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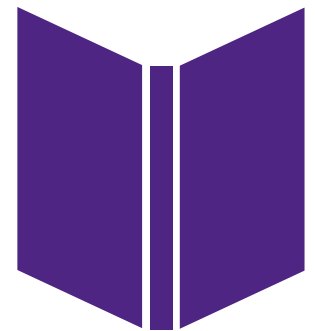
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Selected National Education Finance 2013 Conference Papers

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Property Tax Restrictions on School Board Taxing Authority in Pennsylvania¹

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William T. Hartman is Professor in the Educational Leadership Program in the College of Education at Pennsylvania State University where he teaches courses in school finance, school district budgeting, and financial modeling. His present research focuses on understanding the impact of the current economic crisis—the “new fiscal reality”—on school districts.

Introduction

Historically, in Pennsylvania, the property tax has been the only significant local revenue source over which school boards have had authority, and their authority to raise property tax rates was unrestricted. This flexibility has proved helpful especially when the state has enacted unfunded mandates. However, in 2006, the state enacted legislation to limit school boards' property tax authority with no change to existing mandates or increase in state funding. The purpose of this study was to analyze local school boards' taxing authority, pre- and post-enactment of Special Session Act 1 in 2006,² in terms of its percent share of school districts' total budget in order to better understand the impact of the new limits, in general, and, specifically, with regard to state-mandated contributions to the state pension fund for school district employees.

Background

Pennsylvania relies heavily on local revenues to fund elementary and secondary public education. For the 2011-2012 school year,³ the most recent year for which Pennsylvania Department of Education data were available, local funding sources represented 59.8% of total school district funding in comparison to a state share of 33.5% and a federal share of 4.4%.⁴ In contrast, the latest national data available, which were for 2011, indicated the national average was 43.4% local, 44.1% state, and 12.5% federal. (U.S. Department of Education 2013). According to these data, Pennsylvania ranked 44th in state support; that is, only six states provided a lower percentage of state aid to school districts. In Pennsylvania, a significant component of state aid is funding for instruction, referred to as “basic education funding.” Over the past 40 years, basic education funding, as a percentage of instructional expense reported by districts, has declined from 51% in 1971 to 31% in 2013 (Bissett and Hillman 2013).

Mandates

In Pennsylvania, the local funding burden falls primarily on the property tax, which represents 72% of total local revenue (Pennsylvania Department of Education n.d.a). This

is particularly relevant for school district funding since the decline in state funding share has not been accompanied by a decrease in mandates from the state or federal levels. Pennsylvania state mandates encompass a wide range of areas, such as buildings and construction, charter schools, collective bargaining and other personnel issues, district operations, educational programs, services to students, and school health services. (See the Appendix for a more detailed description of these.)

*Special Session Act 1 of 2006: "The Taxpayer Relief Act"*⁵

Prior to 2006, Pennsylvania school boards had unlimited local property taxing authority; that is, they had the authority to raise the tax millage rate yearly as they deemed necessary to meet expenses. However, during the 2006-2007 school year, Act 1 was implemented, a law that has had a substantial impact on Pennsylvania school finance because it restricts property tax growth (and school boards' taxing authority) to an inflationary index that sets an annual maximum percent of property tax millage growth (Pennsylvania Department of Education n.d.b). Certain limited exceptions for greater expenditure growth, e.g., pensions, special education, and pre-established debt service, may be utilized by the school board to allow an increase beyond the index rate. However, the law requires that proposed property tax rate increases greater than the district index and permissible exceptions are subject to public referendum.

Permissible property tax rate limits are tied to the average of two wage indices, one federal and one state, to create a base index. The federal Employment Cost Index component uses the annual figure for the previous 12-month period beginning July 1 and ending June 30. It specifically tracks rates for elementary and secondary schools as reported the Bureau of Labor Statistics of the U.S. Department of Labor. The state component, the Pennsylvania State Average Weekly Wage,

is determined by the Pennsylvania Department of Labor and Industry. Prior to 2011, it was calculated using data from the preceding calendar year. Now, it uses a 36-month moving average.

These two indices are combined in equal weights to establish the base index. The base index is modified upward for poorer districts using a state district wealth measure to calculate an adjusted index for each qualified district. The adjusted index provides poorer districts with additional taxing capacity. As shown in Figure 1, upon implementation for Fiscal Year (FY)2007, the initial base index was 3.9%, and the maximum district-adjusted index was 6.3%. However, post-recession, the base index dropped dramatically to a low of 1.4% in FY2012 due to the slow economic recovery. The maximum district-adjusted index also fell to a low of 1.8% that fiscal year (Pennsylvania Department of Education n.d.b).

School board authority to increase property taxes remains limited by this law. As indicated in Table 1, in the three years prior to the law, the statewide average increases in property tax collections, inclusive of assessment growth, ranged from 6.1% to 7.3%, while in the years after Act 1 implementation, the average increases fell dramatically, and it was 2.9% for 2012.⁶

Methodology

All school districts except Philadelphia were included in the analyses (n = 499). Philadelphia was excluded because it is fiscally dependent on the city for its local tax revenues. The study used actual FY2012 data and a mix of actual and projected data for FY2013 through FY2015. For these three years, actual data were comprised of Act 1 indices and pension rates while projections were used for total budget and salary growth by district.

Figure 1 | **Base and Maximum District-Adjusted Indices: 2007-2015**

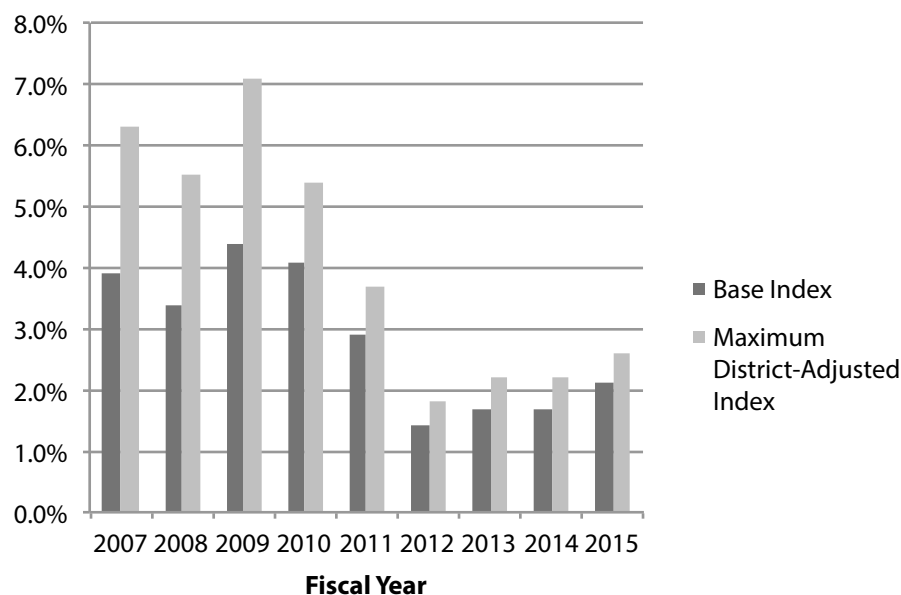


Table 1 | Property Tax Collections: 2003-2015

| Year | Current and Interim Real Estate Taxes Collected (\$) | Percent Change |
|--|--|----------------|
| 2003 | 7,762,009,750 | |
| 2004 | 8,304,228,974 | 7.0% |
| 2005 | 8,909,888,069 | 7.3% |
| 2006 | 9,450,862,131 | 6.1% |
| 2007 | 10,010,719,092 | 5.9% |
| 2008 | 10,474,050,306 | 4.6% |
| 2009 | 10,438,463,356 | -0.3% |
| 2010 | 10,759,581,531 | 3.1% |
| 2011 | 11,153,412,490 | 3.7% |
| 2012 | 11,480,468,871 | 2.9% |
| 2013* | 11,537,871,216 | 0.5% |
| 2014* | 11,768,628,640 | 2.0% |
| 2015* | 12,004,001,213 | 2.0% |
| Source: Pennsylvania Department of Education. | | |
| * Estimates based on maximum Act 1 increases for each school district. The estimated amounts may overstate the actual real estate tax revenues since not all districts levy the maximum increases. | | |

The steps to determine school board taxing authority and to compare this authority with pension contributions were, as follows:

1. Property tax as a percent of total expenditures was determined for each district. Descriptive statistics—minimum, maximum, average, and median values—were calculated.
2. Next, each district's adjusted index was calculated for 2012-2015. This represented the maximum permissible tax rate increase for each district by year and allowed a comparison over time.
3. Each district's property tax share was multiplied by the district's adjusted index to determine board tax authority as a percent of the total budget for each year. Descriptive statistics were also calculated.
4. To determine the impact of pension contributions, contributions were calculated using 2012 payroll data with a 1% annual growth for each succeeding year, multiplied by the projected Employer Cost Rate for each year.⁷
5. Each district's taxing authority was then compared to the budget share required by their mandated pension contribution.

Findings

In 2012, property tax revenues represented 41.65% of the average school district's total budget, with an extremely wide range, from 7.25% for a very property-poor district to 90.01% for a very property-wealthy district. (See Table 2.) The median value of 39.5% was close to the mean indicating a normal distribution. Over the four years in the study, these values varied little. As a reference point, at a 42% average property tax share, a district would require an adjusted index of 2.4% to provide board tax authority equivalent to 1% of the total budget. Any district with a lower property tax share of the total budget or an adjusted index lower than 2.4% would not have sufficient taxing authority to cover a 1% cost budget increase.

Table 2 | Property Taxes as a Percentage of School District Expenditures: 2012-2015

| Year | 2012 | 2013 | 2014 | 2015 |
|-------------|--------|--------|--------|--------|
| Minimum (%) | 7.25% | 7.40% | 7.44% | 7.53% |
| Maximum (%) | 90.01% | 91.08% | 90.81% | 90.90% |
| Average (%) | 41.65% | 42.32% | 42.36% | 42.60% |
| Median (%) | 39.81% | 40.51% | 40.59% | 40.83% |

An overview of the taxing authority available to school districts is presented in Tables 3.1 through 3.3. Between 2012 and 2015, the average percentage increase in school district taxing authority, using the base index, ranged from 0.72% to 1.09%. (See Table 3.1.) Pension contributions as a percent of school district expenditures increased over this time period, from an average of 0.64% in 2012 to 1.01% in 2015. (See Table 3.2.) School board taxing authority remaining after pension contributions varied by year, ranging from an average of -0.17% in 2014 to 0.08% in both 2012 and 2015. (See Table 3.3.) Median values were similar across all four years denoting a normal distribution.

With a base index of 1.4% for 2012, the average school district taxing authority was 0.72% of the budget. As the base index increased to 1.7% for 2013 and remained at the same level for 2014, the average district taxing authority increased to 0.89%. In 2015, with a base index of 2.1%, the average district taxing authority increased to 1.09%.

Figure 2 shows the distribution of school districts with varying levels of board tax authority for each year of the study. The number of district's with the lowest tax authority (<0.50% of their budget) declined substantially from 127 in 2012 to 32 in 2015. Except for 2012, the bulk of school districts were found to have taxing authority between 0.50% and 1.49% of their budget. With the exception of 2015, only a handful

of districts had taxing authority at the high end of 1.50% to 1.99%. No district had a tax authority of 2.00% or more of their budget.⁸

Figure 3 presents the distribution of the remaining board tax authority after meeting the pension funding requirements. Note that in this chart the first group of districts consists of those that have less than zero percent taxing authority; that is, even after raising the maximum property tax increase allowed under Act 1, they have insufficient funds to pay their pension obligations. The number of districts in this condition ranges from 190 in 2012 to 327 in 2014, and then decreased to 210 in 2015, representing 42% of all school districts.

Looking at the more detailed data for 2014 in Table 3.3, one sees that the average school district taxing authority after pension contributions was -0.17%. This deficit was caused by two primary factors. Using the original index calculation methodology with the prior year value of the state average weekly wage, the 2014 base index would have been 2.1%. However, the calculation procedure was altered by the legislature to use a three year average beginning that year, which had the effect of lowering the base index to 1.7%, the same as the previous year. This change reduced the taxing authority of school boards by approximately 0.20%. At the same time, pension contributions increased, on average, from 0.85% of school district expenditures to 1.06%. As a result, 327 districts (65.6%) had less than zero percent taxing authority after making their mandated pension contribution.

Even for those school districts with a positive balance after pension contributions, there are concerns about whether they have sufficient resources to fund other required and necessary expenditures. For example, in 2015, 495 districts are projected to have less than 0.80% of their taxing authority remaining after using the base index. (See Figure 3.) However, most districts are projected to have even less taxing authority remaining—76% with less than 0.40%, 56% with less than 0.20%, and 42% with a negative percent. The remaining taxing authority would be even less if a district chose levy less than the base index allows.

There is a concern that the conditions described above has led to decreased school district expenditures in other areas of their budgets. For example, in 2012, total school district expenditures decreased 1.3% from the previous year. (See Table 4.) Most major expenditure objects showed decreases ranging from 3.72% for “other” objects to 20.11% for supplies. Salary expenditures decreased 4.1%. According to a 2012 survey by the Pennsylvania Association of School Business Officials and the Pennsylvania Association of School Administrators, school districts eliminated or left vacant nearly 20,000 positions in response to budget shortfalls. Professional and property services expenditures decreased 8.04% and 9.28%, respectively, while property-related expenditures fell 19.31%. On the other hand, benefit expenditures increased 6.39%, of which increases in pension contributions likely played a significant role. Other purchased services expenditures increased 4.92%, largely due to transfers of funds to charter schools (Pennsylvania Department of Education n.d.a).

Table 3.1 | School Board Taxing Authority Increase Using Base Index: 2012-2015

| Year | 2012 | 2013 | 2014 | 2015 |
|------------|-------|-------|-------|-------|
| Minimum | 0.15% | 0.18% | 0.19% | 0.23% |
| Maximum | 1.28% | 1.63% | 1.60% | 1.97% |
| Average | 0.72% | 0.89% | 0.89% | 1.09% |
| Median | 0.72% | 0.90% | 0.89% | 1.10% |
| Base Index | 1.4% | 1.7% | 1.7% | 2.1% |

Table 3.2 | Pension Contributions as a Percent of School District Expenditures: 2012-2015

| Year | 2012 | 2013 | 2014 | 2015 |
|---------|-------|-------|-------|-------|
| Minimum | 0.01% | 0.05% | 0.06% | 0.06% |
| Maximum | 0.92% | 1.12% | 1.39% | 1.33% |
| Average | 0.64% | 0.85% | 1.06% | 1.01% |
| Median | 0.65% | 0.87% | 1.08% | 1.04% |

Table 3.3 | School Board Taxing Authority Remaining after Pension Contributions: 2012-2015

| Year | 2012 | 2013 | 2014 | 2015 |
|---------|-------|-------|--------|-------|
| Average | 0.08% | 0.04% | -0.17% | 0.08% |
| Median | 0.07% | 0.03% | -0.19% | 0.06% |

Conclusions

The purpose of this article was to present the results of a study that analyzed Pennsylvania local school boards' taxing authority, pre- and post-enactment of Special Session Act 1, “The Taxpayer Relief Act,” in 2006, in terms of its percent share of school districts' total budget in order to better understand the impact of the new limits, in general, and, specifically, with regard to state-mandated contributions to the state pension fund for school district employees. Prior to this act, school districts' authority was unrestricted. Act 1 changed all of this, requiring districts to seek local voter approval and/or an exception from the state department of education to exceed state-imposed limits. At the same time, the state imposed significant increases in local school district employee pension contributions. A third complicating factor was the economic recession of 2007-2009 that greatly affected state and local revenues, followed by a weak economic recovery.

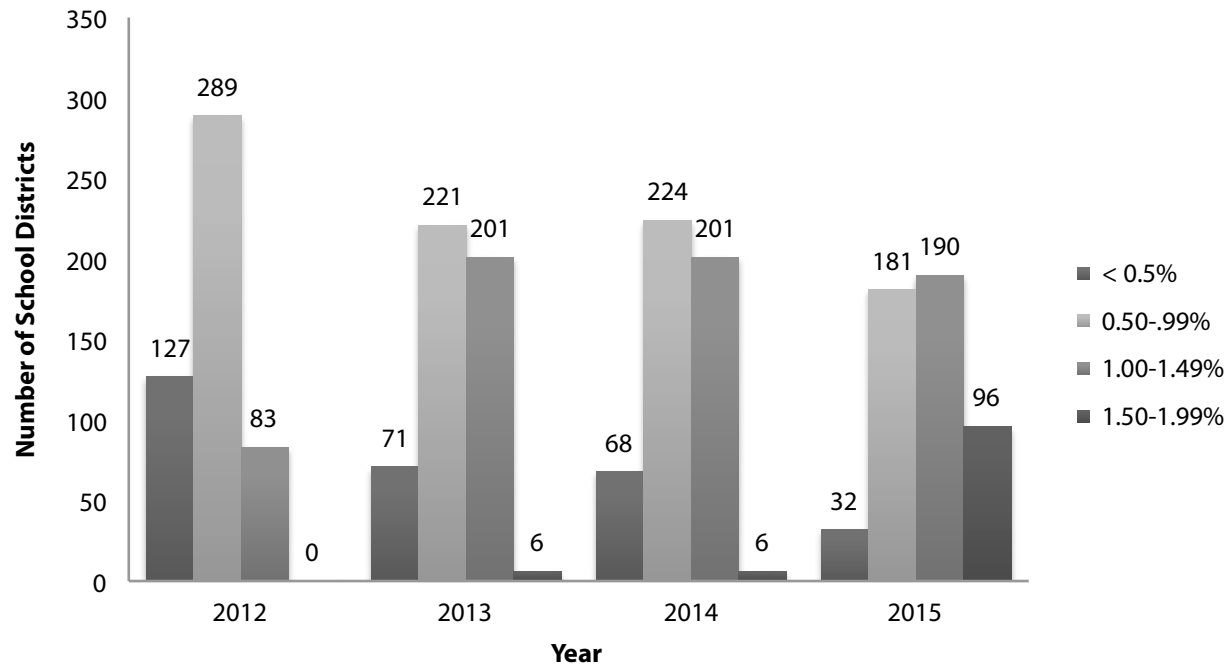
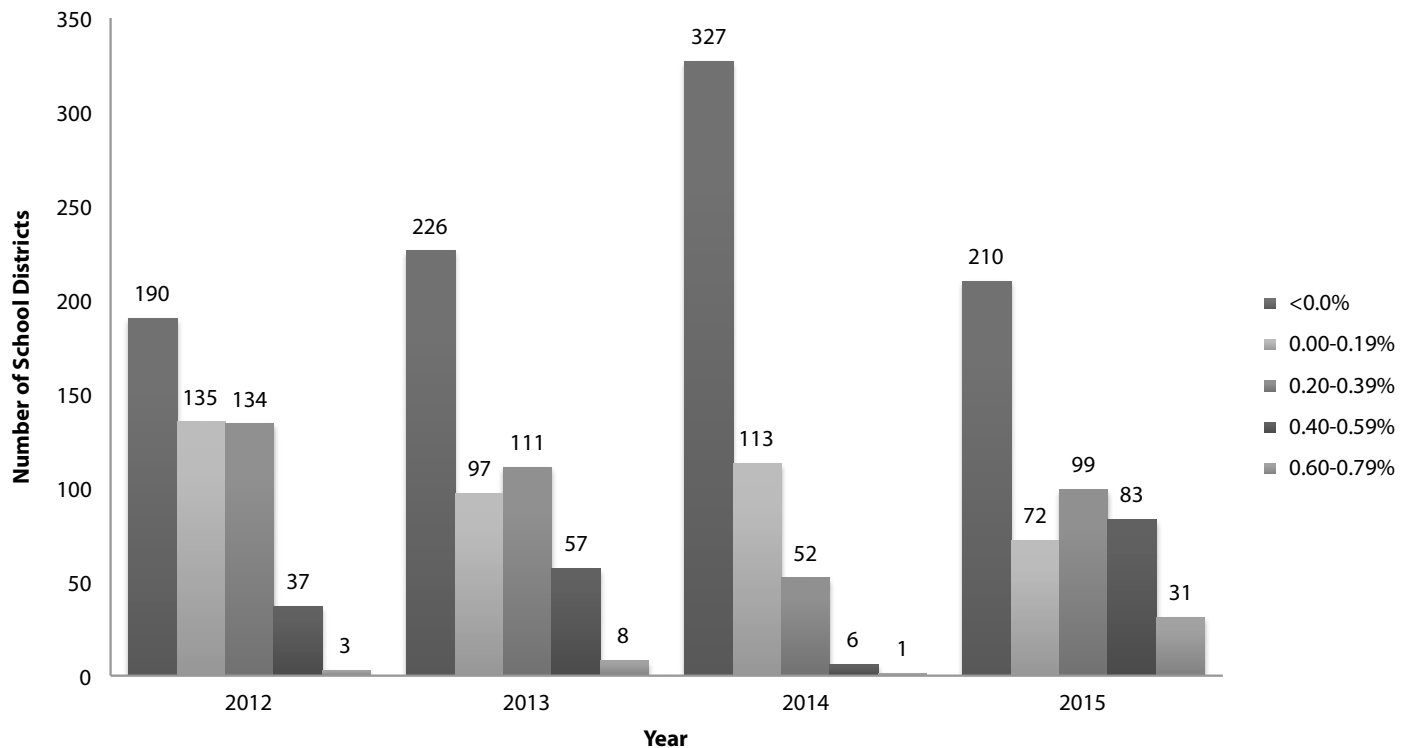
Figure 2 | **Taxing Authority of Pennsylvania School Districts by Percent of Budget: 2012-2015**Figure 3 | **Remaining Taxing Authority of School Districts by Percent of Budget at Maximum Allowable Property Tax Less Pension Contributions: 2012-2015**

Table 4 | **Change in School District Expenditures between 2011 and 2012**

| Major Expenditure Object | Percent Change (%) |
|--------------------------|--------------------|
| Salaries | -4.19% |
| Benefits | 6.39% |
| Professional Services | -8.04% |
| Property Services | -9.28% |
| Other Purchased Services | 4.92% |
| Supplies | -20.11% |
| Property | -19.31% |
| Other Objects | -3.72% |
| Other Uses of Funds | 8.85% |
| Total | -1.34% |

Local property tax increases began to fall immediately after implementation of this law, and in its earlier years the economic recession likely accounted for a portion of the decreases. However, even after the recession had ended, increases continued to fall such that over the course of the year studied, 2012-2015, they bottomed out at 0.5% in 2013. For 2013 and 2014, property tax increases were estimated at 2.0%. However, this is much lower than pre-Act 1 when annual increases were 7.0% and 7.3% in 2004 and 2005, respectively.

Increases in state-mandated pension contributions also strained school district budgets over the course of the years studied in this analysis. Pension contributions as a percent of a school district's budget rose, on average, from 0.64% to 1.09%. The combination of constrained increases in property tax revenues and increases in pension contributions left many school districts with little or no remaining taxing authority to meet budgeted expenditures. In fact, in 2014, two-thirds of school districts had no remaining taxing authority after payment of their pension obligations.

Undoubtedly, the adequacy and stability of the state pension fund, a shared responsibility with local school districts in Pennsylvania, is of critical importance to employees and retirees. However, when coupled with property tax limits and an economic recession, the fiscal burden for many Pennsylvania school districts is overwhelming and threatens their ability to provide required and necessary education services to their students.



Appendix | Examples of State Mandates by Area

| | |
|--------------------------------------|--|
| Buildings and Construction | Prevailing wage, construction requirements, bid limits, and pest control planning. |
| Charter Schools | Payments, transportation, special education, extracurricular activities, and transfer of student records. |
| Collective Bargaining | Seniority requirements for personnel suspensions, salary schedules, minimum salaries and increments, payment of salaries during incapacitation, salary increases, employment protections when programs or classes are transferred to another school entity, workloads, part-time teacher salaries, demotions, substitute teachers, leave for elective public office, and compensation for additional hours of instruction. |
| District Operations | State report card reporting requirements, school safety reporting requirements, liability insurance, special education due process requirements, due process for disciplinary issues, right-to-know/release of public records, workplace safety committee, and school bus idling. |
| Educational Programs | Strategic planning, curriculum requirements, LEP program requirements, graduation requirements, assessment requirements, special education/early intervention/extended school year, gifted education, and education of incarcerated students. |
| Other Personnel Issues | Retirement contributions, sabbaticals, tenure, meeting "highly qualified teacher" requirements, professional development costs for teachers and administrators, and mandated benefits including sick days. |
| School Health Services Issues | School nurse certification, school nurse to student ratio, and medical and dental examinations. |
| Student Services | Guidance counseling, psychological services, home and school visitor services, social work services, and student assistance programs. |
| Transportation Issues | Nonpublic school student transportation, charter school transportation, and out-of-state transportation of students. |

Endnotes

¹ Portions of this study were previously published by Timothy J. Shrom in "Fiscal Outlook for PA Schools," *PASBO* [Pennsylvania Association of School Business Officials] *Report* 33(8):1,12, <http://files.pasbo.org/PR/PRFebruary2013.pdf>; and by Timothy J. Shrom and William T. Hartman, in "A Commonwealth Conundrum for School Board Authority: Restricted tax Authority AND [caps in original] Mandated Cost Increases," *PASBO Report* 33(10): 6-7, <http://files.pasbo.org/PR/PRApril2013.pdf>.

² Special Session Act 1 of 2006 is referred to as "Act 1" hereafter. Act 1 is also referred to as "The Taxpayer Relief Act."

³ Hereafter, data years school districts are referred to by the end of their academic year; e.g., school year 2011-2012 will be referred to as 2012.

⁴ The Pennsylvania Department of Education referred to 2.3% as "other."

⁵ Pennsylvania Department of Education. n.d.b, "The Taxpayer Relief Act: Special Session Act of 2006," http://www.portal.state.pa.us/portal/server.pt/community/property_tax_relief/7452.

⁶ The apparent reduction of property tax collections in 2009 was an anomaly caused by a tax reduction initiative that was funded that year whereby state funds replaced a portion of property taxes through a homestead reduction to qualifying properties.

⁷ The Employer Contribution Rate (as a percent of payroll) is certified by the state Public School Employees Retirement (PSERS) board. Actual rates were used 2012-2014. For 2015, the projected PSERS board rate was used. The state and school districts share responsibility for school district employee pension contributions. Hence, the result was divided by two to represent the school district share.

⁸ For the purposes of this study, the measure of board tax authority did not include exception utilization nor did it anticipate successful local tax referenda campaigns. Since neither referenda results nor exception approvals are fully within board taxing authority, i.e., they require approval from either the state department of education or the voters in the district, this study was limited to each district's adjusted index.

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A Demographic Analysis of the Impact of Property Tax Caps on Indiana School Districts

Marilyn A. Hirth and Christopher Lagoni

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Introduction

In 2008, the Indiana legislature passed and the governor signed into law House Enrolled Act No. 1001, now referred to as Public Law 146-2008, which capped Indiana school districts' ability to raise revenues from the local property tax without local voter approval. To phase in the impact of the law, the state provided school districts with levy replacement grants in 2009 and 2010 that offset losses of greater than 2% of their property tax revenues. In 2011, the levy replacement grant program expired, and schools districts experienced the full impact of the law. As a result, property taxes for homesteads¹ were capped at 1%, agricultural land at 2%, and nonresidential real property at 3% of total assessed value (Indiana Department of Local Government Finance 2008). For school boards hesitant to seek voter approval of higher taxes, these caps represented a potential loss in funding. To that end, the exploratory study described in this article analyzed the law's impact on the school districts by demographic type and sought to establish the predictive value of select independent variables on school district funding losses attributable to property tax caps.

The article is divided into four sections. Following this introduction is a section on the background of this property tax reform in Indiana and a comparison to other states. The next section provides a description of the methodology used in the study while the third section discusses findings. In the final section, conclusions and recommendations for future research are presented.

Background

Due to a series of state supreme court and state tax court decisions between 1996 and 1998, Indiana revised its true value tax system to reflect a market value system with an initial reassessment of real property in 2001 (Faulk 2004). Under the previous assessment method, true tax value was based on "reproduction cost" rather than the current market-based system of "replacement cost" in current building techniques and methods. Reproduction costs were defined as what it would take to reproduce the structure on the existing land or lot based on materials used and methods

used in the time of the structure's construction. In addition, annual adjustments or "trending" of property values became part of Indiana's move to a market-based assessment system that began in 2002. Trending required assessors to research sales of properties in a particular area over the previous two years. Using that information, assessors then estimated the values of other properties in the same area to determine an assessed value. This change in property tax assessment resulted in significant increases in assessed value for residents and concomitant increases in their property taxes. Public Law 146-2008 represented the state's efforts to respond to this phenomenon through "property tax reform;" that is, the use of state-imposed local property tax caps.

Historically, states have responded to dramatic increases in assessed value of property in a variety of ways. For example, in 1978, California voters approved Proposition 13, which reduced property taxes to 1% for homestead and commercial property and limited the growth rate of future assessments to 2% (Glyn and Drenkard 2013). Then, in 1980, Massachusetts voters passed Proposition 2 ½ which served to reduce local property tax growth in two manners. First, it limited the annual growth of local property tax collections to no more than 2.5% of the previous year's levy limit, plus new growth.² However, this percentage could be exceeded by local voter approval. Second, property tax collections could not exceed 2.5% of assessed valuation, even with voter approval (Massachusetts Department of Revenue n.d.).³

In 1992, Colorado voters approved a constitutional amendment referred to as the Taxpayer Bill of Rights (TABOR). In its original form, TABOR restricted revenues at both the state and local levels. State and local government units, including school districts, could not raise tax rates without voter approval or spend revenues collected under existing tax rates if revenues grew faster than the rate of inflation and population (Colorado Department of the Treasury n.d.). However, in 2005, Colorado voters returned to the polls passing Referendum C, which eliminated revenue limits from 2006 to 2010 and made modifications to the original amendment after that period to make it less onerous (Colorado Legislative Council Staff 2009; Lav and Williams 2010).

A potential consequence of property tax caps is an increase in bonding. For example, after implementation of Public Act 87-17, the "Property Tax Extension Elimination Law," in 1991, enacting assessment caps in Cook County and contiguous "collar" counties in Illinois, school district bonded debt increased (Illinois Department of Revenue n.d., Rudow 2003). In 1993, Michigan capped school district general fund property tax revenues. According to Rudow (2003, 543), the Michigan property tax cap had four major outcomes: (1) The value of bonds passed tended to increase in high spending districts by 172%; (2) The value of bonds passed tended to increase for low spending districts by 26%; (3) The property values of high spending districts tended to drop; and (4) High spending districts were able to exceed the cap by passing more operational expenses on to debt service. Because the ability to fund normal maintenance and upkeep were limited by statute, Michigan school districts also tended to delay

facility improvements, which resulted in increased use of bonding, particularly with regard to schools safety (Zimmer and Jones 2005).

Methodology

Of Indiana's 294 school districts, 293 were included in the study.⁴ The school district was the unit of analysis. Data sources were reports of the Indiana General Assembly (2009, 2013), Indiana Department of Local Government Finance (2011, 2013), and Indiana Department of Education (2009, 2012).⁵

Variables

Current assessed value of real property for 2009 and 2012.

Real property was defined as land and structures. It included agricultural and nonagricultural land; houses; and commercial and factory buildings.

Debt service ratio. A school district's debt service ratio equaled its total indebtedness divided by its assessed valuation of property.

Total indebtedness. Total indebtedness was the sum of a school district's temporary loans, school bonds, retirement bonds, and lease/rental agreements. It is also referred to as total principal obligation or total principal owed.

Demographic profile type. The Indiana Department of Education classifies each school district as either metro (Demotype 1), suburban (Demotype 2), town (Demotype 3), or rural (Demotype 4) based upon the U.S. Census Bureau's locale codes classification system for school districts which focuses on population density of the district, not just the school's physical location. In Indiana, rural school districts are the most common demographic profile type with 158 school districts.

Net Property tax cap credit or "net credit". The net property tax cap credit was designed by Indiana lawmakers as a credit to local property taxpayers in a school district. At the same time, this variable represented a financial loss to school districts. In this study, this variable represented an estimate of the amount of money a school district lost due to the property tax cap in 2011 after state replacement grants expired in 2010.

Capital projects fund statutory limit. A school district's capital projects fund statutory limit under Act 388 is \$0.4167 per \$100 of assessed property value.

Data Analysis Procedures

Analysis of variance (ANOVA) was used to analyze mean net credits, or losses, experienced in 2009 and 2012 by Indiana school districts. Second, the strength of debt service ratio, assessed valuation of property, and/or total indebtedness as predictors of variations in net credit was analyzed through a general linear model (GLM.)

Analysis of Results

ANOVA with a Bonferonni adjustment and Tukey grouping together found statistically significant differences in mean property tax cap credits across school districts by demographic type. (See Tables 1-4.) In 2009, mean property tax credits for suburban and small town school districts were similar and significantly different from those for metropolitan and rural school districts. In 2012, these relationships had

Table 1 | **ANOVA Results of School District Mean Net Credit by Demographic Type: 2009**

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F Value | Pr >F |
|---|--------------------|----------------|-------------|---------|--------|
| Model | 3 | 1.3634 | 4.5447 | 26.22 | <.0001 |
| Error | 281 | 4.8704 | 1.7332 | | |
| Corrected Total | 284 | 6.2338 | | | |
| R-Square=0.2187 Coefficient of Variation=255.4500 Root MSE=1,316,524 Net Credit Mean=515,374.5 | | | | | |

Table 2 | **ANOVA Results of School District Mean Net Credit by Demographic Type: 2012**

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F Value | Pr >F |
|---|--------------------|----------------|-------------|---------|--------|
| Model | 4 | 1.9696 | 4.5447 | 26.22 | <.0001 |
| Error | 284 | 6.6049 | 1.7332 | | |
| Corrected Total | 288 | 8.5745 | | | |
| R-Square=0.2297 Coefficient of Variation=225.3235 Root MSE=1,525,019 Net Credit Mean=676,813.1 | | | | | |

Table 3 | **Tukey's Grouping of District Demographic Type Transformed Data: 2009**

| Tukey Grouping | Mean | Number | Demotype |
|--|----------|--------|----------|
| A | 1,133.33 | 36 | 1 |
| B | 675.65 | 61 | 2 |
| C | 467.28 | 30 | 3 |
| D | 202.31 | 158 | 4 |
| Notes: Demotype 1=Metro; Demotype 2= Suburban; Demotype 3=Small Town; Demotype 4=Rural. Means with the same letter are not significantly different. | | | |

Table 4 | **Tukey's Grouping of of District Demographic Type Transformed Data: 2012**

| Tukey Grouping | Mean | Number | Demotype |
|--|-----------|--------|----------|
| A | 2,406,429 | 37 | 1 |
| B | 1,312,114 | 62 | 2 |
| C | 385,372 | 30 | 3 |
| D | 85,306 | 160 | 4 |
| Notes: Demotype 1=Metro; Demotype 2= Suburban; Demotype 3=Small Town; Demotype 4=Rural. Means with the same letter are not significantly different. | | | |

changed, and small town and rural school districts were similar and significantly different from metropolitan and suburban school districts.

Next, the analysis turned to predictors of variations in the net tax credit. A general linear model was used where predictor variables—district debt ratio, assessed valuation of property, and total indebtedness—were used alone and in combination to reach the maximum amount of variation in the dependent variable, district net tax credit, in 2009 and 2012. The results indicated that the model using all three predictor variables explained the greatest amount of variation at approximately 51% for 2009 and 50% for 2012.

Conclusions

The purpose of this exploratory study was to analyze the impact of state-imposed property tax caps on Indiana school districts by demographic type, where demographic type was defined as metropolitan, suburban, town, or rural. The study also sought to establish the predictive strength of school districts' debt ratio, assessed valuation of property, and total indebtedness in relationship to their net property tax credit. The net property tax credit represented a credit to local property taxpayers in a school district, i.e., a reduction in their property taxes. Conversely, the net property tax credit represented a loss of revenue to school districts. Two years of data were used in the study. While the law was enacted in 2008, it did not take full effect until 2011. As such, 2009 data were used as a base for comparison with 2012, a year after the full implementation of the law.

The results of the study indicated that there was a shift in the impact of the net property tax credit between 2009 and 2012. In 2009, the mean net property tax credits for suburban and small town school districts were similar and significantly different from those for metropolitan and rural school districts. In 2012, these relationships had changed: Small town and rural school districts were similar and significantly different from metropolitan and suburban school districts. Using a general linear model, school districts' debt ratio, assessed valuation of property, and total indebtedness predicted 51% of the variation in school districts' net property tax credits in 2009 and 50% in 2012.

These results indicate the need for further research, adding additional years of analysis to the study in order to determine if initial shifts in the impact of the net property tax credit across types of school districts are sustained. Also, while school districts' debt ratio, assessed valuation of property, and total indebtedness predicted around half of the variation in school districts' net property tax credits in 2009 and 2012, analysis of additional years of data will be helpful in establishing whether or not these independent variable retain their predictive power.



Endnotes

- ¹ In Indiana, a homestead is an individual's principal place of residence consisting of a dwelling and up to one acre of immediately surrounding real estate.
- ² It should be noted that there were some exclusions for debt service.
- ³ This is also referred to as the levy ceiling.
- ⁴ One school district, the La Porte Community Schools, did not have sufficient data for inclusion in the study.
- ⁵ Calendar year data were used for the study.

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Local Property Tax Limitations vs. School District Employee Pension Costs in Pennsylvania

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Introduction

In Pennsylvania as in many other states, employee pension costs are a significant source of financial pressure for school districts (Zeelandelaar and Northern 2013, Pennsylvania Public Employees' Retirement Commission 2013). In order to gain greater insight into the nature of Pennsylvania school districts' financial burden related to pension commitments, this article presents the findings of two scenarios, one which compared the maximum amount of local property tax revenue Pennsylvania school districts could raise under a 2010 state property tax limitation statute, Act 120,¹ to their pension obligations; and a second scenario which incorporated a 1% annual salary increase into the analysis. The article is divided into three sections. The first provides the fiscal context for this study. This is followed by a description of the methodology used in the study and the presentation of findings. The third, and final, section presents conclusions.

The Fiscal Context for Pennsylvania School Districts

In the years prior to the Great Recession of 2007-2009, state and local revenues in Pennsylvania were increasing moderately along with the economy while school district expenditures were increasing at relatively low and predictable rates. However, the national economic crisis brought about a new budget climate, one for which many Pennsylvania school district administrators and boards were largely unprepared, fiscally or attitudinally. State aid was slashed, and local revenues were limited or reduced by the downturn in the economy. Prior fiscal trends and historical operational processes offered little guidance with regard to how re-establish and maintain fiscal stability. Districts were forced to make substantial changes in their fiscal and programmatic operations. In order to balance their budgets, Pennsylvania school districts had to make significant reductions in key expenditure areas such as instruction and operations.

Even prior to the economic recession, Pennsylvania school districts were facing fiscal challenges as the result of Act 1, a state law enacted in 2006 which imposed local property tax limitations on school districts.² Then, in 2010, shortly after

the official end of the Great Recession, Act 120 dramatically increased school districts' mandatory pension contributions.

On the revenue side, there was a dramatic change in districts' ability to control local taxes with the implementation of Act 1. Prior to its enactment, school boards could raise local property tax rates with a majority vote of the board. Under Act 1, school districts were limited in raising their tax rates to an inflationary index that was the average of the percent increase in the Pennsylvania statewide average weekly wage and the federal employment cost index for elementary and secondary schools. This rate was adjusted upward for less property-wealthy school districts, allowing them to raise their tax millage. Between 2007 and 2012, the base index fell from a high of 4.4% in 2009 to a low of 1.4% in 2012, while the average adjusted index fell from a high of 5.7% in 2009 to a low of 1.8% in 2012. (See Table 1.)

Property taxes are the major revenue source under the control of the local school boards in Pennsylvania. In 2012, they made up 79% of all local revenues collected and 46% of total revenues received by districts in Pennsylvania. By contrast, state aid to school districts represented 36% of school district revenue although the state aid share per district varied from 10% to 78% depending upon the school district's property wealth (Pennsylvania Department of Education n.d.a). Consequently, constraints on property tax rates increases can affect a school district's ability to balance its budget.

The fiscal condition of Pennsylvania's public school employees' pension system is like that of many other states in that it has large unfunded pension liabilities (Pennsylvania

Public Employees' Retirement Board 2013).³ Over several decades, the obligations to current and future recipients have been substantially underfunded, forcing a massive catch-up effort (Pennsylvania Office of the Budget 2012). A combination of economic conditions and political decisions led to the need for large increases in state and district payments into the pension fund (Commonwealth of Pennsylvania 2012). In 2010, Act 120 re-amortized the unfunded liabilities and established controlled, but sharply increasing district required contribution levels rising to over 30% of salaries by 2019 and continuing at that level through 2035 (Public School Employees' Retirement Board 2013).

District pension contributions are calculated in terms of an employer contribution rate, which represents a percentage of district employee salaries. Each year, school districts make a mandated payment into the PSERS fund based on this required rate. The most recent employer contribution rates for PSERS and the annual and cumulative percentage increases they represent are shown in Table 2. Beginning in 2012, the rates started a steep annual climb to reach 29.15% by 2018. Annual percentage increases began at 53% in 2012, but will decline to 3% by 2018. However, cumulatively, districts will see a 417% increase in their mandated pension contributions between 2011 and 2018.

For most districts, the state share of this expenditure is approximately 50%, so while the percentage increases to districts will be the same as shown in Table 2, the dollar amount is shared with the state. The district's pension contribution has to be covered local property tax revenues, other local revenues, and other state subsidies. District

Table 1 | Base Index and Adjusted Indices: 2007-2015

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------------|------|------|------|------|------|------|------|------|------|
| Base Index (%) | 3.9 | 3.4 | 4.4 | 4.1 | 2.9 | 1.4 | 1.7 | 1.7 | 2.1 |
| Adjusted Index (%) | | | | | | | | | |
| Minimum (%) | 3.9 | 3.4 | 4.4 | 4.1 | 2.9 | 1.4 | 1.7 | 1.7 | 2.1 |
| Average (%) | 5.0 | 4.4 | 5.7 | 5.3 | 3.8 | 1.8 | 2.2 | 2.2 | 2.7 |
| Maximum (%) | 6.3 | 5.5 | 7.1 | 6.7 | 4.7 | 2.3 | 2.8 | 2.8 | 3.4 |

Table 2 | PSERS Employer Contribution Rates for Mandatory District Pension Payments as a Percentage of District Employee Salaries: 2011-2018

| Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--------------------------------------|------|------|-------|-------|-------|-------|-------|-------|
| PSERS Employee Contribution Rate (%) | 5.64 | 8.65 | 12.36 | 16.93 | 21.31 | 25.80 | 28.30 | 29.15 |
| Annual Increase (%) | | 53 | 43 | 37 | 26 | 21 | 10 | 3 |
| Cumulative Increase (%) | | 53 | 119 | 200 | 278 | 357 | 402 | 417 |

Table 3 | Total School District Payments for Pension Contributions: 2011-2018

| Year | District Contribution (\$) |
|------|----------------------------|
| 2011 | 295,782,380 |
| 2012 | 439,922,497 |
| 2013 | 631,749,050 |
| 2014 | 873,985,965 |
| 2015 | 1,111,097,892 |
| 2016 | 1,358,657,385 |
| 2017 | 1,505,213,335 |
| 2018 | 1,565,927,152 |

pension contributions range from \$295.8 million in 2011 to \$1.57 billion in 2018. (See Table 3.) Practically speaking, pension costs act as a prior obligation in the school district budgeting process; that is, before other components of the budget can be considered, districts must budget for pension costs.

Methodology

The purpose of this study was to compare the property tax revenue that districts could raise using their maximum allowable Act 1 property tax rates to their state-mandated pension costs. Then, the analysis was extended to include the impact of an annual 1% increase in district salaries. The school district was the unit of analysis, and the time period for the study was 2011-2018. The data source for 2011 and 2012 district revenues and expenditures was the Pennsylvania Department of Education. These data were also used as a basis to develop projections for 2013 through 2018.

Three district data sets were compiled for each year of this study: (1) Maximum local property taxes that districts could raise under the state property tax limitation; (2) Mandated district pension obligations; and (3) District salary expenditures with an annual 1% salary increase. The analysis first focused on comparing allowable annual increases in property tax revenues against annual pension costs faced by the districts, and then it focused on the impact of pension costs plus and an annual one percent increase in salaries.

The maximum increase in local property taxes that a school board is allowed to levy is established by the annual inflationary index of Act 1. As shown in Table 1, the base index was 1.7% in 2013 and 2014, and it is set to rise to 2.1% for 2015. For relatively property-poor school districts, an adjusted index, which increases their allowable index, is calculated by the Pennsylvania Department of Education. Consequently, the average adjusted index across all districts is higher: 2.2% in 2013 and 2014, and 2.7% in 2015. The Pennsylvania Independent Fiscal Office (IFO) has projected base indices between 2.3% and 2.4% out to 2017 (Commonwealth of Pennsylvania 2012). Future estimated adjusted indices were

calculated for each district using the IFO future estimates of the base Act 1 indices for each future year and applying the Pennsylvania Department of Education formula for adjustments for poorer districts.

The data source for 2010-2012 current and interim property taxes collected by school districts was the Pennsylvania Department of Education. For 2013-2018, the authors estimated the annual maximum property tax revenue by increasing the prior year's amount by the district's adjusted index times the prior year's amount. The difference between the new total property tax amount and the prior year's amount was the maximum increase in property tax allowable for the district. These calculations set an upper bound on the increase in property taxes available to districts. However, not all school boards choose to increase taxes to the maximum level. In practice, only half of the districts raised their property taxes to the maximum in 2012 in spite of the state revenue shortfall.

The calculations for the annual expenditure increases for pension commitments and salaries followed a similar process. The data source for 2010-2012 salaries was the Pennsylvania Department of Education. Future annual salary increases were estimated at 0.5% for 2013 and 1.0% for the remaining years.

PSERS rates for the years of the study were shown in Table 2. Annual calculations were made for each district's net dollar pension cost by multiplying the total salary amount by the PSERS rate and then halving it. The annual cost increase for pensions was determined by subtracting one year's cost for pensions from the prior year.

Finally, for each year, the PSERS net dollar increase to districts was subtracted from the maximum allowable increase of property taxes to compare the two amounts. Districts with a negative balance had a larger increase in pension costs for that year than the school board's authority to raise property taxes. Districts that had larger increases in property tax revenues than pension cost increases had a positive balance; that is, some property tax revenues remained for use in other areas of the budget. The annual number of districts in each category was then determined. In addition to an annual analysis, a cumulative analysis was conducted.

Findings

Figure 1 shows the number of districts with positive and negative balances after subtracting pension obligations, even after the school district levied the maximum allowable property tax rate. The numbers of negative and positive districts show a changing pattern over the eight years of the study. In 2011, approximately 85% of districts had positive balances. However, between 2012 and 2014, the percentage of school districts with negative balances grew steadily, from 41% to 68%, as the maximum property tax rate increase allowed declined from 3.8% to 2.2%. At the same time, pension contribution rates rose from 5.64% to 16.93% of salaries. The percentage of districts with negative balances peaked in 2014, and, from that point forward, the pattern was projected to reverse with the number of districts with negative balances falling to zero in 2018. Even though pension contribution rates were projected to rise during this

Figure 1 | Annual Number of School Districts with Positive and Negative Balances after Subtracting Pension Obligations: 2011-2018

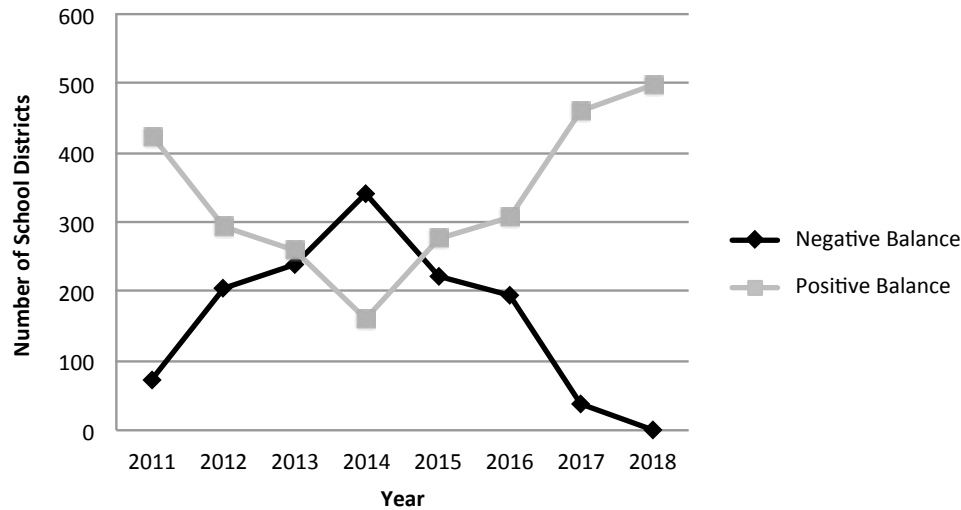
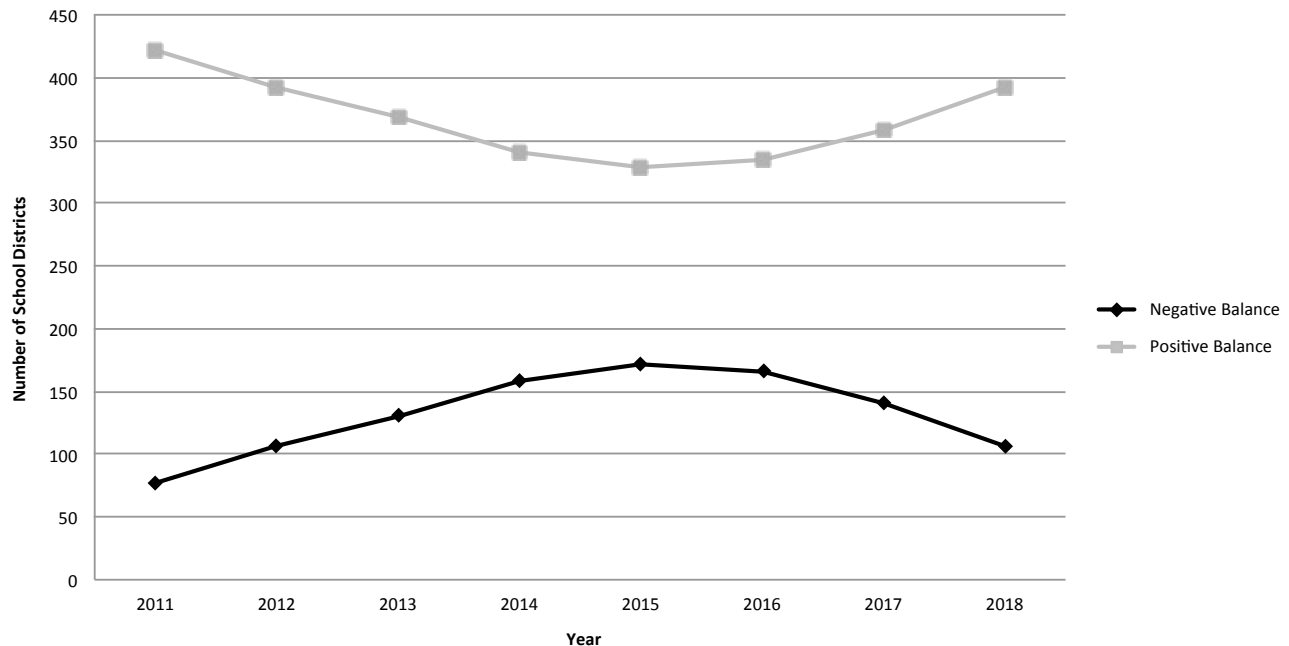


Figure 2 | Cumulative Number of School Districts with Positive and Negative Balances after Subtracting Pension Obligations: 2011-2018



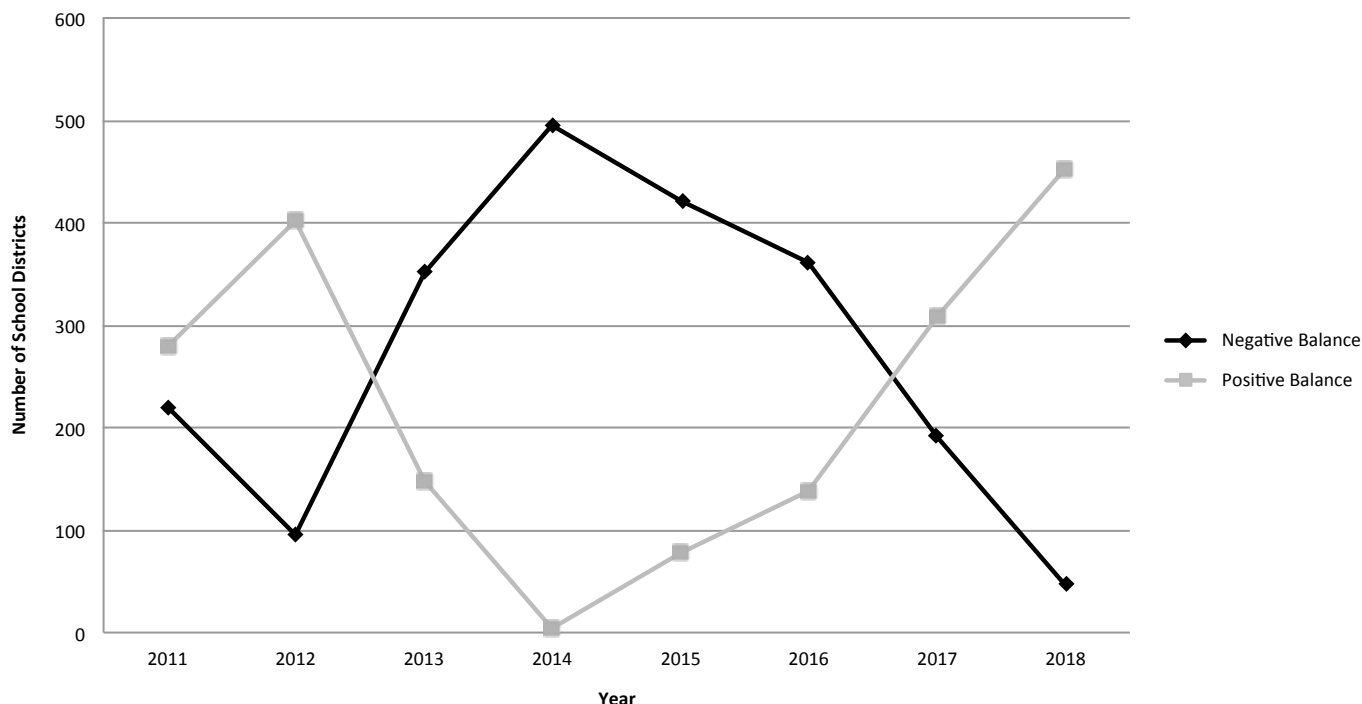
period from 21.3% to 29.2%, the number of negative-balance districts dropped steadily due to lower annual and cumulative increases in the contribution rates, low salary increases, and higher allowable property tax rates. Nevertheless, as late as 2016, more than one-third (38.7%) of school districts were projected to have negative balances after meeting pension obligations.

Next, a cumulative analysis was conducted to examine the effects of property tax revenues and pension costs over time. (See Figure 2.) Although only 15.4% of districts had negative balances in 2011, the percentage more than doubled to 34.3%

in 2015, but then declined to 21.4% in 2018. Even though the cumulative effects of property tax increases are projected to reduce the number of districts with negative balances between 2015 and 2018, they are insufficient to move approximately 20% of school districts to a positive balance.

The previous analyses held district salaries constant. This scenario added the effect of an annual 1% salary increase. (See Figure 3.) The percentage of school districts with negative balances initially dropped by more than half between 2011 and 2012, from 43.9% to 19.2%. However, the percentage of districts with negative balances then skyrocketed to

Figure 3 | Effect of Annual One Percent Salary Increase on the Number of School Districts with Positive and Negative Balances after Subtracting Pension Obligations: 2011-2018



99.2% in 2015; that is, 495 out of 499 school districts had negative balances. The trend then reversed with only 46 school districts, or 9.2%, with negative balances in 2018. The introduction of even a modest salary increase clearly made the pattern of districts with negative and positive balances much more volatile.

Figure 4 illustrates the cumulative effect of the addition of an annual 1% salary increase. The effect, in general, was less volatile, but, ultimately, it resulted in a negative balance for more than one-third (33.9%) of school districts. Initially, the percentage of districts with negative balances dropped sharply from 43.9% in 2011 to 20.9% in 2012. However, the percentage of districts with negative balances then rose to a high of 41.9% in 2016 before falling a few percentage points to 33.9% in 2018.

Conclusions

As the results of this study indicated, a number of Pennsylvania school districts face a volatile financial future as a result of recently enacted state laws related to property tax limitations and pension commitments. Even if these districts annually raise their local property tax rates to the state-allowed maximum for each of the next five years, the revenues will be insufficient to fund their mandated pension contributions and still provide employees with a 1% annual salary increase. Under these conditions, in order to balance their budgets, these districts would have to: (1) use their fund balance, if they have one (a short term tactic); (2) reduce and/or eliminate programs and services; or (3) reduce personnel expenditures, e.g., through attrition or furloughs. Also, it

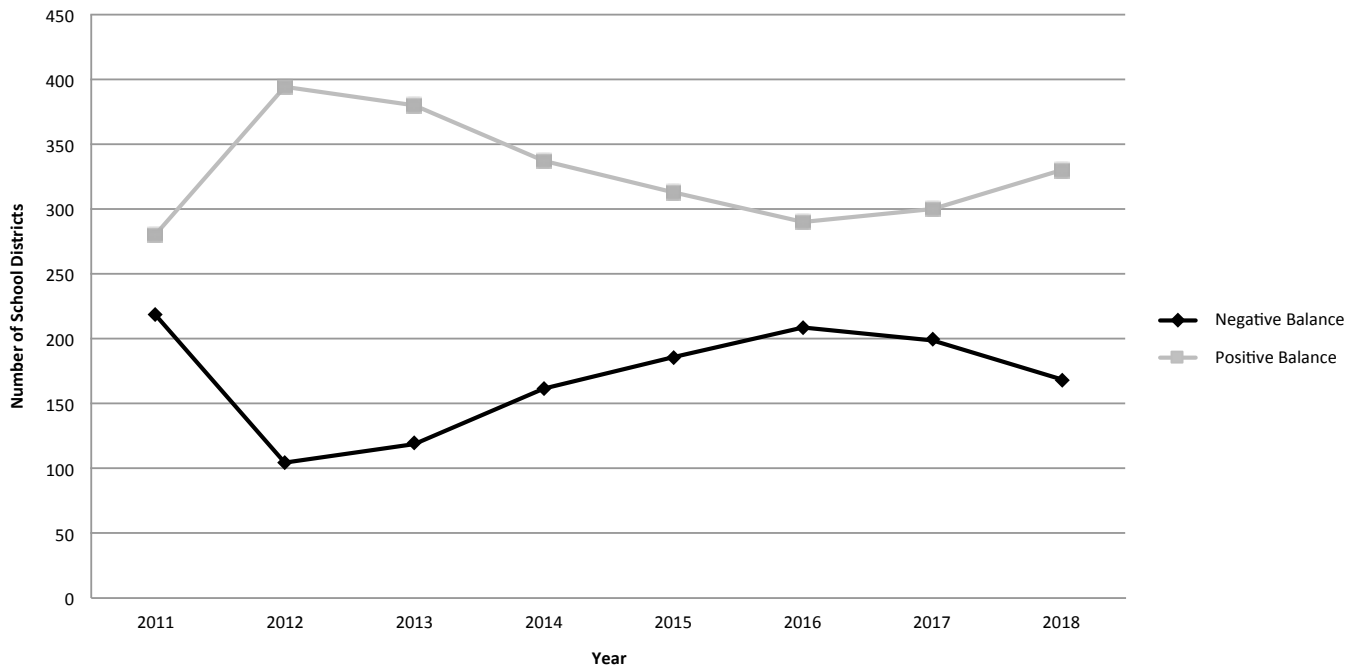
should be noted that even districts with positive balances may still have insufficient revenues to address the remainder of their budgeted expenditures.

In order for districts to balance their budgets, revenues must be increased or expenditures must be reduced. On the revenue side, both property-poor districts and property-wealthy districts are constrained. Property-wealthy school districts rely primarily on local property taxes as their major source of revenue. This source is limited to small annual increases in the base index for the next five years. On the other hand, property-poor districts receive the bulk of their revenue from state subsidies. However, given recent history, substantial increases in state funding are unlikely.⁴

Consequently, reduction in expenditures is the only feasible approach for districts to balance their budgets. Of the two expenditures used in this analysis—pension costs and salary increases—districts have no flexibility with regard to pension payments since they are mandated by state law. The only source of relief is through legislative action. Several modifications to the current PSERS funding approach have been proposed, but none has gained sufficient support for approval by the legislature.

Salaries, on the other hand, are an expenditure over which districts have some control or influence. Actions that districts can take to reduce payroll costs include reducing the number of employees through attrition or layoffs, or engaging in collective bargaining for salary concessions or lower salary levels. There is some evidence that this happened in 2012 following significant reductions in state funding.⁵ The fiscal effects of these actions was evident in the latest available

Figure 4 | Cumulative Effect of Annual One Percent Salary Increase on the Number of School Districts with Positive and Negative Balances after Subtracting Pension Obligations: 2011-2018



actual salary data in 2011-2012, where there was a 3% reduction in salary expenditures over the prior year. This was a result of both the reduction in personnel and other salary actions, such as wage freezes by a number of districts.

This study considered only two of the critical expenditure areas that school districts have to fund in order to maintain their operations. For those districts facing negative balances after making mandated pension contributions or pension contributions plus a modest salary increase for staff, there are no funds available for other areas of the budget, even those that are mandated or essential to maintain. These include, but are not limited to, mandated tuition payments to charter schools,⁶ special education costs,⁷ and health care benefit costs.

As each of these major expenditure areas is considered and added to the budget requirements, it becomes increasingly difficult for districts to balance their budgets. Looking at the budget equation, there are serious difficulties on each side. School district revenues are restricted or growing slowly due to a continued weak economy. Many critical expenditures are growing rapidly; significant ones are mandated by the state or federal governments and are out of district control. Other desirable, but not mandated, expenditures must be reduced. This has already led to painful, controversial budget reductions in staffing and programs in Pennsylvania. Given the projections of a likely continuing structural imbalance over the next five years, districts face the critical budget-balancing task of fulfilling all their financial obligations and maintaining the existing levels and quality of programs and services for students.

Endnotes

¹ P.L. 1269, H.B. 2497, <http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2010&sessInd=0&act=120>.

² Act 1 of 2006, Special Session 1, P.L. 1873, No. 1.

³ The Pennsylvania Public School Employees' Retirement System (PSERS) is a guaranteed benefits system in which school districts and the state have equal funding responsibility. The state funds its portion of PSERS costs through a subsidy to school districts.

⁴ State general aid revenues were cut by approximately \$900 million in 2012 followed by small increases of 0.9% in 2013 and 2.3% in 2014, leaving districts more than \$600 million below what they received in 2011.

⁵ In a survey by two state administrator organizations, districts identified reductions of approximately 20,000 positions over a two year period, 2011-2012 and 2012-2013, in order to balance their budgets (Pennsylvania Association of School Business Officials (PASBO) and Pennsylvania Association of School Administrators (PASA), "School District Cost Cutting Continues for a Second Consecutive Year," News Release (October 2012), <http://www.bpsd.org/Downloads/2012PASBOFundingSurvey.pdf>.

⁶ Pennsylvania school districts are required to fund 100% of tuition payments to charter schools. The state subsidy to offset approximately 25% of these costs was terminated in 2012.

⁷ State subsidies to school districts for special education have not increased since 2008.

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Public Higher Education Funding, Budget Drivers, and Related Issues: The State Community College Director Perspective

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Introduction and Background

This article presents results from the 2012 National Survey of Access and Finance Issues conducted by the National Council of State Directors of Community Colleges (NCSDDC), an affiliated council of the American Association of Community Colleges, and includes a comparison of survey results from previous years dating back to 2003, with the exception of 2005 and 2006 when the survey was not conducted.¹ This survey highlights critical access, system capacity, and funding challenges faced by public community colleges, regional universities, and flagship universities.

The survey instrument consists of several components. The first focuses on the fiscal year just completed, asking respondents if midyear budget cuts were taken by the education sector (elementary and secondary (K-12) education, community colleges, regional universities, and flagship universities); and what were the major budget drivers across all of state government in the legislative session just concluded. The second focuses on predictions for the year following the survey with regard to increases or decreases in state operating budgets, tuition, and state-funded need-based and merit-based student financial aid. Additional survey items added since 2007 relate to system capacity include capacity to serve high school graduates and older returning adults and facilities.

A third component, referred to as special sections, is more narrowly drawn to focus on key issues of concern to community colleges. The first special section in 2007 was on facilities, and the 2008 special section was on state student aid, tuition policy, and the budgeting process, with a focus on policy alignment between state appropriations, tuition, and state-funded student aid needed for a high tuition-high aid model to work. In 2009, as the severity of the recession became more apparent, a special section dealt with federal American Recovery and Reinvestment Act (ARRA)² stimulus funds.

Survey Instruments are reviewed by a panel of NCSDDC members, community college scholars, and practitioners. There are 51 members of the NCSDDC. Because Georgia has a dual system, responses are obtained from both the University System of Georgia and the Technical College System of Georgia. Responses from Arizona, Maryland, Nebraska, New Jersey, New Mexico, and Pennsylvania come from each state's respective community college association. New York's response is from the State University of New York system office.

Response rates have been robust. Forty-six of 51 National Council of State Directors of Community Colleges (NCSDDC) members responded in 2003; 50 in 2004; 49 in 2007, 2008, and 2009; 51 in 2010 and 2011; and, 49 in 2012.

Survey Results

In this section, survey results are presented in five areas: Capacity, fiscal challenges, facilities, fiscal challenges, tuition and financial aid, and the special problem of financing rural community colleges. Results presented are respondents' perceptions.

Concerns over Capacity

In the 2009 survey, respondents were asked if the public flagship universities in their states had capped their enrollments. Twenty-eight respondents indicated that they had not done so, with 12 reporting that it had occurred in their states, as follows: California, Colorado, Connecticut, Delaware, Florida, Illinois, Indiana, New York, Texas, Vermont, Washington, and Wisconsin. With regard to public regional universities, 29 respondents indicated they had not capped enrollments. However, 7 had done so: California, Connecticut, Florida, Illinois, New York, Washington, and Wisconsin. To place this information into perspective, the 12 states reporting enrollment caps at public flagship universities included the

nation's 5 most populous states, while the 7 states reporting enrollment caps at public regional universities included 4 of the nation's 5 most populous states.

Beginning in 2007, respondents were asked if community colleges in their states had sufficient capacity to serve current and projected numbers of high school graduates and older and returning adults. Between 2007 to 2012, the number of respondents in agreement that sufficient capacity existed to serve traditional-age students increased with the exception of 2008, during the recession. (See Figure 1.) However, in 2012, respondents indicating disagreement included California (which enrolls one-in-four community college students), New York, and Georgia. With regard to sufficient capacity to serve older and returning adults, those in disagreement included many large states, those with fast-growing Latino populations such as Arizona and Nevada, and Midwest states with high unemployment rates like Michigan.

Fiscal Challenges

The decline in state tax revenues for public higher education predates the 2007-2009 recession. In Fiscal Year (FY) 1981, 16 states contributed 60% or more of community colleges' revenues, but, by FY2001, none did.³ Furthermore, in FY1981, 22 states contributed at least 50% of community colleges' revenues, accounting for 55% of community college enrollments. By FY2001, only 7 states contributed at least 50% of community colleges' revenues, accounting for 8% of community college students.

Figure 2 illustrates the number of states where education suffered state-imposed midyear fiscal cuts between 2007 and 2012. The last year of the 2007-2009 recession saw the largest number of states in this category: community colleges in 34 states; flagship universities in 33 states; and regional universities in 31 states were affected. Least affected over this

Figure 1 | Number of Respondents Indicating Community Colleges in Their States Have Sufficient Capacity to Serve Current and Projected Numbers of High School Graduates and Older and Returning Adults: 2007-2012

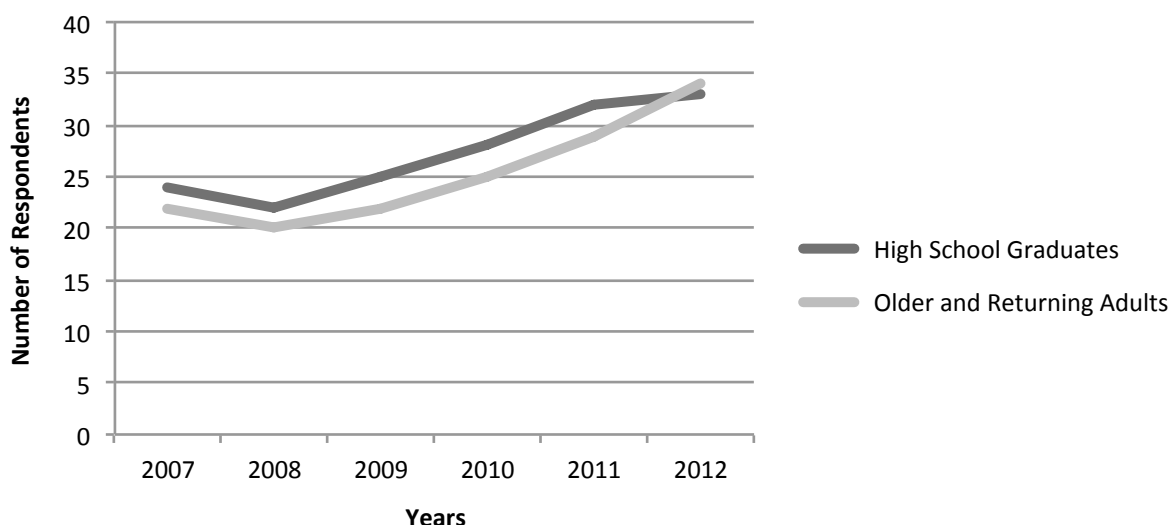
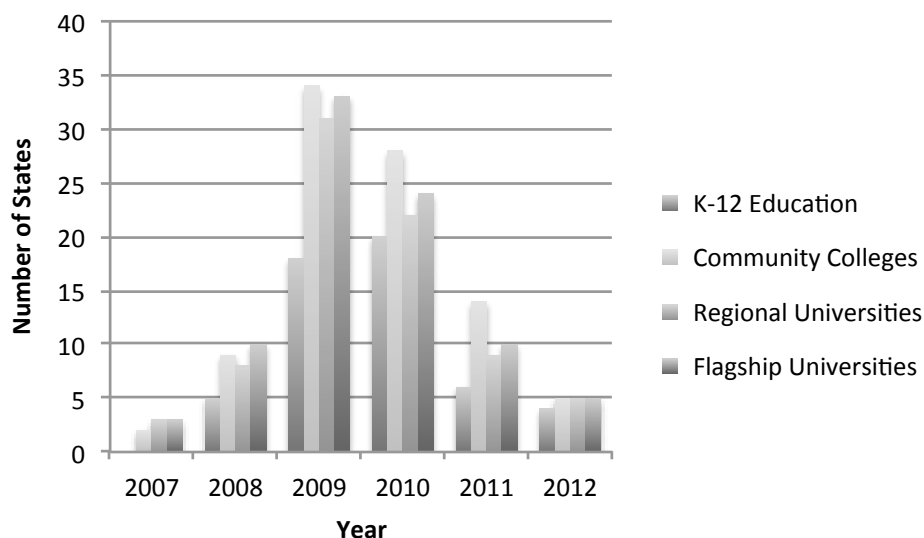
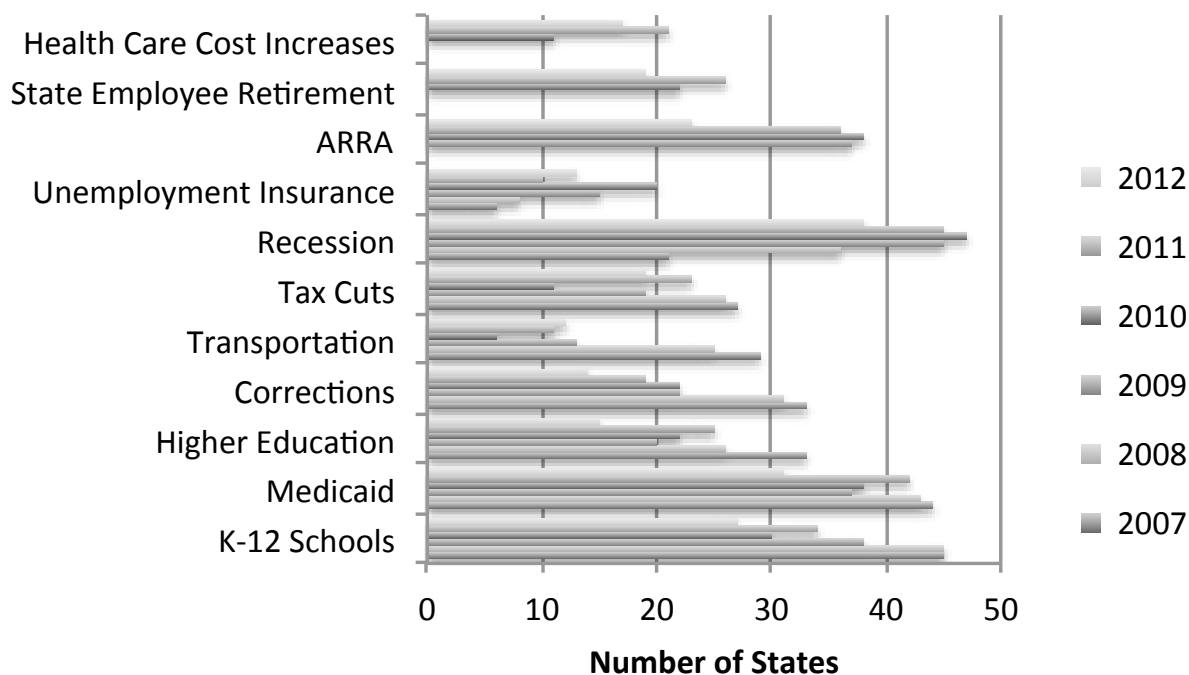


Figure 2 | **Number of States Where Education Experienced Midyear Budget Cuts: 2007-2012**Figure 3 | **Major State Budget Drivers by Number of Respondents: 2007-2012**

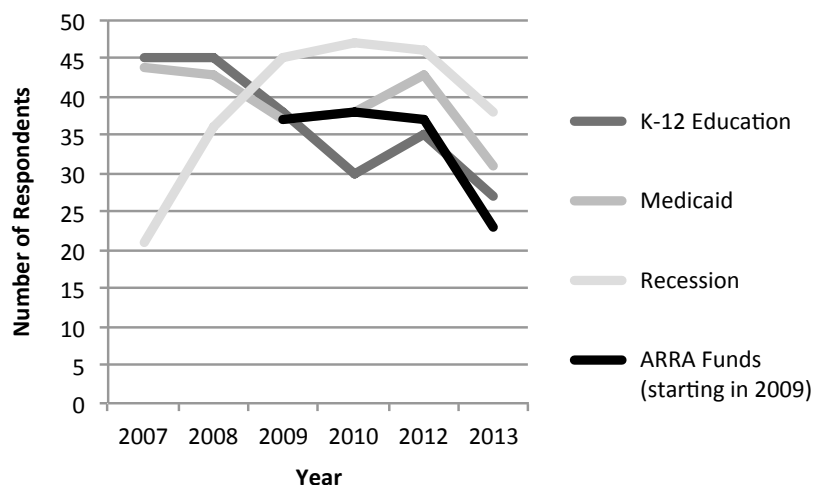
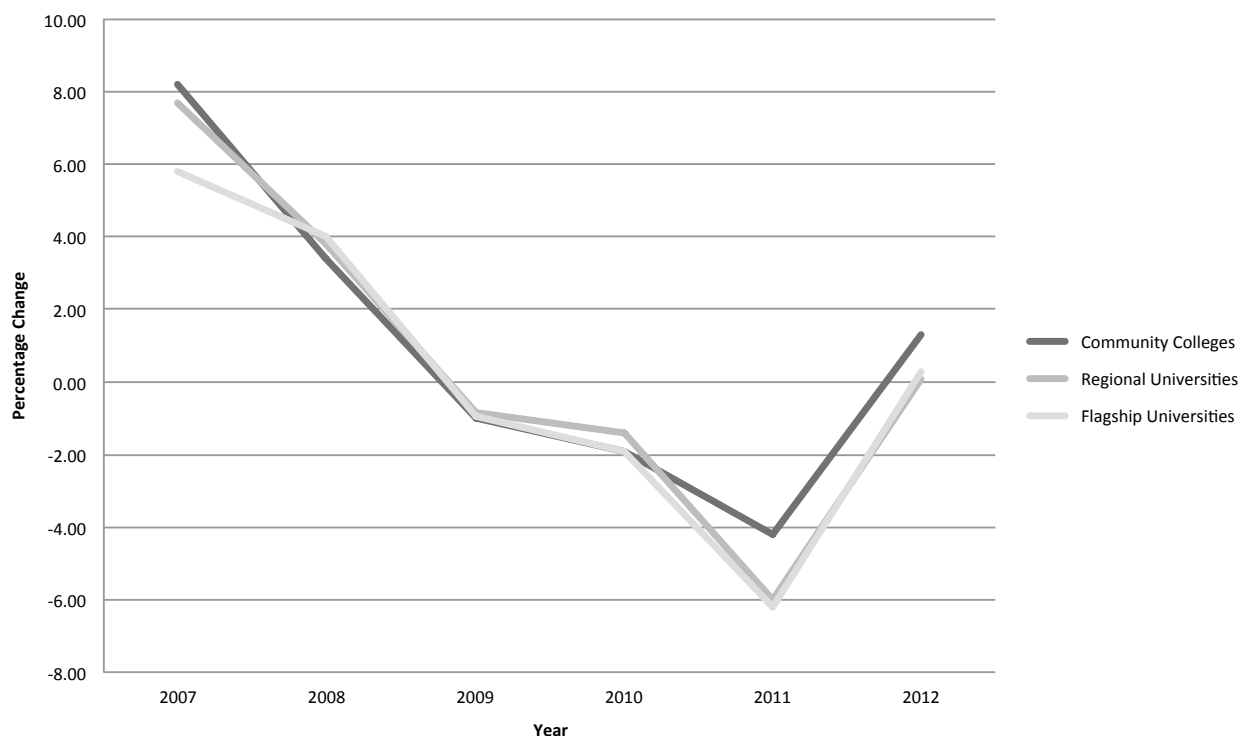
time period was K-12 education, although 18 states made midyear fiscal cuts in 2009, and 20 did so in 2010. Far fewer states made midyear education fiscal cuts in 2011 and 2012. This may have been due to a number of factors, including more robust state economies and the impact of ARRA funding.

The Facilities Crunch

The 2007 survey included a special section on facilities. When respondents were asked if deferred maintenance at community colleges in their states had changed in the past 5 years, 34 reported increases, and 12 reported it stayed about the same. Seven of 8 respondents from the nation's 10 largest

states indicated significant increases. No respondent reported a decrease in deferred maintenance over the past 5 years. In each annual survey conducted since then, strong majorities have indicated that facilities funding is a major need and federal funds would be helpful to address the backlog.

In 2011, respondents were asked if there existed a long-term state plan to finance capital needs in order to increase the numbers of adults with college degrees. Only 3 responded affirmatively, while 40 disagreed. When respondents were asked to respond to a list of strategies to deal with budget gaps, deferring maintenance topped the list in 2010, 2011, and 2012.

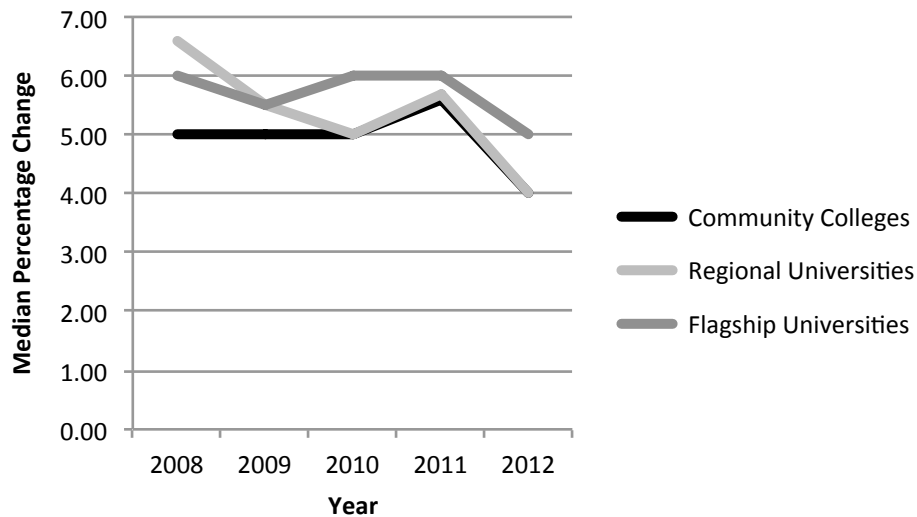
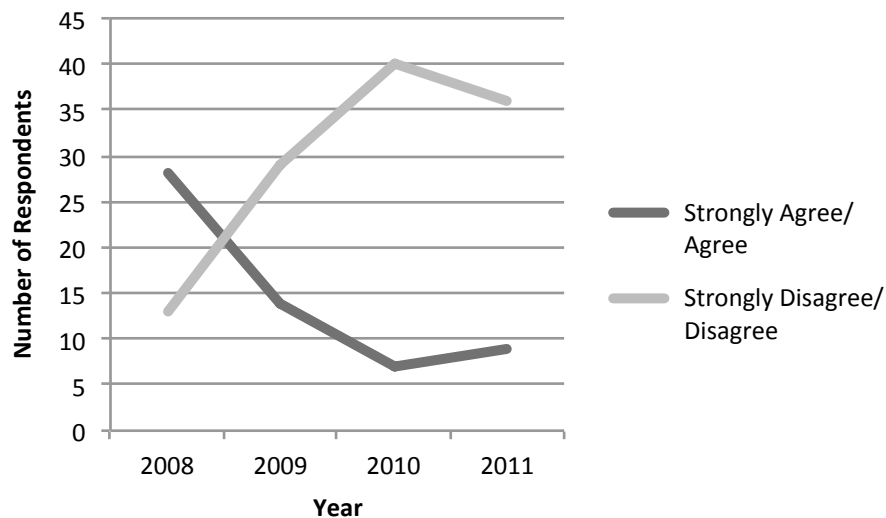
Figure 4 | **Top State Budget Drivers: 2007-2012**Figure 5 | **Predicted Changes in State Operating Budget Support by Public Higher Education Sector: 2007-2012**

State Budget Drivers

Respondents have been asked each year to identify major budget drivers in the state legislative session just concluded. (See Figure 3.) Initially, in 2007, they identified the recession, K-12 education, higher education, Medicaid, corrections, and unemployment insurance as major drivers. Over time, more were added: transportation/highways, tax reductions/local property tax relief, the ARRA, unfunded state retiree pension obligations, and health care cost increases tied to federal health care legislation.

Figure 4 presents the top 4 state budget drivers, 2007-2012: K-12 education, Medicaid, the recession, and the ARRA, the latter beginning in 2009. In 2007 and 2008, K-12 and Medicaid were the top state budget drivers identified. Beginning in 2009, the recession was the top state budget driver, and continued to be so in subsequent years, 2010-2012.

Figure 5 shows the percent changes in state operating budget support for community colleges, public regional universities, and public flagship universities predicted by respondents.⁴ In 2007, predicted increases ranged from 5.8% to 8.2%, followed by sharp declines 2009-2011, i.e., during and

Figure 6 | **Median Percentage Tuition Changes: 2008-2012**Figure 7 | **Responses to Survey Item: Did Investment in State-Funded Need-Based and Merit-Based Student Aid Keep Up with Tuition?**

after the recession. For 2012, respondents predicted modest increases between 0.08% and 1.30%.

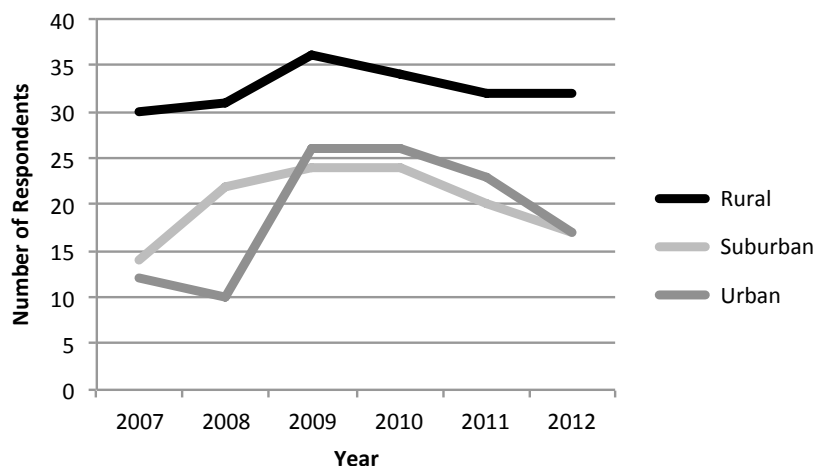
Tuition and Financial Aid

Respondents were asked to provide median percentage changes in tuition increases for their states' public community colleges, regional universities, and flagship universities 2008-2012. (See Figure 6.) For community colleges, median tuition increases decreased from 5.0% in 2008 to 4.0% in 2012, although there was a 0.6% increase to 5.6% in 2011. Median tuition increases fell most dramatically for regional universities, from 6.6% in 2008 to 4.0% in 2012, although there was a 0.7% increase to 5.7% in 2011. Median tuition increases showed the least variability for flagship universities. However, their median tuition increases also fell between 2008 and 2012, from 6.0% to 5.0%.

On 2008-2011 surveys, respondents were asked, "In the most recently approved budget, did state investment in state-funded need-based and merit-based student aid keep pace with tuition increases?" In 2008, respondents from 28 states agreed or strongly agreed while 13 disagreed or strongly disagreed. (See Figure 7.) Over time, these number reversed, such that in 2011 only 9 respondents agreed and 36 disagreed.

The Special Problem of Financing Rural Community Colleges

The Carnegie Foundation for the Advancement of Teaching 2005 Basic Classification, released in February 2006, for the first time organized the associate degree college sector using a geographically-based classification reflecting how states formally assign urban, suburban, and rural service delivery

Figure 8 | **Types of Community Colleges Predicted to Have Greatest Fiscal Stress: 2007-2012**

regions to community colleges. The February 2011 updated edition showed the nation's 178 urban-serving, 208 suburban-serving, and 575 rural-serving community colleges enrolled roughly a third each of the nation's 10.5 million community college students.⁵ Figure 8 shows that each year between 2007 and 2012, rural community colleges were predicted to face the greatest fiscal strain compared to their suburban and urban counterparts. Respondent comments indicated that low property tax wealth in rural areas was a major reason for the greater fiscal strain.

Implications from the Survey Results

Four implications can be drawn from the survey findings discussed here. First, public higher education is vulnerable to competing state priorities as a means to balance state budgets, especially in difficult economic times. Community colleges, public access regional universities, and flagship universities seeking to maintain affordability are all affected. Second, a lack of state facilities funding coupled with increases in deferred maintenance may threaten public higher education institutions' capacity to produce more earners of first certificates, as well as associate's and bachelor's degrees.⁷ However, the political reality is that capital resources may not be forthcoming. Third, affordable tuition and adequate state-funded student financial aid are essential because increasing numbers of future jobs will require postsecondary education.⁸ Finally, many of the challenges described here may be compounded by geography, particularly for community colleges in rural areas with low property wealth.



Endnotes

¹ See Appendix for a list of previous year's survey reports.

² Public Law 111-5, 111th Congress, February 27, 2009.

³ Billy C. Roessler, Stephen G. Katsinas, and David E. Hardy, *The Downward Spiral of State Funding for Community Colleges, and Its Impact on Rural Community Colleges* (Tuscaloosa, AL: Education Policy Center, University of Alabama, 2006), 1.

⁴ It should be noted that there were some differences in response rates. At least 49 respondents provided predictions for community colleges each year, 2007-2012, while between 40 and 45 respondents provided predictions for their public flagship universities, and between 35 and 40 respondents for their public regional universities. Some states, e.g., Wyoming, do not have public regional universities.

⁵ Carnegie Foundation for the Advancement of Teaching, *Basic Classification of Associate's Degree Colleges* (Stanford, CA: Carnegie Foundation for the Advancement of Teaching, 2011).

⁶ Stephen G. Katsinas, King F. Alexander, and Ronald D. Opp, *Preserving Access with Excellence: Financing for Rural Community Colleges* (Chapel Hill, NC: MDC, 2003), 1-22.

⁷ Perhaps some of these issues would have been addressed by a fully-funded American Graduation Initiative (AGI). To achieve 5 million more community college graduates by 2020, President Obama proposed spending \$2.5 billion dollars to create a \$10 billion revolving fund to renew and build community college facilities. See, White House, Office of the Press Secretary, "Remarks by the President on the American Graduation Initiative at Macomb Community College," news release, July 14, 2009, http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-the-American-Graduation-Initiative-in-Warren-MI. The AGI revolving facilities fund did not pass.

⁸ Anthony P. Carnevale, Nicole Smith, and Jeff Strohl, *Help Wanted: Projections of Jobs and Education Requirements through 2018* (Washington, DC: Center on Education and the Workforce, Georgetown University, 2010).

Appendix | Previous Survey Reports

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Katsinas, Stephen G., and Terrence A. Tollefson. *Funding Issues in U.S. Community Colleges: Findings from a 2008 Survey of the National Council of State Directors of Community Colleges*. Tuscaloosa, AL: Education Policy Center, University of Alabama, April 2009, http://www.uaedpolicy.ua.edu/uploads/2/1/3/2/21326282/2008_state_direct_survey.pdf. [copyright University of Alabama]

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Economic Growth, Productivity, and Public Education Funding: Is South Carolina a Death Spiral State?

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Introduction

As a result of the Great Recession of 2007-2009, most states experienced declines in employment, consumer spending, and economic productivity (Alm, Buschman, and Sjoquist 2011). In turn, these events led to historic declines in state tax revenues (Mikesell and Mullins 2010; Boyd and Dadayan 2009), resulting in major cuts in public spending. Local governments, including school districts, have been severely impacted as well (Alm, Buschman, and Sjoquist 2011; Dadayan 2012), forcing them to decrease services, shed employees, or raise taxes.

Recovery from the recession has been slow. For policymakers who seek not only to restore but also to improve their states' fiscal health, there exist differing schools of thought as to how best to achieve this goal. This article focuses on South Carolina and the application of two competing views of how to achieve greater economic growth and productivity, one that is more commonly referred to as fiscal conservatism, or, in extreme cases, fiscal austerity, and a second that is grounded in maintaining a robust public K-12 public education system.

State Competitiveness and Productivity

In 2012, Baldwin (2012a), a staff writer for *Forbes*, introduced the concept of "death spiral" states, defined as those states representing the highest risks for investors. His underlying assumption was that shrinking the public sector would attract new business investment to a state and encourage existing businesses to expand. He operationalized this concept through calculation of the ratio of "takers" to "makers," that is, in a death spiral state, a greater number of individuals ("takers") drew funds from the government as state or local employees, pensioners, or welfare recipients than the number of people who contributed to the productive value of the state as private sector employees ("makers").¹ Based upon this ratio, Baldwin (2012b) identified the top eleven death spiral states in the country, with ratios ranging from 1.00 in Ohio to

Table 1 | Baldwin's "Takers" vs. "Makers" Ratio

| State | Ratio (High to Low) |
|---|---------------------|
| New Mexico | 1.53 |
| Mississippi | 1.49 |
| California | 1.39 |
| Alabama | 1.10 |
| Maine | 1.07 |
| New York | 1.07 |
| South Carolina | 1.06 |
| Kentucky | 1.05 |
| Illinois | 1.03 |
| Hawaii | 1.02 |
| Ohio | 1.00 |
| Source: William Baldwin. "States in a Fiscal Death Spiral." Video. <i>Forbes</i> , November, 25, 2012b. | |

1.53 in New Mexico. (See Table 1.) South Carolina was ranked seventh at 1.06, i.e., there were 1.06 "takers" for every "maker."

Given these ratios, Baldwin (2012a) asserted that the capacity of states like South Carolina to leverage human resources, capital, and natural resources to productive ends was reduced. Death spiral states would also experience declining credit worthiness as they became trapped in a spiral of "large debts, an uncompetitive business climate, weak home prices, and bad trends in employment" (Baldwin 2012a, para 11). In these states, Baldwin warned, taxes were too high, and, as a result, innovative and creative individuals and businesses would exit the state, and the state would be unable to generate sufficient revenue to support promises made to citizens. Hence, a downward fiscal and economic spiral would ensue and escalate.

Although Porter (2012, 2) would agree with Baldwin (2012a, 2012b) that state competitiveness is "determined by the productivity with which a state uses its human, capital, and natural resources to create value," he noted that both the private sector and public sector, the latter defined as levels of government, work in different, but complementary, ways to enhance state competitiveness. Further, he asserted that in order to leverage the state's infrastructure (e.g., education, transportation, and communication), to support productivity growth, state governments must use tax revenues.

To improve productivity in the business environment, Porter (2011b, 8) asserted that states needed to "...relentlessly improve the public education system, the essential foundation, and ...not just the best schools, [but rather] ...to provide a good education for all." Further, he stated that low-tax policies did not necessarily enhance state productivity, but, rather, a fair tax system increased business productivity.

Thus, critical assets such as public education, needed to be protected through adequate taxation.

In a study examining South Carolina's competitiveness standing, Porter (2011a, 2) concluded that the state was weak on four of five relative indicators. The state performed well on "cluster strength," defined as:

...relative employment rank in the top 20% across all states. A state's "cluster strength" is in turn the state's total share of traded employment in these strong cluster. A positive trend in cluster strength is indicated by a state's increasing national cluster share across these strong clusters (Porter 2011a, 36).

However, the state was weak with regard to productivity, mobilization of labor, and innovation.² When compared with other states, South Carolina consistently ranked among the lowest five states and appeared to be declining.

According to Porter (2013, 3) a state is competitive "...if the companies operating there can compete successfully in the global economy, while simultaneously raising living standards..." Competitiveness is not about creating jobs as much as it is about having an infrastructure in place that creates and sustains the business environment (Porter 2013). Elements of this structure include three factors. First, the business environment must support productivity. The necessary factors associated with productivity include educational quality at the K-12 and postsecondary levels, a simplified tax code and efficient legal environment, predictable regulation and incentives, accessible capital, high expectations for quality, and an effective political system. Porter (2013, 4) cited ineffectiveness of the U.S. political system as the single greatest weakness affecting competitiveness. Second, a critical mass of expertise and suppliers in the same location is essential for the support and growth of firms. Finally, policy coordination among multiple geographic levels, including other rival states, is necessary. Porter (2011b) argued that all states have the same macroeconomic conditions, such as national fiscal, monetary, and trade policy. Where they differ is in how each state leverages the previously cited elements.

Background on South Carolina Act 388

In 2006, South Carolina enacted Act 388 (Property Tax Relief Act 2006)³ that advanced several tax changes intended to reduce the property tax burden on homeowners across the state. The Act changed the fundamental revenue sources for public education and the method by which localities were able to raise funds to offer educational services. Whereas local property tax revenues had previously been the major source of local funds for public school district operations, Act 388 exempted owner-occupied property and replaced the lost revenue with a one percent increase to the state's retail sales tax, but eliminated the sales tax on unprepared food.⁴ Furthermore, the law required that the additional revenue generated from the sales tax increase be reserved for a homestead exemption fund. In turn, this fund, external to the state general fund, would be used to reimburse school districts for their estimated property tax revenue loss (entitled reimbursement tier III).⁵ In South Carolina, this change is

commonly referred to as the “tax swap.” The legislature devised a formula for implementation over time, holding the districts harmless in FY2008, but in succeeding years moving ahead with full implementation of the new law.

In addition, Act 388 imposed a millage cap for all local governing bodies whereby the cap allows local governments to raise millage rates by a “...percentage less than or equal to the percentage increase in local population plus the rate of inflation of the Southeastern Consumer Price Index (CPI)” (Schunk 2007, 7). Act 388 also sought to slow local education revenue growth through a cap applied to the assessed value of all real property in a county to a maximum of 15% over a five-year period, which could be exceeded by a local referendum. The law did allow for a stepped-up basis for real property assessment in the event that the property was transferred (sold) to a new owner. This “assessable transfer of interest” would subject the transferred property to a contemporaneous appraisal as opposed to an appraisal on the five year cycle.

Methodology

Following upon Porter’s recommendation that a robust public education system is essential to increase a state’s economic competitiveness and productivity, this study sought the perceptions of a sample of South Carolina school district superintendents with regard to state fiscal support for public K-12 education. This encompassed the administration of a written questionnaire followed by the conduct of

semi-structured interviews during the 2012-2013 and 2013-2014 school years. Purposive sampling was used to select superintendents from eight South Carolina school districts based upon district locale,⁶ student enrollment, per-pupil property wealth ranking, and changes in state and local operating revenue per pupil in the initial period of Act 388 implementation.⁷ (See Table 2.)

The questionnaire items were developed by the researchers and were guided by the fiscal concepts of revenue stability, tax burden, tax equity, and tax yield, defined as follows:

- Stable revenues are not subject to large variations from year to year.
- Tax burden is the proportion of taxpayer income that is paid for income, property, or sales taxes; it has also been defined as incidence.
- Tax equity refers to the distribution of tax burden on individuals, households, and businesses.
- Tax yield is the amount of revenue generated from a tax.

The items on the questionnaire were, as follows:

1. In what ways has the stability of revenue (volatility) from local sources changed since the initiation of Act 388?
2. In what ways has the stability of revenue (volatility) from state sources changed since the initiation of Act 388?
3. In what ways has the tax burden (who pays) changed, if any, in your school district?
4. In what ways has the tax equity (fairness of revenue) changed, if any, in your school district?

Table 2 | **Characteristics of Sample School Districts**

| District | Locale Type | Student Enrollment Range | Per-Pupil Property Wealth State Ranking ** | Per-Pupil State/Local Revenue FY 2007 (\$) | Per-Pupil State/Local Revenue FY 2010 (\$) | Difference FY 2007-2010 (\$) | Per-Pupil State/Local Revenue FY 2012(\$) | Difference FY 2007-2012 (\$) |
|---------------|-----------------|--------------------------|--|--|--|------------------------------|---|------------------------------|
| A * | Rural, Fringe | 5,000–10,000 | Lower Third | 9,154 | 8,663 | (491) | 9,531 | 377 |
| B | Rural, Fringe | 5,000–10,000 | Upper Third | 11,322 | 12,288 | 965 | 13,189 | 1,867 |
| C | Rural, Fringe | 10,000–15,000 | Middle Third | 8,662 | 8,732 | 70 | 8,909 | 247 |
| D | Rural, Distant | 5,000–10,000 | Lower Third | 7,899 | 8,093 | 194 | 8,168 | 269 |
| E * | Rural, Distant | 10,000–15,000 | Upper Third | 8,193 | 8,128 | (65) | 8,645 | 452 |
| F | Town, Distant | <5,000 | Lower Third | 7,969 | 7,736 | (233) | 7,959 | (10) |
| G | Suburb, Midsize | <5,000 | Middle Third | 9,995 | 9,706 | (289) | 10,262 | 267 |
| H | City, Small | 15,000–20,000 | Upper Third | 9,018 | 8,952 | (66) | 9,220 | 323 |
| Sample Median | | | Middle Third | 8,840 | 8,698 | (66) | 9,220 | 323 |
| State Median | | 4,370 | | 8,952 | 8,950 | (2) | 9,153 | 201 |

N=8

Note: Data source for enrollment ranges, and state and local revenue per pupil was the South Carolina State Department of Education Historical School District Information, <http://ed.sc.gov/agency/cfo/finance/HistoricalFinanceData.cfm>. Revenues from bonds, leases, and charter schools were excluded.

*Superintendent was not interviewed.

**Estimated for Fiscal Year 2007.

5. Has the tax revenue (yield) changed in your district?

Individual follow-up interviews by telephone were conducted with five superintendents. One superintendent was interviewed in person. The remaining two superintendents declined to be interviewed because of scheduling conflicts. Using the initial questionnaire, researchers probed for details based on the superintendent's responses. Interviews were not audiotaped; rather, notes were taken by the researcher. Statements were read back during the interview to the respondents for clarification and accuracy. Each interview lasted between 20 and 30 minutes.

Both questionnaire and interview responses were incorporated into a single transcript for each respondent by the researcher who conducted the interviews. These transcripts were open-coded in a holistic manner through multiple cycles that occurred several weeks apart (Saldaña 2012). Through this process, open codes were added, coalesced, or deleted. Often, it appeared that the respondents interpreted the five questions as interrelated. Thus, responses given to a single question frequently provided information that answered other questions as well. The coding scheme was adjusted through several iterations to address this issue. Inductive analysis was used to organize the codes to give rise to themes. To achieve trustworthiness of data, the interview responses were triangulated with existing data sources, such as school district financial statements and comprehensive annual financial reports. Triangulation was sought through a discussion of the final themes from the codes with a second researcher for cross-checking. Because these respondents were few in number, and the districts had experienced different outcomes after the implementation of Act 388, the findings can not be generalized to the state as whole.

Thematic Analysis

Three themes emerged from the analysis. First, superintendents perceived an adverse political environment not only for public education but also for business and low income renters. Second, they noted a lack of integration of the provisions of Act 388 with existing state statutes and policies. Third, they found the timing of the passage and enactment Act 388 with the economic recession problematic. The remainder of this section provides greater detail on superintendent responses related to each of the three themes.

Theme 1: Adverse Political Environment

Although neither the questionnaire nor the interviewer asked superintendents directly about their perceptions of the political environment, all offered comments to the effect that the environment was adverse, or "downright hostile" to public education with regard to school funding. Most of the respondents reasoned that the political climate was instrumental in the passage of Act 388 and its continued implementation. Supporting subthemes were the presence of a fatalistic outlook on the benefits of education, a zero-sum tax relief strategy, and a perplexing shift in the property tax burden.

The superintendents described the political climate as one of doubt that the entire population of the state's children should be educated to a high standard. They related anecdotes that characterized the state outlook as caste-like, void of educational opportunity as an equalizer of societal inequities. Citing the currently "insufficient" Tier I, Tier II, and Tier III reimbursements to replace "lost" or non-accessible tax revenue from owner-occupied property in the school district, the respondents indicated that there seemed to be little political will at the state level to rectify this problem.

With regard to the second subtheme, superintendents asserted that the state had as its priority the implementation of constituent-driven, zero-sum tax relief strategies. They described a legislative culture that viewed the pool of state resources as fixed and finite at a given point in time through which advancement of the state's objectives was to be achieved by reallocation. They pointed to Act 388 as an example of the reallocation of fixed resources to individual and certain sectors of taxpayers.

In the third subtheme, the superintendents stated they were perplexed by the state's action to shift the property tax burden from homeowners to owners of commercial and rental property. They viewed these changes as unfavorable to businesses and renters, particularly, low income renters.

Theme 2: Lack of Statutory and Policy Integration

A second major theme emerged with regard to the integration of Act 388 with existing statutes and policies. They asserted that reimbursement for Tier III appeared to be completed in some districts at the expense of state funding obligations for the Education Finance Act, the Education Incentive Fund, and unrecurrent funding. They were vocal about the initial inclusion of the assessed property valuation in the Index of Taxpaying Ability, part of the formula used to calculate district fiscal capacity in the Education Finance Act. This lack of integration allowed the state to count the inaccessible property tax base for the school district as part of their wealth, and, thus, decreased state funding in this formula to particular districts, especially those with higher proportions of commercial property to owner-occupied property which was not considered in the fiscal capacity measure.

Theme 3: Timing of Act 388 Implementation with the Economic Recession

All superintendents indicated that implementation of Act 388 during the economic recession hampered implementation of the statute and led to decreased revenues for public education. They asserted that the decline in state sales tax revenues contributed to the lowering of the base student cost by the state. The base student cost, which is South Carolina's per-pupil guarantee through the foundation program, declined each school year from 2007 to 2011. The base student cost for 2007-2008 was \$2,476 and decreased to as low as \$1,630 for the 2010-2011 school year (South Carolina Department of Education, 2013). During this time period, the state Budget and Control Board proposed that the base student cost be increased from \$2,476 to \$2,720.

Discussion and Conclusions

The purpose of this article was to explore two competing views of how to achieve greater state economic growth and productivity in South Carolina, along with the implications of these views for funding of public K-12 education. The first approach, advanced by Baldwin (2012a, 2012b), identified “death spiral” states as those whose imbalance between private sector employment and recipients of taxpayer-funded services created an environment that would discourage business investment and economic growth. Baldwin’s analysis ranked South Carolina in the top ten of such states. The solution, according to Baldwin, is fiscal austerity, i.e., deep tax cuts and reductions in public employees and benefits, as well as government-provided services like public education.

In direct contrast to Baldwin’s crash diet of fiscal austerity is that of Porter (2011a, 2011b, 2012, 2013), whose careful study of economic growth and productivity across a number of states has led him to a more nuanced approach. Porter asserts that an adequate tax system and a robust public education system are required components of a state’s infrastructure that will jumpstart a state’s economic competitiveness in the United States and globally and enable it to maintain momentum over time. Admittedly, Porter’s own analysis of South Carolina yielded weaknesses in the state’s prospects for economic growth and productivity, but rather than advocate fiscal conservatism, much less fiscal austerity, he zeroed in on the need to address disappointing ten-year trends in wage growth, labor mobilization, and innovation.

However, neither approach expressly addresses the impact and aftermath of the 2007-2009 recession on states, which complicated the analysis presented in this article. Specifically, just before the beginning of the recession, South Carolina passed Act 38 that shifted the local property tax burden from residential to business property while increasing the state sales tax to replace school districts’ lost revenues. The recession and its aftermath had a strong negative effect on sales tax revenues and adversely affected school districts’ revenues.

In this article, the authors presented the results of a qualitative study where they surveyed and interviewed a purposive sample of South Carolina school superintendents with regard to the elements of an adequate tax system, specifically tax revenue stability, tax burden, tax equity and tax yield. In this sense, the study sought to explore Porter’s concepts of an adequate tax structure and a strong public education system as necessary to a state’s infrastructure to enhance economic growth, productivity, and competitiveness.

Interestingly, superintendents responded instead with a description of what they perceived to be the underlying forces of a state tax system that provided insufficient education funding. First, they pointed to a political climate adverse to public education, largely, although not completely, embodied in Act 388. Second, they noted that the components of Act 388 were not integrated with existing state statutes and policies. Third, they lamented the passage and enactment of Act 388 at a time when many school districts were already struggling financially.

In closing, in order to avert the negative consequences associated with a death spiral, states must cultivate and grow their competitiveness and productivity, not through sweeping fiscal austerity measures to shrink the public sector, but through recognizing the interdependence of the private and public sectors, as Porter noted, including a robust public education system supported by an adequate state-local tax system. However, for South Carolina, the challenges to economic growth and productivity that must first be addressed are those that lie just beneath the surface—a political climate hostile to public education and the lack of cohesion in existing state policies and statutes related to taxation and school funding.



Endnotes

- ¹ Note that local government employees included school district employees as well as employees of public higher education institutions. It should also be noted that, in many states, recipients of public sector pensions contribute some portion of their wages to state/local pension funds while employed. Third, Baldwin did not define “welfare.”
- ² Porter (2011a, 36) defined productivity as “average private wage and 10-year trend.” Labor mobilization was defined as “total labor force as a share of civilian population and 10-year trend.” Innovation was defined as “utility patents per 10,000 workers and 10-year trend.”
- ³ A388, 116th Gen. Assemb. (S.C. 2005-2006), http://www.scstatehouse.gov/sess116_2005-2006/bills/4449.htm.
- ⁴ Owners of second homes, commercial enterprises, businesses, and rental property were not included.
- ⁵ Under South Carolina law, beginning in FY2008, reimbursements to school districts from a homestead exemption fund occur in three tiers. Tier I is a fixed reimbursement and is set at the total reimbursement received in FY2007 for property tax relief: \$100,000 of assessed value of all owner-occupied property. Tier II is a fixed reimbursement and is set at the total reimbursement received in FY2007 for property tax relief for citizens over 65, those legally blind, or disabled: the first \$50,000 of assessed value of owner-occupied property. Tier III is dollar-for-dollar reimbursement districts would have received from property taxes on owner-occupied property that was eliminated as a result of Act 388. Districts receive all three tiers of reimbursements.
- ⁶ The redefinition of locale codes in 2006 by the U.S. Department of Education identified districts in terms of their proximity to an urbanized area. See, “Common Core of Data,” U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, http://nces.ed.gov/ccd/rural_locales.asp.
- ⁷ School districts in the largest urban areas of South Carolina were not included due to their potential identification. This represents a major limitation of the study.

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School Finance and Technology: A Case Study Using Grid and Group Theory to Explore the Connections

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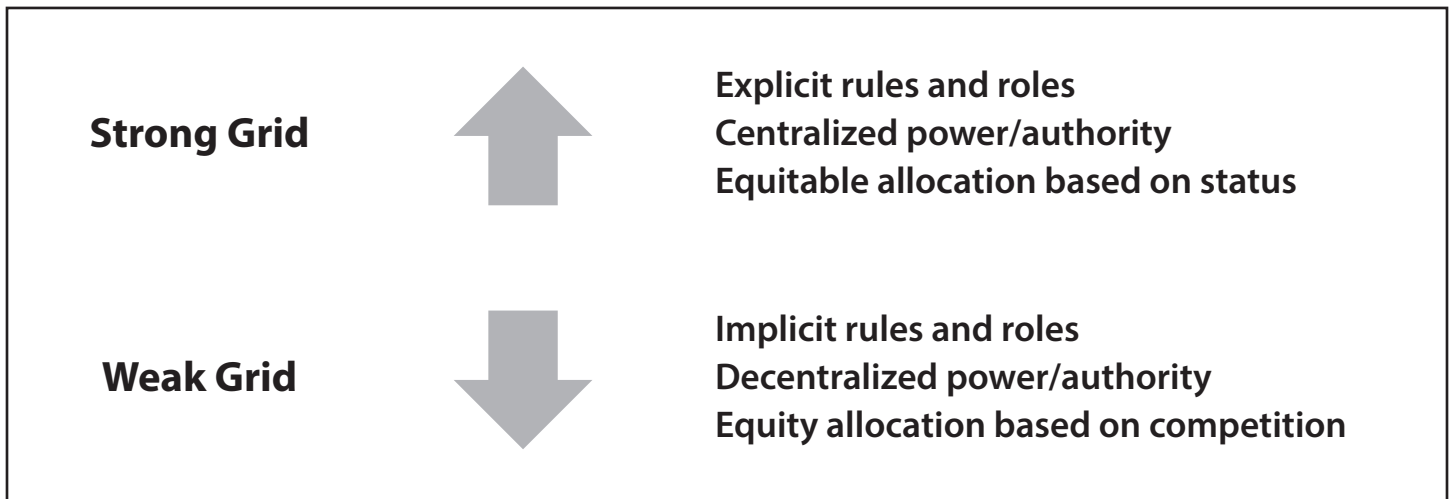
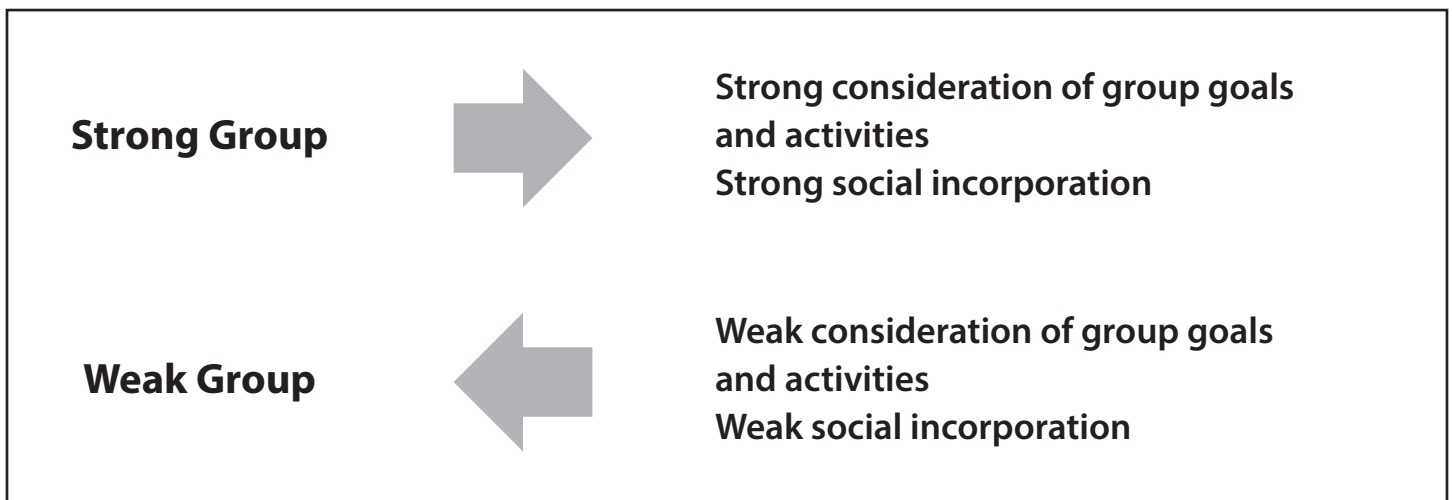
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Introduction and Background

Using grid and group theory (Douglas 1982, 2011), the study described in this article examined the intersections of technology and school finance in four schools located in districts differing in size, wealth, and commitment to technology integration. In grid and group theory, grid refers to the degree to which policies and role prescriptions either hinder or promote individual autonomy.¹ For instance, in some schools, prescribed bureaucratic rules restrain personal freedoms and govern activities, and, in other schools, nominal regulations promote autonomy in most educational processes. Also, in any setting, ideas and practices of fairness and equity are often related to roles and relative status in the organization (Harris 2014).

Grid is plotted on a continuum from weak to strong. At the weak end of the scale, few role distinctions exist, resources are competitive, and individuals are valued for their skills, behaviors, and abilities. In weak-grid contexts, the work environment is void of the insulating silos often formed by bureaucratic job responsibilities or policy-laden departments. At the strong end of the grid continuum, explicit institutional regulations order personal interactions and labor patterns. In strong-grid schools, for example, teacher autonomy is limited because many of the major decisions are made by upper administration. Strong-grid environments also contain numerous role distinctions at the teaching and staff levels, with proportionately fewer, yet more prestigious, distinctions further up the organizational ladder.

In institutions where role and rule dominate, justice and fairness vary explicitly across the hierarchical layers and are often dependent upon equity-based allocations that correspond with role and status (Darling-Hammond 2010). Upper levels may view the organization as nondiscriminatory, as they may either be insulated from unfair practices occurring in subordinate rungs or simply indifferent to unfair practices. Lower-level members' perceptions of fairness depend upon their respective pay, and they often envy those above them with greater pay for what appears to them to be less work.

Figure 1 | **Salient Features of Grid in Grid and Group Theory**Figure 2 | **Salient Features of Group in Grid and Group Theory**

Inequity can also be manifested in weak-grid contexts because they often foster a survival-of-the-fittest mentality. Some of the salient features of grid can be seen in Figure 1.

Group refers to the degree of commitment a person has to the larger social unit. Like grid, group can be plotted on a scale from weak to strong. Weak-group environments place little emphasis on group-focused activities and relationships. Members of social and working subgroups tend to focus on short-term activities rather than long-term organizational objectives, and group allegiance is minimal. An example of weak group can be seen in schools that do not have entrenched traditions or that have a social system in constant flux due to recurring teacher or administrator turnover. In these settings, individual interests override what few organizational goals exist.

In strong-group social settings, members rely upon the larger unit for social support. Collective survival is more important than individual survival, and insider-outsider norms regulate group membership. For instance, some public

schools are located in elite, influential neighborhoods, which in essence create de facto membership criteria because poorer families typically cannot or will not transport their children to those schools. Figure 2 depicts some pertinent features on the group continuum.

The dynamics of grid and group are simultaneously at work in any social setting, and consequently, over time, certain themes and dominant patterns of thought and behavior tend to define a particular setting. These dominant patterns are referred to as "social games" because they define the character of social life people carry out or "play" in a particular setting (Lingenfelter 1996) and are very similar to Deal and Kennedy's "rules of the game, the way things are done around here" (2000, 4). Figure 3 categorizes the four ways of life reflected in grid and group theory.

Methodology

Naturalistic inquiry was utilized in this study because of its exploratory potential in understanding contextual meanings. In naturalistic inquiry, case study is the preferred reporting mode because it can capture both individual perceptions of participants as well as variations from one context to another (Erlandson et al. 1993). Data were collected and analyzed from three sources: an online questionnaire, observations, and documents. Appendix A contains a copy of the online questionnaire.

An initial sample was drawn from 22 school districts located in the south central part of the United States. The online questionnaire was administered to narrow the focus of the study to four districts,² each falling into a quadrant of the grid and group theory framework. These observations took place in large group settings with multiple schools represented as well as in single site settings with one school. Those observed were either school business officials or school instructional technology personnel. Documents included school district budget reports and technology related materials from their web sites. (See Appendix B for a list of documents used.)

Chief informants from the four school districts were finance officers, teachers, central office and site administrators.³ Also, in school business management workshops, the researchers observed discussions and interactions of groups of finance officers from these four districts which were of different types and sizes. Data were analyzed using methods of data triangulation.⁴ Essential classification criteria, grid and group dimensions, and the criteria for four prototypes were examined (Douglas 1982, 2011). We also identified the types of technology used in each situation and levels of training and use of administrators, teachers, and students. We sought to see how technology was used either as a mode

of presentation or as an integral part of daily practice. We explored the motivation that drives (or hinders) the use of technology on particular campuses. Lastly, we identified the funding used to obtain and maintain technology in each setting.

Grid and Group Analysis and Implications

The four schools in this study, and their respective social games are detailed in this section. Each district was characterized by varying strengths of individual autonomy and group identity, and each reflects similarities and differences in annual budget, leadership, and technology integration. Figure 4 depicts the four schools, their social games, and respective funding details.

Small Rural School: Individualist (Weak-Grid, Weak-Group) Environment

In the small rural school, the district spent an average of \$10,728 per student. From an annual budget of \$3,476,000, 1.8 % was spent on technology. Students spent up to 25% of their day using technology, and administrators and teachers spent about 30%. The general attitude towards technology and resource allocation was negative while the attitude towards school climate was positive. One teacher commented, "It is up to individual teachers to find ways to fit technology into their classrooms and curriculum." Due to lack of imposed formal rules and traditions, individualist environments promote competition for resources, unconstrained relationships and individual experiences. In this school, the predominant social game, "individualism," encouraged members to make the most of individual opportunities, seek risks that resulted in personal gain, and be competitive and proactive in securing resources. There was little consideration for anything related

Figure 3 | **The Four Ways of Life**

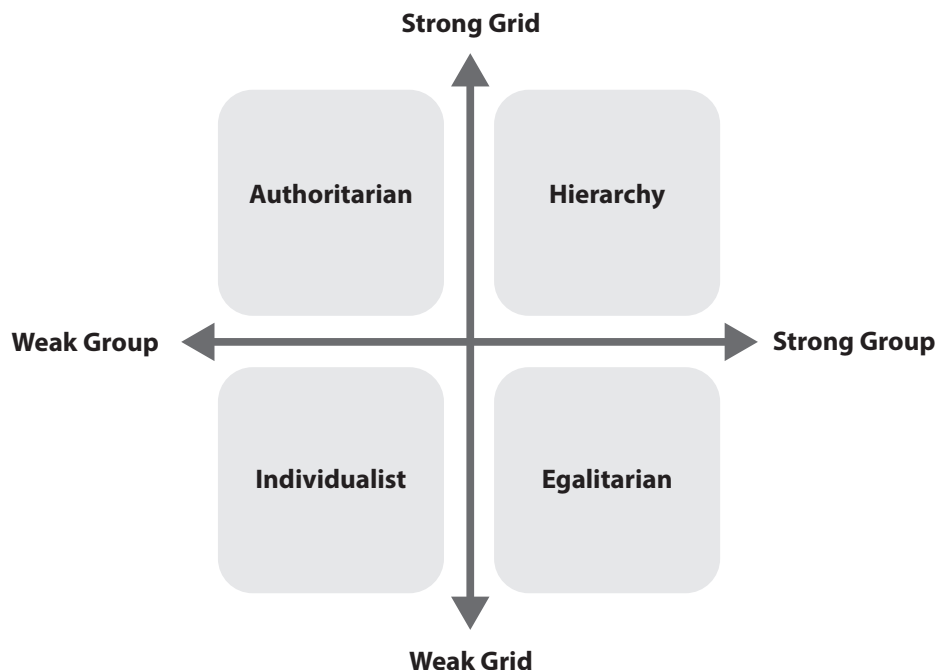
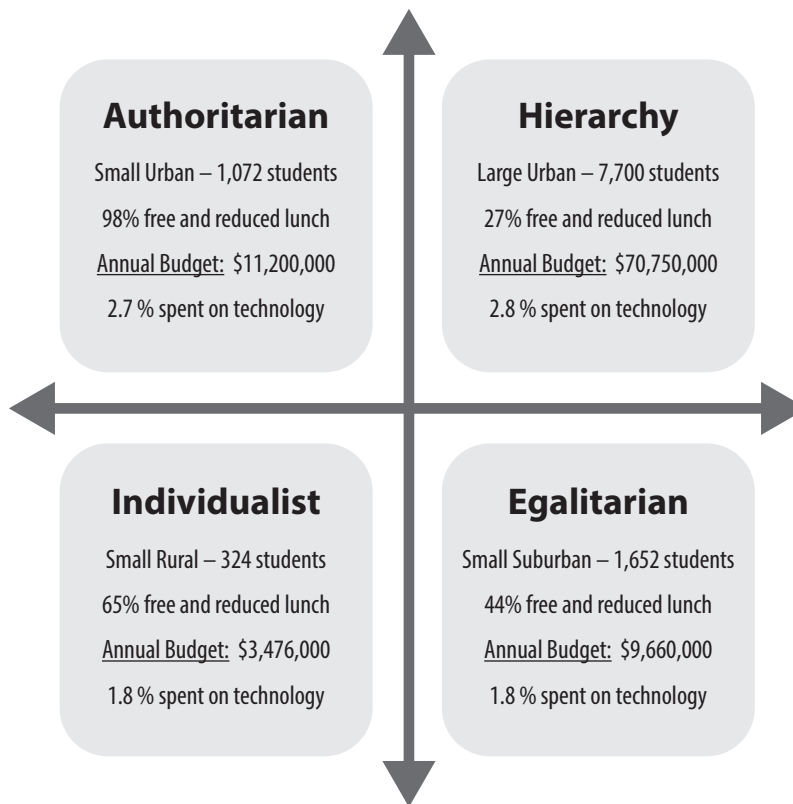


Figure 4 | **Characteristics of Schools Per Grid and Group Theory**

to group achievement or group activities. Goals were typically short-term, and traditional norms were few. Teachers focused on their individual classrooms and had little concern for other teachers' classrooms. Individual success as a teacher was reflected differently in each classroom. Teachers competed for technology and other resources and believed that anything they accomplished in their classrooms was due to their own means and determination. To them, schoolwide professional development was nonexistent and irrelevant.

*Small Urban School: Authoritarian
(Strong-Grid, Weak-Group) Environment*

The district in which this school was located spent an average of \$10,447 per student out of its \$11.2 million annual budget. Technology represented 2.7% of the annual budget. Students spent up to 25% of their time each day on technology, and teachers spent about 35%. The general attitude toward technology and resource allocation was negative, as exemplified by one administrator's comment: "We are dependent on the leadership of our technology director, who is less than dependable." Authoritarian contexts offer minimal individual autonomy due to explicit classifying criteria, which emphasize such factors as division of labor and specialization, ethnicity, or gender. Authoritarianism often promotes compliance to rules and procedures, lack of control of group goals and rewards, and autocratic rule by administrators. In this school's technology program, one person was in charge, and all educators had clearly defined roles. The leader monitored and directed all activities and

decisions. The leader did not have positive interactions with coworkers, nor was it an important consideration. In this bureaucratic environment, teachers who used technology worked more for the good of their individual classrooms and student accomplishments. Their short-term goals included the hope for equitable technology access. Collaborative technology use to promote learning for everyone was almost nonexistent. Computers were used to promote learning for students as individuals or as a reward for completing other assignments. Rewards were based on operating well in relationship to the authority figure.

*Large Suburban School: Hierarchical
(Strong-Grid, Strong-Group) Environment*

The district in which this school is located spent an average of \$9,188 per student from a \$70,750,000 annual budget, with technology procurement and distribution representing 2.8%. Students spent approximately 35% of their day with technology, and teachers spent about 65%. The general attitude towards technology and school climate was positive, as exemplified in one teacher's comment, "Our tech use is intentional; it's the way we do business. The driving force of our success is training, and it takes all of these people at the schools working together to make this happen."

In hierarchical contexts, group goals take priority over individual goals. Labor, behavior, and interpersonal relationships are influenced by group norms and social incorporation. The social game valued in this environment, "hierarchy," promotes loyalty to the ordered system and

organizational goals. While everyone shares opportunities and risks, levels of reward and resource allocation are dependent upon role status in the organization. People in this school believed that if their school looked good, if technology was impressive, if test scores were on the rise, then everyone won. Group status was a reflection of individual contribution to the group. In hierarchical settings, members have strong social incorporation and collaboration, and, in this setting, educators had a common purpose and relied on each other for support.

Students modeled their instructors' technology behaviors and practices. Teachers, in turn, modeled the behaviors of administrators and technology leaders. Students and instructors were observed working together to use technology to accomplish projects or complete tests. This group was technology-literate and communicated well across the layers of the hierarchy. The desire was to get the job done properly so that the entire group would succeed.

*Small Suburban School: Egalitarian
(Weak-Grid, Strong-Group) Environment*

The district in which this school was located had an annual budget of \$9,000,000 and spent \$5,847 per student. Only 1.8 % of the district budget was spent on technology. Students spent about 35% of their each day using technology. Administrators spent about 65% and teachers, 35%. The general attitude towards technology and the school climate was positive and collaborative. One teacher noted, "Online programs and using technology help students to collaborate."

Egalitarian contexts have many of the strong-group features of organizational hierarchy, including emphasis on group goals and social incorporation. However, the weak-grid aspect allows for fewer yet more equitable role distinctions. This school placed a high value on unity, equal distribution of resources, conformity to collective norms, and rejection of mindsets associated with strong-grid authoritarianism and hierarchy. They were suspicious of those outside the community who may want to help. From a technological perspective, most egalitarian environments have someone who is very inspired and likely to take the initiative in leading regarding tech implementation. In this school, the leader had been in the system for a long time and was passionate about the school mission, group ownership, and equal distribution of resources.

Grid and Group Implications

In strong-group schools, collective tendencies promoted either systemwide computer labs, clusters of student computers in each classroom, or convenient rolling carts of laptops for student checkout. Weak-group tendencies promoted individual rather than organizational technology use and distribution. Weak-group schools had the highest per-pupil funding and a greater percentage of federal funding and state appropriations. Strong-group schools had less state and federal money and lower per-pupil funding. However, strong-group school environments were conducive to greater efficiency with regard to resource use for technology integration and group success. Weak-group schools had minimal technology integration.

Strong-group schools also had leaders, including principals, superintendents, and technology directors who had a long-term vision for technology integration and understood how to best implement that vision in their respective contexts. Compared to weak-group environments, technology was used by more students during more times of the day. In essence, the collective affiliation often associated with strong-group environments had an integrative effect on the teaching and learning process. Success for weak-group schools took place on an individual basis, rather than a group basis. Some teachers were disengaged with regard to technology integration, not fully realizing a vision for school-wide integration, while those who did embrace technology use did so out of individual interest. In weak-group schools, there was less camaraderie among classroom teachers.

Regarding grid, both districts with strong-grid schools dedicated more of their annual budget to technology. This is significant because weak-grid schools also had a significantly smaller budget to draw from than their strong-grid counterparts. While neither grid nor group corresponds directly to wealth, each offers insight into the distribution of resources, especially in relation to the roles and rules associated with equity and attitudes toward leadership who often make those distribution decisions. For example, both strong-grid schools acknowledged the role and power of site administrator as technology leader and facilitator. However, attitudes toward these leadership figures were different in each school. In the authoritarian environment where more inequitable distribution practices prevailed, educators were critical of and often indifferent to leadership. In the hierarchical setting, technology resources were equitably allocated and educators respected the leadership and desired to perform well. The weak-grid schools reflected fewer role distinctions. Classroom teachers chose whether or not to initiate technology and implement it into curriculum. Classrooms were mostly independent of each other in terms of classroom management and technology use.

Conclusions

In this study of four schools, neither school size nor budget size were indicators of successful integration and equitable distribution of technology. However, grid and group features that promoted either isolation or integration were important indicators for these schools. For example, the weak-group leaders did not provide vision and direction, and individual teachers chose whether or not to integrate technology or not. The strong-group schools were more intentional in their technology mission. Their leaders developed program goals, systems to be used, the types of computers purchased, and use by students. The conclusion that we draw from this case study is that technology integration and equitable distribution depended upon the intentionality of those who budgeted the funds and provided necessary training.



Endnotes

¹ In prior research and publications, the authors explained the basic tenets of grid and group theory and demonstrated how technology adaption, fairness, justice, and other values specific to social contexts can vary in different school settings. (See Case 2010; Harris 2005.) The explanation in this section is adapted from those publications.

² Of the 22 individuals who participated in the initial observation, eleven volunteered to complete the questionnaire. The questionnaire was administered to volunteers from an initial observation that took place between November 28, 2012 through February 2013.

³ Chief informants were the types of responders (position in the school district) on the questionnaire. Respondents volunteered to participate while attending an annual workshop for school business officials. Of the participants present, 22 participated in the discussion that was guided by an informal survey. Of these, eleven completed the questionnaire.

⁴ Triangulation is a process of gathering data from a variety of sources in order to corroborate findings for richer understanding of the phenomenon. We followed the Erlandson et al. (1993) process of inductive data analysis, which includes unitizing data and emergent category designation. Unitizing data can be understood as breaking the data down into the smallest pieces of information that can stand alone without changing the meaning of the data. Units of data were classified into emergent categories based on similarities and differences.

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Appendix A | Grid and Group Assessment Tool

Cultural Assessment

Below are 30 items that will help the researchers characterize the culture of your school. Each item reflects a continuum from 1 to 8. For each item, choose the statement that you think best represents your school site. Then, on the continuum, mark the button that represents the degree to which that statement applies to your school site. You will also find 6 short answer questions at the end of the survey.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|--|
| School | | | | | | | | | |
| Please provide your school organization name here: | | | | | | | | | |
| Position/Title | | | | | | | | | |
| Please indicate your position or title within the school: | | | | | | | | | |
| <input type="checkbox"/> Teacher <input type="checkbox"/> Support Staff <input type="checkbox"/> Administrator <input type="checkbox"/> Other: | | | | | | | | | |
| Grid Considerations | | | | | | | | | |
| 1 – Authority structures are: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Decentralized/ non-hierarchical | | | | | | | | | Centralized/ hierarchical |
| 2 – Job responsibilities: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Ill-defined | | | | | | | | | Well defined |
| 3 – Individual teachers have: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Full autonomy in textbook/ software/web tools selection | | | | | | | | | No autonomy in textbook/ software/web tools selection |
| 4 – Individual teachers have: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Full autonomy in generating their educational goals | | | | | | | | | No autonomy in generating their educational goals |
| 5 – Individual teachers have: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Full autonomy in choosing instructional methods/strategies | | | | | | | | | No autonomy in choosing instructional methods/strategies |
| 6 – Students are: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Encouraged to participate/take ownership of their education | | | | | | | | | Discouraged from participating/ taking ownership of their education |
| 7 – Teachers obtain instructional resources through: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Individual negotiation | | | | | | | | | Administrative allocation |

Appendix A continued | **Grid and Group Assessment Tool**

| | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|
| 8 – Instruction is: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Personalized for each student | | | | | | | | | Not personalized for each student |
| 9 – Individual teachers are motivated by: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Intrinsic/self-defined interests | | | | | | | | | Extrinsic/institutional rewards |
| 10 – Hiring decisions are made: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| With teacher input | | | | | | | | | Without teacher input |
| 11 – Class schedules are determined through: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| With teacher input | | | | | | | | | Without teacher input |
| 12 – Rules and procedures are: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Few | | | | | | | | | Numerous |
| Group Considerations | | | | | | | | | |
| 13 – Chain of command is: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Individual teachers working alone | | | | | | | | | All educators working collaboratively |
| 14 – Educators' socialization and work are: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Separate/dichotomous activities | | | | | | | | | Incorporated/united activities |
| 15 – Extrinsic rewards primarily benefit: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| The individual | | | | | | | | | Everyone at the school site |
| 16 – Teaching and learning are planned/organized around: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Individual teacher goals/interests | | | | | | | | | Group goals/interests |
| 17 – Teaching performance is evaluated according to: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Individual teacher goals, priorities, and criteria | | | | | | | | | Group goals, priorities, and criteria |
| 18 – Teachers work: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| In isolation toward goals and objectives | | | | | | | | | Collaboratively toward goals and objectives |

Appendix A continued | **Grid and Group Assessment Tool**

| | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|--|
| 19 – Curricular goals are generated: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Individually | | | | | | | | | Collaboratively |
| 20 – Communication flows primarily through: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Individual, informal networks | | | | | | | | | Corporate, formal networks |
| 21 – Instructional resources are controlled/owned: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Individually | | | | | | | | | Collaboratively |
| 22 – People hold: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| No allegiance/loyalty to the school | | | | | | | | | Much allegiance/loyalty to the school |
| 23 – Responsibilities of teachers and administrators are: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Ambiguous/fragmented with no accountability | | | | | | | | | Clear/communal with much accountability |
| 24 – Most decisions are made: | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Privately by factions or independent verdict | | | | | | | | | Corporately by consensus or group approval |
| Additional Questions | | | | | | | | | |
| Check all that apply for each question below. | | | | | | | | | |
| 25 – How is technology funded in your school? <ul style="list-style-type: none"> <input type="checkbox"/> Local grants <input type="checkbox"/> Foundation grants <input type="checkbox"/> Federal programs <input type="checkbox"/> Bond money <input type="checkbox"/> General fund <input type="checkbox"/> Activity fund <input type="checkbox"/> Other: | | | | | | | | | |
| 26 – What types of technology are used in your school? <ul style="list-style-type: none"> <input type="checkbox"/> iPods <input type="checkbox"/> iPads <input type="checkbox"/> netbooks <input type="checkbox"/> Macbooks <input type="checkbox"/> desktop Macs <input type="checkbox"/> desktop PCs <input type="checkbox"/> SmartBoards (or similar product) <input type="checkbox"/> laptops <input type="checkbox"/> Other: | | | | | | | | | |

Appendix A continued | **Grid and Group Assessment Tool**

| |
|--|
| <p>27– Who uses technology in your school and how much?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Students - less than 25% of the day <input type="checkbox"/> Students - 26% - 50% of the day <input type="checkbox"/> Students - 51% - 75% of the day <input type="checkbox"/> Students - more than 75% of the day <input type="checkbox"/> Teachers - less than 25% of the day <input type="checkbox"/> Teachers - 26% - 50% of the day <input type="checkbox"/> Teachers - 51% - 75% of the day <input type="checkbox"/> Teachers - more than 75% of the day <input type="checkbox"/> Administrators and support staff - less than 25% of the day <input type="checkbox"/> Administrators and support staff - 26% - 50% of the day <input type="checkbox"/> Administrators and support staff - 51% - 75% of the day <input type="checkbox"/> Administrators and support staff - more than 75% of the day <input type="checkbox"/> Other |
| <p>Brief Answer Questions</p> <p>In your own words, please answer the questions below.</p> |
| <p>28 – How is technology used in your school?</p> |
| <p>29 – What impact has technology had on your school?</p> |
| <p>30 – What is the driving force that causes the success or lack of success regarding technology use in your school?</p> |

Appendix B | **Documents**

Bethany Public Schools. n.d. "School Connect App." <http://schoolconnectservices.com/bethany>.

Crooked Oak Public Schools. n.d. "Network Technician." http://www.crookedoak.org/vnews/display.v/ART/52caed2118d3f?in_archive=1.

Fort Cobb – Broxton Public Schools. n.d.. "Information Technology." <http://www.fcbmustangs.com/index.php?pageID=3399>.

Oklahoma State Department of Education. 2012-2013. "Bethany District Reports." https://sdeweb01.sde.ok.gov/OCAS_Reporting/District.aspx?CountyCode=55&DistrictCode=1088&Year=2013#varV2=1.

Oklahoma State Department of Education. 2011-2012. "Crooked Oak District Reports." https://sdeweb01.sde.ok.gov/OCAS_Reporting/District.aspx?CountyCode=55&DistrictCode=1053&Year=2012#varV2=1.

Oklahoma State Department of Education. 2011-2012. "Fort Cobb District Reports." https://sdeweb01.sde.ok.gov/OCAS_Reporting/District.aspx?CountyCode=08&DistrictCode=1167&Year=2012#varV2=1.

Oklahoma State Department of Education. 2011-2012. "Yukon Financial Reports."

Yukon Public Schools. n.d.. "YPS Information Technology Division." <http://www.yukonps.com/AboutUs/DepartmentsandServices/InformationTechnology/tabid/282/Default.aspx>.



The State of Education Funding in Israel

Iris BenDavid-Hadar

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Israel regards education as an essential part of its infrastructure for national security, competitive ability, and social cohesiveness. For Fiscal Year (FY) 2013, the Ministry of Education's proposed budget is ₪42.43 billion,¹ where ₪1.00 = \$0.278.² Proposed allocations to the primary, secondary, and preschool levels are 35%, 25%, and 12% of this amount, respectively. In current prices, the proposed budget is ₪6.1 billion more than last year's budget of ₪36.3 billion, reflecting the results of the 2011 summer protest demands.³ However, measured in constant 2012 prices, the proposed increment is more modest at ₪5.68 billion, and the proposed per-student allocation for FY2013 is the same as the previous year's. The average allocation per student, in terms of instructional hours, at each level of schooling, is higher at Hebrew-speaking schools in comparison to Arabic-speaking schools, with the gap more prominent at the lower secondary school level.⁴ Additionally, the capital budget of the Ministry of Education is ₪1.01 billion, of which 78.7% is allocated for the construction of new K-12 schools.

Following the social protests of the summer of 2011 and the recommendations of the Yonah-Spivak Committee,⁵ a committee representing the social demands of the protest, the government appointed the Trajtenberg Committee to address the issues raised by the protesters and to promote economic and social reform.⁶ The Trajtenberg Committee's education recommendations focused on ages birth to nine with a special focus on early childhood education. The central recommendations were to complete the application of the Israeli compulsory education law to preschool children ages three to four, to create afternoon daycares and long-school-day schools for children ages three to nine, and to subsidize early childhood education for children birth to three years of age.⁷ On January 8, 2012, the government adopted these recommendations and approved their implementation. The funds allocated for implementing these recommendations were ₪1.2 billion, ₪0.615 billion, and zero, respectively.⁸

Two additional major education reforms are currently being implemented by the Ministry of Education. These address educator pay and working hours, and partially address the issue of pay for performance. Specifically, these reforms, titled "New Horizon" (OFEK HADASH) at the primary school level and "Strength for Compensation" (OZ LA-TMURA) at the secondary

school level, are focused on extending the school day and, by doing so, increasing educators' pay. Moreover, these reforms comprise an incentive mechanism for teachers based on pay for performance in that teachers will be rewarded, i.e., receive additional pay, based upon their school's average level of performance. The overarching goal is to reward teachers at the top-performing schools, defined as the upper 40%. The proposed FY2013 budget includes allocations for their gradual implementation, with ₪0.9 billion for "New Horizon," and ₪1.05 billion for "Strength for Compensation." The remainder of the FY2013 proposed budget is directed toward other issues, such as the gradual implementation of a class size reduction law which focuses on grades one and two,⁹ with a proposed allocation of ₪0.1 billion.

Following the 2006 Israeli Supreme Court decision, *Supreme Monitoring Committee for Arab Affairs in Israel v. Prime Minister*,¹⁰ two important reforms were enacted regarding the resource allocation mechanism and the funding formula at the primary school level. First, the funding system was changed so that it currently allocates 95% of the budget per student on an equal basis. Second, the remainder is now divided among four elements rather than seven.

The educational achievement distribution of Israeli students is characterized by a low level of achievement with a wide achievement gap between high and low achievers compared with the OECD average.¹¹ In fact, Israeli student achievement is characterized by the widest gap among the OECD countries. Furthermore, student achievement is unlikely to improve or the gap narrow since the current reforms implemented diminished many of the compensating equitable elements that were previously more dominant in Israeli school finance policy.

School funding in Israel has taken on a new direction, emphasizing "adequate" (interpreted as equal) funding for schools.¹² This funding principle is mostly based on student numbers rather than on student needs, and thus departs from the previous equitable allocation. This reform is likely to lead to greater vertical and horizontal disparities and to an unfortunate widening of the achievement gap, an outcome that contradicts declared policy objectives and societal needs. Specifically, equal resources are allocated by the government to students of different starting points in term of their needs. These resources are supplemented by allocations by local authorities and parents (households). Of great concern are the supplemental resources allocated by local authorities because there is a strong, positive, statistically significant correlation between local socioeconomic status and the level of supplemental, per-pupil resources allocated to schools.

As noted earlier, the current funding system allocates 95% of the budget per student on an equal basis. The remaining 5% is allocated according to a reformed needs-based formula, which is comprised of four elements. Resources are allocated to: (1) students from families with low levels of parental education; (2) students from low income families; (3) students at schools located at the geographical periphery;¹³ and (4) students who are new immigrants. These factors and their assigned weights (40%, 20%, 20%, and 20%, respectively) are in need of revision, as they do not comply with research

findings explaining student achievement variance.¹⁴ For example, the parental education factor, assigned a weight of 40% is larger than its research-based calculated weight of 30%, and the same issue applies to factors of peripheral location and of new immigrant status.¹⁵ Additionally, there are other elements that contribute to explaining the variation in academic achievement that are not included in the funding formula, such as ethnicity.¹⁶ Finally, there is a need to include an improvement-based component. Such a component is necessary to narrow the achievement gap while maintaining or increasing the average level of achievement, rather than merely narrowing it.¹⁷



Endnotes

¹ Please note that this article was written on the basis of the final budget proposal. See, "Israel Budget," http://www.mof.gov.il/BUDGETSITE/STATEBUDGET/BUDGET2013_2014. The Israeli legislative body, the Knesset, was currently debating the biennial budget for FY2013 and FY2014 at the time of the writing of this article.

² Israel's currency is the New Israel Shekel (NIS), and the currency symbol is "₪".

³ The 2011 protest was an exceptional time in Israeli history. A wide protest movement developed, calling for social and economic change. Mainly, the protesters demanded the advancement of the social welfare state. At the beginning of the protest movement, the protestors focused on rising rent prices and the cost of living in Israel. As the protest expanded, protestors called for an improvement of the public education system and a more equitable distribution of social responsibilities. The demands of the protests related to education were threefold: (1) To strengthen the public education in Israel by raising per-student funding to the level of the average per-student funding in OECD countries; (2) to introduce state-funded education from birth through tertiary education; and (3) to make school finance policy more equitable. See, Kashti Yitzhak Itay Snir, Nivi Gal-Arieli, Gaddy Bialick, Iris BenDavid-Hadar, Hagit Gur-Ziv, Marcelo Weksler, Yael Kafri, Gal Levy, Revital Lan-Cohen, and Adi Koll, "Public Education in Israel," in *To Do Things Differently: A Model for a Well-Ordered Society*, edited by Yonah Yossi and Avia Spivak, 339-368 (Tel Aviv: Hakibutz Hameuchad Press, 2012).

⁴ According to *de jure* policy in Israel, the average allocation per student at Hebrew-speaking schools and at Arabic-speaking schools is similar, but the *de facto* policy, i.e., the actual school budget, reveals gaps in favor of Hebrew-speaking schools. However, the gap is narrowing.

⁵ The Yonah-Spivak Committee, comprised of some 60 academics and experts in the fields of economics and social welfare, was appointed by Israel's social protesters in order to voice the demands of the Israeli protest movement. It was headed by Yossi Yonah, professor of political philosophy at Ben-Gurion University, and Avia Spivak, professor of

economics at Ben-Gurion University and former Deputy Governor of the Bank of Israel. See, Kashti Yitzhak et al., "Public Education in Israel," in *To Do Things Differently*.

⁶ The Trajtenberg Committee was appointed by Israeli Prime Minister Netanyahu and headed by Manuel Trajtenberg, professor of economics at Tel Aviv University and chairman of the Higher Education Planning and Budget Committee.

⁷ Pnina Klein, "Education," in *Trajtenberg Committee Report on Socio-Economic Change*, 107-122 (Jerusalem: 2011).

⁸ Implementation of the third recommendation was postponed due to reductions in government ministry budgets.

⁹ Israeli Parliament, State Education Law- Class Size Reduction Amendment, 28th amendment from July 3, 2007.

¹⁰ *Supreme Monitoring Committee for Arab Affairs in Israel v. Prime Minister*, High Court of Justice, 2006, HCJ 11163/03.

¹¹ Organisation for Economic Co-operation and Development (OECD), PISA- Programme for International Student Assessment (Paris: 2009).

¹² Nachum Blass, Noam Zussman, and Shay Tsur, "The Allocation of Teachers' Working Hours in Primary Education, 2001–2009," Discussion Paper No. 2010.18 (Jerusalem: Bank of Israel, December 2010), <https://www.boi.org.il/deptdata/mehkar/papers/dp1018e.pdf>; and, Iris BenDavid-Hadar and Adrian Ziderman, "A New Model for Equitable and Efficient Schools Resources Allocation: The Israeli Case," *Education Economics* 19 (4): 341-362.

¹³ Geographical periphery refers to remoteness, i.e., distant from central large cities or metropolitan areas such, as Tel-Aviv, Jerusalem, and Haifa. Students residing in remote areas have lower achievement than their counterparts in urban and metropolitan areas. As such, they receive additional resources.

¹⁴ BenDavid-Hadar and Ziderman, "A New Model for Equitable and Efficient Schools Resources Allocation;" and Blass et al., "The Allocation of Teachers' Working Hours in Primary Education, 2001–2009."

¹⁵ BenDavid-Hadar and Ziderman, "A New Model for Equitable and Efficient Schools Resources Allocation."

¹⁶ The State Comptroller, *Annual Report*, No 60 II (Jerusalem, Israel: 2008); Central Bank of Israel, *The Social Services Report* (Jerusalem: Bank of Israel, 2010); and, Iris BenDavid-Hadar, "School Resource Allocation in Israel: Is It Designed to Improve?" *Education and Society*, 27(1): 77-109.

¹⁷ BenDavid-Hadar and Ziderman, "A New Model for Equitable and Efficient Schools Resources Allocation."



Revisiting the Role of Vouchers and Charter Schools in the Educational Market Place

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Introduction

Vouchers and charter schools are among the most recognized buzzwords in today's education marketplace. Advocates assert that the quality of education will improve if consumers (i.e., parents) have greater access to schooling alternatives. Along with this assertion is the implied belief that costs of education will decrease and the quality of education will rise because all schools, traditional and alternative, private and public, will compete for pupils. Schools that cannot effectively compete will wither and eventually close.

This belief is not new. A long line of scholars dating back to Adam Smith (1776) has described education's relationship to the classical economy. What seems to be missing from the contemporary dialogue is the reason why we have vouchers and charter schools today. We are familiar with the terminology. We might be aware of the implications of these entrepreneurial activities. However, we may have forgotten the promises that were made by advocates. For example, charter schools, freed from many of the state regulations required of traditional public schools, were to serve as laboratories of innovation that once transferred to public schools would lead to improvements for all students. Vouchers were implemented to provide greater access to a high quality education, particularly for children from low income families. Do children from low income families have access to enhanced educational opportunities through vouchers today? Have vouchers and charter schools led to schooling experiences superior to those provided by traditional public schools?

Ohio has been at the forefront of controversies related to entrepreneurial schooling activities. The state is replete with alternative schooling opportunities, and it is a place where education entrepreneurs have been welcomed for many years. Not only has the Ohio education marketplace experienced vouchers and charter schools, but also homeschooling, internet (virtual) schooling, and intradistrict/interdistrict school district transfers. Given the promises made by school choice advocates, Ohio should have the best education system in the country. Although this article does not measure Ohio against other states, it does include national analyses to

provide a broader context to the development and growth of vouchers and charter schools in Ohio and the nation.

Vouchers and Charter Schools in Ohio

Vouchers have a long history in the United States. For example, the states of Maine and Vermont have used publicly funded vouchers for over 150 years to provide tuition for secondary students whose districts do not have a high school (Sutton and King 2011). These vouchers can be used only at other public schools or nonsectarian private (nonprofit) schools. More broadly, in the United States, vouchers have been publicly and privately funded;¹ used in public and private schools; and used at nonsectarian and religiously affiliated schools, with the latter representing the most controversial application. Publicly funded vouchers in Ohio evolved from a state program, the Cleveland Scholarship and Tutoring Grant Program,² that was authorized by the state in 1995 and implemented during the 1996-1997 school year. This was the first program in the nation to allow vouchers to be used at religiously affiliated schools (McCarthy 2000; Witte 2000). Eligibility was limited to low income families in the Cleveland City School District. Admission to the program, if oversubscribed, was contingent upon a lottery. The maximum voucher amount, made available through state funding, was \$2,250 (Ohio Department of Education 1998), and enrollment was capped at 4,000 students (Cleveland Office of Scholarship and Tutoring 1999). Although initially priority was given to families with incomes below the federal poverty index, eligibility was later expanded to families with incomes up to 200% of the federal poverty index, and subsequently families with even higher incomes were deemed eligible (Metcalf 1999).

Initially, many of the education voucher program communications announced that the Cleveland vouchers would be in the amount of \$2,500 with a maximum state contribution of 90%. Requiring that voucher recipients contribute at least 10% proved controversial. While the contribution helped the state pay for the program, it also threatened to disadvantage poor families. For a family living in poverty, \$250 represented a significant amount money. The financial burden was even greater if the family had more than one child receiving a voucher.

State payment for the Cleveland voucher program was also controversial. Early communications announced that the state would assume the full cost of the voucher program. However, this was inaccurate. For example, costs were incurred by the Cleveland City School District when its officials had to explain publicly what the education voucher program was and why students should remain in the district. The district also incurred costs related to recordkeeping and accounting for students who entered, exited, and re-entered the school district. Vouchers also diverted state aid from the district to voucher schools (U.S. General Accounting Office 2001), many of which were religiously affiliated.

Hence, the Cleveland Scholarship and Tutoring Grant Program was the center of vehement controversy. Supporters applauded the program while detractors claimed that it was unconstitutional. Meanwhile, the number of voucher students

continued to grow. By 2009, the enrollment cap was raised, and there were 5,388 students and 39 schools participating in the program (Ohio Department of Education 2009). The voucher amount increased to \$3,450 (Ohio Department of Education 2010a), and the Cleveland City School District continued to lose a portion of its state aid to the voucher program.

The legal battle over vouchers in Ohio was intense, and eventually it progressed to the U.S. Supreme Court where it was affirmed in *Zelman v. Simmons-Harris* (2002). The *Zelman* decision opened the door for the expansion of vouchers statewide in Ohio through the Educational Choice Scholarship Pilot Program (EdChoice), which targeted students in low performing schools regardless of family income. In 2006-2007, the state authorized 14,000 vouchers in the amount \$4,250 for students in grades K-8 and \$5,000 for those in grades 9-12 (Ohio Department of Education 2006a). During the first year of operation, 81 public schools were affected. By 2009-2010, 11,722 students used these vouchers (Ohio Department of Education 2009). For school year 2010-2011, the cap for the number of vouchers to be issued and their amounts remained the same (Ohio Department of Education 2010b). However, for Fiscal Year 2013, up to 60,000 EdChoice vouchers could be authorized by the state (Ohio Department of Education 2011).

In 1997, another form of school choice, charter, or "community" schools as they are called in Ohio, was authorized by the state. Charter schools in Ohio are defined as public, nonsectarian units that operate independently from traditional public school districts (Ohio Department of Education 2006b). During the first year of operation, 1998-1999, 15 charter schools enrolled 2,245 children (Jewell 2006). About a dozen years later, the program had expanded to 323 schools with an enrollment of 94,269 (Ohio Alliance for Public Charter Schools 2011). In Ohio, charter school funding consists of a cash transfer from the traditional public school district in which the charter school is located. The transfer includes state basic aid and other upward adjustments that the traditional public school district would otherwise be entitled to.

Ohio charter schools can be divided into two types. One is "brick-and-mortar," that is, the school is located in a physical facility which students attend. The second type of charter school is "virtual," in that it offers online learning. As such, it can enroll students from anywhere in the state. Over the years, both types of charter schools have exhibited staggering enrollment growth. Between 2002 and 2010, brick-and-mortar charter school enrollment rose from 20,017 to 68,079, a 30% annualized average growth rate. During the same time period, virtual charter school enrollment rose from 3,610 to 26,190, a 78% annualized average growth rate. (See Table.) The ratio of virtual charter school enrollment to total charter school enrollment increased from 15% to 28% during this time period. One explanation given for this trend is the transfer of large numbers of previously home-schooled students to virtual charter schools.³ Given the historic lack of state or local support for home schooling in Ohio, virtual charter schools may be an attractive option for parents of home-schooled children.

Table | **Growth of Ohio Charter School Enrollments: 2002-2010**

| Year | Brick-and-Mortar Charter School Enrollment | Virtual Charter School Enrollment | Total Enrollment | Ratio of Virtual Charter School Enrollment to Total Charter School Enrollment (%) |
|------|--|-----------------------------------|------------------|---|
| 2002 | 20,017 | 3,610 | 23,627 | 15 |
| 2003 | 26,535 | 7,614 | 34,149 | 22 |
| 2004 | 36,315 | 10,802 | 47,117 | 23 |
| 2005 | 47,957 | 14,645 | 62,602 | 23 |
| 2006 | 55,348 | 16,845 | 72,193 | 23 |
| 2007 | 58,520 | 18,574 | 77,094 | 24 |
| 2008 | 62,001 | 20,867 | 82,868 | 25 |
| 2009 | 64,620 | 24,137 | 88,757 | 27 |
| 2010 | 68,079 | 26,190 | 94,269 | 28 |

Source: Ohio Alliance for Public Charter Schools, 2011.

Although controversy surrounded the establishment and implementation of vouchers in Ohio, there seemed to be less public opposition to charter schools even though both made the same promises. Perhaps the lower level of opposition to charter schools revolved around religion; as public schools, charter schools were not permitted to be religiously affiliated while voucher schools could.

A National Context for Vouchers and Charter Schools

Ohio's voucher program was not the first in the country; rather, the Cleveland voucher program was among a small group of early contemporaries in Wisconsin and Florida. Whereas Cleveland vouchers were the first to be used at religious schools, Milwaukee vouchers were the first to be implemented as part of the contemporary wave of voucher programs. The original Milwaukee Parental Choice Program was authorized by the state of Wisconsin to begin in 1990 (Witte 1998). These vouchers were supported by state funds and limited to students from the Milwaukee Public Schools system. The maximum voucher amount, \$2,446, was the same amount as the state aid per pupil received by the Milwaukee Public Schools (Witte 1991). For each voucher student, the state sent this amount directly to the school approved for participation in the voucher program (Witte and Thorn 1996).

Initially, Milwaukee voucher recipients were limited to low income families, and a lottery was to be used if the number of applicants exceeded the cap. In the first year of operation, 341 vouchers were issued although 1,500 had been authorized (Witte 1998). Debates about the Milwaukee Parental Choice Program were contentious. Litigation threatened to stop the program before it began. A lower court upheld the voucher program, and then an appellate court reversed the lower court decision. In 1992, the Wisconsin Supreme Court upheld the Milwaukee Parental Choice Program in *Davis v. Grover*.

In Florida, the state authorized and funded a statewide voucher program titled the Opportunity Scholarship Program, which was implemented in 1999. Eligibility was limited to low income students from "failing schools." This voucher, funded at \$4,200, could be used at private, nonsectarian and religious schools as well as public schools. However, unlike the Cleveland and Milwaukee voucher programs, the Florida Opportunity Scholarship Program was ruled unconstitutional in a 2006 Florida State Supreme Court decision, *Bush v. Holmes*.

Discussion and Conclusions

Theories about the market have been used by both advocates of and opponents to school choice to frame debates about vouchers and charter schools. Choice in the marketplace is appealing to libertarians who want the freedom to choose with little or no government oversight. At the same time, choice in the education marketplace appeals to some advocates of social justice, particularly when school choice is targeted to low income students. Thus, impassioned calls for liberty and equality find common ground in the education marketplace.

The marketplace for vouchers was constrained, at least in the beginning. In Cleveland and Milwaukee, for example, vouchers were limited in terms of jurisdictional geography to a single school district. Enrollments were capped and eligibility limited to low income families. Voucher amounts per student were typically lower than the average per-pupil expenditure in the school district. Over time, both voucher programs have grown when their respective states increased or removed enrollment caps and broadened eligibility criteria. On the other hand, Florida's voucher program did not survive judicial scrutiny and no longer exists. On balance, the free and open market for vouchers envisioned by Friedman (1955,

1962) and persistently endorsed by Friedman and Friedman (1990) has not been achieved.

Charter schools represent a far less regulated school choice option than vouchers. At the same time, charter schools are more limited in their scope than vouchers because as public schools they must remain secular. However, charter schools are exempted from many of the regulations governing traditional public schools and districts. Charter schools in Ohio and across the nation are much more widespread than vouchers. The marketplace has seemed to work much better for charter schools than vouchers. Still, the marketplace expectations underlying the concept of charter schools has not materialized as advocates envisioned.

Among other promises, the advent of market competition through vouchers and charter schools was to improve the public education system for all students. School quality was to increase while school costs were to decrease. Charter schools and vouchers were going to support alternative schools that outperformed traditional public schools. Alternative schools were also going to lead the way to improving traditional public schools. Data and analysis attesting to these education marketplace virtues did not emerge. Positive performance assessments of these new, alternative schools that were supported by vouchers and charter schools were mixed, at best. Evidence that vouchers and charter schools supported alternative schools that improved traditional public schools was virtually nonexistent. Given the widespread implementation of vouchers and charter schools in particular, if quality improvements were going to occur, convincing evidence of improved school quality should have presented itself long ago.

On the surface, school costs seemed to decrease. Children were receiving schooling based on fixed voucher amounts. Children also received schooling based on charter school transfer payments. Both the fixed voucher amounts and charter school transfer payments appeared to be less per pupil than what was spent in traditional public school districts, but the perceived cost structure lacked sustainability. Charter schools often augmented their public dollars with donations, fundraising, volunteerism, partnership resources, or infrastructure supports. Vouchers were used at religiously affiliated schools that were subsidized by their respective religious institutions. These practices made for cost assessments that were just as confused as the performance assessments that were associated with vouchers and charter schools.

A sustainable cost structure was not developed for widespread implementation of vouchers and charter schools. The quasi-private education system that developed could not absorb or accommodate all children with their different educational needs. Moreover, the benefactors who contributed to the financial success of these new alternative programs could not possibly provide funding for all children. The traditional public school was still necessary in order to ensure that every child had access to schooling. Unfortunately, the traditional public school was financially and operationally diminished by vouchers and charter schools. Transfer payments reduced budgets. Entering and exiting children

stressed programs and capacities. Hidden costs were imminent. For example, school officials needed to dedicate time and energy to developing community awareness of competition. School officials furthermore needed memos, pamphlets, flyers, and other forms of advertising in order to compete in the education marketplace.

For all of the hype that was dedicated to vouchers, charter schools, and the education marketplace, greater improvements to the education system should have been forthcoming. The panacea of educational improvement via choice and competition simply was not delivered. Meanwhile, traditional public schools were damaged. This cycle of free market oriented reform occurred for more than 20 years—but to no avail. Based on this record of performance, policymakers should refocus social commitment, funding, and innovative strategies on the improvement of traditional public schools rather than vouchers and charter schools.



Endnotes

- ¹ Privately funded vouchers are often referred to as “scholarships.”
- ² Although originally named the Cleveland Scholarship and Tutoring Grant Program, many refer to it as the Cleveland Scholarship and Tutoring Program (CSTP).
- ³ Home-schooling, referred to as home education in Ohio, consists of parental instruction or other qualified instruction under the parents’ direction: “The parent or guardian selects the curriculum and educational materials and takes responsibility for educating the child. There is no state financial assistance for families who choose this option” (Ohio Department of Education, 2012, 1).

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