Center on Regional Politics

POLICY BRIEF
Growth and Stability in Public School Revenue Sources:
Can We Have Both?

EILEEN H. MCNULTY

OCTOBER 2014

Eileen McNulty's policy brief on the importance of achieving both stability and growth in the mix of state and local taxes that support public schools is relevant to current discussions and debates on school finance underway in the Commonwealth. Among ideas in circulation are that the local property tax should be abolished as the principal school finance levy and replaced with state taxes, that energy severance taxes are good measures to fund schools, and that the Commonwealth should raise its share of state-local school funding from roughly 35% to 50%, a goal once enshrined in statute but long ago repealed. Without taking a position on any of these ideas, Eileen has identified factors that policymakers should consider as these debates continue and as the Commonwealth's Basic Education Funding Commission undertakes efforts to reform the basic education subsidy. This policy brief is another in a series published by Temple University's Center on Regional Politics (CORP) on behalf of the University Consortium to Improve Public School Finance and Promote Economic Growth. The consortium also includes Penn State's College of Education, the University of Pittsburgh's Center for Metropolitan Studies, and the Pennsylvania Policy Forum, an informal group of faculty members and researchers at 18 public and private colleges and universities. Consortium members are listed on page seven.

Recently the Commonwealth's bond rating was downgraded due to the growing imbalance between Pennsylvania's revenue structure and its spending commitments to citizens, employees, retired employees, school districts, and other local governments. Revenue adequacy has long been one of several criteria used to analyze tax proposals. However, analysis of the dynamic aspects of proposed tax policy changes often receive inadequate attention as the public debate tends to focus on issues like equity and competitiveness.[1] Yet the right combination of taxes could increase stability in the tax base without sacrificing equity. Revenue adequacy and greater stability enhance economic competitiveness by providing greater certainty about future tax liabilities and public service levels. Growth and volatility characteristics of different revenue sources can be quantified and a tax portfolio developed that addresses the needs for growth, stability, and equity in the overall tax structure by combining different tax types in the overall portfolio.

What is Elasticity?

The responsiveness of a particular tax or portfolio of taxes is referred to as elasticity. Elasticity is used to measure the relationship between the growth (net change from one period to the next) in tax revenue and the growth in personal income.[2] Measured over time, this method produces an estimate of the long-run elasticity of the tax which is used to evaluate the growth characteristics of the tax.

The right combination of taxes could increase stability in the tax base without sacrificing equity

An elasticity estimate of 1.0 indicates that tax revenue growth is matching economic growth over the estimation period. Revenues from an elastic tax (elasticity > 1.0) grow faster than the economy over the long run, while revenues from inelastic taxes (elasticity < 1.0) grow more slowly than the economy.

An elasticity calculation can also be used to measure the volatility of tax revenues during the business cycle. The calculation of elasticity for measuring volatility quantifies the change in the growth *rate* of tax revenues compared to the change in the growth *rate* of personal income. This method produces an estimate of the short-run elasticity of

---

1. In addition to revenue adequacy, equity and competitiveness, other criteria for analyzing tax proposals include efficiency, simplicity, economy of administration, certainty, and accountability.
2. Growth in personal income is used here as a measure of growth in the state's economy and includes both taxable and non-taxable sources of income.

---

the tax which provides information about the volatility (or conversely, stability) of the tax. Revenues from a volatile tax are more responsive to changes in growth *rates* over the business cycle while those with a lower measure of short-run elasticity (short-run elasticity < 1.0) are more stable and less reactive to the business cycle.

Tax revenue elasticities vary greatly from state to state for the same type tax depending on a number of factors. The state's mix of businesses and performance differences among industries can impact the relationship between revenues and economic growth, resulting in similar tax structures having different elasticities in different states. Design of the tax base affects elasticity measures significantly. Items excluded from tax such as food, prescription drugs, and clothing for the sales tax or pensions for the income tax - all of which Pennsylvania has adopted - will affect the tax's elasticity. Tax receipts are also obviously affected by changes in tax bases and rates. When calculating tax elasticities, receipts are usually adjusted to remove the effect of rate changes and significant policy changes to the tax base from the data, so that the elasticity estimate reflects only the relationship with the economic variable. While this is the ideal, the difficulty of accurately measuring the impact of policy changes sometimes results in elasticity estimates being made with revenue collection data unadjusted for rate and base changes. When that is the case, the measure is sometimes referred to as buoyancy rather than elasticity. The **buoyancy** measure reflects the combined effect of both the economy and tax policy changes including changes in rate or base.

One way to think about buoyancy is that it incorporates the impact of political and administrative factors that affect tax revenues, e.g., the willingness of legislatures and school boards to change tax rates and/or bases to maintain or achieve a desired level of revenues. Legislatures might also provide tax exemptions, subsidies, or enact caps to limit

> **One way to think about buoyancy is that it incorporates the impact of political and administrative factors**

growth in a tax base or rate that engenders strong protests from taxpayers. Tax exemptions directly affect revenues collected and would impact the buoyancy calculation. Subsidies, such as rebates, are generally treated as expenditures and may reduce net funds available for budget purposes, but would often not affect measures of buoyancy. Growth caps could reduce the buoyancy of the tax revenues to which the cap applies. The buoyancy calculation reflects the effect

Key Terms Defined

Elasticity: The responsiveness of a particular tax or portfolio of taxes to economic growth. Elasticity is measured by the relationship between growth in tax revenue and the growth in personal income. An elasticity estimate of 1.0 indicates that tax revenue growth matches economic growth over the estimation period. An estimate greater than 1.0 indicates a relatively elastic tax, by which tax revenues grow faster than the economy over the long run, while an estimate less than 1.0 indicates a relatively inelastic tax, by which revenues grow more slowly than the economy.

Elasticity of >1.0 = Tax revenues grow faster than the economy
Elasticity of <1.0 = Tax revenues grow more slowly than the economy

Volatility: A short-run elasticity calculation that quantifies the change in growth rate of tax revenues compared to the growth rate of personal income. This measure provides information about the volatility (or conversely, stability) of the tax. Revenues from a volatile tax (short-run elasticity > 1.0) are more responsive to changes in economic growth rates over the business cycle while revenues from a stable tax (short-run elasticity < 1.0) are less reactive to the business cycle.

Short-run elasticity of >1.0 = Volatile Tax
Short-run elasticity of <1.0 = Stable Tax

Buoyancy: A measure of elasticity that is calculated without adjustment for changes in tax rate or base. Therefore, the measure reflects the combined effects of both the economy and tax policy changes including changes in rate or base. The buoyancy calculation reflects the effect of policy decisions as well as the economic responsiveness of the taxes themselves.

of policy decisions as well as the economic responsiveness of the taxes themselves.

Elasticity Estimates

A number of studies have been performed to provide elasticity estimates of state level taxes. Some of these studies use aggregate revenues from across all states to provide information helpful in analyzing trends. In one such study, Sobel and Holcombe[3] observed that "it is evident that the

3. Russell S. Sobel and Randall G. Holcombe. 1996. "Measuring the Growth and Variability of Tax Bases over the Business Cycle." *National Tax Journal* 49(4): 535-52.

trade-off between growth and variability is not automatic,[4] as has been assumed in the past". With regard to specific taxes, they found that –

"… the state personal income tax is more stable over the business cycle than the retail sales tax when food is exempted…There is, however, no significant difference between the variability of the personal income tax and the retail sales tax when food is included. Second, the short-run elasticity for liquor store sales is now significantly negative. This would imply that it moves counter-cyclically, with liquor purchases rising during recessions and falling during booms." (p. 549), and

"…corporate taxable income and retail sales have approximately the same long-run income elasticity, but corporate income has a much greater short-run elasticity. Thus, the two tax bases show approximately the same rate of growth as income grows over the long-run, even though corporate income taxes will fluctuate much more in response to short-run fluctuations in income." (p. 550)

These researchers recommended that for state tax policy purposes, analyses using their methods could be performed on state specific data.

Another group of researchers addressed that challenge, providing estimates for each state's sales and income taxes using data from 1967 through 2000.[5] They estimated the

long-run elasticity of Pennsylvania's sales tax at 1.069. This suggests that for each 1% increase in personal income, sales tax revenues in Pennsylvania grew by 1.069%. The short-run elasticity of Pennsylvania's sales tax was estimated at 1.504. This indicates that Pennsylvania's sales tax growth is more volatile than income growth across the business cycle. While Pennsylvania is one of only nine states to exhibit any long-run elasticity in its sales tax in this study, it is also among the ten most volatile when revenues are below the long-run trend and among the ten slowest to return to trend sales tax growth. The exemption of food and clothing contributes to Pennsylvania's sales tax being more elastic than states that do not exempt both of those items.

The same research team also estimated state personal income tax elasticities. Pennsylvania's long-run elasticity was estimated to be 1.25 after adjustment for rate changes, indicating that personal income tax (PIT) revenues increased 1.25% for each 1% growth in the state's economy. The volatility of the PIT was estimated using short-run elasticity calculations at 2.042 when revenues are below trend and 5.736 when revenues are above trend. Pennsylvania has one of the ten lowest long-run elasticities which means one of the ten lowest PIT responses to economic growth. However, it also has among the highest estimates for short-run volatility coupled with a relatively slow speed of adjustment to trend. The volatility of income from capital gains and profits is reflected in PIT revenues.

Table 1. Income Elasticity Measures for Selected PA Taxes

		Short-Run Elasticities[1]		Speed of Adjustment[1]		
		When current revenue value is		When current revenue value is		
		Below	Above	Below	Above	
	Long-Run Elasticity[1]	long-run equilibrium		long-run equilibrium		Buoyancy[2]
PA Sales Tax	1.069	1.504	1.504	-0.216	-0.216	
Average for US States Sales Tax	0.811	0.149	1.804	-0.513	-0.332	
PA Personal Income Tax (after adjustment for rate changes)	1.25	2.042	5.736	-0.312	0.064	
Average for US State Income Tax (after adjustment for rate changes)	1.76	0.217	2.663	-0.411	-0.618	
PA Local School Property Tax						1.44

1. Donald Bruce, William F. Fox, and M.H. Tuttle. 2006. "Tax Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics," *Southern Economic Journal* 73(2): 315-341. Data used for estimates is annual time series data for 1967-2000.
2. Estimated by the author using fiscal year data from 1993-94 to 2012-13.

4. Volatility is sometimes called variability or stability.
5. The Pennsylvania elasticity estimates in this paragraph and the next are from: Donald Bruce, William F. Fox, and M.H. Tuttle. 2006. "Tax Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics," *Southern Economic Journal* 73(2): 315-341.

The combination of lower growth relative to other state income taxes combined with higher volatility and a slower return to trend growth is a combination that can destabilize budgets as the economy moves through the business cycle. Combining the volatile but higher growth income tax with the slower growing but relatively less volatile sales tax is an example of two Pennsylvania tax bases that work together to produce a better combination of stability and growth than either tax alone would produce.

Another researcher examined the growth and volatility of state tax revenue sources in the district served by the Federal Reserve Bank of Kansas City.[6] Severance taxes are a significant source of revenue for the states in that district. Severance tax revenues can be very volatile since they are usually based on the price of the natural resource. The elasticity calculations that were reported for severance taxes in this study were the more general buoyancy measures that do not distinguish between revenue responsiveness resulting from underlying economic growth and growth due to changes in tax rates and bases. In part, this reflects the complexity of separating those effects. Wyoming, which was one of the states in the study, has altered

> **Severance tax revenues can be very volatile since they are usually based on the price of the natural resource**

its severance tax rates and structure almost 70 times in the 38 years covered by the study data (1969-2007). Nonetheless, we can observe from the severance tax buoyancy measure that, by relying on a combination of economic growth and adjustments to the tax bases and rates, Wyoming has achieved a long-run growth rate of 5.59% for every 1% economic growth from its severance taxes - a revenue source that provided 40% of its tax revenue by 2007. Despite having no personal or corporate income tax, Wyoming's long-run elasticity of total tax revenue at 1.33 (buoyancy calculation) is significantly larger than that of the nation (1.17) while exhibiting no greater short-run volatility.

Given the volatility of energy prices, states that are heavily reliant on severance taxes imposed on the value of the severed resource will find it more difficult to maintain revenue yields when energy prices fall. Like Wyoming, some policy makers might be willing to make regular changes to severance taxes where the tax burden is exported and felt more

indirectly by consumers as compared to adjusting sales or personal income taxes where the impact on consumers and workers is more direct. Another alternative would be to smooth out revenue growth with changes in the structure of the tax base to reduce sensitivity to price. For example, the tax could be changed to combine both value and volume based calculations. Rainy Day funds can help address the "boom and bust" cycle of revenues that are highly responsive to energy price fluctuation. Ensuring that high growth but volatile taxes like the severance tax are paired with more stable, albeit slower-growing taxes like the property tax will provide more reliable revenues over the entire business cycle.

> **Property taxes account for 85.5% of local school district tax revenues in Pennsylvania**

No discussion of public school revenue sources would be complete without including property taxes. Property taxes account for 85.5% of local school district tax revenues in Pennsylvania.[7] The buoyancy of total school property taxes can be calculated to provide us with a long-run estimate of the response of school property tax revenues to both economic growth and tax rate and base changes over time. Utilizing total school district property tax revenues from fiscal year 1994-95 to fiscal year 2012-13, the buoyancy of school property taxes was estimated to be 1.44.[8] This indicates that school property tax revenues increased by about 1.44% for each 1% growth in state personal income during that time frame. The combination of economic growth impacting taxable value and the ability of school boards to make adjustments to property tax rates enabled school districts to maintain stable growth in their largest local revenue source. Some studies suggest that property owners make cost-benefit analyses going along with tax increases to fund local schools: better schools increase property values and therefore are accepted even by many residents without children in schools.[9]

However, we cannot assume that this buoyancy rate will remain unchanged in the future. Tax policy changes since 2006 may affect the growth rate of local property tax revenues. Restrictions on the authority of school districts to increase property taxes cap growth in revenues based on an index. The growth allowed by the base index for the 2014-15 school year is 2.1% before exceptions or referenda. Limited exceptions to the restrictions are provided

6. The information contained in this paragraph comes from: R. Alison Felix. 2008. "The Growth and Volatility of State Tax Revenue Sources in the Tenth District," *Federal Reserve Bank of Kansas City Economic Review*, Third Quarter.
7. Eileen H. McNulty. 2014. "How Pennsylvania Funds Public Schools: The Story of the Local Share," *Temple University Center on Regional Politics Issue Memo*, No. 3, May.
8. Estimate made by the author.
9. William A. Fischel. 2005. *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*. Cambridge: Harvard University Press.

to meet previously incurred obligations and special needs. The restriction on revenue growth is likely to ultimately impact property tax rates imposed by school districts. At the same time, expanded property tax relief has helped reduce the impact of property taxes on citizens. Existing property tax rebates for eligible seniors and the disabled were expanded beginning in 2006, and in 2008 homeowners began receiving reduced school property tax bills reflecting homestead exemptions funded with gaming revenues. The expanded relief may improve the equity of property taxes at the same time that property tax growth is being constrained.

Some Experiences in Other States

When considering changes in school funding mechanisms, growth and stability of revenues are important considerations to ensure dependable and predictable resources that will enable schools to budget and operate efficiently. As an example of what can happen if these characteristics are not understood when making changes in school funding sources, consider the recent experience of **South Carolina**. For tax year 2007 the state eliminated homeowner property taxes for school operating revenues and increased the state sales tax from 5% to 6% to replace the lost property tax revenue to schools. The long-run elasticity of South Carolina's sales tax is estimated to be a fairly inelastic .773.[10] In other words, when the state's economy grows by 1%, South Carolina's sales tax revenue increases by only 0.77% in response. The only tax with an elasticity of at least 1.0 was the just eliminated property tax. As the Great Recession took hold and growth declined, the statutory changes "resulted in cuts to education in the base student cost of over one-third."[11]

Michigan's experience with a similar effort during the booming 1990s had more gradual consequences.[12] In July of 1993, Michigan's legislature voted to eliminate the local property tax as a source of operating revenue for public schools beginning in 1994 without providing for replacement revenues. Later in the year, several alternatives for replacing the eliminated revenues were placed on a statewide referendum for March of 1994. The referendum vote increased the state sales tax from 4% to 6% and resulted in a number of other changes. After "eliminating" the local property tax, a statewide real property tax for schools was established at 6 mills on all property. Additionally, the local property tax was re-established but ap-

plied only to non-homestead property at 18 mills, subject to approval by local voters. The result was that combined state and local property taxes for school operations which had averaged a uniform 34 mills imposed locally prior to the repeal, switched to a combination of state and local levies totaling 6 mills on homesteads and 24 mills (6 plus 18) on non-homestead property. Additional local property tax levies (on all property) were re-authorized for 55 "hold harmless" districts if approved by local voters, as well as other smaller levies for debt and intermediate units. Post-referendum legislation also increased tobacco taxes and instituted a .75% real estate transfer tax, all of which were dedicated to schools.

The new state-imposed school taxes were added to existing revenues dedicated to the School Aid Fund which already included a 60% share of the existing 4% sales tax, a portion of state personal income tax revenue, all proceeds from the State Lottery and grants from the state's General Fund as well as additional less significant revenue sources. The results of these changes in Michigan flipped the state/local balance of control over funding school operations from approximately 67% local/ 33% state in 1993-94, to 21% local/79% state in 1994-95. Revenue sources also flipped from 66% property taxes/33% other, to 32% property taxes (state and local impositions combined)/68% other.

> When considering changes in school funding mechanisms, growth and stability of revenues are important considerations to ensure dependable and predictable resources that will enable schools to budget and operate efficiently

The 79% state share of school funding in 1994-95 was heavily dependent on the dedicated portions of the state sales tax which provided 48% of the $8.1 billion in state school aid that year. The long-run elasticity of Michigan's sales tax is very similar to South Carolina's. Michigan's sales tax was estimated to be an inelastic .772.[13] In other words, when the state's economy grows by 1%, Michigan's sales tax revenue increases by only 0.77% in response. The study also found Michigan's sales tax to exhibit a volatile short-run elasticity of 1.7 when revenue levels were above trend. Fortunately for Michigan, compared to South Carolina, the sales tax revenues only accounted for slightly less than half of the School Aid Funding in 1994-95. However,

10. See footnote 5 for the source of this estimate.
11. Rob Knoeppel. 2014. "Funding Schools: What Pennsylvania Can Learn from Other States," PowerPoint presentation at the University Consortium to Improve Public School Finance and Promote Economic Growth, Public School Finance Symposium, May 30, accessed at: http://www.cla.temple. edu/corp/public-school-finance-symposium-may-30-2014/.
12. Information and data relating to Michigan's experience obtained from: C. Philip Kearney. 1995. "Reducing Local School Property Taxes: Recent Experiences in Michigan." *Journal of Education Finance* 21(1):165-185.
13. See footnote 5 for the source of the elasticity estimates cited in this paragraph.

Table 2. Michigan School Aid Fund Revenue Growth[14]

Fiscal Year	MI School Aid Fund Revenues % Change	MI General Fund Appropriations to School Aid Fund % Change
1995-96	5.2	(10.3)
1996-97	8.6	(53.4)
1997-98	7.8	36.0
1998-99	1.6	11.3
1999-00	5.1	0.0
2000-01	8.5	(8.3)
2001-02	6.5	(48.5)
2002-03	0.6	25.7
2003-04	(3.2)	51.5
2004-05	2.0	(56.3)
2005-06	2.7	(62.0)
2006-07	2.8	(44.2)
2007-08	(1.5)	(0.3)
2008-09	(3.2)	123.4
2009-10	(3.4)	(61.3)
2010-11	1.3	(38.3)
2011-12	2.1	321.8
2012-13	(0.7)	259.1
Average	**2.38**	**24.8**

School Aid Fund averaged 24.8% per year and ranged from -62.0% to an increase of 321.8%. Having some of its volatility absorbed by the General Fund enabled the School Aid Fund total appropriation to be somewhat more stable. For example, during high growth years in School Aid Fund revenues such as 1996-97, 2000-01 and 2001-02 as shown in Table 2, General Fund grants decreased. Conversely, during some low growth periods for the School Aid Fund, General Fund grants increased. See for example, 2003-04, 2008-09 and 2012-13. However, General Fund revenues have their own growth and stability challenges.

Concluding Thoughts

Historical trends as well as more formal measures such as elasticity, volatility, and buoyancy measures are useful in uncovering the underlying dynamic growth characteristics of different taxes.[15] A judicious combination of taxes at both state and local levels, especially when combined with tax credit and rebate programs, can achieve a balance of growth, stability, and equity in revenues generated for public education. As the Commonwealth considers issues related to distributing education dollars, it is important not to ignore the state and local tax structures that will be relied on to finance the distribution formula. Although there are many reasons why Pennsylvania has found it difficult to maintain a commitment to formula funding in the past, the mismatch between funding goals and revenue adequacy has been a contributing factor. Now is a good time to consider the adequacy of the combined state and local tax structures that will have to sustain any proposed funding formulae.

the very elastic (elasticity of 1.88) and volatile (short-run elasticity of .6 below trend and 3.2 above trend) Michigan personal income tax contributed another 10.7% of the School Aid Fund. Thus, 60% of School Aid revenues relied on volatile sources, the bulk of which was raised from a source that would not keep pace with economic growth. Additional growth and stabilizing revenues would have to come from other revenue sources to the Fund. The new statewide 6 mill school property tax accounted for 13.3% of the Fund, tobacco taxes which are generally not responsive to economic changes provided another 4.7% of the Fund and Lottery proceeds, often thought to be a countercyclical revenue source, provided 5.6% of the 1994-95 Fund. Another stabilizing revenue source turned out to be the state's own General Fund which provided 8.2% of the School Aid Fund revenue in 1994-95.

Growth in total School Aid Fund sources averaged 2.38% per year from 1994-95 to 2012-13 and ranged from 3.4% to 8.6%. Growth in the State General Fund grant to the

Among questions relevant to current Pennsylvania debates are whether school funding should continue to be supported entirely by the state's general fund rather than by earmarked revenue sources, such as an expanded sales tax or a new severance tax; whether dependence on the property tax for schools should be reduced or eliminated; and conversely whether the state share of state-local school funding should be increased, and if so, how should the tax portfolio be structured to protect school funding from the volatility that characterizes the general fund's principal revenue sources.

Eileen H. McNulty is a former Commonwealth secretary of revenue, senior Commonwealth budget official, and director of the Pennsylvania House Finance Committee. She is an advisor to the University Consortium to Improve Public School Finance and Promote Economic Growth.

14. This data is from Table 3 of: Kathryn Summers. 2014. "Overview of K-12/School Aid", PowerPoint by Associate Director, Senate Fiscal Agency, February, accessed at: http://www.senate.michigan.gov/sfa/Departments/DataCharts/DCk12_SchoolFundingComprehensive.pdf.

15. For a discussion of recent historical trends in important Pennsylvania public school funding sources, see 'Section 4: Revenue Volatility Analysis' in: Commonwealth of Pennsylvania Independent Fiscal Office, "Analysis of Proposal to Replace School Property Taxes: House Bill 76 and Senate Bill 76 of 2013," Independent Fiscal Office Special Report No. 2013-7, October 1, 2013. Accessed at: http://www.ifo.state.pa.us/download.cfm?file=/resources/PDF/SR2013-07.pdf.

Other publications from the University Consortium to Improve Public School Finance and Promote Economic Growth - available on the Center on Regional Politics website: temple.edu/corp

POLICY BRIEF: Explaining School Fund Balances: Are PA Schools, with $4.3 Billion in Reserve Funds, Really Flush? Just the (Dry) Facts | August 2014
• Statistical Supplement Comparing Unassigned Fund Balances and Aid Ratios for PA's 500 School Districts

Commentary: What Can We Learn from Pennsylvania's History of Public School Finance? | May 30, 2014

ISSUE MEMO: How Pennsylvania Funds Public Schools: The Story of the Local Share | May 2014

ISSUE MEMO: How Pennsylvania Funds Public Schools: The Story of the State Share | May 2014

Other publications available from the Center on Regional Politics

Commentary: How to Fund Schools and Public Pensions | August 21, 2013

Pension Working Group Report | June 2013

ISSUE MEMO: The Problem of Funding Pensions | September 2012

Taking Care of Our Own: How Democrats, Republicans, Business and Labor Saved Thousands of Jobs and Our Refineries | January 2013

The University Consortium to Improve Public School Finance and Promote Economic Growth Leaders
Joseph P. McLaughlin, Jr., director of the Center on Regional Politics, Temple University
William Hartman, professor, College of Education, Penn State University
David Y. Miller, professor and director of the Center for Metropolitan Studies, Graduate School of Public and International Affairs, University of Pittsburgh
Paula Holoviak, associate professor of political science, Kutztown University, chair of the Pennsylvania Policy Forum

The Pennsylvania Policy Forum Members
Theodore R. Alter, professor of agricultural, environmental and regional economics, Penn State University
Michelle J. Atherton, associate director, Institute for Public Affairs, Temple University
Thomas Baldino, professor of political science, Wilkes University
Michael Cassidy, adjunct instructor of political science, Temple University
Beverly A. Cigler, professor of public policy and administration, Penn State Harrisburg
Richardson Dilworth, associate professor of political science and director, Center for Public Policy, Drexel University
Michael R. Dimino, Sr., associate professor, Widener University School of Law
Ken Gormley, dean and professor of law, Duquesne University School of Law
Paula Holoviak (Chair), associate professor of political science, Kutztown University
John J. Kennedy, associate professor of political science, West Chester University
Michael King, adjunct professor, Albright College and Temple University; associate professor, Penn State University (retired)
Robin Lauermann, associate professor of political science, Messiah College
J. Wesley Leckrone, associate professor of political science, Widener University
Joseph R. Marbach, provost and professor of political science, La Salle University
Joseph P. McLaughlin, Jr., director, Center on Regional Politics, Temple University
David Y. Miller, professor and director of the Center for Metropolitan Studies, Graduate School of Public and International Affairs, University of Pittsburgh
Randall M. Miller, professor of history, St. Joseph's University
Theresa Miller, director, University of Pittsburgh Institute of Politics
Richard A. Stafford, distinguished service professor of public policy, Heinz College, Carnegie Mellon University
David B. Thornburgh, executive director, Fels Institute of Government, University of Pennsylvania
Craig Wheeland, associate vice president for academic affairs and professor, Villanova University

Center on Regional Politics
TEMPLE UNIVERSITY®

1114 W. Polett Walk (022-02)
840 Anderson Hall
Philadelphia, PA 19122-6090

215-204-1600

temple.edu/corp
corp@temple.edu
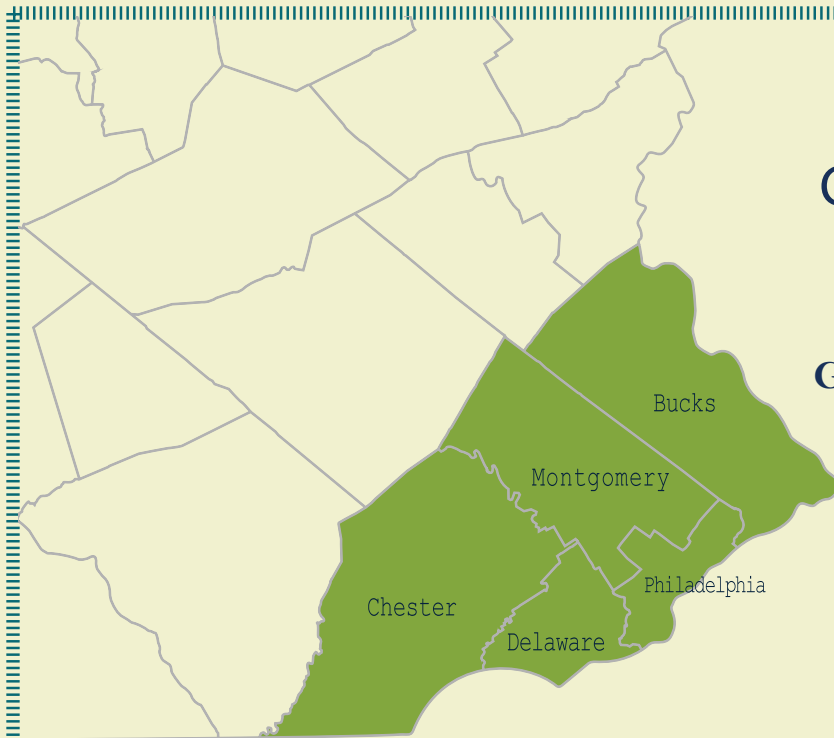
Center on Regional Politics

Bucks

Montgomery

Philadelphia

Chester

Delaware

POLICY BRIEF
Growth and Stability in Public School
Revenue Sources:
Can We Have Both?

EILEEN H. MCNULTY

OCTOBER 2014

Center on Regional Politics - Staff

Joseph P. McLaughlin, Jr. - Director
Kelly D. Colvin - Associate Director
Michelle J. Atherton - Senior Policy Writer and Publications Editor

Meghan Rubado - Graduate Assistant
David M. Ferreira - Assistant Publications Editor
Elaine Spencer - Business Manager