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ABSTRACT

Our paper analyzes historical data for New York State on the percentagee of school budget proposals that are defeated each year and panel data that we have collected on budget vote success for indvidual school districts in the state. We find that changes in state aid matter, but not as much as one might expect. Defeating a budget proposal in one year neither increases nor decreases the likelihood that voters will defeat a proposal the next year. Districts whose school board members have longer terms have lower probabilities of having their budget proposals defeated. Finally, measures of school district educational and financial performance do not appear to influence budget vote outcomes.

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I. Introduction

Public elementary and secondary education is financed in New York State primarily through state aid to local school districts and through local school district revenues. In 1999-2000, the former provided about 44 percent of total school district expenditures and the latter 52 percent, with the balance of funds coming from the federal government. The primary source of local school district revenues, approximately 90 percent statewide, is property tax revenue generated from a tax on residential and commercial property in each district.

Each spring, on a designated date, voters in the vast majority of each of the almost 700 local school districts in the state vote on a budget that has been proposed by their local school district's board of education. Given estimates of expected state aid to the district, its other sources of revenue, and the value of property in the district, the budget determines the tax rate that will be levied to support the school district during the forthcoming academic year. At the same time that the budget vote takes place, the voters also vote to elect some fraction of the local school board members

In the event that the budget is defeated, a school board faces a decision. It can adopt a *contingency* budget that is mandated by state law and that restricts the district's spending in the next year to exceed no more than a specified percentage of its spending in the current year.[1] Alternatively, the school board can resubmit the budget that was defeated or submit an alternative, usually smaller, budget, to the

[1] Contingency budgets are capped at a percentage increase over the previous year's budget that is the lesser of 4 percent or 1.2 times the increase in the Consumer Price Index (CPI). Administrative costs are limited in contingent budgets. as are any expenses that are not deemed legally required to operate and maintain the school district.

voters for their consideration. If the budget fails on the second vote, the district must then adopt a contingency budget.

A contingency budget limits a district's expenditures in a number of ways, for example it reduces the district's transportation costs by increasing the distances that students must live from schools before free transportation to school is provided to them. Being forced to adopt a contingency budget is rarely in a school district's best long-run interest because the contingency budget then becomes the base upon which the following year's budget proposal is built. Having spending severely restricted in one year, makes it difficult to both restore cut programs and to provide for inflationary increases in the next year's budget.

A number of school districts in New York State do adopt their budgets without explicit votes of the voters. School districts that are located in the 5 largest cities in the state, Buffalo, New York City, Rochester, Syracuse, and Yonkers have their budgets determined by their school boards, subject to a constitutional tax limit on the total municipal budget. The 57 small city school districts, districts whose boundaries coincide with city lines and are located in cities with populations of less than 125,000 have had their districts' voters vote on the districts' school budgets only since legislation permitting them to do so was passed in 1997. Finally, a few school districts in the state are classified as "special act districts"; these districts have been established for special purposes, such as the education of youths with criminal records in residential detention centers and the education of youths with disabilities, and the school boards in these districts also determine these districts' budgets.

However, for the vast majority of school districts in the state, over 630 in the early 1990s and then over 680 in the late 1990s, annual school budget referenda are the rule.

In July of 2001, one of us was appointed the superintendent of schools of a school district whose board proudly informed her that the district's voters had not rejected any budget proposal during the past 25 years. While this statement was designed to show her how much the community valued public education, it stimulated us to think more systematically about the whole issue of school budget referendum and why they sometimes go down to defeat.[2] This paper represents the results of our thinking.

We begin in the next section by presenting historical data for New York State on the percentage of school board budgets that have been defeated each year. Inasmuch as this percentage varies over time, we try to explain what some of the factors are that influence the percentage of budgets that are passed each year. As might be expected, a key variable proves to be whether state aid to education is increasing in real terms.

If the pass rate in a year is 80 percent, then in four-fifths of the districts the voters approved the budgets and in one-fifth of the districts the voters did not approve the budgets. This leads us to question why the probability of budget passage varies across districts in a given year and to ask whether budget failures are concentrated among a relatively small number of districts. To answer these questions requires us to have data for individual districts for a number of years on the results of budget referenda. Remarkably, or perhaps not so, the New York State Department of Education only keeps

[2] A number of previous studies have addressed whether individual voters voted no on budget referendum or tax limitation proposals. See for example, Paul Courant, Edward Gramlich and Daniel Rubinfeld (1980), Gramlich and Rubinfeld (1990), R. Hamilton Lankford (1985a, 1985b) and Rubinfeld (1977). Thomas Romer, Howard Rosenthal and Vincent G. Munley (1992) present a structural model of voting on school budget referendum in New York State and estimate the model using budget referenda data for a single year in the 1970s.

the results of individual school board elections on file, in electronic or print form, for three to five years. So in section III, we describe a survey that we undertook of all local school districts in the state and show how the pass rates in our sample in each year correspond to the pass rates in the aggregate published data. We show that the frequency of budget rejections over a twenty-two year period varies widely across school districts. Interestingly, a substantial fraction of districts always pass their budgets.

In section IV, we estimate models of the determinants of whether an individual school district's budget proposal is defeated by the voters in a year. Our focus in this section is on financial variables, including changes in state aid. The state school aid formulas in New York State are so complex and so political that in any year, changes in state aid per student vary widely across districts. Moreover, the correlations across districts in the percentage increase in the real per student state aid change going to a district in one year with the percentage increase in the real per student state aid change in the next year are quite low[3]. This provides a type of natural experiment that allows us to test whether budget vote defeats are higher when state school aid to a district is increasing at a slower rate than the average rate of increase in state aid to local school districts in the state. The merging in of data from a variety of other sources permits us to test a number of other hypotheses.

The panel data also allow us to ascertain if districts in which voters have defeated budgets in the recent past are more likely than other districts to see their referenda defeated in the current year. As might be expected the answer is yes and that leads us to try to distinguish between the hypotheses that this relationship reflects that voting down a

[3] The highest correlation of per student real state aid changes across school districts in our sample for any two adjacent years was .33. For the vast majority of adjacent years it was under .1 in absolute value.

budget in one year makes it more likely that the budget will be voted down in a subsequent year (state dependence) or that it simply reflects that there are variables omitted from our models that simultaneously cause a district's voters to vote down the budget proposed by the school board in two consecutive years (heterogeneity).[4] After briefly describing some extensions of our empirical work in which we sought to ascertain if measures, or changes in measures, of school district "performance" influence voter behavior in section V, we provide some brief concluding remarks

II. Historical Data on New York State School District Budget Referenda

Table 1 presents annual data for the 1969 to 1999 period on the number of school districts in New York State that held budget votes, the number of these budgets that were passed by the voters and thus the percentage of school district budgets that were adopted by the voters. The number of districts that held budget votes declined gradually from 690 in 1969 to 628 in 1996 reflecting the gradual consolidation of small districts into larger ones within New York State. The increase to 685 in 1997 reflects the passage of the state law that allowed small city districts to submit their budgets to the voters. The fraction of districts in which voters adopted proposed budgets fluctuated over time ranging from lows of under 70 percent in 1978 and 1994 to highs of over 90 percent in 1984, 1998 and 1999.

What determines the fraction of school districts whose voters pass their budgets each year? Financial variables surely matter. If state aid per student is increasing in real terms, any given size school board budget proposal will require a smaller increase in the school

[4] James J. Heckman (1978) and James J. Heckman and George J. Borjas (1980)

district property tax and thus should be more likely to win voter support.[5] Similarly, the more rapidly per capita real state income is increasing in the state; the more likely voters will be to accept any given sized proposed school budget and tax rate increase. Public school enrollments also presumably matter; growing enrollments mean more families with children in the schools and thus a greater base of support. However, the greater the fraction of school age children in the state educated in private schools, the smaller the share of tax payers who are likely to support school budget increases. It also is frequently alleged that the greater the share of the elderly in the population, the greater will be the probability that school budget votes will be defeated, although this allegation ignores the fact that many of the elderly are grand parents and, if they live in the same area as their grandchildren, will have a continued vested interest in the quality of their local schools. Finally if voters newly voting in small city school districts display different behavior than voters in districts where voting on the school budget has been a long tradition, one would have to control for the introduction of the small city voting in the analysis.

Table 2 presents estimates of equations that seek to explain the time series variation in the school district budget pass rates in New York State. Recalling that the school district budget vote occurs in the spring of each year for the following school year, the estimates in the first colume come from a specification that assumes a type of rational expectations on the part of voters.

For example, for the vote that takes place in the spring of 1990, this specification assume that the voters can accurately predict what their district's real state aid per student

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[5] If a school board accurately represented the preferences of residents of its school districts, a change in any of the variables discussed in this paragraph, should also influence the size of the budget proposal that the school board submits to the voters (Rosenthal, Romer and Munley (1992). Hence in a formal sense, the postulated relationships that follow are based on the school board not behaving as if it were the median voter in the district.

will be in 1990-91 and thus that they act as if they know the actual percentage increase in real state aid per student that will occur between 1989-90 and 1990-91. This would enable them to estimate what their tax rate increase would be, given the proposed budget and knowledge of the value of property in the district. Similarly, since the 1990-1991 school year encompasses parts of both 1990 and 1991, it assumes that they generate their expectations about their ability to pay for school tax increases based upon their accurately estimating the growth of real per capita income in the state between the two years. Finally, it assumes that they act as if they know what the increase in school enrollments will be in the 1990-91 school year as compared to the 1989-90 school year.

The estimated coefficients in this column are disappointing, to say the least. No variable's coefficient is even close to being statistically significantly different from zero. However, lest the reader despair, we have neglected to mention one important fact, namely that the governor and state legislature in New York State have been unable to come to agreement on the state budget by the start of the New York State fiscal year (April 1) for as long as virtually anyone can remember.[6] Thus, the actual aid that a school district will receive during the next academic year is usually unknown at the time of the budget vote. While a school board usually makes an estimate of the state aid increase when proposing a budget, which leads to an implicit or explicit proposed tax increase, voters may not have the same estimate in mind. They may form their expectations of the likely state aid increases in a different way. One simple alternative, for example, is for them to assume that the real percentage increase in state aid per student that the district will receive in the upcoming year is the same as it received in the current year.

[6] The New York State budget has been passed on time by both houses of the state legislature and signed by the Governor only once since 1982. 2002 marked the 18th straight year that the budget was not approved on time.

Returning to our example, school district voters' votes in the spring of 1990 for the 1990-91 school budget may depend upon the percentage increase in real per state aid per student that occurred between 1988-89 and 1989-90, not the actual increase that will materialize between 1989-90 and 1990-91. Similarly, the percentage increase in enrollment that the voters project will occur may be the percentage increase that occurred in the current academic year, not the actual realization that will occur in the next year. Finally, the voters' willingness to support public schools may be based upon the actual percentage increase in real income that they experienced between the 1989 and 1990 calendar years, not the actual percentage increase that will occur between 1990 and 1991,

Column 2 of table 2 presents estimates of the pass rate equation when these alternative financial and enrollment change variables are included. Remarkably, the fit of the model is much better. Every one-percentage point increase in real state aid per student between the current and previous school year is seen to increase the budget pass rate by about .035 percentage points. Similarly, increases in real income that took place between the current and previous calendar year strongly influence the pass rate. Finally, the inclusion of the small city school districts in the sample was associated with about a one-percentage point increase in the budget pass rate.[7]

Column (3) presents estimates of a similarly specified equation; the only difference is that the dependent variable is now the log odds ratio of the budget pass rate (log (p/(1-p))) to allow the dependent variable to be normally distributed. The pattern of the signs and significance of the coefficients is the same as in the previous column, save that enrollment growth is now positively associated with increased likelihood of budget

[7] Estimates of this equation and the others that follow that control for autocorrelation of the residuals prove to be virtually identical because the estimated Durbin-Watson statistic is close to two in each case.

passage. If one drops enrollment growth from the equation (column (4)), the fraction of student enrolled in private schools becomes a statistically significant negative predictor of budget pass rates, however, we caution that this variable was not statistically significant when enrollment growth was included in the model.

In column (5), we return to the linear probability model and estimate a variant of the model in column (2) that includes the budget pass rate in the previous spring. That is, we ask if the fraction of districts that pass a budget in one year influences the fraction that pass it the next year, holding all other variables constant. The coefficient of the lagged dependent variable is small and statistically insignificantly different from zero, suggesting that at the state level, budget vote behavior in one year does not influence budget vote behavior in the next year. Moreover, the magnitude and statistical significance of the percentage change in real state aid per student remain about the same as before. Use of an instrument for the lagged dependent variable, to control for the possibility of autocorrelation in this model with a lagged dependent variable, yielded virtually identical results.

III. Individual School District Data

Although the New York State Education Department's Office of Enrollment Management Services has maintained records of the fraction of school districts in which voters passed school budgets annually going back to 1969, it discards the results of individual school district's vote passage history after 3 to 5 years. Currently, only the individual school district vote passage records for the votes taken for the 1998-99, 1999-00, 2000-01 and 2001-02 school years are available from it.[8]

To obtain historical data, the Cornell Computer-Assisted Survey Team (CAST) conducted a survey for us of all school districts in New York State, except for those in New York City, during the summer and fall of 2001. The survey requested information for the 1975 to 1997 period on the results of the initial budget referendum each year, if the initial proposed budget was defeated whether a second budget was submitted to the voters and, if a second budget was submitted, whether that budget passed. The survey also requested information on the number of members on the school board and the length of their terms in office.

Of the 699 districts surveyed, 6 proved to be special districts in which school budget votes did not occur, 32 refused to participate and 137 did not reply to repeated requests. We received usable responses from 499 districts for the budget votes undertaken in the spring of 1997, which represented about 75% of all the New York State local school districts that held budget votes that spring. The number of years for which districts provided voting histories to us varied and not surprisingly the number of reporters declined as we went further back in time. For the earliest year for which we requested data in our survey, 1975, there were 328 respondents, which represented about 49% of the total budget votes that took place in that year (table 1).

Table 3a provides information on the number of school districts that reported their budget votes to us for each year, the percentage of the sample districts whose budgets were adopted by the voters on the first vote, the percentage of the sample district whose voters ultimately approved a budget, and the actual aggregate percentage of districts in

[8] http://www.emsc.nysed.gov/mgtserv.gemsho.htm

the state whose districts approved budgets in each year. The percentage of districts in our sample whose budgets were ultimately approved by the voters in 1997 exceeds the percentage of all districts in the state whose voters approved budgets that year by almost 10 percentage points, which indicates that districts that refused to participate in our survey, or that did not respond to the survey, were more likely to be districts whose voters had rejected the budget proposal in that year. As one goes further back in time, on average, the divergence between the pass rate among districts in our survey that provided information for a year and the aggregate pass rate for all districts in the state gets larger. However, as the bottom panel of table 3a indicates the correlations over time between the published pass rate data found in table 1 and the initial and final pass rates for our samples of reporting districts, .926 and .843 respectively, are quite high.

There were 294 districts in our sample that provide information on whether voters approved the budgets in their districts for every year between 1975 and 1997. Table 3b presents pass rate information for these districts; their average pass rates, both initially and finally, are slightly higher than the average pass rates found in the previous table. The correlation of the pass rates for these districts with the reported published pass rate is very similar to those found in the previous table.

Do budget pass rates vary systematically across school districts? A hint of this appears in the comparison of the results for all districts and for the respondents to our survey that appear in tables 3a and 3b. Table 4 confirms that they do by tabulating the number of times each of the 294 school districts saw their budget proposals defeated by the voters during the 22 year period for which we collected data. Fifty-six of the districts, or 19%, always had the voters approve their budget on the initial vote. One hundred and fifty four of the districts, or 52%, always had a budget proposal ultimately approved by the voters and thus never had to adopt a contingency budget.

The number of times that voters defeated school budget proposals in other districts varies across districts from 1 to 12 times during the 22 year period. The norm is obviously budget passage and as the number of budget defeats increases, the number of districts steadily decreases. On average, districts in our sample saw their initial budget proposals defeated 13 percent of the time and went to contingency budgets 5.5 percent of the time. For those districts that held second votes on the same or a revised budget, the probability of passage the second time was about 58 percent.

IV. Why Do Budget Referendum Failures Vary Across School Districts

The availability of data on the characteristics of school districts and their finances in New York State that is available in electronic form back to the 1984-85 school year, along with the data on voting outcomes that we have collected, allow us to analyze data for a panel of 380 districts that span the 1985-86 to 1996-1997 school years.[9] All of the small city districts, which first began to vote on school budgets in the 1996-97 year, are omitted from our sample.

Columns (1) of table 5 presents coefficient estimates of a linear probability equation model in which the dependent variable is a dichotomous variable indicating whether a district's school budget was defeated on the initial vote (1=yes, 0=no) in a

[9] The previous section's discussion suggests that this sample of districts is not a random sample of the districts in which voters voted on school budgets in New York State during the period. As such, the results that follow may be subject to sample selection bias. While there are methods available to control for selection bias (e.g. James Heckman (1979), in the absence of information on a set of variables that influence whether a district appears in our sample but do not influence the voting outcome given that they appear, identification using such methods would be achieved only by functional form assumptions and we have chosen not to pursue this approach.

year.[10] All coefficients in this model have been multiplied by 100, so the coefficient of each represents our estimate of the effect of a one-unit change in the underlying variable on the percentage change in the probability that a proposed budget will be defeated.

In evaluating the results that follow, readers should keep in mind that we do not have information on the initial budget increases that were proposed for each district in each year. Many of the variables included in our model should also be expected to influence school boards' budget proposals. Absent information on the size of the proposed budget increase, which presumable would be a key variable in a structural model of whether a proposed budget was defeated, one should interpret the estimates that follow as coming from a reduced form model.

Suburban districts (SUBURB) are about 4 percentage points more likely to defeat initial school budget proposals than their rural district counterparts. Suburban districts tend to be larger than rural districts and previous research suggests that school board members in larger districts are more likely to have an objective of maximizing their districts' budgets, while school board members in smaller districts are more likely to behave as if they represented the median voter.[11] Contrary to popular opinion, we find no evidence that older voters are more likely to vote against school budgets than their younger counterparts (MORE65). Indeed, the higher the proportion of residents in a county that are above age 65, the less likely that school districts in a county see their initial budget proposals defeated. This may reflect either that school districts in counties in which there are high proportions of older votes moderate their budget proposals to

[10] The standard errors in this table have all been adjusted for heteroscadesticity.
[11] Romer, Rosenthal and Munley (1992), and Romer and Rosenthal (1982)

avoid risking defeat or that older residents, many of whom have grandchildren, retain a strong concern about the quality of public education in their areas.

The greater is the proportion of students in a district who are Hispanic American (HISP), the greater the probability of budget defeats. The magnitude of this relationship is quite large. Other things equal, districts with 10 percentage points more Hispanic American residents appear to have a 5 percentage point higher percentage of voters voting against the budget proposal. In contrast, the greater the share is of American Indian, Alaskan Native, Asian and Pacific Islander students in the district, (OTHER), the higher the likelihood that the budget will pass.

Districts in which there is a lot of mobility of pupils into and out of the district (PMOB) appear to have a higher chance of seeing their initial school budget proposal defeated. Similarly, districts with a greater percentage of students receiving free or reduced price lunch (FLUNCH) are more likely to see their initial budget proposals defeated, as are districts in which a greater percentage of the students attend private school (PRIVSCH). However, neither the percentage of students who are of limited English proficiency (LEP) nor the proportion of students in the community coming from families below the poverty line (POVERT) appears to influence the probability of our observing a budget defeat.

In the absence of an annual data on the income of school district residents, we attempted to control for variations in the income level of residents across districts by including real per capita school income of school district residents in 1990 (INCOME). Districts with higher income residents are more likely to vote down budget proposals. In contrast, districts with more residents who have college degrees are less likely to vote budgets down (COLLED). Other factors held constant, a 10 percentage point increase in the percentage of residents with college degrees is associated with a 0.2 percentage point reduction in the probability of a school budget vote defeat.

School districts vary in New York State in terms of the size of their school boards and the length of their school board members' terms. Almost 50% of the districts in this sample have 7 board members, another 49% have either 5 or 9 members, and a small number of districts have 3, 6, or 8 members. About 64% of the districts in this sample have 3-year terms for their members, 35% have 5-year terms and the remaining districts' board members have 4-year terms.

The greater the number of years that school board members serve (BOARDT), the lower the probability that a budget will be defeated. Moving from 3 to 5-year terms for example, is associated, other factors held constant, with an almost 5 percentage point reduction in the likelihood that a budget will be defeated. Apparently longer terms for school board members are associated with more stability on the board and thus a board that is more likely to understand the concerns of voters when framing the budget.

Interestingly, the greater the number of students per school board member, the more likely budgets will be defeated (BOARDS). The mean number of students (in hundreds) in a district per school board member in our sample is 3.24 and its standard deviation is 3.27**.** An increase, for example, in 100 students per school board member, is associated with an increase of .85 percentage points in the likelihood that a vote will be defeated. This implies that the higher the number of students per school board member is, the less likely it is that the board will be representative of the community. The number of students per school board member is very highly correlated with the size of the school district so this variable may also simply be capturing school district size.

The remaining three variables in the equation focus on changes in economic variables. Greater increases in real income per capita in the county are associated with lower initial vote failure rates; each percentage point increase in real per capita income reduces the failure rate by 1.8 percentage point. Increases in real state aid appear to be much less important, as each percentage point increase in real state aid reduces the initial failure rate by only .0001 percentage points. This is a somewhat smaller relationship than was found in our time-series analysis of the statewide average failure rate. Finally, changes in the real value of property in the district are not associated with the failure rate, as school boards apparently take these changes into account when framing initial budget proposals.

Column (2) reports the coefficients from a similar model that also includes year fixed effects. The magnitudes and statistical significance of most coefficients is identical to the results reported in the previous column. In particular the importance of the percentage real income changes in the county in which the district is located and the percentage change in real state aid expected per student in the district remain roughly the same.

In column (3) we allow for the possibility that failing to pass a budget on the initial vote in one year leads to a higher (or lower) probability of failing to pass a budget on the initial vote in the next year. That is, we ask whether budget defeats have a *narcotic effect*, in the sense that a budget defeat in a district on the initial vote in one year, increases the likelihood that the budget will again be defeated on the initial vote in the district in the next year, or whether such a defeat encourages the school board and the voters to work harder to pass the budget the next time.[12]

The inclusion of the lagged dependent variable leaves most of the other coefficients in the model unchanged. Its coefficient suggests that having a budget defeated on the initial vote in one year increases the likelihood that a district will see its budget defeated on the initial vote in the next year by 16.5 percentage points. Hence, at first glance, the defeat of a budget on the initial vote in one year does seem to increase the probability that the budget will be defeated on the initial vote in the next year.

It is by now well-known, however, that such an estimation strategy does not permit us to distinguish between the hypothesis that budget defeats in one year do truly influence the likelihood of budget defeats in the next year (*state dependence*) and the hypothesis that there are some variables that have been omitted from the analyses that vary across districts, are relatively constant within each district over time and that influence the probability of a budget being defeated (*heterogeneity*).[13] Such omitted variables, which influence the budget vote outcome in one year, will also influence the outcome in the next year and thus will bias the coefficient of the lagged budget vote variable in a positive direction.

If we assume that the effects of these omitted variables on budget vote outcomes are constant over time for each school district, we can treat them as fixed effects and reestimate the model. This is equivalent to estimating the model in first-difference form and the results of this estimation appear in column (4). The impact of changes in real per

[12] Richard Butler and Ronald Ehrenberg (1981) used a similar framework to analyze whether going to arbitration in contract negotiations in one year increases the likelihood that police and firefighters will go to arbitration in the next contract round in New York State.
[13] James Heckman (1978) and James Heckman and George Borjas (1980)

capita state aid is no longer statistically significant in this model and the coefficient of the lagged dependent variable switches sign and is now negative. The implication is that losing an initial budget vote in one year decreases, rather than increases, the chances that an initial budget vote defeat will occur in the district in the next year. Unfortunately it is also well known that this coefficient estimate for the lagged dependent variable is now biased in a negative direction because, after first differencing, the lagged dependent variable now appears on both the left and right hand sides of the estimating equation.[14]

To control for this bias, we employ an instrumental variable estimate, obtaining an instrument by regressing the change in the lagged budget vote outcomes on lagged values of all of the explanatory variables in the model and whether voters in a district adopted the budget two periods ago on the initial vote. Results from this estimation appear in column (5). While the fit of the equation used to obtain the instrument is quite good, there are very few statistically significant coefficients found when the instrument is used. At best one can conclude that the evidence does not support the hypotheses that budget defeats have a narcotic effect, which is consistent with what we concluded when we analyzed the aggregate statewide data.

Table 6 presents similar estimates to those found in table 5, save that the dependent variable is now whether voters in a district rejected the initial budget proposal put forth by the school board and then the school board either went directly to a contingency budget or went to a contingency budget after a second budget proposal was defeated (1) or whether a budget proposed by the school board was ultimately approved

[14] Let Y (i, t) be the (0,1) failure rate variable for district i in year t. After first differencing the left hand side becomes Y (i, t) – Y (i, t-1) and right hand side variables include Y (i, t-1) – Y (i, t-2), where Y (i, t) is the probability that district i will fail to pass the budget on the initial budget vote in year t. If none of the other explanatory variables has an explanatory power and Y (i, t) and Y (i, t-2) were completely random, the coefficient of Y (i, t-1) – Y (i, t-2) in this model would be minus one.

by the voters (0). Although we are now attempting to explain a rarer event (going to a contingency budget) than the defeat of an initial budget proposal, the results are qualitatively very similar to those found in table 5.

In particular, suburban districts are more likely to go to a contingency budget than rural districts, districts with greater shares of elderly residents or college educated residents are less likely to adopt a contingency budget, and districts in counties whose per capita real income is increasing faster are less likely to adopt contingency budgets. Similarly, longer terms for school board members are associated with a lower probability of going to a contingency budget, while a greater number of students per school board member is associated with a higher probability of going to a contingency budget. Real per capita state aid changes never are significantly associated with adopting a contingency budget.[15]

V. Does School District Performance Matter?

One important hypothesis, which we have yet to discuss, is that how a school district is "performing" influences whether the voters approve the school district's budget proposal. Of course measuring school district performance is a tricky matter. There are numerous educational outcome measures (students' performance on third grade and six grade standardized PEP tests, students' performance on high school regents exams, drop out rates, attendance rates, college going rates) that one can (and we did) collect data on for each district each year. Other things equal, districts with higher student pass rates on

[15] As an alternative to fitting linear probability models to the data, one can fit logit and fixed effects logit (when lagged dependent variables are included) models to the data (See Jeffrey Wooldridge (2002), p. 490-492). Appendix tables A and B contain the results of such estimation; these results are very similar to those found in tables 5 and 6)

tests, lower drop out rates, higher attendance rates and higher college going rates could all be said to be better performing districts educationally. Similarly, other things equal, districts that kept their property tax rate low could be said to be better districts that are better performing financially.

Of course, other things are not equal. For example, districts in which parents are highly educated and value education highly might be expected to have higher educational outcome scores than districts without a highly educated group of parents, independent of anything that the school system does for its students. Similarly, districts with parents who highly value education might be expected to have higher tax rates, other factors held constant. However, this would reflect the parents' preference for education, not poor financial performance of the school districts.

So a district's educational outcome measures and its tax rate reflect much more than its performance. In earlier work, two of us calculated performance measures for school districts as the residuals for each school district from educational outcome and tax rate equations. The explanatory variables in these equations were specified to be characteristics of the district, including the socioeconomic and demographic composition of its residents.[16] High performing districts were defined as ones whose educational outcomes were higher than expected and whose tax rates were lower than expected, given the characteristics of the districts. Similarly low performing districts were defined as ones whose educational outcomes were lower than expected and whose tax rates were higher than expected given the characteristics of the district. In our earlier paper, we studied the relationship between a district's educational and tax rate performance and the

[16] Ronald G. Ehrenberg, Richard P. Chaykowski and Randy A. Ehrenberg (1988)

compensation and mobility of its school superintendent and found weak, but positive relationships.

We attempted to pursue a similar strategy in this paper. Our initial budget vote failure models were expanded to include either measures of each district's educational and financial outcomes, measures of its educational and financial performance (the residuals from the outcome equations) or measures of the one-year changes in its educational and financial outcomes or performance variables. The hypotheses we sought to test were that school districts that had higher outcomes, were high performing, or whose performance was improving would be less likely to experience budget vote defeats than school districts that had lower outcomes, were low performing or whose performance was declining. We found, however, no support for any of these hypotheses.[17]

VI. Concluding Remarks

Our analyses of the aggregate pass rate data on budget referendum in New York State, as well of the panel data on budget pass rates in individual school districts in the state, has yielded a number of important findings. Changes in state aid matter, but not as much as one might have a priori predicted. Voting down a budget in one school year neither increases, nor decreases, the likelihood that a district will vote down a budget in the next year. Measures of school district educational and financial performance do not appear to influence budget vote outcomes.

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[17] Romer, Rosenthal and Munley (1992) found that districts whose expenditures per student were higher than predicted were more likely to be districts in which budget referendum were defeated. That is, using data for a single year, they observed that there was a negative correlation between the residuals from a school district spending equation and the residuals from a probability of budget referendum passage equation.

Perhaps our most important finding, which prior research has not addressed, is that the length of terms of school board member is an important predictor of budget vote passage. Other factors held constant, voters in school districts whose board members have longer terms have a lower probability of rejecting budget proposals. The implication here is that having board members with longer (but staggered) terms increases the likelihood that the board is "tuned" in to the preferences of the voters.

Similarly, other factors held constant, voters in school districts in which the ratio of students to school board members is high, have a higher probability of defeating a budget proposal. Situations in which board membership is small relative to the student population are situations in which it may be difficult for the board to fully represent the preferences of a community. These findings both suggest that it may be wise for local school boards to evaluate whether their size and term lengths are optimal from their perspectives and, if not, to propose changes in these to the voters. However, we caution that the student population relative to the school board size variable is very highly correlated with school district size. Hence, we may simply be capturing that larger districts are more heterogeneous and thus face greater difficulty in passing budgets.

The public choice literature suggests the importance of trying to "endogenize" the median voter to increase the chance of passage of proposed budgets. For example, if votes on school budgets took place in November at the same time as the general election, many people who turn out to vote would not necessarily be people who highly value public education. Thus a rational school board would be forced to propose a smaller budget than they otherwise would be able to do if these voters did not turn out.

This leads to the proposition that school budget votes should be undertaken at a separate time than the general election. Indeed, it makes sense to hold the election when schools are in session so that voters whose children are enrolled in school will be less likely to be away on vacation. A study of all school bond referenda held in Oklahoma from 1988 to 1992 and Ohio from 1963 to 1987, as well of a sample of school bond referenda held nationally in 1994 confirmed that these votes were scheduled with these considerations in mind.[18]

All initial school budget referenda and school board elections are currently held on a common day during the spring in New York State, when schools are in session. Encouraging turnout of voters who the school board wants to show up is an art rather than a science. Getting parent groups to participate in the budget development process and helping to turn out the vote is an obvious strategy. So too is making sure that balloting take place in every elementary school in a district to minimize the time it takes voters to find and travel to voting locations. A perhaps more subtle strategy, that has been practiced for many years by a number of school districts, is to schedule events at each elementary school that will bring many parents to the school during the day and night of the budget referendum for reasons other than the referendum. While parents are at the schools, they can of course vote on the school budget.

To our knowledge, there have been no studies that incorporate the strategies that school board use to pass their budgets into analyses of the type that we have done. We would also expect that districts that pursue prudent strategies would also be able to have higher tax rates and expenditure levels than districts that did not, other variables held constant

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[18] Stephanie Dunne, W. Robert Reed and James Wilbanks (1997)

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Table 1

Historical Budget Vote Data in New York State*

Year	Budgets Adopted	Budget Votes	Percent Adopted
1969	553	690	80.1
1970	596	678	87.9
1971	547	679	80.6
1972	569	672	84.7
1973	548	673	81.4
1974	568	667	85.2
1975	509	665	76.5
1976	469	661	71.0
1977	511	659	77.5
1978	436	658	66.3
1979	567	659	86.0
1980	464	656	70.7
1981	507	655	77.4
1982	544	655	83.1
1983	571	654	87.3
1984	586	651	90.0
1985	579	651	88.9
1986	573	649	88.3
1987	567	644	88.0
1988	552	644	85.7
1989	507	642	78.1
1990	492	641	76.8
1991	459	640	71.7
1992	510	638	79.9
1993	460	637	72.2
1994	437	637	68.6
1995	494	633	78.0
1996	533	628	84.8
1997	593	685	86.5
1998	639	683	93.6
1999	633	683	92.7

* Data for 1997-1999 include small city school districts voting for the first times

Source: New York State Department of Education Office of Educational Management Services (www.emsc.nysed.gov/mgtserv/bvhist.htm)

Table 2

Budget Pass Rate Equations: 1970-1998[a]

(absolute value of t statistic)

	Pass Rate (1)	Pass Rate (2)	Log Odds (3)	Log Odds (4)	Pass Rate (5)
ENR (t-1, t)		0.049(1.5)	0.009(1.7)		0.041(1.1)
AID (t-1, t)		0.035(1.8)	0.006(2.0)	0.001(1.7)	0.036(1.9)
INC (t-1, t)		0.082(2.2)	0.013(2.2)	0.012(2.0)	0.082(2.2)
ENR (t, t+1)	-0.021(0.5)				
AID (t, t+1)	0.009(0.4)				
INC (t, t+1)	0.009(0.2)				
AGE65 (t)	15.644(0.3)	-8.802(0.2)	-0.994(0.1)	-6.291(0.8)	-20.331(0.3
PRIV (t)	-7.290(0.4)	-17.695(1.0)	-2.482(0.9)	-4.797(1.9)	-21.196(1.1)
CITY	.261(0.0)	0.836(2.3)	0.103(1.8)	0.075(1.3)	0.715(1.6)
BPR(t-1)					.130(0.5)
n	29	28	28	28	28
Adj. R^2	0.27	0.47	0.42	0.42	0.47

[a] Budget vote is in the spring of year t for school year (t, t+1). Also included in each equation are an intercept term and a dichotomous variable for nonreporting of private school enrollments

where

ENR percentage change in public school enrollments in the state
AID percentage change in per capita real state school aid in the state
INC percentage change in real income in the state (calendar years)
AGE65 fraction of the state's population that is age 65 and older
PRIV fraction of school children enrolled in private schools
CITY 1= small city districts vote on school budgets, 0=city districts not vote
BPR Budget Pass Rate in the previous spring

Table 3a

Initial Pass Rate, Final Pass Rate, and Their Correlation with the Published Pass Rate for the Current Year Sample

Year	Sample	Initial pass	Final pass	Published pass
1975	328	86.28%	93.60%	76.50%
1976	326	81.90%	92.94%	71.00%
1977	339	84.96%	94.40%	77.50%
1978	343	75.51%	87.76%	66.30%
1979	350	92.57%	97.14%	86.00%
1980	370	81.08%	91.62%	70.70%
1981	373	84.99%	93.57%	77.40%
1982	386	88.86%	96.37%	83.10%
1983	390	89.23%	94.87%	87.30%
1984	398	89.95%	97.74%	90.00%
1985	411	91.00%	96.11%	88.90%
1986	419	90.93%	96.66%	88.30%
1987	426	88.03%	94.60%	88.00%
1988	431	88.40%	94.66%	85.70%
1989	432	83.56%	95.37%	78.10%
1990	445	80.67%	91.91%	76.80%
1991	446	79.37%	87.22%	71.70%
1992	448	81.03%	92.41%	79.90%
1993	448	78.35%	91.52%	72.20%
1994	458	76.20%	89.08%	68.60%
1995	458	84.50%	90.83%	78.00%
1996	473	89.22%	94.29%	84.80%
1997	499	89.98%	95.19%	86.50%
Average		85.07%	93.47%	79.46%

	Initial pass	Final pass	Published pass
Initial pass	1.000	0.887	0.926
Final pass	0.887	1.000	0.843
Published pass	0.926	0.843	1.000

Table 3b

Initial Pass Rate, Final Pass Rate, and Their Correlation with the Published Pass Rate for the Consistent Sample

Year	Sample	Initial pass	Final pass	Published pass
1975	294	86.39%	93.88%	76.50%
1976	294	82.99%	93.88%	71.00%
1977	294	86.05%	94.56%	77.50%
1978	294	78.57%	89.12%	66.30%
1979	294	93.20%	97.96%	86.00%
1980	294	81.97%	91.16%	70.70%
1981	294	87.07%	95.24%	77.40%
1982	294	89.12%	96.60%	83.10%
1983	294	90.14%	95.24%	87.30%
1984	294	91.50%	98.98%	90.00%
1985	294	91.16%	96.60%	88.90%
1986	294	92.52%	98.30%	88.30%
1987	294	89.80%	94.90%	88.00%
1988	294	92.18%	95.92%	85.70%
1989	294	82.99%	95.92%	78.10%
1990	294	85.71%	94.56%	76.80%
1991	294	83.33%	90.82%	71.70%
1992	294	82.65%	92.86%	79.90%
1993	294	78.57%	92.18%	72.20%
1994	294	79.59%	90.82%	68.60%
1995	294	88.44%	93.54%	78.00%
1996	294	90.82%	94.56%	84.80%
1997	294	90.82%	95.58%	86.50%
Average		86.76%	94.49%	79.46%

	Initial pass	Final pass	Published pass
Initial pass	1.000	0.842	0.915
Final pass	0.842	1.000	0.862
Published pass	0.915	0.862	1.000

Table 4

Number of Budget Defeats by School District in the Sample*

Number of Failures	Initial Vote	Final Vote
0	56	154
1	56	49
2	47	38
3	39	15
4	19	15
5	27	12
6	10	4
7	12	3
8	10	1
9	4	2
10	4	0
11	3	0
12	7	1
Average Fail Rate	.132	.055

*Authors' computations from the sample of 294 school districts that reported data for all 23 years. The second round failure rate, conditional on failing in the first round is .417

Table 5

Initial Fail Rate Equations: Consistent Sample
(Absolute value t statistics)

	(1)	(2)	(3)	(4)	(5)
SUBURB	4.0939 (3.0)	3.6637 (2.7)	3.0591 (2.3)		
LESS18	-0.0873 (0.3)	0.1181 (0.4)	0.0852 (0.3)		
MORE65	-0.5415 (1.8)	-0.4974 (1.7)	-0.4480 (1.5)		
BLACK	-0.1135 (1.6)	-0.0949 (1.3)	-0.0779 (1.1)	-0.3291 (0.5)	-0.6435 (0.8)
HISP	0.4696 (1.9)	0.4732 (1.9)	0.4069 (1.7)	0.1240 (0.1)	0.0728 (0.1)
OTHER	-0.5253 (2.3)	-0.6116 (2.6)	-0.5073 (2.2)	2.3145 (2.2)	1.4855 (1.2)
FLUNCH	0.1309 (2.9)	0.0763 (1.5)	0.0614 (1.2)	-0.2693 (1.5)	-0.4738 (2.3)
LEP	-0.5102 (0.8)	-0.5262 (0.9)	-0.4338 (0.7)	0.9708 (0.8)	0.6699 (0.5)
POVERT	0.0026 (0.7)	0.0039 (0.9)	0.0031 (0.8)	0.5145 (1.3)	0.5111 (1.1)
PUPMOB	0.6692 (1.7)	0.6770 (1.5)	0.5977 (1.4)	0.1018 (0.2)	0.3758 (0.8)
PRIVSCH	0.1922 (2.1)	0.1736 (1.9)	0.1418 (1.6)		
INCOME	0.0241 (2.4)	0.0243 (2.4)	0.0210 (2.0)		
COLLED	-0.0230 (2.3)	-0.0227 (2.3)	-0.0196 (1.9)		
BOARDT	-2.2524 (3.8)	-2.1213 (3.5)	-1.7147 (2.9)		
BOARDS	0.8471 (4.1)	0.8345 (4.0)	0.7007 (3.5)	0.0694 (1.2)	0.0526 (0.8)
PCTINC	-1.8025 (6.9)	-1.0483 (2.7)	-1.0704 (2.8)	-0.6944 (2.0)	-1.2734 (3.2)
PCTVAL	0.0177 (0.4)	-0.0200 (0.4)	-0.0165 (0.3)	0.0725 (1.2)	0.0347 (0.5)
PCTAID	-0.0001 (1.7)	-0.0001 (1.9)	-0.0001 (1.5)	0.0002 (0.2)	-0.0004 (0.4)
LFAIL			16.5312 (8.9)	-46.4313 (36)	8.9260 (3.5)
N	4560	4560	4560	4180	4180
R^2	0.041	0.047	0.073	0.219	0.009
Year FE	no	yes	yes	yes	yes
Dist FE	no	no	no	yes	yes
IV LFAIL			no	no	yes

Where

SUBURB	1= suburb, 0= rural district
LESS18	% population 5-17 (interpolated from census years)
MORE65	% population at least age 65 (interpolated from census years)
BLACK	% district students that are black
HISP	% district students that are Hispanic
OTHER	% district students that are American Indian, Alaskan Native, and Asian and Pacific Islanders
FLUNCH	% district students receiving free or reduced price lunches
POVERT	% children age 5-17 in the district from families below the poverty line
LEP	% district students with limited English proficiency
PUPMOB	pupil mobility index
PRIVSCH	% of students residing in the district who attend private schools in 1990

INCOME	per capita real income in the school district in 1990
COLLED	percentage of adults in the district with at least a bachelor's degree
BOARDT	number of years that school board members serve
BOARDS	number of students in the district/size of the school board (in hundreds)
PCTINC	percent change in real per capita income in the county
PCTVAL	percent change in real assessed value of property in the district
PCTAID	percent change in real state aid per student in the district
LFAIL	1= district voters rejected the budget on the first vote last year, 0=no

Note: Each coefficient has been multiplied by 100. Hence each shows the impact of one-unit changes in the explanatory variable on the percentage of times an initial budget vote will be defeated

Table 6

Final Fail Rate Equations: Consistent Sample
(Absolute value t statistics)

	(1)	(2)	(3)	(4)	(5)
SUBURB	3.0298 (3.1)	2.7014 (2.8)	2.2354 (2.4)		
LESS18	0.0683 (0.3)	0.1765 (0.8)	0.1543 (0.7)		
MORE65	-0.4873 (2.4)	-0.4713 (2.3)	-0.3910 (1.9)		
BLACK	-0.1947 (5.0)	-0.1799 (4.6)	-0.1451 (3.8)	0.0760 (0.1)	0.1663 (0.3)
HISP	0.3031 (1.7)	0.2951 (1.6)	0.2536 (1.4)	0.1089 (0.2)	-0.2616 (0.3)
OTHER	-0.3657 (3.1)	-0.4224 (3.5)	-0.3172 (2.7)	1.1737 (1.6)	1.1441 (1.4)
FLUNCH	0.1003 (3.1)	0.0610 (1.8)	0.0510 (1.5)	0.1228 (1.0)	0.0870 (0.6)
LEP	-0.5530 (1.6)	-0.5357 (1.5)	-0.4675 (1.3)	0.1731 (0.2)	0.0507 (0.1)
POVERT	0.0041 (2.1)	0.0051 (2.5)	0.0041 (2.0)	0.1774 (0.7)	0.0847 (0.3)
PUPMOB	0.2096 (0.8)	0.3065 (1.0)	0.3113 (1.1)	0.0961 (0.3)	0.1628 (0.5)
PRIVSCH	0.0632 (1.1)	0.0481 (0.8)	0.0376 (0.7)		
INCOME	0.0094 (1.1)	0.0093 (1.1)	0.0082 (1.0)		
COLLED	-0.0129 (1.6)	-0.0126 (1.5)	-0.0109 (1.4)		
BOARDT	-1.2306 (2.9)	-1.1210 (2.6)	-0.8925 (2.1)		
BOARDS	0.4173 (3.0)	0.4011 (2.8)	0.3224 (2.4)	0.0843 (2.2)	0.0557 (1.2)
PCTINC	-0.9081 (5.1)	-0.7082 (2.7)	-0.6820 (2.7)	-0.5945 (2.5)	-0.7928 (2.9)
PCTVAL	-0.0005 (0.0)	0.0329 (0.9)	0.0397 (1.1)	0.0543 (1.3)	0.0820 (1.8)
PCTAID	-0.0001 (0.9)	-0.0001 (0.9)	-0.0001 (0.8)	-0.0002 (0.3)	-0.0017 (2.3)
LFAILF			19.1436 (13)	-47.6885 (36)	7.7707 (2.9)
N	4560	4560	4560	4180	4180
R^2	0.025	0.029	0.063	0.222	0.008
Year FE	no	yes	yes	yes	yes
Dist FE	no	no	no	yes	yes
IV LFAILF			no	no	yes

[a] LFAILF 1=voters defeated budget on all votes in previous year, 0=voters approved budget last year
See table 5 for other variable definitions and table notes

Appendix Table A

Initial Fail Rate Equations: Logit Models[a]
(Absolute value t statistics)

	(1)	(2)	(3)	(4)
SUBURB	0.4199 (3.4)	0.3725 (3.0)	0.3209 (2.5)	
LESS18	-0.0149 (0.5)	0.0051 (0.2)	0.0029 (0.1)	
MORE65	-0.0508 (1.9)	-0.0466 (1.7)	-0.0409 (1.5)	
BLACK	-0.0098 (1.6)	-0.0081 (1.3)	-0.0067 (1.1)	0.0435 (0.9)
HISP	0.0188 (1.1)	0.0204 (1.2)	0.0192 (1.1)	0.0375 (0.6)
OTHER	-0.0529 (2.4)	-0.0637 (2.8)	-0.0518 (2.3)	-0.0457 (0.7)
FLUNCH	0.0116 (3.0)	0.0068 (1.6)	0.0056 (1.3)	0.0147 (1.5)
LEP	-0.0159 (0.3)	-0.0180 (0.4)	-0.0186 (0.4)	0.0236 (0.3)
POVERT	0.0003 (0.6)	0.0004 (0.8)	0.0003 (0.7)	-0.0005 (0.5)
PUPMOB	0.0467 (1.5)	0.0483 (1.5)	0.0434 (1.3)	0.0577 (1.2)
PRIVSCH	0.0185 (2.5)	0.0171 (2.3)	0.0144 (1.9)	
INCOME	0.0018 (2.1)	0.0018 (2.1)	0.0017 (1.9)	
COLLED	-0.0012 (2.9)	-0.0012 (2.8)	-0.0011 (2.4)	
BOARDT	-0.1979 (3.6)	-0.1853 (3.4)	-0.1523 (2.7)	
BOARDS	0.0546 (4.2)	0.0545 (4.1)	0.0474 (3.5)	0.0189 (0.1)
PCTINC	-0.1517 (7.1)	-0.0910 (2.7)	-0.0987 (3.0)	-0.0790 (2.2)
PCTVAL	0.0009 (0.2)	-0.0013 (0.3)	-0.0010 (0.2)	-0.0006 (0.1)
PCTAID	-0.0008 (2.0)	-0.0009 (2.2)	-0.0007 (1.7)	-0.0002 (0.3)
LFAIL			1.0145 (10)	0.0150 (0.1)
N	4560	4560	4560	3216
Year FE	no	yes	yes	yes
Dist FE	no	no	no	yes

[a] The logit model with a lagged dependent variable in column (3) is analogous to the linear probability model with a lagged dependent variable. The logit model with fixed effects found in column (4) is analogous to the linear probability model estimates found in column (5) of in table 5 that control for the endogenity of the lagged dependent variable.

Appendix Table B

Final Fail Rate Equations: Logit Models
(Absolute value t statistics)

	(1)	(2)	(3)	(4)
SUBURB	0.6026 (3.4)	0.5341 (3.0)	0.4679 (2.6)	
LESS18	-0.0006 (0.0)	0.0226 (0.5)	0.0210 (0.5)	
MORE65	-0.0981 (2.6)	-0.0935 (2.4)	-0.0819 (2.1)	
BLACK	-0.0488 (3.2)	-0.0461 (3.0)	-0.0403 (2.6)	-0.0107 (0.4)
HISP	0.0194 (0.8)	0.0224 (0.9)	0.0238 (0.9)	0.0105 (0.3)
OTHER	-0.1143 (2.7)	-0.1374 (3.1)	-0.1023 (2.4)	0.0486 (0.8)
FLUNCH	0.0179 (3.3)	0.0102 (1.6)	0.0093 (1.4)	0.0062 (0.6)
LEP	-0.0186 (0.2)	-0.0206 (0.3)	-0.0363 (0.5)	-0.0639 (0.6)
POVERT	0.0016 (1.5)	0.0018 (1.7)	0.0015 (1.5)	-0.0066 (0.3)
PUPMOB	0.0240 (0.5)	0.0439 (1.0)	0.0422 (0.9)	-0.0012 (0.0)
PRIVSCH	0.0174 (1.5)	0.0152 (1.3)	0.0128 (1.1)	
INCOME	0.0009 (0.9)	0.0008 (0.9)	0.0008 (0.8)	
COLLED	-0.0011 (2.2)	-0.0011 (2.0)	-0.0009 (1.7)	
BOARDT	-0.2171 (2.8)	-0.1967 (2.5)	-0.1615 (2.0)	
BOARDS	0.0622 (3.2)	0.0608 (3.1)	0.0517 (2.5)	0.0105 (0.3)
PCTINC	-0.1633 (5.3)	-0.1300 (2.7)	-0.1314 (2.7)	-0.1306 (2.4)
PCTVAL	-0.0009 (0.2)	0.0049 (0.8)	0.0064 (1.0)	0.0104 (1.2)
PCTAID	-0.0008 (1.5)	-0.0008 (1.5)	-0.0007 (1.3)	-0.0008 (1.1)
LFAILF			1.5988 (9.9)	-0.0197 (0.1)
N	4560	4560	4560	1788
Year FE	no	yes	yes	yes
Dist FE	no	no	no	yes