Donors and Founders on Charter School Boards and Their Impact on Financial and Academic Outcomes

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Donors and Founders on Charter School Boards and Their Impact on Financial and Academic Outcomes

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Abstract

This study provides the first systematic analysis of the composition of charter school governing boards. We assemble a dataset of charter school boards in Massachusetts between 2001 and 2013 and investigate the consequences of donor and founder representation on governing boards. We find that the presence of donors on the charter school boards is positively related to financial performance and attribute this result to the donors' strong monitoring incentives due to their financial stakes in the school. We also show that financial outcomes are not generated at the expense of academic outcomes, as the presence of donors on the boards is also associated with higher student achievement. Founder presence on charter school boards, on the other hand is associated with lower financial performance, but higher academic achievement.

JEL classification: H75, I20, L29

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1 Introduction

Charter schools are publicly funded yet privately managed schools that operate in three to five year incremental contracts and are subject to renewal under a performance contract primarily based on fiscal solvency and student achievement (Bulkley, 2001; Bulkley & Wohlstetter, 2003).[1] Each charter school is governed by its own board of directors. The board is accountable for the financial wellbeing of a charter school by approving capital assets, an operating budget, and closely monitoring the school's fiscal solvency during the length of the charter. Another key role of the board is to ensure that the charter school achieves year-to-year improvement in academic performance. If these two performance objectives are not fulfilled, the schools may have their contracts revoked at the end of the charter period. As charter schools face higher standards for accountability, performance, and competition for limited resources, greater attention has been given to the monitoring and oversight functions of charter school governing boards (Smith & Wohlstetter 2006).

In this study, we explore the relationship between the board composition and the financial and academic outcomes of charter schools using a new, hand-collected dataset of individual director and board characteristics for 89 charter schools that were operational in Massachusetts between 2001 and 2013. To our knowledge, we perform the first large-scale analysis of the composition of charter school governing boards. We study financial performance because charter school revocation/nonrenewal decisions—a rate of approximately 14 percent since 1992 (CER, 2008, 2009)— are most often due to financial mismanagement and governance problems, not educational issues (Finnigan et al, 2004; Gewertz, 2008; De-

[1] We study the Massachusetts (MA) charter schools, therefore we will follow the characterization of MA charter schools in this study. For more details about MA charter schools, please refer to http://www.doe.mass.edu/charter.

Jarnatt, 2012; Education Week, 2015; MADOE, 2015a; AISR, 2014). We also analyze the nonfinancial aspect of school performance, namely, student achievement, because charter authorizers consider both financial viability and academic performance as criteria for approval in the chartering process.

Our primary emphasis in this paper is on board members with direct ties to corporate and non-profit sponsors/contributors by serving as staff members, executives, or on boards of directors (Zimmer, Krop & Brewer, 2003).[2] To give one example, a director of KIPP Academy Lynn is an employee of Bain Capital, a leading global private investment firm based in Boston. His core areas of expertise are stated as corporate finance, private equity, and business strategy. Bain Capital at the same time provides funding to KIPP Academy Lynn. This board member is classified as a director that represents a donor (henceforth donor-director) in our dataset.

As the example illustrates, employers of the donor-directors have resources invested in the charter school. As such, we expect these directors to possess strong incentives to monitor the charter school management and make sure that the resources are being utilized as promised, thereby ensure their good reputation with their employers. In addition, the analyses of nonprofit boards by Fama and Jensen (1983) and Hansmann (1980) suggest that donors who serve on the boards at a monitoring capacity help to assure other stakeholders that the services provided by the organization are of reasonable quality and that organizational resources are used in the way in which they are intended. Also, representation of donors on the charter school governing boards is expected to minimize contracting costs (see Hansmann, 1988) insofar as they act as a credible signal to other donors that the academic program

[2] In this study, the words "trustee," "director," and "board member" are used interchangeably.

supplied by the charter school is of high quality and that financial resources are not being squandered by school administrators.

Our main hypothesis is that the presence of donors on boards is associated with higher financial performance of charter schools due to the monitoring function they fulfill on the governing boards. Our findings support this hypothesis: schools with donor-directors have significantly higher financial surpluses (i.e., Revenues–Costs scaled by Total Assets), meet and exceed their projected budgetary goals, manage their cash more efficiently, raise more private funds, and have higher enrollment growth. We also find that these directors are associated with higher student achievement. Hence, superior financial performance is not accomplished at the expense of educational outcomes.

One may argue that donor-directors may be more likely to have financial expertise and therefore could provide valuable advice to charter school management on how to utilize financial resources in the least costly and most efficient manner. If this is the case, our results might be a reflection of financial expertise of the board rather than the financial stakes of the directors that lead to enhanced monitoring intensity. To disentangle the expertise and monitoring hypotheses, we compare donor-directors to board members who are solely "financial experts."[3] For example, a board member of River Valley Charter School is an undersecretary of administration and finance at Commonwealth of Massachusetts. His core areas of expertise are stated as corporate governance, budgeting, accounting, and financial modeling. We argue that financial experts would have fewer incentives to monitor the use of financial resources because they are not active donors of the schools. Therefore, differences

[3] This is the strategy followed by Kroszner and Strahan (2001), Booth and Deli (1999) and Sisli-Ciamarra (2012), and Hilscher and Sisli-Ciamarra (2013).

between donors and financial experts on school boards can be attributed to the monitoring incentives.

We find that the financial performance of charter schools is not significantly different between schools with and without financial experts on their boards. In addition, cash management efficiency, private fund raising and enrollment growth are lower when a financial expert is present. With regards to student achievement, financial experts do not seem to have any impact. As financial experts do not have a similar positive impact on financial outcomes as donor-directors do, we conclude that donor representation adds to the monitoring capacity of the board.

We also study the impact of the founders serving on charter school boards. In general, the founder-directors are well-known education leaders and social entrepreneurs in education (Finn et al., 2000; MCPSA, 2013; MADOE, 2015b) and possess strong financial and personal stakes in the charter schools (He, 2008). In our analysis of financial outcomes, we find a significant negative relationship between founder presence on charter school boards and financial performance, private grants, enrollment growth. In addition, these schools rely on borrowed funds more heavily to finance their operations. A number of theories offered in the literature on founders support the negative effect of founder-directors on performance. Finkelstein & Hambrick (1996) argue that founder-directors have the potential to configure boards and management that are less inclined to threaten their discretion, hence lowering the monitoring effectiveness of the board. It has also been contended that founders may compromise the best interests of the organization to serve their own interests, such as preserving their own positions and lowering their likelihood of departure (Zajac and Westphal, 1996; Allgood and Farrell, 2000; Anderson et al., 2009).

On the positive side, we find a significant and positive impact of founders on academic achievement, reflecting the founders' expertise in the education sector (Yancey, 2000). The positive impact of founders on academic achievement provides general support for stewardship theory, which states that founders are intrinsically motivated to work for organizations to accomplish the mission and goals with which they have been entrusted (Van Slyke, 2007).

The findings of this study make several contributions to the literature on the governance of charter schools, a largely unexplored area. Evidence from existing qualitative research on charter school governing boards consists predominantly of anecdotal reports and in-depth case studies (Karanxha, 2013). Other studies on charter school governance are oriented toward practitioners and underpin normative board roles and responsibilities similar to those developed for nonprofit boards more generally (Campbell, 2010). To the best of our knowledge, we provide the first study that investigates the composition of charter school boards using hand-collected data on director characteristics, and empirically analyzes the relationship between charter school financial performance and board composition.

Our paper also contributes to the broader literature on donor governance of nonprofit organizations (e.g., Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983). Studying a panel dataset of prominent U.S. art museums from 1999–2013, Yermack (2015) finds that donor governance has greatly increased in recent years and has had a real and significant impact on museums' balance sheets and cost structures. Yermack further notes that donors react to weak governance oversight by adding restrictions to gifts. Callen, Klein, and Tinkelman (2003) find that the presence of major donors on a nonprofit board is associated with effective board monitoring. Indeed, the dual roles of donors in financing and monitoring has been supported by numerous other empirical studies (Harris, et al., 2015; Des ai and

Yetman, 2004; Eldenburg et al., 2004).

2 Data and Descriptive Statistics

2.1 Sample Formation

To explore the relationship between the presence of donors, financial experts, and founders on governing boards and the financial and academic outcomes of charter schools, we assembled a dataset of individual director and board characteristics for 89 charter schools that were operational in Massachusetts between 2001 and 2013. Our final dataset consists of 780 observations at the school-year level on board of directors, financial variables, school characteristics, and academic achievement variables.

Massachusetts provides a proper set up to study the relationship between board composition and charter school performance for several reasons. First, from their inception in 1994, charter schools in Massachusetts have been required to file annual reports as well as audited and unaudited financial statements, which we use to collect data on financial performance. Second, unlike other states, Massachusetts law does not mandate that charter school boards follow specific requirements on who can and cannot serve on their board of trustees (MA-DOE, 2007, 2010). Third, the law explicitly allows charter school boards to be involved in cross-sectoral alliances as a way to enhance their financial capacity and improve educational services (NAPCS, 2011).

2.2 Data on Board Composition

We hand-collected biographical information and organizational affiliation on all charter school board members from several sources, such as annual reports and charter applications submitted to the Massachusetts Department of Education, Office of Charter Schools.

The annual reports provide the names, titles/affiliations, and the biographies of members of charter school boards. The director database is assembled by cross-referencing employment history, background and professional qualifications available over the school websites, professional networking websites, and search engines (Zoominfo.com, LinkedIn) that specialize in collecting and indexing biographical and employment data from publicly available documents over the Web.

2.2.1 Donors

Building on prior description and analysis of the range of private givers to public education (Zimmer, Krop & Brewer, 2003; Hansen, 2008), we define "donor-directors" as board members with direct ties to locally based voluntary contributors, independent foundations and donors/sponsors by serving as a staff member, executive, or on a board of directors. In addition, to review and cross-reference our data set of locally based contributors, foundations, and corporate sponsors, we sent charter school administrators a one-question survey on external support. The indicator variable, "Donor on Board," takes the value one if a charter school has at least one donor-director as defined above, and zero otherwise.

2.2.2 Financial Experts

Our definition of financial expert follows Guner, Malmendier and Tate (2008). A director is identified as a financial expert if he/she works at a financial institution, or has a finance-related role within a non-financial institution (i.e., financial management specialist, CFO, accountant, treasurer, VP finance), or academic institution (i.e., professor in finance, accounting, economics or business), or is a professional investor (i.e., hedge fund, private equity). In addition, board members holding degrees in the areas of accounting, finance,

investment, banking or a related field are considered financial experts. The indicator variable,"Financial Expert on Board," takes the value one if a charter school has at least one financial expert serving on its board of directors, and zero otherwise.

2.2.3 Founders

Founder-directors are those individuals on the board, who set up the charter schools for which they serve as directors. To code founder-directors, we extracted records of all founders from charter school applications and renewal requests. The indicator variable, "Founder on Board," takes the value one if a charter school has at least one of its own founders serving on its board of directors, and zero otherwise.

2.2.4 Descriptive Statistics for Charter School Boards

During our sample period (Table 2), the average charter school board consists of 11.55 members. 65.51 percent of the schools have at least one donor-director serving on their boards, though the percentage has been decreasing over the years in our sample period. 71.67 percent have at least one financial expert serving on their boards. Finally, 71.28 percent of the charter school boards have at least one founder-director.

In Figure 1 we describe the evolution of charter school boards between 2001 and 2013. The average board size has remained unchanged from 2001 at 11.73 members to 2013 at 11.10 members. We observe that donor representation on charter school boards is in a downward trend. In 2003, about 78 percent of the charter schools utilized the services of a donor-director on their boards. By 2013, this percentage has dropped to 57.5 percent. On the other hand, the presence of financial experts has become more prominent over time. At the beginning of our sample period (2001), 56 percent of the schools utilized the services

of financial experts on their governing boards. By 2013, 75 percent of the schools had a financial expert on their boards. Finally, founder presence is in a downward trend. In 2001, 90 percent of the schools had one of its founders on their boards. In 2013, only 56 percent of the schools had a founder on their boards.

2.3 Data on Financial Outcomes

The financial data for years 2001-2013 are obtained from annual reports and audited financial statements that charter schools submit to the state's Department of Education (DOE). Each financial data year contains a statement of revenues and expenditures, changes in net assets, cash flows, a balance sheet of the school's assets, liabilities, and fund balances or equities, and projections of income and expenses for the upcoming school year (MADOE, 2014, 2015c). Our study utilizes five proxy measures of financial outcomes: (1) the difference between revenues and expenditures (i.e., financial surplus) scaled by total assets; (2) the difference between the financial surplus and the budgeted surplus scaled by total assets; (3) debt-to-asset ratio; (4) change in net assets scaled by total revenues; and (5) share of private grants in total funds.

The first measure, (Revenues-Expenditures)/Total Assets, serves as a proxy to determine if a school operates at a financial surplus (more revenues than expenses) or at a financial deficit (more expenses than revenues) in a given year. Charter schools cannot operate on a deficit for a sustained period of time without risk of closure.

The second measure, (Financial Surplus-Budgeted Surplus)/Total Assets captures the extent to which charter school exceeded, or fell short of its financial target in a given year. Budgeted surplus is defined as the projected total revenues minus the projected total ex-

penses, which are obtained from individual school budget projection reports. We construct this variable, because charter schools are similar to non-profit organizations in the sense that their objective is to achieve financial stability, rather than to maximize profits (i.e. Revenues–Expenditures). Accordingly, our second financial performance measure serves as a proxy to assess the extent, if any, to which charter school exceeded, or fell short of its financial goals in a given year. This measure incorporates two prime financial responsibilities of the charter school board, namely, to come up with a realizable school budget plan (budgeted surplus) and to ensure that the school does not fall short of projections upon which the budget was based (actual financial surplus).

The third measure, debt-to-asset ratio, captures the difference between liabilities and assets, indicating the extent to which a charter school relies on borrowed funds to finance its operations. A higher debt-to-asset ratio indicates that the school is "highly leveraged" (tendency to utilize debt financing, also known as debt load) and thus in greater financial risk if creditors demand repayment of debt. Sound financial management requires that the charter school board understand when to utilize debt financing and manage the debt once incurred.

The fourth measure (Change in Net Assets/Total Revenues) serves as a proxy to determine a school's cash management efficiency. Finally, the fifth measure (Private Grants /Total Funds) attempts to capture the ability of a charter school to attract private support outside of federal, state and district funds. In addition to these financial outcomes, we also study the enrollment growth.

The descriptive statistics for our five financial outcome measures and other financial characteristics of charter schools are shown in Table 3. The average charter school in our

sample has total assets amounting to $5.6 million (standard deviation=$9.8 million), has $4.9 million (standard deviation=$3.9 million) of government funding, and $235 thousand (standard deviation=$535 thousand) of private funding. The mean difference between the actual revenues and the actual expenditures scaled by total assets is 0.05 with a standard deviation of 0.31. The mean difference between financial surplus and budgeted surplus scaled by total assets is 0.01 with a standard deviation of 0.27. The average debt-to-asset ratio is 0.43 with a standard deviation of 0.36. The mean change in net assets percentage is .04 with a standard deviation of 0.15. The mean value for private grants over total funds is 5.06 percent (standard deviation= 9.17 percent).

2.4 Data on School Characteristics

Data on school characteristics are compiled using the Massachusetts Department of Education Report Cards for 2001-2013. We utilize a number of key indicators as control variables in our analyses of the relationship between board composition and school performance: percentage of students who are Hispanics, African-American, Asian, and Native American, percentage of low-income students, percentage of native English speakers, percentage of students with limited English proficiency, percentage of students that receive special education services, male-female composition of the enrolled students, student-teacher ratio, percentage of licensed teachers, and percentage of qualified teachers.

Table 3 reports the school-level descriptive statistics. The mean charter school enrollment is 405 with a standard deviation of 326. The mean age is 8.76 with a standard deviation of 4.86, indicating that schools, on average, have successfully navigated their first five-year renewal. 47 percent of the schools in our dataset operate at the elementary school grade

levels, 80 percent operate at the middle school grade levels, and 53 percent operate at the high school grade levels. As for the teachers in our sample, 85.96 percent of the teachers are qualified (standard deviation=18.53 percent) and 65.23 percent of the teachers are licensed (standard deviation=21.53 percent). The mean student-teacher ratio is 12.01 with a standard deviation of 2.74.

The percent of low-income students in charter schools has a mean of 48.86 and a standard deviation of 29.33. The mean percentage of African-American students is 26 (standard deviation=29.26 percent), the mean percentage of Hispanic students is 23.54 (standard deviation=24.95), and the mean percentage of Asian students is 4.91 (standard deviation=9.77) in our sample. The average school has 13.79 percent of students with disabilities (standard deviation=7.17). The percentage of limited English proficient students enrolled in charter schools is 4.64 (standard deviation=10.49) on average, and the percentage of native English speakers is 18.48 (standard deviation=20.85). Finally, the percent of male students has a mean of 48.96 and a standard deviation of 5.79.

2.5 Data on Academic Achievement

We use school level average achievement scores as a proxy for academic performance. Prior research has guided the selection of mathematics and ELA test scores in this study (e.g., Carnoy & Loeb, 2002). Beginning in 1998, the Massachusetts Comprehensive Assessment System (MCAS) was administered annually to eligible students enrolled in grades three through eight and in high school, including students with disabilities and those with limited English proficiency. Results of the MCAS Mathematics and English Language Arts (ELA) assessment are reported for individual schools by four performance levels: advanced,

proficient, needs improvement, and warning.

We proxy academic performance with three measures calculated using the ELA and Math scores: (i) Composite Performance Index (CPI), a state-generated measure of the extent to which students are progressing toward proficiency; (ii) percentage of students who scored "Proficient or Advanced;" and (iii) an academic performance index based on the distribution of student scores in the various performance categories. Specifically, the index score is equal to 4 times the percent of students in the advanced category plus 3 times the percent of all students in the proficient category plus 2 times the percent of students in the needs improvement category plus 1 times the percent of students in the warning category. Total points are divided by the number of students to calculate school averages. Although the average achievement of students in a school does not account for individual variation in achievement between students, it is useful for examining the relations between the general level of achievement in a school and characteristics of the school (Anderson and Walker, 2015; Hill et al., 2006).

Table 3 reports the descriptive statistics for the academic performance indicators: The mean for math proficient/advanced percentage is 50.48 (standard deviation=24.05), mean for the math score index is 2.53 (standard deviation=0.54), and the mean for the CPI index is 76.30 (standard deviation=14.57). The mean ELA proficient/advanced percentage is 63.99 (standard deviation=20.42), the mean for the ELA score index is 2.71 (standard deviation=0.38), while the mean for the CPI index is 85.74 (standard deviation=9.76).

3 Empirical Methodology

To analyze the relationship between the composition of board of directors and charter school performance, we estimate the following equation:

$$Y_{i,t} = \beta_0 + \beta_1 D_{i,t} + \beta_2 X_{i,t} + \varepsilon_{i,t}, \tag{1}$$

where $Y_{i,t}$ measures the financial or the academic outcomes of the charter school i in year t., $D_{i,t}$ is a dummy variable indicating the presence of a donor, financial expert, or a founder on the charter school's board, and $X_{i,t}$ is the set of control variables, .

Recent literature on the composition of corporate boards stresses the importance of correcting for the biases that result from any non-random assignment of directors onto boards (see Adams, Hermalin, and Weisbach, 2010).[4] To alleviate the bias that results from any non-random assignment of donors, financial experts and founders onto charter school boards, we build a treatment effects model that is developed specifically to analyze the dummy endogenous variables (Heckman, 1976, 1978; Angrist, 2004). Under this approach the probability of receiving a treatment (i.e., assigning a donor, financial expert, or a founder on the board) is modeled together with the structural outcome equation. The full model can be summarized as:

$$Y_{i,t} = \beta_0 + \beta_1 D_{i,t} + \beta_2 X_{i,t} + e_{i,t} \tag{2a}$$

[4] The instrumental variables estimation is the most widely used estimation technique for empirical studies affected by the endogeneity problem. However, there is a further issue in the validity of instrumental variables estimation when one of the endogenous regressors is a dummy variable (Angrist, 1995, 2001). Sisli-Ciamarra (2012) and Hilcher and Sisli-Ciamarra (2013) also use the ATE methodology to analyze the impact of the presence of banker-directors on corporate boards. Please see Greene, 2003, pp. 787-88 for details and additional references.

$$D^*_{i,t} = \delta Z_{i,t} + u_{i,t} \tag{2b}$$

$$D_{i,t} = 1, if D^*_{i,t} > 0. \tag{2c}$$

$D_{i,t}$ is an endogenous dummy variable indicating whether or not a charter school includes a donor-director (financial expert, founder) on its board. This binary outcome is determined by a set of explanatory variables $Z_{i,t}$. The individual error terms, $e_{i,t}$and $u_{i,t}$, are assumed to have a bivariate normal distribution:

$$e_{i,t} \sim N(0, \sigma)$$

$$u_{i,t} \sim N(0, 1)$$

$$corr(e_{i,t}, u_{i,t}) = \rho$$

The explanatory variables we include in the treatment equation (equation 2b) are school enrollment, school age and board size. School enrollment and school age are included to capture the life cycle of the charter schools: If these organizations' need for financial resources and financial advice are change as they grow, so would the demand for directors that bring in financial advice and resources.

In theory, exclusion restrictions are not necessary in an average treatment effects estimation because the model is identified by non-linearity (Heckman and Navarro-Lozano, 2004). However, in practice, the identification issue is less clear-cut (Li and Prabhala, 2007). To avoid the issue of exclusion restrictions, we use the size (measured as the number of employees) of the finance and nonprofit sectors in the counties where charter schools are located as

an instrumental variable.

Our instrumentation strategy is based on the assumption that the probability of having a donor on the board is positively correlated with the pool of financial establishments and non-profit establishments that are located in close proximity to charter schools, as these directors are mainly employed in these sectors. While we expect number of employees in the finance and non-profit sectors to be correlated with donor-directors, we do not expect it to be correlated with school performance except through variables already included in our regressions. Similarly, we use the size of the finance sector in a charter school's county as an instrument for financial expert presence on a charter school's board, and the size of the nonprofit sector as an instrument for the presence of founders on a charter school's board. We provide more detailed definitions of these sectors in Table 1.

We estimate equation 2 with maximum likelihood. The test results for the significance of the correlation between the error terms of the structural and treatment equations (ρ) are presented throughout the study. These results form the basis of our empirical test for the presence of self-selection. A correlation coefficient that is significantly different than zero validates the need for the correction for self-selection. When self-selection is present, the average treatment effects (ATE) is the appropriate empirical model to use as opposed to the OLS. When self-selection is not present, the ATE estimates converge to the OLS estimates.

3.1 Results

3.2 Donors on Board and Financial Performance

In Table 4, Panel A we stratify our sample on charter schools according to the presence or absence of a donor-director on their boards and test their differences in terms of financial

performance. The differences in financial outcomes of schools with and without donor representation on their boards are not statistically significant except for Financial Surplus/Total Assets and Private Grants/Total Funds. According to the univariate test results, Financial Surplus Ratio is lower (0.04 versus 0.08), and the share of private grants in total funds is higher (5.95 percent versus 3.37 percent) for schools with donor-directors.

Table 5 presents the ATE estimation results for the equation 2, where the dependent variables measure the financial performance and stability of charter schools. The tests for independent equations (i.e., lack of self-selection) are rejected for each specification at the one percent significance level. The correlation coefficients between the two error terms (ρ) are negative and significant (e.g., for the financial surplus equations) implying that there is a negative correlation between a school's choice to have a donor-director on its board and its financial performance.[5] This indicates that the unobservable school characteristics that prompt a school to have a donor-director also cause them to have a lower financial performance. For example, charter schools may be more inclined to invite donors to join their boards if they project that the school will not be doing well financially.

The main variable of interest in these regressions is the coefficient on the "Donor on Board" indicator variable (Panel A). In column I, the financial performance is measured with Financial Surplus/Total Assets, where Actual Surplus is calculated as the revenues in excess of the expenditures in a given year. The coefficient on the donor-director is positive (0.392), and statistically significant at the one percent level. The effect of donor-directors is also economically significant: their presence is associated with a 39 percentage point increase

[5] In this case, the OLS coefficients on banker dummies are expected to be biased downward. The difference between the univariate results and ATE results are consistent with this prediction.

in the surplus ratio.

In column II, the dependent variable is (Financial Surplus-Budgeted Surplus)/Total Assets, which quantifies the extent to which a charter school has met its budgetary goals. The coefficient is positive (0.302) and statistically significant is at the one percent level. This coefficient indicates that the presence of donors on boards is associated with a 30.2 percentage point increase in attaining the projected financial surplus of a charter school.

In column III, we analyze the debt-to-asset ratio and find no significant relationship between the dependence of charter schools on borrowed funds and donor-director presence. In column IV, the dependent variable is Change in Net Assets/Total Revenues, which a metric that charter schools employ to measure the efficiency of their cash management. Using this metric, we uncover a positive and significant relationship between donor representation on board and cash management efficiency. The coefficient on the "Donor on Board" indicator variable is 0.161 and statistically significant at the one percent level. Given the mean value (0.04) of this financial indicator (0.04), the estimated increase is economically significant as well.

In column V, we investigate the share of private grants in total funds, which measures the ability of a charter school to attract private support (outside of federal, state and district funds) such as monetary support from individuals, foundations, businesses, among others. We obtain a positive coefficient (10.976) on the Donor on Board indicator, which is also and statistically significant at the one percent level. The presence of donor-directors is associated with a 11 percentage points increase in the share of private funds in total funds. Finally, in column VI, we investigate enrollment growth. The coefficient on the indicator variable for donor presence is 19.2 and statistically significant at the one percent level, implying that on

average these directors are associated with a yearly 19.2 percent increase in the number of students a charter school serves.

3.3 Financial Experts on Boards and Financial Performance

Our main hypothesis in the paper is that the representation of donors on boards leads to higher financial performance and stability of a charter school owing to their effective monitoring of the charter school administration, and our findings so far support this hypothesis: Donor presence on a board is associated with better financial outcomes. However, one may argue that donor-directors are more likely to have financial expertise and therefore could provide valuable advice to charter school management how to utilize financial resources in the least costly and most efficient manner. If this is the case, our results might be a reflection of financial expertise of the board rather than financial stakes of the donor-directors leading to higher monitoring intensity.

To disentangle the expertise and monitoring hypotheses, we study the board members who are solely "financial experts" in this section. These directors possess financial skills and expertise, but do not provide financial resources the charter schools. This is the strategy followed by Kroszner and Strahan (2001), Booth and Deli (1999), Sisli-Ciamarra (2012), and Hilscher and Sisli-Ciamarra (2013). We argue that financial experts would have fewer incentives to contribute to the board's monitoring function because they do not have any outstanding financial contributions to the charter school. Therefore, any difference between donor-directors and financial experts can be attributed to the enhanced monitoring incentives that donor-directors possess.

In Table 4, Panel B we stratify our sample on charter schools according to the presence

or absence of financial experts on their boards and test their differences in term of financial performance. The differences in financial outcomes of schools with and without donors on their boards are not statistically significant except for Private Grants/Total Funds. According to the univariate test results, the share of private grants in total funds is higher (5.43 percent versus 4.15 percent) for schools with financial experts serving on their boards.

We present the ATE estimation results in Table 6. The sample size drops to 235, because in these regressions we exclude the charter schools with donor-directors. Hence, the coefficient on the "Financial Expert on Board" indicator variable represents the estimated difference in the financial performance of charter schools with and without financial experts, without the confounding effects of donor-directors. We have repeated the estimations using the full sample, and the results remain the same.

The results suggest that financial experts have no significant effect on financial performance. The coefficient on the financial expert indicator variable is insignificant for Financial Surplus/Total Assets and also for (Financial Surplus–Budgeted Surplus)/Total Assets (columns I and II). The coefficient on Change in Net Assets/Total Revenues is negative (-0.124) and statistically significant at the five percent level. Schools with financial experts on their boards also fund significantly lower percentage of their operations through private fundraising as evidenced by the negative coefficient (-8.718) on the financial expert indicator variable (column V). Finally, financial expertise on boards is associated with lower enrollment growth (column VI).

We conclude that financial expertise on a charter school's board of directors is not sufficient to generate a positive impact on financial performance and stability. Hence, we infer that donor representation on charter school boards contribute to the school governance be-

yond simply giving advice on financial matters. We attribute their positive impact to the monitoring function they perform on school boards. Studies by Fama and Jensen (1983) and Hanmann (1980), too, suggest that donors/sponsors who serve on the non-profit boards in a monitoring capacity help to assure that proper use of organizational resources.

3.4 Founders on Board and Financial Performance

As described earlier in the data section, another central group of board members with financial and/or personal stakes in the success of the charter schools are the founders. The impact of founder-directors on charter school performance is not obvious. Unlike donor-directors, the founder-directors are not independent board members and the literature so far is unclear on their actual role in board governance and firm/organizational performance. On the negative side, Finkelstein & Hambrick (1996) note that founder-directors have the potential to configure boards and management that are less inclined to threaten their discretion, and they may compromise the best interests of the organization to serve their own interests, such as preserving their own positions and lowering their likelihood of departure (Zajac & Westphal, 1996; Allgood & Farrell, 2000; Anderson et al., 2009). If there is a threshold point in the development of entrepreneurial organizations where information-processing/decision-making capabilities of founders are no longer sufficient to meet the organization's oversight needs as Gedajlovic et al. (2004) and Willard et al. (1992) discuss, then we may expect a negative relationship between the presence of founders and performance. Founders have been the research focus in a limited number of qualitative studies, most notably the negative effects of "Founder's Syndrome" or "founderitis" is described by the literature on boards of directors (Linnell, 2004). Founder syndrome refers to the dynamic that develops when a founding

leader's vision, high-energy and commitment that was critical to organizing and opening a new school, later becomes counterproductive to the larger school interest while operating. This "syndrome" is observable in other organizations, both nonprofit and for-profit alike.

On the positive side, a competing theoretical consideration on founders is the stewardship principle, which states that founder-directors are not motivated by individual goals, but instead behave as stewards whose motives are aligned with the objectives of the organization they founded (Gimeno, Folta, Cooper, & Woo, 1997). Stewardship theory views founders as stewards, who manage their organizations responsibly to improve their performance (Donaldson & Davis, 1991; Muth & Donaldson, 1998). Specific to the charter school setting, the presence of founder-directors represents an important governing mechanism that shapes charter school governance, given their commitment to the educational goals of the school. For example, Loveless and Jasin (1998) have pointed out that managing a charter school requires that founders leverage a wealth of educational and organizational resources necessary to successfully navigate the startup and operational phases of a charter school. Despite founders' important contributions to the genesis of charter schools, the extent to which "founder's syndrome" impacts the performance accountability (also known as results-accountability or outcomes-based accountability) of charter schools is largely unknown and we fill this gap in our research.

In Table 4, Panel C we stratify our sample on charter schools according to the presence or absence of founders on their boards and test their differences in term of financial performance. According to the univariate test results, Financial Surplus Ratio is significantly lower (0.07 versus 0.01), and the debt ratio is significantly higher (0.45 versus 0.35) for schools with founder-directors.

In Table 7, we present the ATE estimation results for the relationship between the presence of founders on boards and the financial outcomes of charter schools. Our findings suggest that founder-directors are associated with poorer financial performance. The presence of founders-directors on the board is associated with a 17.4 percentage point decrease in the financial surplus, a result that is statistically significant at the one percent level (column I). The schools perform poorer in terms of all of the remaining financial outcome measures as well. They are less able to meet their budgetary goals (column II), depend more on debt to finance their operation (column II), have less efficient cash management practices (column IV), are not able to access private funding as much as the rest of the charter schools (column V), and achieve a lower enrollment growth rate (column VI).

These results all together indicate that presence of founder-directors on school boards is associated with poorer financial outcomes, and are consistent with descriptive studies of the relationship between founders and organizational survival (Du Bois et al., 2009; Wasserman, 2008; Block & Rosenberg, 2002; Hillman & Dalziel, 2003) and the "founder's syndrome" that we have described previously.

3.5 Board Composition and Academic Achievement

While the main focus of the study is the impact of board composition on charter schools' financial performance, we also analyze the non-financial aspect of school performance, namely, academic achievement. The most efficient charter schools are the ones that use the fewest resources to produce a given level of achievement or raise achievement to higher levels with a given amount of resources (Levin & McEwan, 2002; Levin & Belfield, 2002; Hanusheck, 1996, 1997). By the same token, as charter authorizers consider both financial viability

and academic performance as criteria for approval in the chartering process, charter school boards also face dual objectives. However, these two objectives (financial viability and student achievement) may at times be in conflict with each other. For example, schools may choose to cut back on educational services to students with special needs and alter input variables such as teacher-student ratios in response to continuing financial difficulties, but doing so may impact student achievement negatively.

In Table 4, we present the univariate test statistics. Schools with and without donor-directors do not differ in terms of academic outcomes (Panel A). The evidence for financial experts is mixed (Panel B). Schools with founder-directors, on average, perform better in terms of academics (Panel C).

In Tables 8 through 10, we investigate the relationship between board composition and academic performance in a multivariate setting. Table 8 presents the ATE estimation results for donor-directors. Our aim here is to rule out the possibility that the positive impact of these directors on financial ooutcomes may be coming at the expense of academic achievement. The results convince us that it does not. We find that donor representation on board is associated with better academic performance using the six academic performance measures we have described in the data section. For example, the coefficient on the Donor on Board indicator variable is positive (21.11) and statistically significant at the one percent level for the Math Proficient Percentage estimation (column I), after controlling for school characteristics. Given the mean value of Math Proficient Percentage (50.48), this coefficient is economically significant as well. In addition to board composition, we also find that a number of school-level characteristics, such as percent licensed teachers and percent native English speakers, predict achievement. We find positive academic achievement results for

older charter schools, high schools, schools with greater percentages of qualified teachers and native English speakers. We find lower academic achievement results for larger charter school boards, schools with lower percentages of licensed teachers, and schools with greater percentages of low-income students, limited English proficient, and special needs students. The estimated relationship between these school characteristics and student achievement is in line with the findings of prior studies on academic achievement (Sirin, 2005; Buddin & Zimmer, 2005).

In Table 9, we present the results for financial experts. Controlling for school-level characteristics, the estimated coefficients on the Financial Expert on Board indicator variable are statistically insignificant, except for math CPI results.

In Table 10, we present the results for the estimated relationship between founder presence on boards and academic outcomes. Our findings show a positive and statistically significant relationship after controlling for school-level characteristics for all of the academic achievement measures. For example, the coefficient on the Founder on Board indicator variable is positive (21.55) and statistically significant at the one percent level for the Math Proficient Percentage estimation (column I), after controlling for school characteristics. Given the mean value of Math Proficient Percentage (50.48), this coefficient is economically significant as well. This finding confirms the literature's anecdotal evidence that founders often have their educational ideas firmly in mind, and possess the skills to successfully implement them (Yancey, 2000).

4 Conclusion

We have studied the impact of three common types of charter school board members: Donors, financial experts, and founders. The results of this study provide new insights in understanding the differential impact of the different types of charter school boards of directors on both financial and academic outcomes. We show that the representation of donors on charter school boards is positively related to financial performance and academic achievement. The results confirm the main hypothesis in this paper, namely that the expertise of donor-directors combined with their monitoring incentives will result in higher financial performance of a charter school.

On the other hand, we find that the presence of founders on charter school boards is negatively related to financial performance but is positively related to academic achievement. Continued presence of founders on boards may represent both a hindrance and an asset to organizational performance. This may be—and in fact often is—a good reality check for founders with a strong personal attachment and financial stake in the charter schools they built to actually implement, and may be necessary for the continued growth and success of their schools.

To the best of our knowledge, this is the first empirical research to systematically examine the influence of directors on charter school performance. The range of organizations providing financial and material resources to traditional public schools and to charter schools is diverse, and our understanding is fragmentary (Brunner and Imazeki, 2003, 2005). While private resources supporting public education are nothing new (Wohlstetter et al., 2004), there is recent interest in exploring whether nongovernment organizations such as foundation donors,

are responding to incentives to increase accountability for school performance (Hansen, 2008).

In closing, the current study seeks to contribute to a slowly growing body of research on charter school governance, and offers the first empirical examination of the relationship between charter school board members and financial performance. Improving the financial performance of charter school boards has implications for greater accountability at the school site. Given expanded authority and fiscal resources, decision makers (charter school boards) close to the ground should be better able to handle internal control over financial performance. Our study suggests that the linkage between board makeup and board objectives cannot be overlooked, since the presence/absence of certain board members influence different performance outcomes.

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Table 1. Variable Description and Data Sources

Variable	Definition	Data Sources
A. Finance Variables		
Total Assets	The sum of current and long-term assets owned by a charter school	MA Department of Education, Charter School Finance Reports
Private Grants	Private money and material support from non-profit and for-profit sources. This variable includes all funds raised from private sources that can be used as part of the school's operating revenues	MA Department of Education, Charter School Finance Reports
Government Funds	Financial support to charter schools from all three levels of government – federal, state, and local	MA Department of Education, Charter School Finance Reports
Total Funds	Government funds plus private grants that are used for the school's annual operating budget	MA Department of Education, Charter School Finance Reports
Private Grants/Total Funds	Share of funds provided through private sources in total funds	MA Department of Education, Charter School Finance Reports
Financial Surplus/Total Assets	Actual total revenues minus actual total expenses scaled by total assets	MA Department of Education, Charter School Finance Reports
(Financial Surplus - Budgeted Surplus) /Total Assets	The difference between the actual surplus in a given year and the budgeted surplus for that year scaled by total assets	MA Department of Education, Charter School Finance Reports
Debt/Assets	The ratio of total debt (the sum of current liabilities and long-term liabilities) and total assets	MA Department of Education, Charter School Finance Reports
Net Assets (also known as fund balances)	Total assets less total liabilities	MA Department of Education, Charter School Finance Reports
Revenues	Consist of a combination of public subsidies (state/tuition/grants and federal sources) and private contributions	MA Department of Education, Charter School Finance Reports
Enrollment Growth	The year-on-year percentage change in a school's enrollment	MA Charter School Profiles retrieved from: http://profiles.doe.mass.edu/
B. Academic Achievement Variables		
Composite Performance Index (CPI)	A measure of the extent to which students are progressing toward proficiency in English language arts (ELA) and mathematics, respectively. The CPI is a 100-point index that combines the scores of students who take standard MCAS tests (the Proficiency Index) with the scores of those who take the MCAS-Alternate Assessment (MCAS-Alt) (the MCAS-Alt Index)	MA Charter School Accountability Reports (MCAS), retrieved from http://profiles.doe.mass.edu/state_report/mcas.aspx
Percentage of Proficient Scores	Percentage of students that scored advanced or proficient in English language arts (ELA) and mathematics	MA Charter School Accountability Reports (MCAS)
Score Index	The index score is equal to 4 times the percent of students in the advanced category plus 3 times the percent of all students in the proficient category plus 2 times the percent of students in the needs improvement category plus 1 times the percent of students in the warning category. Total points are divided by the number of students to calculate school averages.	MA Charter School Accountability Reports (MCAS)
C. School Characteristics		
Percentage of Low-income Students	The percentage of students who meet any one of the following definitions of low-income: the student is eligible for free or reduced price lunch; or the student receives Transitional Aid to Families benefits; or the student is eligible for food stamps	MA Charter School Profiles retrieved from: http://profiles.doe.mass.edu/
Percentage of African-American Students	The percentage of charter school students who are African-Americans	MA Charter School Profiles
Percentage of Asian Students	The percentage of charter school students who are Asians/Pacific Islanders	MA Charter School Profiles
Percentage of Hispanic Students	The percentage of charter school students who are Hispanics	MA Charter School Profiles
Percentage of Native American Students	The percentage of charter school students who are American Indians/Alaska Natives	MA Charter School Profiles
Percentage of Non-native English Speakers	The percentage of charter school students whose first language is a language other than English	MA Charter School Profiles
Percentage of Male Students	The percentage of charter school students who are males	MA Charter School Profiles
Percentage with Limited English Proficiency	The percentage of charter school students whose first language is a language other than English and who are unable to perform ordinary classroom work in English	MA Charter School Profiles
Percentage of Special Education Students	The percentage of charter school students with Individualized Education Program (IEP)	MA Charter School Profiles
Percentage of Licensed Teachers	The percentage of teachers licensed in teaching assignment	MA Charter School Profiles
Percentage of Qualified Teachers	The percentage of of core academic classes taught by teachers who are highly qualified	MA Charter School Profiles
Student-to-Teacher Ratio	The ratio of full-time-equivalent students to full-time-equivalent teachers	MA Charter School Profiles
Elementary School	A dummy variable indicating whether the charter school is elementary school or not	MA Charter School Profiles
Middle School	A dummy variable indicating whether the charter school is middle school or not	MA Charter School Profiles
High School	A dummy variable indicating whether the charter school is high school or not	MA Charter School Profiles
School Age	The number of years the charter school has been in operation	MA Charter School Profiles

Table 1. Variable Description and Data Sources (cont'd)

Variable	Definition	Data Sources
D. Boards		
Donor on Board	A dummy variable indicating the presence of at least one donor on the charter school's board	Charter school annual reports; professional networking websites; company/organizational reports of annual giving to charter schools; charter website list of donors by year, supplemented by one-question survey of school donors; local news of donors, grants, and gifts to charter schools
Financial Expert on Board	A dummy variable indicating the presence of at least one financial expert on the charter school's board	Charter school annual reports; professional networking websites; school profiles
Founder on Board	A dummy variable indicating the presence of at least one founder on the charter school's board	Charter school annual reports; charter school applications; professional networking websites; school profiles
Board Size	Total number of directors on the charter school board	Charter school annual reports
Employment in the Finance Sector	Measures the total paid employees in the finance and insurance sector/industry at the county level. We use the banking and other finance-related employment defined within the North American Industry Classification System (NAICS) sector 52 (Finance and Insurance) as an instrument for financial expert presence on a charter school's board	U.S. Census Bureau, County Business Patterns
Employment in the Nonprofit Sector	Measures the the total paid employees in the nonprofit sector at the county level. We use the components of the nonprofit sector that are drawn from other studies to be more likely to build relations with charter schools, namely, education services (emp61), health and social assistance (emp62), museums (emp7121), religious (8131), social advocacy (emp8133), political nonprofits (emp8139), and civic and social organizations (emp8134) as an instrument for the presence of founders on a charter school's board	U.S. Census Bureau, County Business Patterns

Table 2: Board of Director Characteristics

	Obs.	Board Size	% of Boards with a Donor	% of Boards with a Financial Expert	% of Boards with a Founder
2001	41	11.73	65.85%	56.10%	90.24%
2002	46	11.52	69.57%	63.04%	86.96%
2003	49	12.00	77.55%	65.31%	83.67%
2004	55	11.84	74.55%	70.91%	85.45%
2005	56	12.05	69.64%	75.00%	82.14%
2006	58	11.79	70.69%	74.14%	79.31%
2007	60	11.68	71.67%	71.67%	73.33%
2008	61	11.61	67.21%	75.41%	68.85%
2009	62	11.58	59.68%	74.19%	69.35%
2010	63	11.32	57.14%	74.60%	61.90%
2011	72	11.46	59.72%	73.61%	56.94%
2012	77	11.04	61.04%	72.73%	58.44%
2013	80	11.10	57.50%	75.00%	56.25%
2001-2013	780	11.55	65.51%	71.67%	71.28%

Note: "Financial Experts" do not include financially affiliated directors.

Figure 1.

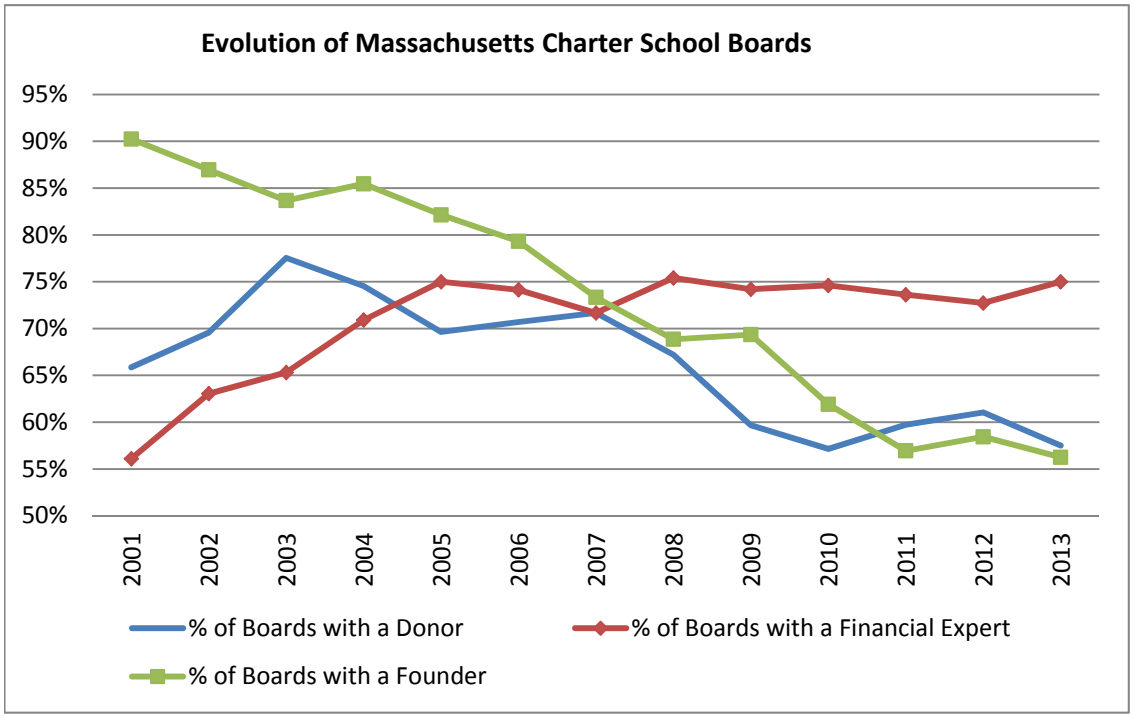

Table 3: Summary Statistics

This table presents the summary statistics for the variables that we use in our analyses. Variables are described in Table 1.

	Obs	Mean	Std. Dev.	p25	p50	p75
Financial Characteristics of Charter Schools						
Total Assets	780	5,611,310	9,824,715	817,705	1,784,912	4,766,178
Government Funds	780	4,980,697	3,902,918	2,397,904	3,636,318	6,252,862
Private Grants	780	235,587	539,558	4,945	71,518	232,627
Total Funds (Government+ Private)	780	5,216,283	4,010,763	2,603,171	3,848,718	6,670,723
Private Grants / Total Funds	780	5.06	9.17	0.11	1.65	6.56
Debt Ratio	780	0.43	0.36	0.16	0.32	0.67
Financial Surplus / Total Assets	780	0.05	0.31	0.00	0.05	0.13
(Financial Surplus - Budgeted Surplus)/Total Assets	776	-0.01	0.27	-0.03	0.00	0.05
Change in Net Assets / Revenue	691	0.04	0.15	0.00	0.03	0.09
Enrollment Growth (Percentage)	691	9.19	19.48	0.00	3.19	10.81
Nonfinancial Characteristics of Charter Schools						
Enrollment	780	405	326	185	309	490
School Age	780	8.76	4.86	5.00	8.00	12.00
Elementary School	780	0.47	0.50			
Middle School	780	0.80	0.40			
High School	780	0.53	0.50			
Percentage of Licenced Teachers	780	65.23	21.53	50.90	67.00	80.50
Percentage of Qualified Teachers	780	85.96	18.53	79.60	92.05	100.00
Student-Teacher Ratio	780	12.01	2.74	10.00	11.70	13.50
Percentage of Low Income Students	764	48.86	29.33	18.50	54.50	74.55
Percentage of Black Students	780	26.63	29.26	2.35	10.20	53.85
Percentage of Asian Students	780	4.91	9.77	0.70	1.80	4.20
Percentage of Hispanic Students	780	23.54	24.95	4.25	15.65	31.10
Percentage of Low Income Students	780	0.34	0.54	0.00	0.00	0.50
Percentage of Native English Speakers	768	16.48	20.85	1.40	9.10	24.85
Percentage with Limited English Proficiency	768	4.64	10.49	0.00	0.50	4.30
Percentage of Special Education	765	13.79	7.17	9.30	12.40	16.80
Percentage of Males	780	48.96	5.79	46.21	49.10	52.00
Academic Performance Measures						
Math Proficient Percentage	688	50.48	24.05	32.00	53.50	69.00
Math Score Index	688	2.53	0.54	2.14	2.58	2.91
CPI Math	616	76.30	14.57	68.15	79.35	87.00
ELA Proficient Percentage	633	63.99	20.42	51.00	67.00	79.00
ELA Score Index	633	2.71	0.38	2.50	2.73	2.95
CPI ELA	562	85.74	9.76	80.50	87.70	92.70

Table 4: Comparison of Means Tests

This table presents the comparison of means tests for the financial outcomes and academic achievement outcomes that we study in the paper. All of the variables are described inTable 1. Panel A presents the statistics for donor-directors. Panel B presents the statistics for financial experts. Panel C presents the statistics for founders.

Panel A. Donors on Boards

	Donor Present	Donor not Present	p-value
Financial Outcomes			
Financial Surplus/ Total Assets	0.04	0.08	0.05
(Financial Surplus - Budgeted Surplus) / Total Assets	-0.02	0.01	0.13
Debt/Assets	0.42	0.43	0.81
Change in Net Assets / Total Revenues	0.04	0.04	0.67
Private Grants / Total Funds	5.95	3.37	0.00
Enrollment Growth	9.41	8.75	0.67
Academic Outcomes			
Math Proficient Percentage	50.06	51.30	0.52
Math Score Index	2.52	2.55	0.54
CPI Math	76.23	76.44	0.86
ELA Proficient Percentage	63.07	65.65	0.13
ELA Score Index	2.69	2.75	0.07
CPI ELA	85.60	85.99	0.65

Panel B. Financial Experts on Boards

	Financial Expert Present	Financial Expert not Present	p-value
Financial Outcomes			
Financial Surplus/ Total Assets	0.06	0.03	0.21
(Financial Surplus - Budgeted Surplus) / Total Assets	0.00	-0.03	0.18
Debt/Assets	0.42	0.44	0.48
Change in Net Assets / Total Revenues	0.04	0.04	0.55
Private Grants / Total Funds	5.43	4.15	0.08
Enrollment Growth	9.54	8.26	0.44
Academic Outcomes			
Math Proficient Percentage	53.00	44.31	0.00
Math Score Index	2.59	2.38	0.00
CPI Math	77.79	72.33	0.00
ELA Proficient Percentage	64.47	62.82	0.35
ELA Score Index	2.72	2.69	0.43
CPI ELA	85.60	86.10	0.59

Panel C. Founders on Boards

	Founder Present	Founder not Present	p-value
Financial Outcomes			
Financial Surplus/ Total Assets	0.07	0.01	0.02
(Financial Surplus - Budgeted Surplus) / Total Assets	-0.01	-0.01	0.94
Debt/Assets	0.45	0.35	0.00
Change in Net Assets / Total Revenues	0.05	0.03	0.19
Private Grants / Total Funds	4.95	5.35	0.58
Enrollment Growth	11.47	4.16	0.00
Academic Outcomes			
Math Proficient Percentage	48.04	55.91	0.00
Math Score Index	2.47	2.66	0.00
CPI Math	74.84	79.23	0.00
ELA Proficient Percentage	61.36	69.85	0.00
ELA Score Index	2.67	2.81	0.00
CPI ELA	84.66	87.91	0.00

TABLE 5: Donors on Boards and Financial Performance

This table presents the results from the Average Treatment Effects (ATE) estimation of Equation 2 in the paper. All of the variables are described inTable 1. Panel A presents the results of the structural equation (Equation 2a in the text). The dependent variables measure the financial health of the charter schools, and the main variable of interest is the Donor on Board indicator. Panel B presents the results for the treatment equation that predicts the presence of donor-directors on charter school boards (Equation 2b in the text). All regressions control for year fixed effects. Robust standard errors are clustered at the charter school level.

PANEL A.

	Financial Surplus/ Total Assets (I)	(Financial Surplus - Budgeted Surplus) / Total Assets (II)	Debt/Assets (III)	Change in Net Assets / Revenue (IV)	Private Grants / Total Funds (V)	Enrollment Growth (VI)
Donor on Board	0.392	0.302	-0.383	0.161	10.976	19.622
	[0.000]***	[0.000]***	[0.139]	[0.001]***	[0.001]***	[0.009]***
Control Variables						
Log(Enrollment)	0.038	0.017	0.042	0.034	-0.939	0.261
	[0.138]	[0.441]	[0.420]	[0.003]***	[0.357]	[0.912]
Log(School Age)	-0.090	-0.048	-0.079	-0.041	-0.814	-18.530
	[0.004]***	[0.090]*	[0.179]	[0.001]***	[0.603]	[0.000]***
Log(Board Size)	-0.086	-0.055	0.030	-0.056	-0.156	-4.451
	[0.124]	[0.217]	[0.770]	[0.065]*	[0.919]	[0.121]
Elementary School	0.056	0.060	-0.115	0.014	1.512	0.578
	[0.090]*	[0.105]	[0.088]*	[0.399]	[0.333]	[0.814]
Middle School	0.007	-0.025	0.139	0.009	0.521	7.016
	[0.780]	[0.282]	[0.044]**	[0.491]	[0.755]	[0.002]***
High School	0.009	-0.008	0.051	0.006	1.420	1.757
	[0.777]	[0.744]	[0.368]	[0.711]	[0.206]	[0.319]
Percentage of Licenced Teachers	-0.001	-0.000	-0.001	0.000	-0.000	-0.149
	[0.179]	[0.735]	[0.391]	[0.164]	[0.995]	[0.005]***
Percentage of Qualified Teachers	0.003	0.002	-0.003	0.000	-0.005	0.123
	[0.001]***	[0.002]***	[0.084]*	[0.565]	[0.850]	[0.044]**
Student-Teacher Ratio	0.004	0.002	0.013	-0.001	-0.009	0.332
	[0.128]	[0.432]	[0.116]	[0.607]	[0.964]	[0.285]
Percentage of Low Income Students	-0.001	-0.001	0.001	-0.000	0.021	-0.022
	[0.053]*	[0.027]**	[0.201]	[0.219]	[0.250]	[0.446]
Constant	-0.344	-0.261	0.499	-0.077	3.987	32.783
	[0.173]	[0.209]	[0.229]	[0.356]	[0.558]	[0.033]**
N	683	683	683	683	683	683
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
rho	-0.84	-0.75	0.69	-0.55	-0.63	-0.61
Wald test of indep. Eqns.: Prob > chi2	0.0000	0.0017	0.1481	0.0037	0.0042	0.0334
Overall Fit of the Model: Prob > chi2	0.0000	0.0062	0.0000	0.0000	0.0000	0.0000

*** Significant at the 0.01 level, ** Significant at the 0.05 level, * Significant at the 0.10 level.

PANEL B. Presence of Donor-Directors on Boards

Dependent Variable	**Donor on Board**					
L.Log(Enrollment)	-0.280	-0.284	-0.213	-0.241	-0.295	-0.422
	[0.036]**	[0.046]**	[0.156]	[0.098]*	[0.059]*	[0.023]**
L.Log(School Age)	0.118	0.100	0.098	0.119	0.201	0.149
	[0.334]	[0.450]	[0.512]	[0.388]	[0.221]	[0.312]
Log(Board Size)	0.431	0.545	0.747	0.822	0.678	0.665
	[0.233]	[0.134]	[0.048]**	[0.014]**	[0.037]**	[0.064]*
L.Log(Employment in the finance and nonprofit sectors)	0.134	0.214	0.220	0.268	0.314	0.249
	[0.033]**	[0.004]***	[0.056]*	[0.001]***	[0.000]***	[0.005]***
Constant	-0.796	-1.925	-2.885	-3.475	-3.506	-1.912
	[0.557]	[0.194]	[0.095]*	[0.012]**	[0.014]**	[0.329]

TABLE 6: Financial Experts on Charter School Boards and Financial Performance

This table presents the results from the Average Treatment Effects (ATE) estimation of Equation 2 in the paper. All of the variables are described inTable 1. Panel A presents the results of the structural equation (Equation 2a in the text). The dependent variables measure the financial health of the charter schools, and the main variable of interest is the Financial Expert on Board indicator. Panel B presents the results for the treatment equation that predicts the presence of financial experts on charter school boards (Equation 2b in the text). All regressions control for year fixed effects. Robust standard errors are clustered at the charter school level.

PANEL A.

	Financial Surplus/ Total Assets (I)	(Financial Surplus - Budgeted Surplus) / Total Assets (II)	Debt/Assets (III)	Change in Net Assets / Revenue (IV)	Private Grants / Total Funds (V)	Enrollment Growth (VI)
Financial Expert on Board	0.038	0.006	-0.122	-0.124	-8.718	-18.022
	[0.417]	[0.882]	[0.420]	[0.024]**	[0.004]***	[0.008]***
Control Variables						
Log(Enrollment)	-0.026	-0.024	0.085	0.054	2.685	-0.914
	[0.160]	[0.196]	[0.131]	[0.032]**	[0.081]*	[0.839]
Log(School Age)	-0.038	-0.007	-0.186	-0.012	-1.976	-17.885
	[0.172]	[0.734]	[0.027]**	[0.527]	[0.433]	[0.000]***
Log(Board Size)	-0.040	-0.000	-0.016	-0.035	5.446	1.375
	[0.303]	[0.994]	[0.894]	[0.342]	[0.082]*	[0.814]
Elementary School	0.042	0.021	-0.128	-0.019	1.045	3.042
	[0.209]	[0.391]	[0.287]	[0.418]	[0.565]	[0.415]
Middle School	-0.089	-0.127	0.092	-0.012	0.271	11.606
	[0.148]	[0.005]***	[0.437]	[0.640]	[0.875]	[0.020]**
High School	0.035	0.023	-0.002	-0.001	-0.165	3.874
	[0.125]	[0.196]	[0.976]	[0.963]	[0.854]	[0.173]
Percentage of Licenced Teachers	-0.002	-0.001	-0.001	0.000	-0.013	-0.246
	[0.000]***	[0.188]	[0.688]	[0.879]	[0.423]	[0.002]***
Percentage of Qualified Teachers	0.003	0.003	-0.003	0.001	-0.008	0.192
	[0.014]**	[0.019]**	[0.338]	[0.144]	[0.769]	[0.034]**
Student-Teacher Ratio	0.009	0.008	0.016	-0.002	0.033	0.319
	[0.060]*	[0.058]*	[0.183]	[0.674]	[0.761]	[0.538]
Percentage of Low Income Students	-0.000	-0.000	0.001	-0.000	0.014	-0.084
	[0.473]	[0.886]	[0.573]	[0.462]	[0.326]	[0.107]
Constant	0.231	-0.010	0.445	-0.082	-15.509	50.599
	[0.136]	[0.946]	[0.377]	[0.574]	[0.179]	[0.100]*
N	235	235	235	235	235	235
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
rho	0.02	0.04	0.07	0.80	0.97	0.70
Wald test of indep. Eqns.: Prob > chi2	0.9229	0.7070	0.7946	0.0069	0.0027	0.0019
Overall Fit of the Model: Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*** Significant at the 0.01 level, ** Significant at the 0.05 level, * Significant at the 0.10 level.

PANEL B. Presence of Financial Experts on Boards

	Financial Expert on Board					
L.Log(Enrollment)	0.634	0.635	0.639	0.543	0.543	0.885
	[0.009]***	[0.009]***	[0.010]***	[0.012]**	[0.000]***	[0.001]***
L.Log(School Age)	0.004	0.004	0.002	0.047	-0.219	0.028
	[0.983]	[0.982]	[0.991]	[0.785]	[0.294]	[0.871]
Log(Board Size)	0.361	0.360	0.364	0.368	0.482	0.482
	[0.481]	[0.483]	[0.474]	[0.423]	[0.082]*	[0.311]
L.Log(Employment in the finance sector)	0.025	0.024	0.022	0.020	-0.019	-0.028
	[0.651]	[0.674]	[0.720]	[0.537]	[0.633]	[0.602]
Constant	-4.155	-4.150	-4.163	-3.735	-3.305	-5.502
	[0.038]**	[0.039]**	[0.038]**	[0.025]**	[0.002]***	[0.013]**

TABLE 7: Founders on Charter School Boards and Financial Performance

This table presents the results from the Average Treatment Effects (ATE) estimation of Equation 2 in the paper. All of the variables are described inTable 1. Panel A presents the results of the structural equation (Equation 2a in the text). The dependent variables measure the financial health of the charter schools, and the main variable of interest is the Founder on Board indicator. Panel B presents the results for the treatment equation that predicts the presence of founders on charter school boards (Equation 2b in the text). All regressions control for year fixed effects. Robust standard errors are clustered at the charter school level.

PANEL A.

	Financial Surplus/ Total Assets (I)	(Financial Surplus - Budgeted Surplus) / Total Assets (II)	Debt/Assets (III)	Change in Net Assets / Revenue (IV)	Private Grants / Total Funds (V)	Enrollment Growth (VI)
Founder on Board	-0.174	-0.235	0.297	-0.016	-9.471	-23.380
	[0.020]**	[0.009]***	[0.005]***	[0.335]	[0.003]***	[0.000]***
Control Variables						
Log(Enrollment)	0.022	0.012	0.057	0.029	-0.875	1.168
	[0.233]	[0.513]	[0.190]	[0.002]***	[0.328]	[0.597]
Log(School Age)	-0.124	-0.096	-0.016	-0.037	-2.836	-23.365
	[0.001]***	[0.022]**	[0.723]	[0.002]***	[0.101]	[0.000]***
Log(Board Size)	-0.007	-0.011	-0.028	-0.015	1.091	-3.171
	[0.879]	[0.782]	[0.782]	[0.402]	[0.511]	[0.269]
Elementary School	0.034	0.021	-0.088	-0.006	-0.298	-3.247
	[0.293]	[0.405]	[0.175]	[0.730]	[0.839]	[0.081]*
Middle School	-0.003	-0.022	0.141	0.004	-0.347	5.403
	[0.925]	[0.360]	[0.050]**	[0.752]	[0.846]	[0.007]***
High School	-0.015	-0.028	0.063	-0.002	0.647	0.022
	[0.584]	[0.192]	[0.256]	[0.908]	[0.569]	[0.988]
Percentage of Licenced Teachers	-0.001	-0.000	-0.001	0.000	-0.011	-0.144
	[0.123]	[0.690]	[0.473]	[0.271]	[0.650]	[0.002]***
Percentage of Qualified Teachers	0.002	0.001	-0.002	0.000	-0.013	0.059
	[0.002]***	[0.014]**	[0.176]	[0.850]	[0.598]	[0.264]
Student-Teacher Ratio	0.004	0.002	0.012	-0.000	0.048	0.327
	[0.174]	[0.485]	[0.134]	[0.902]	[0.816]	[0.286]
Percentage of Low Income Students	-0.001	-0.000	0.001	0.000	0.051	0.018
	[0.228]	[0.363]	[0.423]	[0.918]	[0.009]***	[0.479]
Constant	0.048	0.162	-0.101	-0.024	19.996	73.442
	[0.754]	[0.424]	[0.780]	[0.758]	[0.013]**	[0.000]***
N	683	683	683	683	683	683
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
rho	0.51	0.63	-0.44	0.08	0.64	0.80
Wald test of indep. Eqns.: Prob > chi2	0.0002	0.0131	0.0144	0.1264	0.0056	0.0000
Overall Fit of the Model: Prob > chi2	0.0000	0.0013	0.0000	0.0000	0.0000	0.0000

*** Significant at the 0.01 level, ** Significant at the 0.05 level, * Significant at the 0.10 level.

PANEL B. Presence of Founders on Boards

	Founder on Board					
L.Log(Enrollment)	-0.014	-0.076	-0.012	-0.020	-0.035	0.101
	[0.943]	[0.682]	[0.952]	[0.920]	[0.848]	[0.541]
L.Log(School Age)	-0.907	-0.855	-0.894	-0.864	-0.740	-1.023
	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***
Log(Board Size)	-0.561	-0.528	-0.667	-0.618	-0.548	-0.459
	[0.072]*	[0.087]*	[0.032]**	[0.050]*	[0.052]*	[0.076]*
L.Log(Employment in the finance sector)	0.126	0.107	0.132	0.138	0.190	0.040
	[0.073]*	[0.131]	[0.062]*	[0.066]*	[0.068]*	[0.486]
Constant	2.348	2.728	2.519	2.307	1.328	2.649
	[0.059]*	[0.033]**	[0.041]**	[0.077]*	[0.376]	[0.018]**

TABLE 8: Donors on Boards and Academic Achievement

This table presents the results from the Average Treatment Effects (ATE) estimation of Equation 2 in the paper. All of the variables are described inTable 1. Panel A presents the results of the structural equation (Equation 2a in the text). The dependent variables measure the educational outcomes of the charter schools, and the main variable of interest is the Donor on Board indicator. Panel B presents the results for the treatment equation that predicts the presence of donor-directors on charter school boards (Equation 2b in the text). All regressions control for year fixed effects. Robust standard errors are clustered at the charter school level.

PANEL A.

	Math Proficient Percentage (I)	Math Score Index (II)	CPI Math (III)	ELA Proficient Percentage (IV)	ELA Score Index (V)	CPI ELA (VI)
Donor on Board	21.11	0.483	16.59	20.10	0.278	9.941
	[0.003]***	[0.001]***	[0.001]***	[0.000]***	[0.007]***	[0.000]***
Control Variables						
Log(Enrollment)	-2.105	-0.0531	-2.044	-2.521	-0.0357	-2.128
	[0.416]	[0.370]	[0.227]	[0.256]	[0.327]	[0.057]*
Log(School Age)	4.195	0.0853	2.802	5.291	0.0966	2.868
	[0.103]	[0.136]	[0.125]	[0.026]**	[0.009]***	[0.019]**
Log(Board Size)	-10.49	-0.213	-7.321	-6.343	-0.0767	-3.820
	[0.005]***	[0.011]**	[0.009]***	[0.073]*	[0.189]	[0.056]*
Percentage of Licenced Teachers	-0.234	-0.00530	-0.153	-0.0987	-0.00240	-0.0505
	[0.000]***	[0.000]***	[0.000]***	[0.051]*	[0.011]**	[0.040]**
Percentage of Qualified Teachers	0.162	0.00386	0.141	0.0798	0.00112	0.0502
	[0.030]**	[0.016]**	[0.001]***	[0.139]	[0.210]	[0.075]*
Student-Teacher Ratio	-0.253	-0.00297	-0.0610	-0.405	-0.00885	-0.127
	[0.615]	[0.804]	[0.840]	[0.347]	[0.221]	[0.573]
Percentage of Low Income Students	-0.379	-0.00890	-0.237	-0.332	-0.00645	-0.161
	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***
% of Native English Speakers	0.361	0.00799	0.223	0.241	0.00457	0.134
	[0.003]***	[0.003]***	[0.010]**	[0.011]**	[0.006]***	[0.012]**
% with Limited English Proficiency	-0.307	-0.00734	-0.207	-0.475	-0.00813	-0.257
	[0.074]*	[0.032]**	[0.049]**	[0.000]***	[0.000]***	[0.002]***
% of Special Education	-0.521	-0.0125	-0.287	-0.276	-0.00865	-0.141
	[0.009]***	[0.005]***	[0.036]**	[0.154]	[0.007]***	[0.171]
% of Males	0.135	0.00299	0.0187	-0.0288	-0.000185	0.0206
	[0.385]	[0.399]	[0.864]	[0.822]	[0.937]	[0.759]
Constant	95.24	3.493	105.9	100.7	3.440	106.4
	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***
N	650	650	612	594	594	556
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Elementary/Middle/High School Indicators	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
rho	-0.5215	-0.5375	-0.6574	-0.6844	-0.5651	-0.6866
Wald test of indep. Eqns.: Prob > chi2	0.0049	0.0019	0.0028	0.0005	0.0228	0.0000
Overall Fit of the Model: Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*** Significant at the 0.01 level, ** Significant at the 0.05 level, * Significant at the 0.10 level.

PANEL B. Presence of Donors on Boards

	Donor on Board					
L.Log(Enrollment)	-0.241	-0.243	-0.231	-0.226	-0.209	-0.194
	[0.128]	[0.123]	[0.148]	[0.163]	[0.207]	[0.243]
L.Log(School Age)	0.138	0.138	0.134	0.101	0.117	0.114
	[0.364]	[0.364]	[0.388]	[0.526]	[0.475]	[0.485]
Log(Board Size)	0.804	0.802	0.747	0.816	0.843	0.844
	[0.023]**	[0.023]**	[0.041]**	[0.023]**	[0.021]**	[0.024]**
L.Log(Employment in the finance and nonprofit sectors)	0.260	0.259	0.242	0.220	0.222	0.208
	[0.001]***	[0.002]***	[0.003]***	[0.002]***	[0.007]***	[0.004]***
Constant	-3.383	-3.353	-3.093	-2.964	-3.199	-3.133
	[0.011]**	[0.012]**	[0.028]**	[0.030]**	[0.022]**	[0.019]**

TABLE 9: Financial Experts on Charter School Boards and Academic Achievement

This table presents the results from the Average Treatment Effects (ATE) estimation of Equation 2 in the paper. All of the variables are described inTable 1. Panel A presents the results of the structural equation (Equation 2a in the text). The dependent variables measure the educational outcomes of the charter schools, and the main variable of interest is the Financial Expert on Board indicator. Panel B presents the results for the treatment equation that predicts the presence of financial experts on charter school boards (Equation 2b in the text). All regressions control for year fixed effects. Robust standard errors are clustered at the charter school level.

PANEL A.

	Math Proficient Percentage (I)	Math Score Index (II)	CPI Math (III)	ELA Proficient Percentage (IV)	ELA Score Index (V)	CPI ELA (VI)
Financial Expert on Board	18.172	0.487	15.412	-2.931	-0.062	-2.614
	[0.307]	[0.095]*	[0.001]***	[0.288]	[0.339]	[0.243]
Control Variables						
Log(Enrollment)	-4.412	-0.130	-4.322	-0.956	-0.011	-0.501
	[0.415]	[0.233]	[0.066]*	[0.622]	[0.759]	[0.677]
Log(School Age)	8.318	0.162	4.711	8.462	0.173	4.942
	[0.013]**	[0.038]**	[0.048]**	[0.002]***	[0.000]***	[0.002]***
Log(Board Size)	-9.077	-0.208	-7.644	1.448	0.019	0.779
	[0.084]*	[0.081]*	[0.029]**	[0.603]	[0.711]	[0.678]
Percentage of Licenced Teachers	-0.041	-0.001	-0.048	0.059	0.001	-0.001
	[0.512]	[0.695]	[0.267]	[0.329]	[0.436]	[0.979]
Percentage of Qualified Teachers	0.047	0.001	0.056	-0.013	-0.000	0.006
	[0.396]	[0.441]	[0.201]	[0.765]	[0.550]	[0.832]
Student-Teacher Ratio	-1.157	-0.019	-0.612	-1.309	-0.024	-0.760
	[0.011]**	[0.074]*	[0.034]**	[0.002]***	[0.002]***	[0.001]***
Percentage of Low Income Students	-0.441	-0.010	-0.263	-0.421	-0.008	-0.220
	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***
% of Native English Speakers	0.506	0.012	0.207	0.351	0.006	0.151
	[0.000]***	[0.000]***	[0.007]***	[0.000]***	[0.000]***	[0.006]***
% with Limited English Proficiency	-0.232	-0.006	0.043	-0.435	-0.007	-0.178
	[0.263]	[0.254]	[0.824]	[0.021]**	[0.036]**	[0.138]
% of Special Education	-0.610	-0.016	-0.294	-0.207	-0.009	-0.031
	[0.007]***	[0.002]***	[0.027]**	[0.429]	[0.061]*	[0.812]
% of Males	0.343	0.007	0.234	-0.272	-0.004	-0.133
	[0.111]	[0.118]	[0.047]**	[0.254]	[0.304]	[0.313]
Constant	78.127	3.209	107.177	98.132	3.408	104.644
	[0.027]**	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***
N	224	224	213	212	212	201
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Elementary/Middle/High School Indicators	Yes	Yes	Yes	Yes	Yes	Yes
rho	-0.6618	-0.7407	-0.8211	0.0844	0.1484	0.2479
Wald test of indep. Eqns.: Prob > chi2	0.3806	0.1795	0.0041	0.5906	0.4374	0.3023
Overall Fit of the Model: Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*** Significant at the 0.01 level, ** Significant at the 0.05 level, * Significant at the 0.10 level.

PANEL B. Presence of Financial Experts on Boards

	Financial Expert on Board					
L.Log(Enrollment)	0.743	0.739	0.829	0.672	0.674	0.702
	[0.020]**	[0.010]**	[0.002]***	[0.029]**	[0.030]**	[0.026]**
L.Log(School Age)	0.081	0.071	0.050	0.103	0.104	0.093
	[0.696]	[0.731]	[0.796]	[0.640]	[0.633]	[0.669]
Log(Board Size)	0.225	0.170	0.190	0.324	0.328	0.362
	[0.755]	[0.795]	[0.713]	[0.555]	[0.551]	[0.525]
L.Log(Employment in the finance sector)	0.017	0.027	0.011	0.034	0.036	0.029
	[0.763]	[0.511]	[0.794]	[0.506]	[0.496]	[0.601]
Constant	-4.587	-4.530	-4.889	-4.615	-4.645	-4.797
	[0.036]**	[0.031]**	[0.012]**	[0.060]*	[0.061]*	[0.060]*

TABLE 10: Founders on Charter School Boards and Academic Achievement

This table presents the results from the Average Treatment Effects (ATE) estimation of Equation 2 in the paper. All of the variables are described inTable 1. Panel A presents the results of the structural equation (Equation 2a in the text). The dependent variables measure the educational outcomes of the charter schools, and the main variable of interest is the Founder on Board indicator. Panel B presents the results for the treatment equation that predicts the presence of founders on charter school boards (Equation 2b in the text). All regressions control for year fixed effects. Robust standard errors are clustered at the charter school level.

PANEL A.

	Math Proficient Percentage (I)	Math Score Index (II)	CPI Math (III)	ELA Proficient Percentage (IV)	ELA Score Index (V)	CPI ELA (VI)
Founder on Board	21.556	0.513	18.128	20.181	0.315	10.203
	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.001]***	[0.000]***
Control Variables						
Log(Enrollment)	-2.933	-0.075	-2.605	-2.715	-0.041	-2.086
	[0.317]	[0.275]	[0.172]	[0.289]	[0.340]	[0.107]
Log(School Age)	11.275	0.254	8.633	11.513	0.192	5.930
	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***
Log(Board Size)	-0.336	0.025	1.135	4.739	0.087	1.937
	[0.928]	[0.763]	[0.675]	[0.141]	[0.123]	[0.265]
Percentage of Licenced Teachers	-0.254	-0.006	-0.170	-0.109	-0.003	-0.057
	[0.000]***	[0.000]***	[0.000]***	[0.030]**	[0.010]***	[0.015]**
Percentage of Qualified Teachers	0.178	0.004	0.156	0.076	0.001	0.049
	[0.023]**	[0.013]**	[0.000]***	[0.178]	[0.252]	[0.076]*
Student-Teacher Ratio	-0.171	-0.001	0.020	-0.323	-0.007	-0.054
	[0.737]	[0.949]	[0.945]	[0.425]	[0.292]	[0.781]
Percentage of Low Income Students	-0.370	-0.009	-0.230	-0.319	-0.006	-0.158
	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***	[0.000]***
% of Native English Speakers	0.398	0.009	0.252	0.253	0.005	0.139
	[0.001]***	[0.001]***	[0.001]***	[0.006]***	[0.005]***	[0.006]***
% with Limited English Proficiency	-0.329	-0.008	-0.224	-0.521	-0.009	-0.292
	[0.068]*	[0.035]**	[0.039]**	[0.000]***	[0.000]***	[0.000]***
% of Special Education	-0.561	-0.014	-0.335	-0.314	-0.009	-0.147
	[0.006]***	[0.003]***	[0.014]**	[0.099]*	[0.003]***	[0.124]
% of Males	0.164	0.004	0.037	-0.029	0.000	0.013
	[0.292]	[0.305]	[0.722]	[0.813]	[0.959]	[0.836]
Constant	58.858	2.619	74.037	60.972	2.801	84.770
	[0.007]***	[0.000]***	[0.000]***	[0.002]***	[0.000]***	[0.000]***
N	650	650	612	594	594	556
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Elementary/Middle/High School Indicators	Yes	Yes	Yes	Yes	Yes	Yes
rho	-0.6487	-0.6956	-0.8206	-0.7975	-0.7655	-0.8126
Wald test of indep. Eqns.: Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000
Overall Fit of the Model: Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*** Significant at the 0.01 level, ** Significant at the 0.05 level, * Significant at the 0.10 level.

PANEL B. Presence of Founders on Board

	Founder on Board					
L.Log(Enrollment)	-0.064	-0.066	-0.054	-0.223	-0.191	-0.191
	[0.753]	[0.744]	[0.778]	[0.310]	[0.379]	[0.367]
L.Log(School Age)	-0.848	-0.840	-0.805	-0.734	-0.733	-0.703
	[0.001]***	[0.001]***	[0.001]***	[0.002]***	[0.003]***	[0.002]***
Log(Board Size)	-0.693	-0.681	-0.679	-0.739	-0.745	-0.786
	[0.023]**	[0.024]**	[0.021]**	[0.014]**	[0.016]**	[0.010]**
L.Log(Employment in the nonprofit sector)	0.152	0.155	0.127	0.154	0.159	0.128
	[0.026]**	[0.021]**	[0.051]*	[0.041]**	[0.031]**	[0.073]*
Constant	2.550	2.486	2.653	3.372	3.135	3.515
	[0.054]*	[0.055]*	[0.039]**	[0.014]**	[0.019]**	[0.012]**