MEMORANDUM

TO: The New York State Legislature
FROM: Doug Abbott, Patrick Hodgens, and Kevin Wenzel
SUBJECT: New York State Education Foundation Aid Formula Reform
DATE: April 29, 2013

Executive Summary

We recommend that New York State adopt the reforms below to its foundation aid formula to increase equity in the state education finance system. These reforms will reduce inequities in per-pupil spending across the state, support districts in addressing costs they do not control, and provide resources to increase educational outcomes for New York State’s pupils, particularly in high-need districts. We recommend the State institute preliminary reforms that will remove legislative impediments to providing aid, determine adequate funding through research-based approaches, implement revenue and cost savings measures, and institutionalize aid through measures to incorporate inflation and accountability in spending.

These reforms will provide the additional funds needed to support equal opportunity for all students in New York State in reaching State-determined performance standards, and achieve the State’s constitutional obligation to provide a sound, basic education to each student.
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Goals: Accuracy and Equity

State aid should provide schools with the necessary additional resources required to educate their students to state-established performance standards. To this point, the State has determined that successful school districts are those with an average 80 percent proficiency rate as measured by seven Regents examinations (Kadamus, 2004). State aid formulas must acknowledge that different districts will have different costs and different abilities to raise funds based on factors outside of their control. To create an equitable education finance system, states must take these factors into account when constructing a state aid formula.

High-need districts rely disproportionately on state aid. Due to underestimates of the costs of educating students and policies that limit expenditures on aid, such as the Gap Elimination Adjustment, state aid is not high enough to support an adequate education for students in many districts across the state. The current system therefore maintains inequity in education finance, despite the numerous current attempts to acknowledge cost and revenue disparities in the state. This revised state aid formula draws on advances in education finance research to create a more accurate account of the costs associated with education, providing more precise estimates of expenditures required for educating New York State’s students. These changes will direct more resources to high-need districts, creating a more equitable and accurate education finance system.

Contextual Analysis of State Aid in New York

Different school districts will have different funding needs based on their student populations (Imazeki, 1997). In general, the cost functions of all public services are affected by the environment in which they are delivered: to achieve the same level of output, controlling for wages, public sector organizations providing services in more challenging environments will have to spend more money to achieve the same results as an organization providing services in a less challenging environment (Bradford, 1969). In education, environmental factors that increase the price of achieving certain outputs, such as student performance on standardized exams and graduation rates, include poverty rates, percentage of students with limited English proficiency, and percentage of students with disabilities (Duncombe, Lukemeyer, & Yinger, 2011; Duncombe & Yinger, 2005; Imazeki, 1997). In New York State, the districts with relatively high shares of students from these populations (high-need districts) include New York City, Albany, Buffalo, Rochester, Syracuse, and Yonkers (New York State Community Action Association, 2011). Additional cost differences are a function of local labor markets, which make personnel more expensive in certain areas than others (Imazeki, 1997), and possible differences due to sparsity within districts, which may lead to increased costs as a result of smaller enrollments and higher operational costs per pupil (Bass, 1990).
Due to the heavy reliance on local revenue sources to fund education, however, the districts that have higher cost functions often have less ability to raise the required revenue. The dominant funding source for many districts is the property tax (Temin, 2002). In New York State, for the 2006-2007 school year, about 90 percent of the local revenues used to fund education came from taxes on commercial and residential properties (Office of State Aid, 2008). This reliance on the property tax is often challenging for high-need districts. The same factors that drive increases in costs, such as a high poverty rate, also often limit the ability of the district to raise funds due to a smaller property wealth base to tax.

State aid programs are one way to achieve more equity in education finance. In general, these aid programs set a selected minimum total expenditure amount per pupil, known as the foundation amount, generally to fund what they determine to be an “adequate” education (Duncombe and Yinger, 2005). To determine the aid that districts will actually receive, the State then subtracts the minimum expected contribution, usually determined by a minimum tax rate multiplied by the property tax base, to determine the amount of additional funding that district needs to meet the state-selected minimum total expenditure (Duncombe and Yinger, 1998). In practice, these formulas are more complex and incorporate more information. New York uses a version of this foundation aid formula. The additional funding supports local education, and one of its functions is to provide additional resources to high-need districts.1

In 2006-2007, funding for schools in New York State came from the federal government (6 percent), the State (44 percent), and local revenues (50 percent) (Office of State Aid, 2008). The bulk of state funds (68 percent) came from the State General Fund, which is primarily funded by state income and sales taxes. The balance came from the School Tax Relief program (STAR) and lottery receipts. In the 2006-2007 school year, the bulk of state aid came in the form of “Flex Aid,” which is unrestricted aid to support districts in meeting their operating and maintenance requirements (Office of State Aid, 2006). Under Governor Pataki, the State consolidated six different aid programs into one, more flexible program. The formula allocated funds based on measures of educational and economic need (using a poverty measure and regional cost measure), leading to 70 percent of the funding increase going to the 207 highest-need districts (New York State Division of the Budget, 2005). The State provided additional funding according to weights, using a weight of 0.25 for secondary school students, 0.12 for summer school students, 0.33 for students in poverty (as measured by free and reduced price lunch), students of limited English proficiency at 0.33, and sparsity pupils at 0.33, as well as additional weights for different categories of students receiving special education services (Office of State Aid, 2006).

1 According to the New York State Education Department, other purposes of state aid are to: “Maintain a State and local partnership in public education. (To this end, a flat grant, or minimum operating aid, is provided to even the wealthiest school districts); Assist school districts in the funding of educational programs which offer an effective education to all pupils in grades kindergarten through 12; Assist school districts in the funding of educational programs which offer an effective education to all pupils in grades kindergarten through 12; Encourage the development of model programs to address the needs of the school community such as prekindergarten education, community schools, and the use of technology in the classroom” (Fiscal Analysis and Research Unit, 2009).
The funding could not be lower than 1.005 times the sum of the previous year’s funding for the combined aid programs consolidated into the Flex Aid program and could not be higher than a wealth-adjusted 2.5 percent of those funds. Hold-harmless provisions in the current system require that the State provide each district with at least as much funding as the district received in the previous year.

While there are numerous factors designed to acknowledge the different costs of education, the result of the New York State system was highly inequitable, even after the effects of state and federal aid. In 2006-2007, operating expense per pupil ranged from $8,096 for the district at the 10th percentile to $15,558 for the district at the 90th percentile, including all funding sources (Fiscal Analysis and Research Unit, 2009). These differences in per-pupil operating expenses are a function of differences in districts’ ability and willingness to pay: both property and local assessment practices vary between districts, as level of education services desired by the community (Fiscal Analysis and Research Unit, 2009). The result of these differences, exacerbated by the differences in costs based on student type, led to an inequitable education finance system in New York State.

These disparities in per-pupil spending were correlated with disparities in educational outcomes: On the student performance index the “Big Five” (Buffalo, Rochester, New York City, Syracuse, and Yonkers) performed well below their counterparts (Duncombe, Lukemeyer, & Yinger, 2003). The Court of Appeals of the State of New York found that New York City was unable to attract and retain qualified teachers and were deficient in their provision of libraries and computers. In addition, they ruled that there was sufficient proof that large class sizes negatively affected student performance (Campaign for Fiscal Equity vs. State of New York, 2006). Further disparities in graduation rates and overall education programs existed, with wealthy districts graduating 27 percent more of their students and offering more course offerings in art, music, and Advanced Placement courses (Marcou-O’Malley, 2013).

In reaction to these funding and educational outcomes, The Campaign For Fiscal Equity (CFE) was created in 1993 to promote education finance reform in New York State. CFE sued New York State in 1993, claiming that the State’s aid formula did not adequately fund New York City public schools and therefore denied the children in those schools their constitutional right to the “opportunity for a sound basic education.” Following years of litigation, The New York State Court of Appeals ruled in favor of CFE, finding that a causal link was established between the State’s inadequate funding of New York City public schools and the school system’s inability to provide a sound basic education to its students (Education Law Center).

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2 State aid to high-need districts was $5,751, per pupil, in comparison to $2,058 per pupil in the low-need districts (Fiscal Analysis and Research Unit, 2009).
The court deferred reform of the state aid formula to the Governor and the State Legislature. Following the Court of Appeals’ ruling in 2003, Governor Pataki issued a commission to determine the amount of aid necessary to fill the funding gap found by the Court. The Zarb Commission, named for its chair, used analysis provided by Standard & Poor’s (S&P) School Evaluations Services Unit to make its funding recommendations to the Governor and the Legislature.

S&P’s analysis of the funding gap began with the identification of successful schools through state testing data, and ranking successful schools based on their cost per pupil. Next, S&P instituted a “cost-effectiveness filter” by averaging the cost per pupil among the bottom 50 percent of the distribution. To account for students with higher needs, S&P placed additional funding weights of 1.1 on students with disabilities (SWD), 0.2 on limited English proficient (LEP) students, and 0.35 on economically disadvantaged (ED) students. To account for the disparity in purchasing power across New York State, S&P further filtered their results through two spending indices, the New York Regional Cost Index and the Geographic Cost of Education Index. Following this formula, S&P identified a range of additional operating funding required for compliance with the Court’s ruling, citing between $1.93 billion and $2.53 billion for New York City Public Schools and $2.45 billion and $3.39 billion statewide (Campaign for Fiscal Equity vs. State of New York, 2006).

Following additional compliance studies and litigation within the New York State court system, the State Legislature created a new school district state aid formula through the Education Budget and Reform Act of 2007. The lower bound of $1.93 billion in additional aid for New York City Public Schools was chosen by the State as the amount necessary to be compliant with the decision. The law was intended to establish a relationship between pupil types and the funding tied to each, making the system more equitable in its funding of an adequate education for all New York State pupils. Previous categorical aid programs, including Flex Aid, were largely folded into the new aid program, from 2007-2008 on known as Foundation Aid. Foundation Aid is an unrestricted aid category with an estimated cost of $13.64 billion in 2007-2008, the single largest aid expense.

In the 2011-2012 school year, the State tied $682.1 million of aid to Contracts for Excellence, an accountability system to ensure targeted funding allocations to programs that primarily serve high-need students. Nearly $598 million, around 88 percent, was allocated to the “Big Five” school districts. New York City was allocated the largest amount at $530.8 million, about 78 percent of the total. Districts must meet eight criteria and 17 sub-criteria in order to continue to receive funding (New York State Department of Education, 2009).

With the new foundation aid formula in place, the State began phasing in the additional funding required by the formula. The law established a four-year timeframe for fully funding districts
under the foundation aid formula and in the first two years, funding levels made substantial progress towards the target levels.

However, the 2009 recession drove a $10 billion gap in the 2010 budget and lawmakers sought to rein in spending, in part by reducing state aid to districts (Macaluso, 2013). The State reduced school aid by freezing the foundation aid amount at 37.5 percent of the four-year target, and instituting the Gap Elimination Adjustment (GEA). The GEA gave the State the option to reduce funds to school districts to balance the State’s budget. In 2010-2011, the State used the GEA to reduce state aid to schools by $2.1 billion and in 2011-2012 it reduced aid by an additional $2.6 billion, almost completely eliminating the gains made under the Foundation Aid Formula.

Further, high and average-need school districts experienced far greater per-pupil cuts than low-need districts under the GEA (Slentz, 2012).

The State also instituted the Personal Income Growth Index (PIGI) Cap. The PIGI Cap limited increases in state aid for schools to the same rate as personal income growth in the state. In order to maintain the current education system, the New York State Education Department estimates that an annual 5.3 percent funding increase will be necessary. However, the State Budget Department estimates that the PIGI will only grow by 3.5 percent and 4 percent in the next two years, respectively. Consequently, the State will not be able to maintain the current education system, let alone provide enough funding to eliminate disparities across districts (NYS Board of Regents).
Recommendations

Institute preliminary reforms

Unfreeze Foundation Aid and eliminate GEA and PIGI

Freezing the Foundation Aid amount at 37.5 percent of the four-year goal and implementing the GEA and PIGI Cap effectively negated the funding increases under the Education and Budget Reform Act of 2007. Unfreezing the funding and eliminating the GEA and PIGI Cap would allow the State to restore the $4.7 billion in aid cuts to districts and increase funding beyond the PIGI rates until the foundation aid amounts are fulfilled. Restoring the funding and increasing it at rates equal to or greater than PIGI rates will allow the State to distribute adequate funds based on district need, which will greatly benefit the high-need districts that heavily depend on state aid.

Determine adequate funding

Foundation Amount

The foundation amount is a minimum total expenditure amount per pupil necessary to fund an adequate education. This amount should be established by determining the cost per pupil distribution of successful school districts based on performance on seven New York State Regents tests, as recommended by the Board of Regents (Regents, 2004). To account for efficiency, the Board of Regents recommends averaging the bottom 50 percent of the distribution. Although a filter is necessary to control for outlier school districts, the bottom 50 percent filter is not a fair representation of the distribution. Instead, the foundation amount should be based on an average of the middle 90 percent of the distribution, filtering out the top five percent and bottom five percent of successful school districts.

Student Type Weighting

To achieve equity in school finance in New York State, current research on educational cost functions should be used to determine funding weights to be applied to the foundation amount to provide additional support for students with higher costs. New York State currently uses weighted funding to provide more resources to students who are more costly to educate, which directs more funding to districts with higher concentrations of these students. These weights, while based in research on student cost, do not fully take into account the costs of educating these students, and therefore should be adjusted to ensure adequate funding to these high-need districts. Education cost functions indicate how much a district would need to spend to obtain the same educational outcome as a comparison district based on the percentage of student types they serve (Duncombe & Yinger, 2005). Research from 2004 estimates that the weights for additional funding should be 1.592 for children in poverty, 0.424 for students of limited English proficiency, and 1.644 for students requiring special education services. These weights are
directly estimated and, when used, lead to state aid that approximates the amount a more technically accurate cost index would provide.

The foundation amount model assumes that the majority of districts that currently meet the success criteria of 80 percent average proficiency do not include high density populations of disadvantaged students. Concern over double counting disadvantaged students for the purposes of the weighting recommendation are therefore moot.

If the State institutes student weights, high-need districts will gain approximately the funding necessary to provide an adequate education to their students, provided that the State properly accounts for the ability of these districts to raise revenue. Using the directly estimated weights, New York City, Syracuse, Rochester, and Buffalo will come within one percent of the baseline estimated by a cost index. No districts will receive funding three percent above or below the cost index (Duncombe & Yinger, 2005). The State, therefore, should use these research-based weights. They should also develop a plan to continuously review these weights to ensure accuracy. This process should be a part of the four-year reviews of the foundation aid base already in place, and should be commissioned by an independent research firm or by an independently functioning part of the state government.

*Regional Cost Differences*

The current Regional Cost Index should be maintained. In addition to differences in student types, regional cost differences are significant and should be taken into account in state aid formulas. Regional cost differences are a function of a variety of factors, including personnel costs. There are stark differences in these costs across New York. Differences in personnel costs are particularly significant in education funding as 85 percent of the average district’s funds are spent on salaries, benefits, and fees for personnel (Smith, 1997). In the current formula, New York affords all regions other than the Mohawk Valley and the North Country higher weights, with New York City/Long Island having the highest weight (Office of State Aid, 2012). The current cost index is based on the median salaries “in professional occupations that require similar credentials to those of positions in the education field, but not including those occupations in the education field” (Handbook 2012-2013, pg. 8), which were then weighted by percentages of workers holding those positions statewide. The decision to eliminate education professionals from calculations eliminates the effect of district choices on wages, and should be maintained. If the State included teacher wages in the Regional Cost Index, districts could

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3 The State should also commission a study to assess interaction effects among poverty, limited English proficiency, and special education to ensure that costs are accurately measured. This analysis could inform further modifications to the state aid formula.

4 New York City and Long Island are classified by the State as being different labor regions, but the New York State Education Department decided to combine them based on the argument that these two regions function as a single labor market region, particularly for professionals (New York State Education Department, 2006).

5 Regional cost differences are also incorporated into building aid (Handbook 2012-2013).
influence the index by increasing their wages and forcing the State to make up the difference. Districts would not be able to greatly influence the Regional Cost Index, but removing the incentive to do so will eliminate this potential problem entirely (Lofgren, 2007).

For other significant expenses, such as textbooks and supplies, there is a national market and there will not be large differences across New York in costs (Smith, 1997). While there may be other expenditures that vary across regions, these will be small enough that they can be addressed by the districts themselves and do not need to be considered in the regional cost index (Campos, 2013). The State should therefore maintain the Regional Cost Index in its current form for these expenses.

The additional costs associated with recruiting and retaining teachers in high-need districts (Campos, 2013) is not taken into account in either the Regional Cost Index or in other areas of the state aid formula. There are higher costs associated with staffing these high-need schools results from limited support systems, high proportions of disadvantaged students, and challenging teaching and learning conditions (Darling-Hammond, 2000; Berry, 2008). There is not enough research on the additional costs associated with staffing these schools to make a recommendation on this issue at this time.

Implement revenue and cost savings measures

Required Minimum Property Tax Rate

Implementing a 1.5 percent minimum property tax rate will achieve two objectives. First, the required 1.5 percent property tax rate will ensure that all districts meet their expected minimum local contribution. Currently, there is no mandatory minimum property tax rate set by the State. Implementing a mandatory minimum rate to require that all districts meet their expected minimum contribution will guarantee that all students receive the minimum level of funding deemed necessary to achieve a sound basic education, assuming that state aid is fully funded. Second, the 1.5 percent required minimum property tax rate will ensure that all districts share the burden of funding education. A few districts will need to slightly increase their property tax rates to meet the new minimum, but the majority of the burden will remain on the State (Yinger, 2004).

The State will take the total tax levy amount generated by this minimum rate and divide by the number of pupils in the district for a per-pupil measure of expected minimum local contribution. This required local contribution will then be subtracted from the weighted foundation aid to determine the amount of state aid per pupil each district receives.

Phase Out Hold-Harmless Provisions

The State should phase out hold-harmless provisions in state education aid over the next four years so that state aid more accurately reflects district need. Because the State is prohibited from
reducing funding to any district and the funding is distributed on a per-pupil basis, districts that have declining enrollment continue to receive the same state aid as they did the previous year. The failure to adjust this funding leaves these districts with disproportionately large amounts of aid. Eliminating hold-harmless provisions will free-up approximately $2 billion dollars at low performance achievement targets (Yinger, 2004), which could be directed towards more effective investments in growing districts. Additionally, phasing out the hold-harmless provisions over four years will give districts time to plan for and adjust to the funding changes.

Guaranteed Minimum Per-Pupil Aid

Phasing out hold-harmless provisions will diminish funding to certain districts. Implementing a guaranteed minimum per-pupil aid amount will ensure that every district receives funding. With every district relying on some amount of state aid, the State has political standing to demand that districts spend their money in accordance with the goals of the state finance system, which include allocating more funds to high-need students. Giving the minimum per-pupil aid amount to wealthy districts rewards them for contributing to the state education aid system but allows the State to spend less on wealthy districts than it does on poor districts.

With the guaranteed minimum aid in place, districts whose calculated foundation aid amount is between zero and the selected guaranteed minimum per-pupil amount will receive state aid equivalent to the difference between the two. Districts whose calculated foundation aid amount is negative will receive the guaranteed minimum per-pupil aid amount. The guaranteed minimum per-pupil aid will only be larger than the foundation aid if a district has high property values, resulting in a large minimum required contribution. Therefore, the guaranteed minimum per-pupil aid will only apply to wealthy districts.

Sparsity Subsidy

Eliminating the sparsity subsidy will fully expose districts to the high per-pupil costs associated with sparsity, making them more likely to consolidate. Providing a sparsity subsidy for districts with fewer than 1,500 students is inefficient because these districts could achieve cost savings through consolidation (Duncombe & Yinger, 2001). Therefore, removing sparsity funding from the foundation aid formula could lead to more consolidation of small districts and achieve lower per-pupil costs. Additionally, the State’s savings due to eliminating sparsity funding could help fund other reforms to the foundation aid formula.

Institutionalize aid

Inflation Measures

Like other economic sectors, schools face rising costs due to inflation and the state aid formula should take this into account through an accurate inflation index. The State should adopt a net services index that assesses inflation of service industry expenses as these sectors are also labor-
intensive and experience relatively small productivity growth relative to the average, and therefore will have similar cost increases to education (Rothstein and Mishel, 1995). Applying this index will ensure that there are no real decreases in funding over time, which will increase equity as districts that rely more heavily on state aid would be disproportionately affected by these decreases.

Many scholars conclude that education does not face an average inflation rate because cost efficiencies are inherently hard to achieve in education, so one would expect to see a higher level of inflation (Mishel and Rothstein, 1996; Gurthrie and Rothstein, 1999). Baumol’s cost disease implies that education labor costs will rise, despite limited productivity gains, in response to the productivity gains and competition from other sectors. Like other public sector operations, then, education will have higher inflation as school districts cannot rely on productivity gains to cut costs in the same way private sector firms can (Gurthrie and Rothstein, 1999; Baumol 1967). Therefore, alternative inflation measures should be used to ensure that there are no real decreases in funding that may be hidden by nominal funding increases that do not fully account for education-sector specific inflation. Using general indexes, such as the Consumer Price Index, will systematically underestimate how much it costs to educate a student over time (Mishel and Rothstein 1995).

The current inflation index in the New York State Aid formula is based on the personal income growth index (PIGI), which is intended to ensure that increasing costs of education do not outpace the revenue-raising capacity of the State (Campos, 2013). The inflation index, therefore, functions to limit increases instead of acknowledge the true cost increases in education. The State should remove the PIGI cap, and then use an index constructed from the CPI-U (Consumer Price Index for urban areas) relying on the inflation rate of only the services, following Mishel and Rothstein (1995). The State will use this index to increase the base foundation amount every year.

**Accountability Structure**

The State should continue to tie a portion of aid that school districts receive to a Contract for Excellence. Contracts for Excellence (C4E) are a method of accountability instituted with the 2007 education finance formula reform. School districts are selected for Contracts for Excellence based on low performance outcomes on State tests (Campos interview). Districts and schools that must enter a contract are required to show where targeted funds are used to raise student achievement. Districts must specifically target newly allocated funding toward those students that are determined to have the greatest needs: students with disabilities, limited English proficient students, students in poverty, and students with low academic achievement (New York State Department of Education, 2009). Districts should not be required to direct funds to specific programs, but towards specific student populations. This provision allows for autonomy for school districts to determine how best to select programs that fit the needs of their unique mix of students. Given the current accountability structures that exist for school districts at the federal,
state, and local levels, it is unnecessary to expand Contracts for Excellence to all additional funding for high-needs student types at the current time.

**Conclusion**

Our recommendations create a fairer and clearer state aid formula for New York’s education system. These reforms will unfreeze and remove restrictions from state aid to education, redirect funds to students that need them the most, raise additional revenue, guarantee that every district has enough funding to educate its unique population, institutionalize state aid so that it keeps pace with inflation, and hold districts accountable for spending funds on the students for which it is intended. New York is constitutionally required to provide every student with the opportunity for a “sound basic education,” and our recommendations ensure that the State fulfills this obligation.


