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How Unwavering is Support for the Local Property Tax?: Voting on School District Budgets in New York, 2003–2010

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ABSTRACT

This article examines voting results for school district budgets in New York from 2003–2010. Despite annual local property tax increases, 91.9% of proposed school district budgets were approved by voters during the period examined. Using data from the New York State Education Department (NYSED) and the American Community Survey (ACS), several socioeconomic variables influencing school district budget voting are examined. The findings indicate that school districts serving larger populations are more likely to vote for local property tax increases. However, these effects are mitigated by the size of minority populations in a district, overall growth in school budgets, and increased voter turnout. In light of these findings, recommendations are made to assist school boards and administrators in planning school finance policy. It is argued that school districts should adopt participatory budget tools and enhance community-based decision-making in order to promote sustainable educational resources.

INTRODUCTION

This article examines voting results for school district budgets in New York from 2003–2010. Despite annual local property tax increases, 91.9% of proposed school district budgets were approved by voters during the period examined. Speculatively, a number of factors can be argued to influence this outcome. In New York, school district budgets are voted on every May in special elections

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that are separated from other ballot measures. The use of special elections separated from other electoral contests has been associated with lower turnout and a bias toward a constituency-based electorate (Martinez 1997; Percival et al. 2007). This helps to explain why voting on school district budgets in New York is characterized by low turnout and a voting electorate heavily represented by school district employees and supporters.

School district budget elections are also relatively minor events in New York because of provisions in state law for handling defeated budgets. If a school district budget is not approved by voters, New York law provides for remedies that guarantee formula-based budget increases (Ehrenberg 2004; NYSED 2005b). When budgets are not approved by voters, districts are provided with two options under New York law. First, a school district can hold a second vote on the original budget or a revised budget. In lieu of a second vote, a school district can adopt a contingency budget which caps spending increases to 4% or 20% above the annual inflation rate—whichever is lower.¹ State law exempts a number of items from the contingency budget cap, which include costs associated with enrollment increases, collective bargaining agreements, planned capital improvements, and emergency repairs. As a result, totals for contingency budgets can exceed caps on spending increases and rival initial budget proposals. Thus, there is usually only a marginal difference between a proposed school district budget and a default contingency budget.

Given this backdrop, it is not surprising that voter turnout tends to be low and the vast majority of school district budgets in New York are approved. Despite the inevitability of a budget's adoption, some proposed budgets are still rejected on an annual basis—this article asks why? In essence, what would motivate voters to go to the polls and reject a budget that ultimately will be passed in a slightly revised form? These are important questions, since a recent analysis of New York school districts indicated that after budgets were rejected by voters, there was an increased likelihood that future budgets would be voted down (Ehrenberg 2004). Consequently, an increased propensity to vote against school district budgets would result in a prolonged budget process characterized by post-election revisions, second votes, and a greater reliance on contingency budgets. In order to understand the fiscal and socioeconomic variables that influence voting on school district budgets, this article examines data from the NYSED and the ACS. The findings from this article add to our understanding of what factors contribute to the success and failure of education ballot measures.

1. If a district opts to hold a second vote and voters reject a proposed budget for a second time, the contingency budget is automatically adopted under New York law.

SOCIOECONOMIC FACTORS INFLUENCING VOTES ON SCHOOL DISTRICT BUDGETS

For the 2009–10 fiscal year, local property taxes comprised 57.6% of total school district spending in New York, with the remainder of school funding coming from state, federal, and other intergovernmental transfers.² These levels of local, state, and federal funding have remained relatively stable for over a decade in New York. This approach to school finance is consistent with other states. Although public school funding equalization began to accelerate in 1971 with the California Supreme Court decision in *Serrano v. Priest* (1971), the local property tax has remained a primary source of education funding across the U.S. (Moser and Rubenstein 2002; Reyes and Rodriguez 2004; Brunori 2007; Grubb 2009).

The resilience of the local property tax as a foundation for school finance is somewhat remarkable, given the challenges across the country to the local tax levy through a series of tax revolts in recent history (Cox and Lowery 1990; Rubin 1998; Kent and Sowards 2000; Archibald and Feldman 2006). Since the 1970s, local opposition to property taxation has produced a series of legislative acts, ballot initiatives, and state constitutional amendments across the country. These measures have resulted in the adoption of limits on property tax increases, requirements for voter approval of new taxes, and various tax exemptions and other forms of relief. In New York, these measures have taken the form of state constitutional limits on property taxation, the school tax assessment rebate (STAR) program, and other targeted exemptions and forms of tax relief. Consequently, understanding how socioeconomic factors influence public support for local tax levies is crucial to ensuring sustainable school finance systems.

A recent study by the NYSED (2005b) examined factors influencing voting on school district budgets. The study concluded that voter support for budgets declined as school district enrollment increased, dependence on local taxes increased, and increases in the annual tax levy and overall district spending were proposed. These findings were illuminating; however, they were limited to the analysis of a single budget year and lacked statistical controls for a variety of demographic characteristics of school district populations. Despite these limitations, these findings provide a starting point for a more thorough analysis of voting on school district budgets. Such analysis is warranted in light of Ehrenberg's (2004) research using New York school district data, which indicated that after budgets were rejected by voters there was an increased likelihood that future budgets would be voted down.

2. In some New York school districts, local sales taxes, fees, and other tax receipts comprise a small portion of earmarked revenue.

In addition to examining district characteristics and funding trends, other researchers have analyzed the relationship between community demographics and voting on school budgets. In a survey of minorities in North Carolina, Priest and Fox (2005) studied the effects of race on the level of support for school bond referendums. They found that African Americans were more likely to support referendums irrespective of whether they had school age children living in their households. Priest and Fox concluded that elevated support for school funding was an outgrowth of two factors: (1) perceptions of education as a driver for achieving racial equity, and (2) high levels of confidence in local public officials and education administrators. Continuity and confidence in school administrators was also identified as a factor in support of school budgets in other studies (Ehrenberg 2004; Dillon 2009).

In addition to race, scholars have examined cohort effects on voting for school budgets (Ehrenberg 2004; Hilber and Mayer 2004; Lambert et al. 2009). In particular, researchers have focused on senior citizens' support for education spending measures. In general, results from this line of inquiry suggest that senior citizens tend to support local spending on public schools at the same levels as other cohorts in the population. A variety of explanations are offered for these findings. Some argue that although seniors do not have school-age children in their households, they maintain ties to local schools due to earlier life experiences and concerns about the quality of education for youth. Others argue that tax relief in the form of circuit breakers, exemptions on retirement income, and property tax rebates reduce the overall tax burden for seniors. As a result, increased spending on schools does not directly impact their pocketbooks.

This article builds on prior research by combining data from school districts, budget voting results, and community demographics. These measures are applied to a multi-year analysis in order to identify general trends in school budget voting.

DATA AND METHODS

This research uses data from two sources: (1) the NYSED and (2) the American Community Survey (ACS). Data were downloaded from the NYSED's website (www.emsc.nysed.gov/mgtderv). These data included annual school districts property tax report cards for the 2003–04 through the 2009–10 budget years, annual school budget voting results for the 2003–04 through the 2009–10 budget years, and school district administrator salary disclosure information for the 2003–04 through the 2009–10 budget years. In addition to these data, 2006–08 population and housing estimates for school districts in New York were downloaded from the ACS (www.census.gov/acs). The ACS is an annual survey

of population and housing characteristics conducted by the U.S. Census Bureau. It is administered to 3 million households in the country per year. The ACS collects information previously collected in the long form of the decennial census, and it is the largest survey—other than the decennial census—administered by the US Census Bureau.

For the period examined, data were released by the NYSED for 682 school districts. Data for the Big Five City School Districts—Buffalo, New York City, Rochester, Syracuse, and Yonkers—were not included in the data release, since these districts are fiscally dependent on the municipalities that fund public education through their own internal budget processes. ACS data were released by the U.S. Census Bureau for 179 school districts in New York. The ACS three-year estimates were for geographic areas with total populations of 20,000 or more.³ The estimates used in this analysis were for 2006–2008. This was the first time three-year estimates were released by the ACS where data were specifically reported for school districts.

THE GROWTH OF SCHOOL DISTRICT BUDGETS IN NEW YORK

Descriptive Analysis of the Trends

Historically, school district budgets in New York have been on a growth trajectory. In recent history, this pattern has been maintained despite stagnant enrollment and modest population growth in the state. Between 1993 and 2003, overall K-12 enrollment in New York grew by 7.3% (New York State Department of Education 2005a). However, much of the enrollment growth was driven by trends in New York City and its surrounding metropolitan area. In the consolidated metropolitan area surrounding New York City, enrollment growth was 11.7% between 1993 and 2003, while enrollment growth stagnated at 0.2% in the rest of the state (New York State Department of Education 2005a). During the same time period, enrollment growth was 10.9% nationally (Hussar and Bailey 2009). Given relatively stagnant enrollment, it is likely that much of the growth in New York's school district budgets can be attributed to higher personnel costs, fringe benefits, and other expenses related to the seniority system for school personnel. Other factors contributing to growth in school district budgets may have included additional requirements for mandated services by state and federal agencies.

3. Data from the 2000 US Census were not used in the analysis because the Census Bureau did not release data for school districts during that decennial census. ACS data were available for school districts in the 2006–08 data release. However, these data were only available for geographic areas with total populations of 20,000 or more. ACS data were not released for school districts located in smaller geographic areas.

Stagnant enrollment is a reflection of more general population trends in the state which put pressure on the local tax base that individual school districts rely upon. Between 1970 and 2000, the state had 4.0% population growth and New York City had 1.4% growth. However, the state's other cities—excluding New York City—lost 19.5% of their population (Office of the New York State Comptroller 2004). The state's population was relatively stagnant between 1970 and 2000—one exception was its suburban areas which experienced 15.5% growth (Office of the New York State Comptroller 2004). In essence, the state's population has been redistributing internally with nominal levels of in-migration. Cities have lost population to the suburbs while the addition of new residents from outside the state has slowed. During the 1990s, the state population rebounded slightly with a 5.5% growth rate. New York City had a 9.4% growth rate during this period. Population decline in the state's other cities—excluding New York City—slowed to a rate of 4.7%. Concomitantly, suburban growth slowed to a rate of 5.0%. In comparison to other states, New York's 5.5% rate of population growth in the 1990s was less than half the 13.2% national rate (Wing 2003). While enrollment has leveled off in many of New York's school districts, growth in the tax base that supports public education has lagged behind other parts of the country.

The data used in this analysis should be viewed in the context of these broader demographic trends. New York had relatively stagnant growth in school enrollment (-0.1%) between 2003 and 2010. Yet, during the same period, there was steady growth in school expenditures. Between 2003 and 2010, average school district spending increased 34.9% and the average district property tax levy increased 30.9%. Table 1 summarizes the school district data from the NYSED used in this analysis, and includes annual spending and enrollment information for all of the 682 school districts.

Table 1 also includes a summary of annual voting on school district budgets in New York. These data show that voting patterns have been relatively stable across the 682 school districts. Voter turnout remained relatively constant across districts between 2003 and 2010. On average, 1,262 ballots were cast per election in each school district. Support for school district budgets remained relatively high during this period. Between 2003 and 2010, approximately 1/3 of voters (35.9%) opposed district budgets. Moreover, the vast majority of district budgets (91.9%) were approved by voters between 2003 and 2010.

Tables 2 and 3 divide New York's school districts into two groups. The first group includes the 503 districts located in areas where the population was less than 20,000. The second group includes the 179 districts in areas where the population was 20,000 or more. The creation of these two groups was necessary to link data from the NYSED to data from the ACS. This was the case since

Table 1. Summary of School District Data from the New York State Education Department (n=682)

	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	Average All Years 2003-10
Average No. of Votes on a Budget	1,412	1,289	-	1,434	1,188	1,149	1,085	1,262
Percent Voting "No"	35.5	38.3		38.4	34.5	36.5	32.1	35.9
Percent Budgets Approved	94.8	85.9	-	89.9	95.2	92.4	97.3	92.1
Average Dist. Spending (x\$1000)	34,722	37,114	38,393	40,941	43,706	45,778	46,833	42,137
Average Percent Change	-	6.3	5.3	5.9	5.9	5.3	2.3	34.9
Average District Levy (x\$1000)	20,606	22,404	23,143	24,558	2,607	26,4352	26,989	24,995
Average Percent Change	-	8.3	5.6	5.9	3.7	3.3	1.9	30.9
Average District Enrollment	2,552	2,568	2,474	2,463	2,458	2,422	2,404	2,535
Average Percent Change	-	0.0	-0.1	-0.3	-0.3	-0.6	-0.9	-0.1
Superintendent Salary (x\$1000)	128	134	140	145	152	159	160	148
Average Percent Change	-	4.7	4.5	3.6	4.8	4.6	0.6	25.0

This table includes information for all school districts the New York State Education Department released data for between 2003 and 2010.

Table 2. Summary of School District Data from the New York State Education Department for Areas with Population Less Than 20,000 (n=502)

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Average All Years 2003-10
Average Number of Votes on a Budget	837	768	-	833	705	695	651	749
Percent Voting "No"	34.6	37.1		37.1	33.1	35.2	31.0	34.7
Percent Budgets Approved	94.0	86.7	-	89.4	95.6	92.8	97.8	92.6
Average District Spending (x \$1000)	25,694	25,099	23,941	22,475	21,091	20,379	19,152	22,950
Average Percent Change	-	-2.3	-4.6	-6.1	-6.2	-3.4	-6.0	-25.5
Average District Levy (x \$1000)	13,413	13,121	12,734	12,164	11,424	11,028	10,159	12,333
Average Percent Change	-	-2.2	-2.9	-4.5	-6.1	-3.5	-7.9	-24.3
Average District Enrollment	1,390	1,393	1,340	1,335	1,325	1,304	1,293	1,358
Average Percent Change	-	0.2	0.5	-0.4	-0.8	-1.6	-0.8	-7.0
Superintendent Salary (x \$1000)	116	121	127	131	137	144	143	133
Average Percent Change	-	4.3	5.0	3.1	4.6	5.1	-0.7	23.3

Table 3. Summary of School District Data from the New York State Education Department for Areas with Population 20,000 or More (n=179)

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Average All Years 2003-10
Average No. of Votes on a Budget	3,050	2,770	-	3,136	2,559	2,435	2,316	2,711
Percent Voting "No"	38.4	42.0	-	42.5	38.8	40.2	35.3	39.5
Percent Budgets Approved	93.2	80.2	-	86.4	94.4	91.5	95.9	90.5
Average District Spending (x \$1000)	76,424	81,936	86,237	91,799	97,592	102,614	104,937	92,313
<i>Average Percent Change</i>	-	7.2	5.3	6.4	6.3	5.1	2.3	37.3
Average District Levy (x \$1000)	48,586	52,870	55,550	58,691	60,701	63,298	64,302	58,104
<i>Average Percent Change</i>	-	8.8	5.1	5.7	3.4	4.3	1.6	32.4
Average District Enrollment	5,665	5,718	5,609	5,571	5,546	5,495	5,460	5,614
<i>Average Percent Change</i>	-	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
Superintendent Salary (x \$1000)	158	167	175	183	192	201	204	183
<i>Average Percent Change</i>	-	5.7	4.8	4.6	4.9	4.7	1.5	29.1

This table includes information for school districts identified in the 2006-08 American Community Survey.

ACS data were only reported for areas with a population of 20,000 or more. Subsequently, the linked data base included the 179 school districts in areas where the population was 20,000 or more. These districts were examined using regression analysis. There are a number of distinctions to note between the districts located in areas where the population was less than 20,000 and those in areas where the population was 20,000 or more. These distinctions are summarized in Tables 2 and 3.

A number of distinctions between school districts in smaller and larger communities can be discerned by comparing Tables 2 and 3. The average number of voters and the percent voting "no" on budgets were higher in areas with larger populations. Independent sample t-tests indicated that these two differences were statistically significant ($p < .001$). However, the difference between the percent of budgets approved was not statistically significant between the districts in smaller and larger communities. On average, both groups of school districts approved 92.6% and 90.5% of their budgets respectively. Nevertheless, elections were more competitive in larger districts. In districts where the population was 20,000 or more, an average of 39.5% voted against school budgets. In contrast, 34.7% of voters opposed school budgets in districts where the population was less than 20,000, which suggests that the chance of future budgets being rejected may occur sooner in larger districts. The comparison of Tables 2 and 3 also reveals that average district spending, tax levies, enrollment, and superintendant salaries were higher and statistically significant ($p < .001$) in larger districts. The relatively more competitive nature of budget votes in larger districts, coupled

with expanding budget expenditures and flat enrollment, makes them of particular interest in this analysis.

The demographic characteristics of school districts in New York add to our understanding of school finance trends. Table 4 provides summary statistics for the school districts examined. These statistics are based on 2006–08 ACS estimates for geographic areas with total populations of 20,000 or more. For this subgroup of New York school districts, the average district had a population of 36,946 and contained 14,079 housing units. The typical school district was 81.1% white, 18.9% minority, and had a median age of 39.2 years. Median household income was \$73,452 and median housing values were \$335,393.

In contrast to New York school districts, the 2006–08 ACS indicated that the overall population in the U.S. was more racially diverse (74.3% white and

Table 4. Summary of School District Data from the 2006–08 American Community Survey (n=179)

Average District Population	36,946
Percent White	81.1
Percent Minority	18.9
Median Age	39.2
Median Household Income(\$)	73,452
Average Number of Housing Units (\$)	14,076
Median Housing Value	335,393

25.7% minority) and younger (median age of 36.7 years). Additionally, median household income in the U.S. was \$52,175 and median housing values were \$192,400. In many respects, the demographics of the subset of New York school districts are exceptional when contrasted with the nation as a whole. On average, the subset of New York school districts was more racially homogeneous and economically middle class. These districts also benefited from a relatively broader property tax base.

Linear Regression Analysis of Budget Voting

In order to gain a better understanding of factors influencing voting on school district budgets, multivariate models were developed using linear regression. Three models were developed and each of the models was used to predict the percent of individuals voting “no” in a school district’s budget election. The models used data from the NYSED and the ACS. Table 5 summarizes the variables used in the linear regression analysis.

Five ACS variables were created to predict the percent of individuals voting “no” in a school district’s election. The first variable was the total school district population estimate in 2006–08. The second variable was the percent of a school district’s population that was minority in 2006–08. The third variable measured the median age of a school district’s population in 2006–08. The fourth variable measured the median household income of a school district in 2006–08. Finally, a variable was included measuring median housing values for school districts in 2006–08.

In addition to variables from the ACS, seven variables created from NYSED data were used in the analysis. These variables were selected to replicate measures

Table 5. Variables Used in Linear Regression Analysis

Variable Name	Variable Description
<i>Dependent Variable</i>	
Percent Voting “No”	Average percent voting “no” on a school district’s budgets for the budget years 2003–04 through 2009–10
<i>Independent Variables</i>	
District Population	Total school district population in the 2006–08 American Community Survey (ACS)
Percent Minority	Percent of a school district’s population that was minority in the 2006–08 ACS
Median Age	Median age of a school district’s population in the 2006–08 ACS
Median Household Income	Median household income in a school district in the 2006–08 ACS
Median Housing Value	Median housing value in a school district in the 2006–08 ACS
District Enrollment	Average total annual enrollment in a school district between the 2003–04 and 2009–10 budget years
Percent Enrollment Change	Average annual percent enrollment change in a school district between the 2003–04 and 2009–10 budget years
Spending Per Student	Average total spending per student in a school district between the 2003–04 and 2009–10 budget years
Superintendent Salary	Average annual superintendent’s salary in a school district between the 2000–03 and 2009–10 budget years
Percent Tax Levy Change	Average annual percent tax levy change in a school district between the 2003–04 and 2009–10 budget years
Percent Spending Change	Average annual percent total spending change in a school district between the 2003–04 and 2009–10 budget years
Voter Turnout	Average total annual voter turnout in a school district between the 2003–04 and 2009–10 budget years

used in past research (Ehrenberg 2004; NYSED 2005b). The first variable measured the average total annual enrollment for a school district between the 2003–04 and 2009–10 budget years. The second variable measured the average annual percent enrollment change for a school district between the 2003–04 and 2009–10 budget years. The third variable measured the average total spending per student for a school district between the 2003–04 and 2009–10 budget years. The fourth variable measured the average annual superintendent’s salary for a school district between the 2003–04 and 2009–10 budget years. The fifth variable measured the average annual percent tax levy change for a school district between the 2003–04 and 2009–10 budget years. The sixth variable measured the average annual percent total spending change for a school district between the 2003–04 and 2009–10 budget years. The final variable measured the average total annual voter turnout for a school district between the 2003–04 and 2009–10 budget years. The results from the linear regression analysis are summarized in Table 6.

Table 6 includes three linear regression models. Model 1 indicated that 14.0% of the variance in the percent of individuals voting “no” in a school district’s budget election was attributed to factors associated with community demographics. After controlling for all of the independent variables, this model indicated that one variable was significantly ($p<.05$) related to the percent of individuals voting “no” in a school district’s budget election. This variable was the percent of the population that was minority. The model predicted that for each percent increase in the population that was minority, votes against a school

Table 6. Linear Regression Models for the Effects of Independent Variables on the Percent Voting “No” on School District Budgets (n=179)

Variable Name	Model 1		Model 2		Model 3	
	Coefficient	(β)	Coefficient	(β)	Coefficient	(β)
District Population	3.835	(.116)	-	-	-.0001*	(-.373)
Percent Minority	.092*	(.239)	-	-	.161***	(.435)
Median Age	-.051	(-.037)	-	-	-.044	(-.034)
Median Household Income	7.102	(.273)	-	-	4.991	(.194)
Median Housing Value	1.326	(.044)	-	-	-5.570	(-.189)
District Enrollment	-	-	-6.405	(-.028)	.0001	(.050)
Percent Enrollment Change	-	-	-.543	(-.071)	-.290	(-.039)
Spending Per Student	-	-	.0004*	(.251)	.0002	(.122)
Superintendent Salary	-	-	1.633	(.091)	9.943	(.056)
Percent Tax Levy Change	-	-	.270	(.065)	.254	(.066)
Percent Spending Change	-	-	.681***	(.278)	.466*	(.209)
Voter Turnout	-	-	.001***	(.382)	.002***	(.685)
Constant	32.789***		21.482***		25.242***	
Adjusted- R ²	.140***		.293***		.346***	

* $p<.05$, ** $p<.01$, *** $p<.001$

district's budget would increase by .092%. This is an unanticipated outcome, since Priest and Fox (2005) found that minority group members tend to be more supportive of education spending. Their hypothesis was not supported by the data for New York school districts. It should be noted that the cities in New York with the largest concentrations of minority group members—Buffalo, New York City, Rochester, Syracuse, and Yonkers—were not included in the analysis, since their budgets are part of municipal government structures. Nevertheless, this finding raises questions about the degree to which different racial and ethnic groups support spending on education.

Model 2 indicated that 29.3% of the variance in the percent of individuals voting “no” in a school district's budget election was attributed to factors associated with measures of school district enrollment and finance. After controlling for all of the independent variables, this model indicated that three variables were significantly related to the percent of individuals voting “no” in a school district's budget election. The first variable significantly related to the dependent variable ($p < .05$) was the average total spending per student in a school district. The model predicted that for every one dollar increase in per student spending, votes against a school district's budget would increase by 0.0004%. The second variable significantly related to the dependent variable ($p < .001$) was the average annual percent change in overall school spending. The model predicted that for each annual percent increase in overall school spending, votes against a school district's budget would increase by .681%. The final variable significantly related to the dependent variable ($p < .001$) was voter turnout. The model predicted that for each additional voter, the votes against a school district's budget would increase by .001%. Combined, these findings reveal that voters are sensitive to annual increases to school district spending. Incremental increases in school spending and per pupil expenditures appear to trigger taxpayer revolts.⁴

Model 3 combined community demographic variables with district enrollment and finance variables. This model indicated that 34.6% of the variance in the percent of individuals voting “no” in a school district's budget election was attributed to factors associated with the combined effects of all variables used in the analysis. After controlling for all of the independent variables, this model indicated that four variables were significantly related to the percent of individuals voting “no” in a school district's budget election. The first variable significantly related to the dependent variable ($p < .05$) was the total school district population in 2006–08. The model predicted that for

4. References to taxpayer revolts in this analysis are introduced to indicate that, in part, votes against school district budgets are cast as a form of protest. Although the vast majority of district budgets were approved during the period examined, protest voting is still of interest. The focus of this analysis is not on whether taxpayer revolts succeed. It is on the socioeconomic conditions that augment protest voting in the budget process.

each unit increase in the district population, the votes against a school district's budget would decrease by .0001%. The second variable significantly related to the dependent variable ($p < .001$) was the percent of the population that was minority. The model predicted that for each percent increase in the population that was minority, the votes against a school district's budget would increase by .161%. The third variable significantly related to the dependent variable ($p < .05$) was the average annual percent change in overall school spending. The model predicted that for each annual percent increase in overall school spending, the votes against a school district's budget would increase by .466%. The final variable significantly related to the dependent variable ($p < .001$) was voter turnout. The model predicted that for each additional voter, the votes against a school district's budget would increase by .002%.

Model 3 provides a more complete view of the combined effects of all independent variables on school district budget vote outcomes. In this model, the size of a district, its racial composition, changes in overall spending, and voter turnout were significantly related to budget vote outcomes. Other independent variables were not significantly related to the dependent variable.⁵ Moreover, one variable that was significantly related to the dependent variable in Model 2, average total spending per student, was no longer influential on vote outcomes.

The results from this analysis refine our understanding of factors influencing school district vote outcomes. Of the four variables that were significantly related to the dependent variable, voter turnout had the largest standardized coefficient (β), with a value of .685. This suggests that as voter interest intensifies, school district budgets face increased resistance. In essence, these data suggests that heightened voter interest constitutes a form of taxpayer revolt. Although the vast majority of school district budgets were approved during the period examined, the findings from this analysis suggest that new voters mobilized to vote against them. In essence, they constituted a protest vote. This presents something of a dilemma for school boards and administrators, since there are potential incentives to discourage turnout in order to increase the chances of school budgets being approved.

The second most influential variable in Model 3 was the percent of a district's population that was minority. It had a β value of .435. This suggests that districts

5. Linear regression models for the effects of the independent variables on school district budgets were run by year as well as in the aggregate. The results for the fully specified model by year are summarized in Appendix I. Across the years the two most influential variables—voter turnout and percent minority population—remained significant. The results for the other variables were also relatively stable. One exception was the 2007–2008 election, where household income, property values, and spending per student were significantly related to election outcomes. Further analysis of this election cycle is warranted. It is noteworthy that this election coincided with the emergence of the housing and financial crisis and may represent a unique period when instability in the national economy had an enhanced influence on local election outcomes.

with larger minority populations are more likely to reject school budgets.⁶ At one level, this suggests that school districts that serve diverse populations are not satisfying all constituencies equally. However, the data do not indicate which constituencies are more apt to vote against a district's budget.⁷ One theory is that this result stems from differences between the racial composition of voters and school age children. For example, older whites in communities with an influx of minority children may harbor prejudice and be less likely to support school spending. Consequently, broader issues of race relations in communities might result in voter backlash. Another possible explanation for voting against school budgets is that minorities are less likely to trust dominant institutions in society, and rejecting school budgets is a manifestation of their general distrust of institutions. Other influential intervening factors in diverse communities are overall school quality, the presence of culturally sensitivity curriculum, and levels of relative school performance. Regardless, the greater likelihood of opposition to school district budgets in diverse communities suggests that schools need to focus on community outreach in order to provide residents with a greater stake in schools.

The third most influential variable in Model 3 was total school district population. It had a β value of $-.373$. This suggests that larger districts are more likely to approve school spending plans. This finding is consistent with research on school bond elections by Bowers et al. (2010). One possible explanation for this result is that large school districts benefit from the ability to spread school expenses across a broader tax base. Larger districts may benefit from more households contributing to the property tax base and increased formula-based state aid due to higher enrollment. School districts in larger communities may also benefit from access to other local resources and economies of scale which promote efficiency in the delivery of curriculum and the maintenance of school facilities. Of course, the downside of larger districts is that residents may have fewer interactions with schools and participate less in their governance.

The fourth most influential variable in Model 3 was the annual percent increase in overall school spending. It had a β value of $.209$. This suggests

6. It is noteworthy that median household income was not significant in Models 1 or 3. Race remained a significant predictor of voting on school budgets after controlling for this and other demographic characteristics. Future analysis could expand upon these findings by substituting poverty rates for median household income in the analysis.

7. This analysis only examines the influence of an area's minority population size on school district budget voting. In order to understand how various constituencies vote, cross-sectional data would need to be collected from individual voters. Prior research has indicated that minority voters are supportive of school budget increases (Priest and Fox 2005) and that voting patterns do not differ across age cohorts (Ehrenberg 2004; Hilber and Mayer 2004; Lambert et al. 2009). However, these findings have not examined individual voting behavior in the context of community characteristics. Further research applying comparative cross-sectional analysis is needed to address this gap.

that noticeable increases in overall education expenditures prompt voters to reject budget proposals. This is interesting, since overall spending on education represents combined revenue from the local property tax levy and intergovernmental transfers. In part, resistance to overall school spending may reflect voter dissatisfaction with the overall tax burden associated with education expenditures. However, it also represents a focus of control issues. Opposition to overall educational spending may be symptomatic of voter disenfranchisement from standardized state and federal education curriculum and other mandates. In essence, resistance to overall educational spending is a form of taxpayer revolt, but it is also an expression of concern over the lack of local autonomy and control of educational policy.

CONCLUSION

The results from this analysis provide school board members and administrators with a number of lessons that can be applied to financial planning. These lessons are particularly relevant in the contemporary period as school districts face rising operating costs; increased costs for facility maintenance and energy; pressure to increase salaries; and upward pressure on healthcare costs and other fringe benefit obligations. Due to these pressures, school districts will need to increasingly identify ways to meet financial obligations that are beyond their immediate control and manage expenditures in a manner that does not negatively impact curricular goals. These fiscal realities demand that board members and administrators expand the level of outreach to the communities they serve in order to educate voters about school finance issues, incorporate them into the budget formulation process, and engage them in educational capacity building. In essence, budget constraints necessitate a new and expanded partnership between educators and community members. Although voter support for school district budgets has been stable in the past, the potential exists for voting to become more volatile in the future. Increased outreach and community engagement is one tool available to school board members and administrators to manage fiscal uncertainty.

The findings from this analysis suggest that voters' frustration with growing budget pressures can augment turnout at the ballot box. If this frustration occurs in a vacuum, it can be articulated in the form of a taxpayer revolt. Consequently, district budgets may be defeated at higher rates and schools may be forced to operate with inadequate resources. Given this scenario, it is imperative that school boards and administrators adopt participatory budgeting tools. These tools involve the use of community workshops and surveys focusing on budget building (Simonsen and Robbins 2000; Feldman and Quick 2009; Lifo and

Senden 2010). They are designed to incorporate citizen participation into the budget formulation process and use public deliberations to prioritize budgeting decisions. In the past, participatory budgeting tools have been used to facilitate decision-making and public education in the face of fiscal constraint. Past studies suggest that the adoption of these techniques have been used successfully to inform budgeting and enhance community input in the budget formulation process (Simonsen and Robbins 2000; Feldman and Quick 2009).

Although somewhat beyond the scope of this analysis, the results suggest that there may be potential financial benefits from the consolidation of smaller school districts. These benefits primarily come from the broadening of the local property tax base and the development of economies of scale. However, there are also potential risks to school district consolidation. These risks are associated with reductions in community accessibility to schools. Alsbury and Shaw (2005) examined these issues and concluded that consolidation can enhance the resources of individual schools and help to equalize spending across school districts, but this can come at the expense of community input in district-wide decision-making. In order to address this problem, districts should include community empowerment and school governance reforms as central components of any district reorganization proposals. It is not enough to approach district consolidation as a cost-cutting measure. District reorganization should be viewed within the context of a broader set of reforms aimed at educational capacity building and promoting community empowerment (Grubb 2009).

Building educational capacity and empowering communities is further challenged by growing racial and ethnic diversity in school districts. In the future, one of the biggest obstacles to sustaining school finance may involve a reaffirmation of the commitment to use education as a vehicle to address historic inequalities in society linked to race and ethnicity. School districts need to take a more active role in engaging the public and stimulating dialogue to reduce prejudice against growing minority populations and distrust of institutions in minority communities. Districts also need to expand access to curriculum development and decision-making within their schools in order to enhance levels of cultural sensitivity. Although funding equalization is a critical component of enhancing capacity and empowering communities, improved community relations and augmenting educational capacity through community engagement are crucial in the contemporary period.

The core lesson school board members and administrators can take from this research is that voter resistance to educational spending is linked to issues of local autonomy and community control. It is not surprising that resistance to district budgets was significantly related to overall school spending, and not local

property tax increases. If districts are to develop sustainable finance policies, they must focus on strengthening partnerships with the communities they serve. Residents are willing to fund public education when they believe school districts have local autonomy and control of educational policy. The challenge for school districts is to forge a new framework for expanded community-based decision-making in education finance and policy.

Appendix I. Linear Regression Models for the Effects of Independent Variables on the Percent Voting “No” on School District Budgets by Year (n=179)

Variable Name	2004–05	2006–07	2007–08	2008–09	2009–10
District Population	-9.872 (-.190)	-.0001* (-.350)	-.5.314 (-.118)	-.0001* (-.381)	-.0001* (-.322)
Percent Minority	.149* (.237)	.189*** (.053)	.163** (.308)	.181** (.335)	.143** (.302)
Median Age	.069 (.032)	.120 (.068)	.064 (-.035)	-.004 (-.054)	-.127 (-.077)
Median Household Income	-2.682 (-.067)	3.116 (.009)	.0001* (.329)	1.036 (.028)	3.788 (.001)
Median Housing Value	8.158 (.174)	-4.734 (-.121)	-1.485* (-.368)	-4.802 (-.113)	-3.746 (-.102)
District Enrollment	-5.850 (-.017)	.0001 (.037)	9.014 (.030)	-3.563 (-.011)	.0003 (.114)
Percent Enrollment Change	24.190 (.044)	-.863 (.460)	-.632 (-.128)	-.580 (-.107)	.108 (.025)
Spending Per Student	-5.676 (-.019)	3.214 (.015)	.001* (.257)	-.0002 (-.098)	8.401 (.048)
Superintendent Salary	5.001 (.002)	-1.510 (-.071)	-1.623 (-.080)	2.543 (.123)	6.227 (.039)
Percent Tax Levy Change	87.062*** (.333)	.410 (.140)	.763** (.214)	.155 (.102)	.781** (.216)
Percent Spending Change	-.059 (-.017)	1.264** (.450)	.853* (.209)	1.006** (.208)	.931* (.191)
Voter Turnout	.003*** (.001)	.002*** (.518)	.002*** (.447)	.004*** (.717)	.003*** (.514)
Constant	26.638**	26.582***	10.756	31.211***	28.523***
Adjusted- R ²	.381***	.239***	.292***	.286***	.293***

*p<.05, **p<.01, ***p<.001

Note: School district budget voting results were not released by the New York Education Department for 2005–06.

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