12 salaries are the lower of the two years.

[42] See page 7 of the Report on Referendum Exceptions for FY 2013-14, which is accessible at: http://www.portal.state.pa.us/portal/server.pt/community/referendum_exceptions/7456/report_on_referendum_exceptions/510336

Net Exceptions

This is the product of Exceptions Utilization Factor and the sum of Pension Exception, Special Education Exception and Debt Exception.

Total Act 1 Revenue Growth

This is the sum of Net Index Growth and Net Exceptions.

Property Tax Forecast – Current Year

This is the sum of Prior Year Adjusted for Growth and Total Act 1 Revenue Growth.

Delinquent Taxes Collected - Current Year

This is an estimate of the amount of delinquent taxes collected in the current year attributable to property taxes. It is assumed that delinquent property taxes are collected over the course of three consecutive years following the year in which they are delinquent. Thus, delinquent property tax collections for FY 2013-14 would be comprised of property taxes owed since FY 2010-11.

Property Tax Forecast (Current & Delinquent)

This is the sum of Property Tax Forecast – Current Year and Delinquent Taxes Collected – Current Year.

Phase-out – Delinquent Taxes

This accounts for the delinquent school district property taxes that would be received by the school districts in the first four years under the proposal. This assumes that all remaining delinquent property taxes would be collected by the end of FY 2016-17.

Phase-out – Debt Service

This controls for the school district property taxes that will be levied to service existing debt. Debt service is the sum of debt service and debt service fund transfers to sinking funds from the annual financial reports school districts file with PDE.[43] Debt service for FY 2012-13 was determined by taking FY 2011-12 debt service as a percentage of property tax revenues and applying that percentage to FY 2012-13 property tax collections.

[43] See PDE, Summaries of Annual Financial Report Data: http://www.education.state.pa.us/portal/server.pt/community/summaries_of_annual_financial_report_data/7673.

The proposal specifies that property tax can only be levied for debt in existence on December 31, 2012.[44] The amount of debt service is reduced by six percent of the FY 2012-13 level each year to account for the retirement of debt. Hence, the analysis assumes that all remaining debt will be retired in roughly 17 years and is uniformly spread over those years.

Property Tax Subject to Replacement

The final line is the school district property tax subject to replacement under the proposal. It is the sum of the property taxes that would be collected in each year under current law offset by diminishing delinquent taxes and debt service payments.

[44] It is not clear if the term "debt in existence" refers to debt that has been incurred or debt that has been issued. For the purpose of this analysis, we assume that it means debt that has been issued.

- This page was intentionally left blank. -

# Appendix D: Property Tax Data

This appendix contains various tabulations of school property taxes.

**Table D.1**
**Local School District Real Estate Taxes: Total Collections**
(fiscal year, $ thousands)

| Fiscal Year | Total Current & Interim Real Estate Taxes | Act 1 Property Tax Reduction Allocations[1] | Total Real Estate Taxes (Current, Interim & Allocations) | Increase Over Prior Year | Percent Increase | 10-Year Average |
|---|---|---|---|---|---|---|
| 2011-12 | $11,480,469 | $525,827 | $12,006,296 | $322,661 | 2.8% | 5.3% |
| 2010-11 | 11,153,412 | 530,223 | 11,683,635 | 397,124 | 3.5% | 5.5% |
| 2009-10 | 10,759,582 | 526,929 | 11,286,511 | 321,693 | 2.9% | 5.7% |
| 2008-09 | 10,438,463 | 526,355 | 10,964,818 | 490,768 | 4.7% | 5.9% |
| 2007-08 | 10,474,050 | - | 10,474,050 | 463,331 | 4.6% | 5.9% |
| 2006-07 | 10,010,719 | - | 10,010,719 | 559,857 | 5.9% | 5.8% |
| 2005-06 | 9,450,862 | - | 9,450,862 | 540,974 | 6.1% | 5.7% |
| 2004-05 | 8,909,888 | - | 8,909,888 | 605,659 | 7.3% | 5.4% |
| 2003-04 | 8,304,229 | - | 8,304,229 | 542,219 | 7.0% | 5.2% |
| 2002-03 | 7,762,010 | - | 7,762,010 | 564,558 | 7.8% | 5.1% |
| 2001-02 | 7,197,452 | - | 7,197,452 | 381,838 | 5.6% | 5.0% |
| 2000-01 | 6,815,614 | - | 6,815,614 | 341,480 | 5.3% | 5.3% |
| 1999-00 | 6,474,134 | - | 6,474,134 | 281,673 | 4.5% | 5.9% |
| 1998-99 | 6,192,461 | - | 6,192,461 | 292,668 | 5.0% | 6.4% |
| 1997-98 | 5,899,793 | - | 5,899,793 | 207,669 | 3.6% | 6.7% |
| 1996-97 | 5,692,124 | - | 5,692,124 | 257,023 | 4.7% | 7.1% |
| 1995-96 | 5,435,101 | - | 5,435,101 | 189,004 | 3.6% | 7.3% |
| 1994-95 | 5,246,097 | - | 5,246,097 | 264,978 | 5.3% | 7.6% |
| 1993-94 | 4,981,119 | - | 4,981,119 | 244,888 | 5.2% | 7.9% |
| 1992-93 | 4,736,231 | - | 4,736,231 | 330,954 | 7.5% | 8.0% |
| 1991-92 | 4,405,277 | - | 4,405,277 | 348,451 | 8.6% | 7.9% |
| 1990-91 | 4,056,826 | - | 4,056,826 | 394,131 | 10.8% | - |
| 1989-90 | 3,662,695 | - | 3,662,695 | 330,572 | 9.9% | - |
| 1988-89 | 3,332,123 | - | 3,332,123 | 255,208 | 8.3% | - |
| 1987-88 | 3,076,915 | - | 3,076,915 | 209,524 | 7.3% | - |
| 1986-87 | 2,867,391 | - | 2,867,391 | 182,348 | 6.8% | - |
| 1985-86 | 2,685,043 | - | 2,685,043 | 160,810 | 6.4% | - |
| 1984-85 | 2,524,233 | - | 2,524,233 | 184,798 | 7.9% | - |
| 1983-84 | 2,339,435 | - | 2,339,435 | 146,334 | 6.7% | - |
| 1982-83 | 2,193,101 | - | 2,193,101 | 142,122 | 6.9% | - |
| 1981-82 | 2,050,979 | - | 2,050,979 | - | - | - |
| **Average Increase** | | | | | **6.1%** | |

[1] Excludes allocations for Philadelphia that are dedicated to wage tax reductions.

Source: PDE, Finances, AFR Data Detailed, Local Property Taxes Collected, Programs, Property Tax Relief, http://www.portal.state.pa.us/portal/server.pt/community/finances/7671 additional calculations by IFO.

**Table D.2**
**Sources of Revenue for Pennsylvania School Districts**
(fiscal year, $ millions)

| | 1996-97 | | 2001-02 | | 2006-07 | | 2011-12 | |
|---|---|---|---|---|---|---|---|---|
| **Revenue Source** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** |
| Local Taxes | $7,285 | 54.2% | $9,039 | 53.9% | $12,277 | 55.5% | $13,851 | 55.3% |
| Local Other[1] | 314 | 2.3 | 462 | 2.8 | 850 | 3.8 | 646 | 2.6 |
| Local Subtotal | 7,599 | 56.6 | 9,501 | 56.7 | 13,127 | 59.3 | 14,497 | 57.9 |
| State[2] | 5,262 | 39.2 | 6,095 | 36.4 | 7,987 | 36.1 | 8,918 | 35.6 |
| Federal | 398 | 3.0 | 619 | 3.7 | 808 | 3.6 | 1,048 | 4.2 |
| Other | 171 | 1.3 | 541 | 3.2 | 218 | 1.0 | 568 | 2.3 |
| **Total** | **13,430** | **100.0** | **16,756** | **100.0** | **22,140** | **100.0** | **25,031** | **100.0** |

[1] Includes miscellaneous local revenues: cafeteria revenues, donations, student activity fees, etc.
[2] Act 1 Property Tax Relief Allocations to school districts are classified under state.

Source: PDE, Finances, Revenue Data for all LEAs, http://www.education.state.pa.us/portal/server.pt/community/finances/7671 additional calculations by the IFO.

**Table D.3**
**Local Tax Revenue for Pennsylvania School Districts**
(fiscal year, $ millions)

| | 1996-97 | | 2001-02 | | 2006-07 | | 2011-12 | |
|---|---|---|---|---|---|---|---|---|
| **Revenue Source** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** |
| Real Estate Taxes | $5,692 | 78.2% | $7,197 | 79.7% | $10,011 | 81.6% | $11,480 | 82.9% |
| Act 1 & 511 Income Taxes | 546 | 7.5 | 731 | 8.1 | 1,027 | 8.4 | 1,178 | 8.5 |
| 1st Class SD Taxes | 178 | 2.4 | 212 | 2.3 | 253 | 2.1 | 269 | 1.9 |
| Other 511 Taxes[1] | 306 | 4.2 | 363 | 4.0 | 382 | 3.1 | 265 | 1.9 |
| Delinquent Taxes | 433 | 5.9 | 470 | 5.2 | 542 | 4.4 | 604 | 4.4 |
| Other Taxes[2] | 123 | 1.7 | 53 | 0.6 | 56 | 0.5 | 58 | 0.4 |
| **Total[3]** | **7,278** | **100.0** | **9,026** | **100.0** | **12,271** | **100.0** | **13,854** | **100.0** |

[1] Includes miscellaneous 511 taxes: local services, occupational, business privilege, real estate transfers, etc.
[2] Includes public utility, per capita and in-lieu of payments.
[3] Differences are due to rounding and/or technical reporting issues.

Source: PDE, Finances, Revenue Data for all LEAs, Act 1/ Act 511/ 1st Class SD Taxes, Detailed AFR Data, Local Revenues, http://www.education.state.pa.us/portal/server.pt/community/finances/7671 additional calculations by the IFO.