



Briefing Paper

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Property Tax Rebates: Relief for Working Families and Underfunded School Districts

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Summary

In the last decade, gaps in income and property wealth among Pennsylvania's 501 school districts have yawned wider. With school financing depending heavily on local property taxes, affluent districts can fund schools generously. Districts with less property wealth, however, struggle with high tax rates that still fail to raise adequate revenue for quality schools. This unsatisfactory combination prompts more residents to leave lower-income districts for greener pastures, further undercutting the local tax base and contributing to low-density, land-destroying growth patterns.

This briefing paper examines a flexible tax proposal that could help address the three critical problems linked with school funding via local property taxes – burdensome tax rates on hard-working families, inadequate funding for schools in non-affluent districts, and sprawling development that destroys Pennsylvania's scarce lands. Under this tax proposal, the state would rebate to households local property taxes that exceed more than a specified share of income (e.g., 1.5 to 3.5 percent).

A property tax rebate could be a stand-alone program that targets tax relief at the most hard-pressed families with high property taxes. A property tax rebate program could also be used as a complement to an overall shift in educational funding to state taxes from local taxes. It could ensure that such an overall shift would not raise total taxes on low- and middle-income families.

In this paper, we project the impact of a stand-alone property tax rebate program using a Pennsylvania tax model maintained by the Institute for Taxation and Economic Policy (ITEP) in Washington D.C. To our knowledge, ITEP has the only Pennsylvania model that permits estimation of the distributional benefits and revenue impact of alternative tax proposals.

We first use the ITEP model to evaluate a program that would rebate taxes above 3.5 percent of income.¹ A rebate capped at \$500 and accessible to taxpayers with incomes up to \$50,000 would

- provide an estimated average tax cut of \$416 to 1.62 million Pennsylvania households;
- deliver \$9 out of every \$10 in benefits to middle- and low-income households; and
- yield total tax relief of \$690 million.

Other scenarios modeled show that a rebate program could be designed to benefit more or fewer households and to yield larger or smaller average rebates.

- Raising the rebate cap to \$1,000 would increase total tax relief to \$1.2 billion.
- Providing rebates for property taxes above 1.5 percent of income (as opposed to above 3.5 percent) yields total rebates of \$970 million.
- Raising the income eligibility threshold to \$100,000 would yield total rebates of \$930 million.

In sum,

- a Pennsylvania property tax rebate program would provide much needed property tax relief to the families that most need it;
- a rebate program would ease the tension within school districts between adequately funding schools and imposing taxes that families cannot afford;
- a rebate program does not eliminate the local property tax on business, thereby maintaining an important source of local revenue;
- a rebate program could be designed to cost much less than an across-the-board shift from local property taxes to state income or sales taxes;
- a rebate program could also be used, as in Michigan, in combination with an across-the-board shift of educational funding from local property taxes to state income or sales taxes;
- a rebate program is one of the few ways to make the overall state and local tax burden more progressive in a state with a constitutional “uniformity clause” that blocks progressive taxation.

Problems with Property Taxes in Pennsylvania Today

Over the past two decades, gaps in income and wealth among the 501 school districts in Pennsylvania have mushroomed. By the late 1990s, the highest-income group of Pennsylvania school districts (that educate one fifth of the state’s K-12 students) had a personal income per pupil twice that of a group of middle-income districts and 3.2 times that of the poorest-income group of districts.² At the same time, poverty has become more concentrated. A higher fraction of children in poverty live in lower-income Pennsylvania school districts, further increasing the financial needs of these districts. (Researchers estimate that children in poverty cost from 1.2 to 2 times as much to educate as non-poor children.³)

With schools funded heavily by local taxes (usually property taxes), the economic trends of the past two decades have increasingly confronted low- and middle-income school districts with a dilemma.⁴ If they try to maintain property taxes at affordable levels, school revenues are too low to achieve high quality. If districts raise taxes high enough to adequately fund schools, many households struggle to pay their taxes.

Often school districts end up in a pragmatic middle ground that pleases no one. Schools do not have enough funds. Taxes are still seen as too high. A vicious circle and community decline can ensue, with inadequately funded schools leading people to move out, which further undercuts local capacity to fund schools, leading more people to leave, and so on. The movement of families to new outlying suburbs also contributes to sprawling, low-density development and the loss of Pennsylvania’s precious lands.

The high property tax rates faced by low-income districts that fund schools through property taxes can be seen in the statistics. One way to compare rates across districts is by examining property taxes as a percent of market value, a ratio known as the Effective Tax Rate (ETR).⁵ Within Allegheny County, for example, ETR is 3.07

percent in Wilkesburg Borough School District, 2.61 percent in Clairton City and 2.46 percent in Duquesne. In the Central and Southeastern part of the state, the urban Harrisburg and Chester-Upland School Districts have an ETR of just over 2.5 percent. Upper Darby, an inner suburb of Philadelphia has an ETR of 2.32. Rural areas such as Southeastern Greene, Blairsville-Saltsburg, Bradford, Leechburg, and Armstrong have ETRs in the range of 2.4-2.6. Meanwhile, Fox Chapel, an affluent district in Allegheny County has an ETR of 1.8. Camp Hill, an affluent Harrisburg-area school district, has an ETR of 1.36. Radnor, an affluent suburban Philadelphia district, has an ETR of 1.53.

In addition to high average property tax burdens, many people dislike property taxes because they don't trust the assessment process. They tend to see it as a combination of arbitrary and political. The available data back up the impression that assessments vary widely even in the same community.⁶ In 15 Pennsylvania counties, assessment to market value varies so widely that one family with a \$100,000 house might be taxed at a \$140,000 value while another with a \$100,000 house is taxed at a \$60,000 level. Only five out of 67 Pennsylvania counties achieve a professional standard for consistent assessments established by a professional group of assessors.

For seniors who have paid off their mortgages (and thus do not pay the property tax monthly into a mortgage escrow account), another problem with the property tax is that it is collected annually, via a single large bill.

Reasons to Retain Some Property Taxes

Despite problems with property taxes at present, there are several reasons for retaining them as an important source of revenue for schools and localities. First, property taxes are a major source of revenue. The most recent data on property tax collections indicate that school districts collected \$6.5 billion in property taxes, including \$4.3 billion from residences. County and municipal governments in Pennsylvania collected another \$2.8 billion for a total of \$9.3 billion in annual property tax collections.⁷

Second, the stability of property wealth as a source of tax revenue makes it a complement to more volatile income and sales taxes in maintaining a consistent flow of government revenue throughout economic cycles. (In Pennsylvania, sales, income, and property taxes together account for 76.3 percent of state and local taxes, about five percentage points below the national average of 81.4 percent.⁸)

Third, Pennsylvania already uses individual income taxes to raise a larger share of revenue than the average state.⁹ Pennsylvania ranked 15th in relative reliance on income taxes among the big three – property, personal income and sales taxes. Property tax reliance by comparison is average, with Pennsylvania ranked 24th.

Fourth, eliminating the property tax would eliminate any significant business tax for most units of local government, placing more of the overall state and local tax burden on individuals and consumers. According to a study by the Minnesota Taxpayers Association, outside of Philadelphia business taxes in Pennsylvania are already average or low by national standards (Table 1).¹⁰

A Flexible Solution: A Property Tax Circuit Breaker

Instead of replacing local property taxes, many states have opted to retain existing property taxes but direct tax relief to citizens who cannot afford their property taxes. In Pennsylvania, the Lottery-funded Property

Table 1. Ratio of 1995 Pennsylvania Property Taxes to Average U.S. Property Taxes (1.0 means PA and U.S. taxes are equal. Above 1.0 means PA taxes are higher. Below 1.0 means PA taxes are lower)				
	Residential		Commercial	Industrial
	\$70,000	\$150,000		
Suburban	1.04	1.00	0.64	0.49
Urban (Philadelphia)	1.56	1.49	1.34	1.04
Non-Urban	1.62	1.55	1.05	0.80

Source: Minnesota Taxpayers Association (MTA), *50-State Property Tax Comparison Study* (Minneapolis: MTA, June 1996). Ratios calculated by authors.

Tax and Rent Rebate Program provides relief to low-income senior citizens and disabled persons. Most other states also have programs to provide property tax relief to senior citizens.

Approximately half the states also provide property tax relief to non-senior citizens. Many exempt from taxes a fixed dollar amount (so that homeowners, for example, pay property tax on \$30,000 less than the actual value of their home). A circuit breaker program, by contrast, limits the burden of property taxes as a portion of income. Taxes in excess of a specified share of income cause the circuit to “trip” and relief is granted. Nine states have circuit breaker programs that provide property tax relief to all citizens, not just senior citizens.¹¹

Maryland has a program that began as a credit for elderly homeowners. Today the program is available to homeowners of all ages whose net worth other than the value of the property for which the credit is sought is less than \$200,000. In fiscal year 1999, 65,351 homeowners received credits averaging \$694.92 for a total tax reduction of \$45.4 million. A similar program for renters provided rebates averaging \$292.73 to 14,534 renters, thus reducing taxes by \$4.3 million.

New York has a more modest circuit breaker. (The state’s primary property tax relief program exempts \$30,000 of the value of a home from the school property tax.) The New York circuit breaker program provides credit for 50 percent of property taxes to households with income of \$18,000 or less and total property with market value of \$85,000 or less. The maximum credit is \$375 for senior citizens and \$75 for taxpayers under 65. In 1998, the circuit breaker provided 320,336 households an average credit of \$99.25 for tax reduction totaling \$31.8 million.¹²

Michigan has a comprehensive property tax circuit breaker. In 1999, the program provided rebates averaging \$412.83 to 1.1 million taxpayers at a cost of \$470 million. The program is available to homeowners and renters with household income under \$82,650. The credit provided is 60 percent of the amount by which taxes or rent exceed 3.5 percent of income. The maximum rebate is \$1200. Senior citizens receive 100 percent of the amount by which taxes or rent exceed a varying percent of income below \$6,000 and 3.5 percent of incomes above \$6,000.

Pennsylvania’s current senior citizen rebate is a variation of a circuit breaker program. The rebate varies with income (up to \$15,000). From 10 percent to 100 percent of property taxes (up to the \$500 maximum) can be rebated.



A Pennsylvania Circuit Breaker

To help Pennsylvania policymakers evaluate a circuit breaker, the Keystone Research Center asked the Institute on Taxation and Economic Policy (ITEP) in Washington D.C. to use its Pennsylvania Tax Model to estimate circuit breaker costs and benefits under alternative assumptions. To our knowledge, this is the only existing model that can be used to project the distributional impacts of new tax proposals in Pennsylvania.¹³

Our base scenario would provide a rebate of property taxes in excess of 3.5 percent of income to households with incomes of \$50,000 or less. Both homeowners and renters would be eligible (with 20 percent of rent defined to be the property tax paid by renters). The rebate would be capped at \$500. In all cases, including the base scenario, we assume a “hold harmless” provision for senior citizens – i.e., senior citizens could accept the new rebate or the existing program, whichever provides a larger benefit. Table 2 presents the benefits to Pennsylvania taxpayers under the base scenario.

In our base case,

- 1.62 million Pennsylvania households would benefit;
- the average tax cut would be \$416;
- the average tax cut would equal 2 percent of income for the lowest-income fifth of Pennsylvania taxpayers, 0.9 percent for the second poorest fifth, and 0.5 percent for the middle fifth;
- the average cut would be 27 percent of the average property tax paid by homeowners;
- the three lowest-income fifths of Pennsylvania taxpayers would each receive about 30 percent of the benefit of the cut, with 9 percent going to the fourth fifth.

The estimated total rebates under our base case circuit breaker would be \$690 million. (These rebates are in addition to the funding already provided from the Lottery Fund for the Property Tax and Rent Rebate program for senior citizens. Recall that senior citizens would be able to utilize either the old or the new program, whichever gives them the largest rebate.)

Table 2. Benefits of Circuit Breaker Base Case: Rebate of Tax Above 3.5 percent of Income with Income Eligibility Capped at \$50,000 and Rebate Capped at \$500				
Income Group	Lowest Fifth	Second Fifth	Middle Fifth	Fourth Fifth
Income Range	Less Than \$14,000	\$14,000-\$26,000	\$26,000-\$42,000	\$42,000-\$67,000
Average Income in Group	\$8,400	\$20,200	\$33,500	\$53,000
Tax Cut as Percent of Income	2.0%	0.9%	0.5%	0.1%
Percent of Tax Cut Received by Each Income Group	27%	30%	30%	9%
Number of Taxpayers Receiving Tax Cut	469,000	515,000	474,000	140,000
Average Tax Cut for Those Receiving Cut	403	401	431	453
Average Current Homeowner Property Tax	1,338	1,594	1,690	1,945
Average Percentage Cut in Property Taxes	30%	25%	26%	23%

Source: Institute on Taxation and Economic Policy (ITEP).



Table 3 shows the tax benefits of three additional scenarios, all limited – as is the base case — to households making less than \$50,000. (Figures 1 and 2 also compare the benefits of these scenarios with the base case.)

- In the most modest scenario, which would rebate *school* taxes above 3.5 percent of income up to a \$500 limit, 1.24 million taxpayers would benefit (as opposed to 1.62 million in the base case) and the average tax cut would be \$377.
- In the most generous scenario, which would rebate all property taxes above 3.5 percent of income up to a \$1,000 limit, the average tax cut would be \$668.
- A rebate of all *school* taxes above 3.5 percent of income up to \$1,000 would lead to a \$577 average tax cut for 1.3 million taxpayers.

These three scenarios would cost \$480 million, \$1,180 million, and \$780 million, respectively. As in the base case, these costs are in addition to the funding already provided from the Lottery Fund for the Property Tax and Rent Rebate program.

Table 4 compares the distributional benefits of the base case with those of other scenarios created by: allowing taxpayers with income above up to \$100,000 to receive rebates; raising the rebate cap to \$1,000; rebating property taxes above either 1.5 percent or 2.5 percent of income, rather than above 3.5 percent; and basing the rebate on school taxes only.

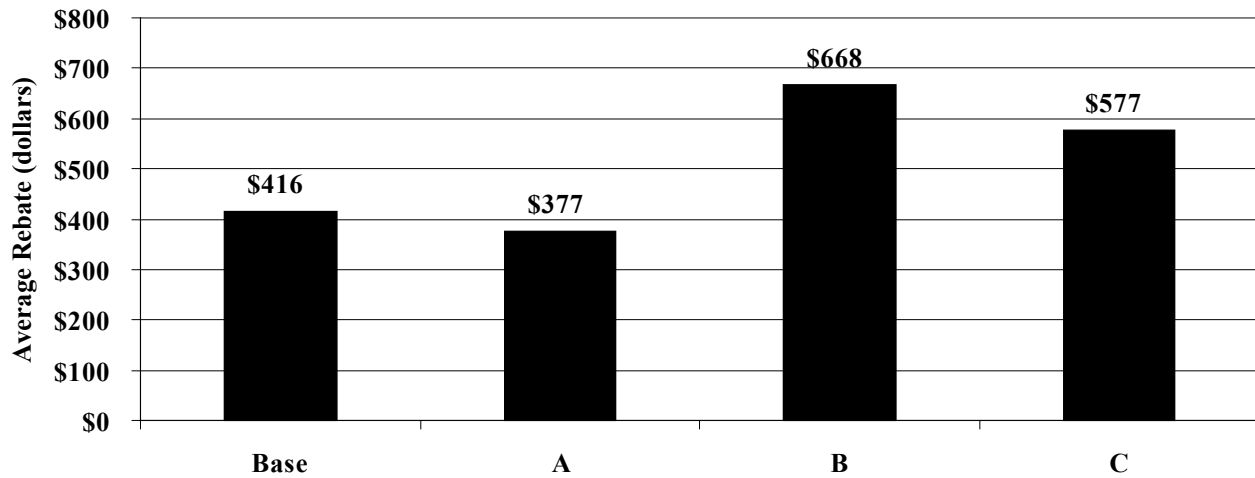
- Raising the income thresholds increases from 9 percent to nearly a quarter the share of benefits received by the second-richest fifth of Pennsylvania taxpayers. At modest cost, this could broaden the base of political support for a circuit breaker. By ensuring that more middle-income families qualify for rebates, a

Table 3. Benefits of Three Additional Circuit Breaker Scenarios (income eligibility for all scenarios shown capped at \$50,000)				
Income Group	Lowest 20%	Second 20%	Middle 20%	Fourth 20%
A. Rebate of School Property Taxes Above 3.5 Percent of Income Cap; Rebate Capped at \$500				
Number of Taxpayers Receiving Tax Cut	423,000	387,000	312,000	101,000
Tax Cut as Percent of Income	1.5%	0.6%	0.3%	0.1%
Average Tax Cut for Those Receiving Cut	349	371	398	438
B. Rebate of All Property Taxes Above 3.5 Percent of Income Cap; Rebate Capped at \$1000				
Number of Taxpayers Receiving Tax Cut	544,000	537,000	476,000	140,000
Tax Cut as Percent of Income	3.4%	1.5%	0.9%	0.2%
Average Tax Cut for Those Receiving Cut	597	657	713	800
C. Rebate of School Taxes Above 3.5 Percent of Income Cap; Rebate Capped at \$1000				
Number of Taxpayers Receiving Tax Cut	473,000	404,000	314,000	101,000
Tax Cut as Percent of Income	2.4%	1.0%	0.5%	0.1%
Average Tax Cut for Those Receiving Cut	483	583	638	767

Note: Limiting the circuit breaker to rebate of school property taxes is modeled by assuming that school taxes account for 70 percent of all property taxes.

Source: ITEP.

Breaker Scenarios



All Cases: eligibility limited to income below \$50,000.

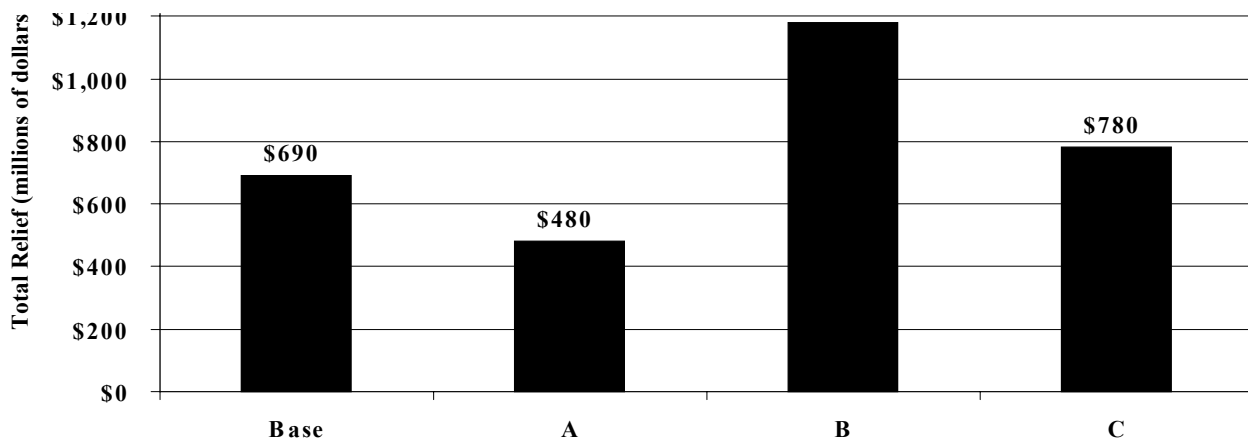
Base Case: Rebate of property taxes above 3.5 percent of income, \$500 cap.

Case A: Rebate of school property taxes above 3.5 percent of income, \$500 cap.

Case C: Rebate of property taxes above 3.5 percent of income, \$1,000 cap.

Case D: Rebate of school property taxes above 3.5 percent of income, \$1,000 cap.

Source: ITEP.



All Cases: eligibility limited to income below \$50,000.

Base Case: Rebate of property taxes above 3.5 percent of income, \$500 cap.

Case A: Rebate of school property taxes above 3.5 percent of income, \$500 cap.

Case C: Rebate of property taxes above 3.5 percent of income, \$1,000 cap.

Case C: Rebate of school property taxes above 3.5 percent of income, \$1,000 cap.

Source: ITEP.

Table 4. Impacts of Raising Maximum Rebate and Expanding Circuit Breaker Eligibility

Income Group	Share of Benefits to Each Income Group (percent)				Total Rebates (millions of dollars)	Total # of Taxpayers Receiving Cut (millions)
	Lowest Fifth	Second Fifth	Middle Fifth	Fourth Fifth		
3.5% of income, \$50,000 income limit, \$500 rebate cap	27%	30%	30%	9%	\$ 690	1.6
Raise income limit to \$100,000	20	22	22	23	\$ 930	2.2
Raise Rebate Cap to \$1000	28	30	29	10	\$1,180	1.7
Lower % of income threshold to 2.5%	25	30	32	9	\$ 820	1.9
Lower % of income threshold to 1.5%	23	30	35	10	\$ 970	2.2
Only School Taxes Allowable	31	30	26	9	\$ 480	1.2
Only School Taxes, \$1000 rebate cap	29	30	26	10	\$ 780	1.3

Source: ITEP.

higher-income eligibility threshold could also prevent future increases in property taxes from driving middle-income families from lower-income districts.

- Raising the rebate cap to \$1,000 makes virtually no difference to how benefits are spread among income groups. The bottom three income fifths each still receive about 30 percent of the total benefits.
- Lowering the income threshold to 1.5 percent would shift a higher proportion of the benefits to the middle-income fifth of taxpayers while increasing total rebates by 41 percent.
- With an income cap of \$50,000, offering the rebates on school taxes lowers total rebates by 30 to 34 percent with rebate caps of \$500-\$1,000.

The information presented so far also permits calculation of the benefits of more modest circuit breaker options. For example, one way to reduce the cost of a circuit breaker would be to lower income eligibility to \$26,000. This would restrict rebates to the lowest-income two fifths of taxpayers. With reduced eligibility, a rebate of school taxes above 3.5 percent of income up to a \$500 cap would cost \$291 million (calculated from Table 3). Total rebates could also be reduced by retaining eligibility up to income of \$50,000 but lowering the rebate to 60 percent of school taxes above 3.5 percent of income (as with Michigan's circuit breaker), and simultaneously lowering the rebate cap to \$300. This combination would lower total rebates to \$288 million.

Many other variations of stand-alone circuit breaker could also be considered. For example, a circuit breaker could provide rebates based on total school taxes, rather than just school property taxes. Unlike a property tax circuit breaker, this would not create an incentive to shift local taxation away from antiquated occupation taxes and away from taxes on wage income that exempt unearned income. On the other hand, basing rebates on all school taxes would more equitably rebate to taxpayers based on their total contribution to local schools. The ITEP model does not contain sufficient detail on taxation by school district to permit estimation of the distributional impact of rebates based on all local school taxes.

Figure 3A. Benefits of Base Case Circuit Breaker to Each Income Fifth (percent of total benefits)

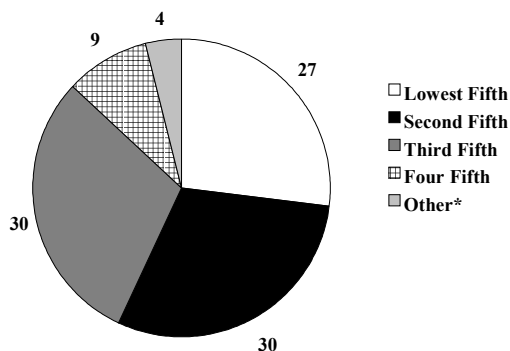


Figure 3B. Benefits of Circuit Breaker Limited to School Property Taxes to Each Income Fifth (percent of total benefits)

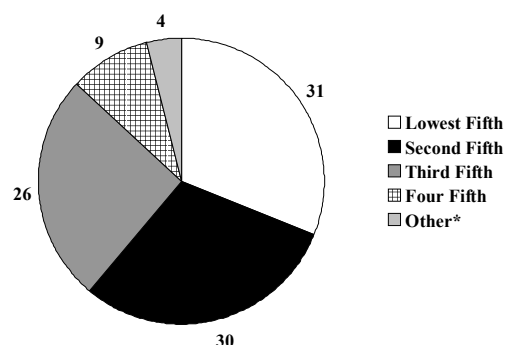


Figure 3C. Benefits of Circuit Breaker with Income Eligibility at \$100,000 for Each Income Fifth (percent of total benefits)

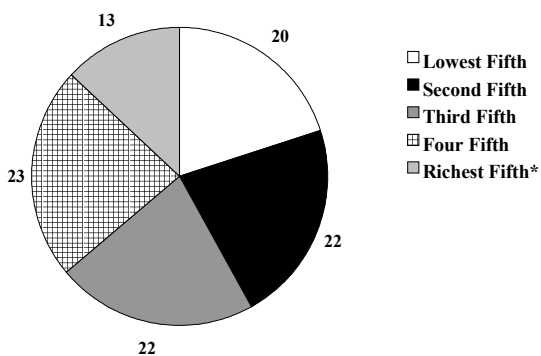
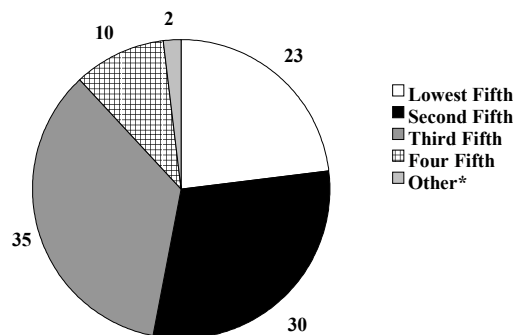


Figure 3D. Benefits of Circuit Breaker with Income Threshold at 1.5 Percent of Income to Each Income Fifth (percent of total benefits)



* In Figures 3A, 3B, and 3D, “other” includes a small number of taxpayers who benefit from the circuit breaker but which the ITEP model either (a) cannot classify by income quintile or (b) places in the richest quintile, even though that should theoretically make taxpayers ineligible. In Figure 3C, the group that ITEP does not classify by income quintile is included with the “richest fifth.”

Source: Table 4.

Combining a Circuit Breaker with Higher State Taxes

To finance a stand-alone property tax circuit breaker might require an increase in state taxes. It makes sense, therefore, to consider how overall tax burdens would be affected if, for example, the necessary funds were raised through the state income tax. Based on prior KRC research we estimate that roughly 62 percent of the cost of an increase in income tax would fall on the most affluent fifth of taxpayers. Only 17 percent would fall on the bottom three fifths.¹⁴ Since the bottom three-fifths of taxpayers garner 90 percent of the benefits of most circuit breakers (70 percent or more of all variations we examine), even with a revenue-neutral combination of a property tax circuit breaker and state income tax hike, the bottom three-fifths would turn out to be net winners. If the income eligibility thresholds for the property tax circuit breaker were raised to \$75,000 or \$100,000, our preliminary projection is that the second richest fifth of Pennsylvania taxpayers would also be a slight net gainer.¹⁵

If a property (or all school) tax rebate program were combined with a larger increase in state income taxes and an overall increase in school funding, the impacts on total taxes paid by each fifth of Pennsylvania taxpayers depend on the details of the combination used. Even with substantial total increases in taxes, it should be possible to combine a state income tax hike with a circuit breaker in a way that leaves most low- and middle-income taxpayers paying lower total taxes. In other words, circuit breakers could be used creatively in combination with increased state income tax hikes to give most Pennsylvanians lower total taxes and better-funded local schools.

Any Pennsylvania shift toward state income taxes and away from local property taxes on middle- and low-income taxpayers would have the added benefit of reducing what Uncle Sam – the federal government – takes in taxes from Pennsylvanians. That is because more higher-income taxpayers itemize their deductions, permitting them to write off increases in state income taxes on their federal tax form. Even when middle- and low-income taxpayers itemize their deductions, deducting a dollar lowers their federal income tax less than when more affluent taxpayers deduct a dollar (because low- and middle-income taxpayers are in lower federal income tax brackets).

Conclusion

A circuit breaker cannot substitute for the state of Pennsylvania adequately funding its schools. Alone or in combination with state tax increases aimed at adequately funding schools, however, a circuit breaker can make a vital contribution.

As a stand-alone program, a circuit breaker can get immediate and meaningful tax relief in the hands of hard-working families that most need such relief. Relief would also be concentrated in the very areas where schools have trouble raising revenue locally due to low incomes.

In combination with an increase in state taxes to fund schools, a circuit breaker could ensure that low-income and middle-income families do not face total increases in taxes.

In a state with a constitution that limits the progressivity of income taxes, a circuit breaker is one of the few straightforward ways to achieve an overall equitable shift in the state tax burden. Pennsylvania should implement a rebate program immediately.

ENDNOTES

¹ The analysis here is performed on “taxpaying units,” such as married couples with children (when the parents file jointly), and single adults with or without dependents. In this paper, taxpayers, households, and families are used interchangeably to mean “taxpaying units.”

² Keystone Research Center calculations based on 1997-98 Pennsylvania Department of Education (PDE) data.

³ In a 1997 funding study, the U.S. General Accounting Office (GAO) assumed that each child in a family under the poverty line costs 1.6 times as much to educate as other students. The 1.6 figure was based on research estimates that place the cost of educating poor students at between 1.2 and 2 times that of educating other students. See U.S. General Accounting Office, *State and Federal Efforts to Target Poor Students* (Washington, D.C.: GAO/HEHS-98-36, January 1998), p. 35.

⁴ Property taxes account for 75 percent of locally raised school funds and residences are 70 percent of total property value. The first figure was calculated using PDE data. The second figure was calculated from unpublished data from the State Tax Equalization Board.

⁵ All the effective tax rates in this paragraph were calculated from data in *Selected Revenue Data and Equalized Mills for Pennsylvania Public Schools 1998-99*, Pennsylvania Department of Education, Table 5 available at <http://www.pde.psu.edu/financial/rev9899/table5.pdf>

⁶ The claims in this paragraph are based on data for the calendar year 2000 maintained by the Pennsylvania State Tax Equalization Board.

⁷ County and municipal taxes are calendar year 1999. School district taxes are fiscal year 1999-2000.

⁸ Calculated by McNulty from U.S. Census Bureau data. Data applies to fiscal year 1999. In FY 2001, the three named taxes accounted for 82.5 percent of total state and local taxes nationally.

⁹ *State Policy Reports*, 19(17), p. 17.

¹⁰ In suburban areas, Pennsylvania commercial taxes ranked 41st and industrial taxes ranked 45th. Among non-urban areas, commercial taxes ranked 21st and industrial taxes ranked 31st. Urban area commercial taxes ranked 11th and industrial taxes ranked 26th among similar areas in other states. Minnesota Taxpayers Association (MTA), *50-state Property Tax Comparison Study* (Minneapolis: MTA, June 1996).

¹¹ David Baer, *Awareness and Popularity of Property Tax Relief Programs* (Washington, D.C.: Public Policy Institute, AARP, February 1998). Appendix A lists eight states with general property tax relief programs: Maine, Maryland, Michigan, Minnesota, Montana, New York, Vermont, Wisconsin. New Jersey also has two rebate programs as well as a property tax deduction/credit against the income tax available to citizens of all ages.

¹² http://www.tax.state.ny.us/stat_pit/rpcb98/PCB98_Table_1.htm

¹³ ITEP generously provided data to KRC free of charge. We owe special appreciation to Matt Gardner.

¹⁴ In a previous briefing paper, also based on ITEP's Pennsylvania tax model, KRC estimated the distributional impact of a cut in the state income tax from 2.8 percent to 2.7 percent. We found that the top income quintiles would gain 62 percent of the benefit while the bottom three fifths of taxpayers would gain 17 percent of the benefit. This prior study is the basis of the text projections of the distributional impact of an increase in state income taxes. See Howard Wial, *A Real Middle-Class Tax Cut* (Harrisburg: Keystone Research Center, 1999); on line at http://www.keystoneresearch.org/publications/summaries/real_cut/real_cut.html

¹⁵ Recall that in the scenarios with higher income thresholds, 23-24 percent of the benefits went to the second richest income fifth. In our earlier briefing paper, we estimated that this fifth would gain 20 percent of the benefits of a cut in the flat rate income tax. If this 20 percent holds for an income tax hike, the fourth fifth of the income distribution would be slight winners under a revenue neutral property tax circuit breaker with an income threshold of \$75,000 to \$100,000.