# Identity and Ideology in the Boardroom*

Barbara Biasi† Minseon Park‡ John Singleton§ Seth Zimmerman¶

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**Abstract**

An ongoing debate in both academic and policy circles focuses on how board members' demographic and professional backgrounds—i.e., their identities—shape organizational outcomes, often with the idea that members' policy viewpoints—i.e., their ideologies—vary across these groups. In this paper, we look directly at whether and how board members' ideologies affect outcomes for organizations. We combine data on the policy priorities of school board candidates in California with records of election outcomes, debate in board meetings, and policy outcomes for school districts to trace the causal path from viewpoints to debate to policy change using a regression discontinuity design. Our analysis yields two central findings. First, board members succeed in implementing their stated policy agendas, with a mean effect of $0.16\sigma$ (95% CI=[0.14, 0.19]) across all tested policy domains. Members shift policy through the budget process and through changes in executive leadership; we see in data on meeting minutes that they do so both by casting pivotal votes on controversial measures and by changing the kinds of measures the board votes on. Second, direct observation of ideology is crucial for understanding the importance of board composition. Identity turns out to be a poor proxy for ideology, with limited governance effects that are fully explained by differences in policy priorities.

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†Yale School of Management and NBER, barbara.biasi@yale.edu;

‡University of Michigan, minseonp@umich.edu;

§University of Rochester and NBER, john.singleton@rochester.edu;

¶Yale School of Management and NBER, seth.zimmerman@yale.edu.

# 1 Introduction

Most organizations—public and private, for-profit and non-profit—are governed by boards whose members are accountable to the organization's stakeholders. Paralleling an active policy debate on the regulation of board composition (European Union, 2022; Ramonas, 2024; D'Agostino and Erickson, 2023), a large literature in economics, finance, and management studies how the makeup of boards affects organizational outcomes (Adams and Ferreira, 2009; Ahern and Dittmar, 2012; Matsa and Miller, 2013; Bertrand et al., 2019). At its core, this research asks whether who governs an organization influences what it does. Both research and policy focus on board members' demographic and professional backgrounds—i.e., their *identities*. The idea is that members of different groups may systematically differ in attributes that influence how they approach governance, with policy goals and priorities—i.e., *ideologies*—being a leading example. These differences in turn may lead to divergent outcomes for the organization (Adams, 2016; Kogan et al., 2021).

A major challenge in interpreting observed relationships between the identities of board members and outcomes for organizations is the absence of data on the central causal mechanism: the goals and actions of board members. Without these data it is difficult to distinguish between very different theories of board governance. For example, consider a researcher who studies a policy that exogenously shifts board demographics and finds that this shift does not affect an organizational outcome. This researcher cannot tell whether the null effect obtains because the policy does not change the distribution of viewpoints on the board; because shifts in viewpoints do not affect board actions; or because board actions cannot affect that outcome. Differentiating between these hypotheses is crucial for stakeholders choosing board members and for policymakers regulating boards. On the research side, a particular concern is that we may be unable to fully capture how much power board members hold within organizations if identity is a poor proxy for ideology.

This paper uses new data on the viewpoints and policy actions of board members to provide a novel vantage point on how much board composition matters for organizational outcomes, what board members do to achieve their goals, and the extent to which the determinants of member behavior relate to identity categories used in prior work. Our setting is school boards in California, which govern local school districts and allocate most of the hundreds of billions of dollars in public funds spent on primary and secondary education each year. We use large-language models (LLMs)

to identify the policy priorities of thousands of candidates running for school boards as well as to extract data on members' participation in board deliberations from school board meeting minutes. We combine these data with exogenous variation in board membership generated by narrowly-decided elections. We can thus trace the causal chain from changes in board membership to shifts in board ideological composition, board actions, and outcomes for the organization the board controls: the school district.

Our analysis yields two main results. First, board members succeed in implementing their agendas, with large effects across many policy domains. Second, direct observation of ideology is crucial for understanding the importance of board composition. Identity turns out to be a poor proxy for ideology, with limited governance effects that are fully explained by differences in policy priorities.

We study school districts in California. Our main dataset contains information on 22,426 candidates competing in 5,782 elections held in 761 districts between 1998 and 2022. We link these data to text descriptions of candidates' policy priorities and subsequent board actions. Priority data come from the candidates' political platforms, compiled by the League of Women Voters. The data on board activity comes from the minutes of board meetings, which districts are required by law to publish. We use LLMs to code text from these documents, focusing on topics that are the subject of previous research on school boards (equity, fiscal conservatism, and support for teachers), central to debates on education policy (capital investments, safety and health, dropout prevention, student enrollment, career pathways, and educational achievement), core board responsibilities emphasized in the corporate board literature (executive accountability; here, the superintendent), or the frequent subject of candidate discussion (parent engagement and the presence of controversial views in the district's curricula, policies, and practices, which we term "agenda bias"). Benchmarking exercises show that machine codes are as accurate as human hand-codes and provide comprehensive coverage of board debate. Finally, we link the election and board data to public datasets describing financial, workforce, and student outcomes within school districts.

We begin by documenting how candidates' priorities vary across identity groups. We focus on groups that have been the focus of previous studies of school boards, and which parallel the demographic and professional categories explored in studies of corporate boards: gender, ethnicity (specifically Hispanicity, given the large Hispanic population in California), experience working as a teacher, and political affiliation. As expected, some policy priorities are correlated with sociode-

mographic characteristics. For example, 34% of Hispanic candidates prioritize trimming school budgets, compared to 44% of non-Hispanic candidates, and 41% of female candidates cite equity as a priority, compared to 27% of male candidates. However, these are extreme cases. Views on most issues are more balanced across most groups. Further, even on the most polarized topics, substantial within-group variation remains. A random forest model that includes all background variables correctly predicts whether a candidate will prioritize equity only 66% of the time, a modest improvement over the 55% rate that would be obtained from a random coin flip. Predictive power is similarly weak for other priorities.

We then turn to an analysis of the causal effects of electing board members with different identities and ideologies. To do so, we first map each identity and priority to a relevant district outcome or set of outcomes. For example, for equity-focused candidates we take the test score performance of a district's low-income students and Hispanic students as the outcomes of interest, while for fiscally conservative candidates we take per-pupil spending. For identity groups, we consider hypotheses drawn from the school board literature on the relationship between identities and district outcomes, and augment them with additional hypotheses based on cross-group differences in policy views.

We then use regression discontinuity models that compare outcomes in the years following close elections where a candidate with a given attribute either just beats or just loses to a candidate without that attribute. We focus our exposition on three leading examples— equity-focused candidates, fiscally conservative candidates, and Hispanic candidates—while also presenting aggregate analyses of the full set of identity and priority types.

We first show that electing a candidate with a given policy priority substantially shifts the ideological composition of the board, but that electing a candidate of a given identity background does not, even when the belief in question is "typical" of the identity. Electing a candidate who prioritizes equity raises the share of board members who prioritize equity by about 20 percentage points (95% CI=[0.129, 0.268]), 80% of the baseline equity share of 25%. Gains are similar when the ideology in question is fiscal conservatism. In contrast, electing a Hispanic rather than a non-Hispanic board member has little effect on the share of fiscally conservative board members, despite the fact that the Hispanic/non-Hispanic gap in preference for school spending is one of the biggest cross-group ideological differences we observe. Looking across all identity types, we see that a) the effects of electing a candidate of a given type on board ideology are small, and b) this is because ideolog-

ical differences between identity groups are simply not that big in the cross-section, not because marginal candidates from different identity groups are more similar to one another than average candidates.

We next use the close elections design to examine the causal impact of electing candidates with different identities and ideologies on school district outcomes. Our main finding is that electing board members with a given priority has large effects on outcomes related to the priority, while electing board members from specific identity groups has small or null effects. Electing a board member who states that educational equity is a priority raises test scores for economically disadvantaged students in the district by an average of 0.044 student-level standard deviations (henceforth SDs; 95% CI=[0.036, 0.058]) in the five years following the election. Electing a fiscally conservative candidate reduces per-pupil spending by $1,280 (13% of the baseline mean; 95% CI=[-1525, -1143]) over that same period. In contrast, electing an Hispanic board member raises per-pupil spending by only $172 (95% CI=[19,290]). Pooling across all ideology types, we find that the average effect of electing a candidate with a given view is to raise the value of the associated outcomes by 0.16 SDs (95% CI=[0.14, 0.19]). In contrast, the average effect of electing a candidate of a given identity is much smaller: 0.07 SDs for identity-outcome hypotheses studied in previous literature and -0.01 SDs for other hypotheses generated on the basis of identity differences in policy beliefs.

The identity effects we observe are explained by ideological differences. To see this, we estimate regression discontinuity specifications in elections where candidates' identities differ but their relevant ideologies are the same. Holding ideology fixed eliminates identity effects. In contrast, holding relevant identities fixed does not alter our estimates of ideology effects, which remain large.

Board members implement their desired policies using their core policy tools: capital spending, budget allocation, and executive accountability, though how these mechanisms are combined depends on the candidate type. We explore these channels in the context of our leading examples. When elected, equity-focused board members shift school-level funding to schools with more lower-income students and schools with more Hispanic students. Fiscally conservative board members realize cost savings almost entirely through reduced capital spending, consistent with the budget authority available to them in California. Electing a fiscally conservative board member also dramatically raises the chances of superintendent turnover.

What is happening at board meetings that allows a single board member to effect a desired

policy change? Existing literature highlights two possible channels: board members may change consensus views through debate or agenda setting, or they may cast pivotal votes on contentious topics (Black, 1948; Baron and Ferejohn, 1989; Kogan et al., 2021). We explore these possibilities using our data on meeting records, focusing again on our leading candidate types.

We find that board members effect change through both agenda-setting and pivotal voting. Equity-focused candidates seem to change policy by casting pivotal votes on contested issues. When an equity-focused candidate wins a closely-contested election, the winner of that election casts an average of 0.19 (95% CI=[0.09, 0.28]) more pivotal votes on equity topics each year, and 1.36 (95% CI=[0.80,1.91]) more pivotal votes across all topics. Both of these figures are more than double the baseline mean. In contrast, fiscally conservative candidates appear to effect change through agenda-setting. When a fiscally conservative candidate is narrowly elected, they are no more likely to cast pivotal votes on budget issues or other issues. Instead, what happens is that the board proposes and passes 16 fewer motions on budget topics (34% of baseline mean; 95% CI=[-22.17,-10.13]) and 54 fewer motions overall (34%; 95% CI=[-71.00,-36.22]). Hispanic board members do not shift board actions nearly as much, consistent with their limited effect on district outcomes.

This paper contributes to two main literatures. The first studies the relationship between board composition and organizational outcomes, focusing primarily on private sector boards of directors and the presence of traditionally underrepresented groups, such as women. The school board setting allows us to combine data on policy goals, board actions, and policy outcomes with exogenous variation in board membership for what we believe is the first time in this literature. Because corporate boards are appointed, much of the prior work has struggled to identify causal effects and only documented correlations (Erhardt et al., 2003) or causal relationships under strict assumptions (Adams and Ferreira, 2009; Cai et al., 2024). Several papers have used the introduction of gender quotas in corporate boards in Norway to provide plausibly causal evidence on firm profitability, corporate workforce decisions, and women's labor market outcomes (Ahern and Dittmar, 2012; Matsa and Miller, 2013; Bertrand et al., 2019). While these papers find that board quotas shift some outcomes, they report null effects for others and provide limited insight into the theorized mechanisms through which board members' backgrounds might or might not shape governance.[1]

Our study also makes several contributions to the growing literature on school boards. Prior

[1] Bertrand et al. (2019) looks beyond governance to consider broader social effects. We do not consider such effects here; the focus of this paper is squarely within the organization.

work has typically focused on certain observable board member characteristics—such as being a teacher or Hispanic—explicitly using them as proxies for unobserved policy views (Macartney and Singleton, 2018; Kogan et al., 2021; Shi and Singleton, 2023; Fischer, 2023). Our paper directly tests this theory of action, showing that while some demographic and professional attributes correlate with policy priorities, their predictive power is limited and their real impacts are dwarfed by those of priorities. Board activity is also typically unobserved, leaving the mechanisms underlying policy effects unclear. We fill this gap by analyzing meeting minutes to examine board decisions both as an effect of changes in board composition and as a cause of district outcomes.[2] Closest to our work is Stemper (2022a), which uses the same candidate platform data to study the effect of electing fiscally conservative "budget hawks" on district outcomes; our analysis replicates the district-level findings and fleshes out the board-level mechanisms supporting those findings using LLM text analysis, while also contextualizing spending as one of many outcomes shaped by board ideology.

One focus in the literature is on school boards as an input to education production. Complementing longstanding focuses on teachers (e.g. Kane and Staiger 2008; Rivkin et al. 2005; Chetty et al. 2014) and schools (e.g. Angrist et al. 2017), recent work examines the causal effects of principals (Branch et al., 2012; Bloom et al., 2015; Muñoz and Prem, 2024) and superintendents (Lavy et al., 2023) on student outcomes. Our results show that the effects of school board members can be substantial. We find that the effect of electing an equity-focused board member on economically disadvantaged students' test scores is roughly equivalent to assigning *every* such student a teacher who is 0.3 to 0.4 SDs higher in the distribution of teacher value-added.

Finally, our work ties into a broader literature on the role of identity in group decision-making in settings ranging from electoral politics to scientific panels. As with studies of boards, this work is often motivated by the group differences in policy preferences, in particular between men and women. Also paralleling work on boards, results are mixed. Some papers find evidence that increased female representation shifts policy outcomes in a direction consistent with average differences in preferences (e.g Chattopadhyay and Duflo, 2004) while other papers report null effects (e.g. Ferreira and Gyourko, 2014; Bagues et al., 2017). Notably, Rebolledo et al. (2024) finds limited evidence of policy effects even in a setting where meeting records show changes in group dynamics. Our approach suggests that one explanation for the mixed findings: the policy preferences of

[2] Karpowitz and Mendelberg (2014) and Anglin et al. (2025) also use meeting minutes as a source of data on school board deliberations.

female representatives may not differ from men's in many settings.

# 2 Background and Data

## 2.1 Boards

The economic role of governing boards is to mitigate agency problems that plague organizations (Hermalin and Weisbach, 2001). Boards are composed of members, generally elected or appointed by the organization's stakeholders, who meet regularly to recruit, monitor, and, at times, replace the management, and make strategic decisions vital to the functioning of the organization. Across sectors, the existence and some of the characteristics of boards are often mandated by regulation, although organizations typically retain some flexibility on the design. Public and private corporations in most countries must have boards of directors. Most non-profit organizations similarly have boards of trustees. Boards are also common among local governments, such as cities, towns, and school districts. The latter are the focus of this paper.

### 2.1.1 School Boards

**Functions** Nearly all of the 14,000 school districts in the United States are governed by boards of education, commonly referred to as school boards. These governing bodies, generally composed of 3 to 11 members, are responsible for the functioning of each school district. School board responsibilities include drafting curricula, developing the district's strategies, managing the budget and allocating funds to schools, engaging with the community, and implementing federal and state programs as well as court orders (Hochschild, 2005; Maeroff, 2010; Shi and Singleton, 2023). A key responsibility of school boards is recruiting and evaluating district and school management (such as the superintendent, top administrators, and school principals). Boards in most states also collectively bargain with the local teachers' union over employment contracts, influencing terms of employment such as pay, hours, and working conditions.

**Elections** In approximately 95% of U.S. school districts, board members are elected through local elections.[3] While the timing of these elections varies across states, they tend to take place during general elections in November or during local elections in the spring or fall. Each member's term lasts 3 to 4 years. Terms generally do not expire at the same time, with many districts using a staggered election system to ensure continuity in the board's membership. This system implies that, in each election, only about one-third of the board's seats are up for being filled.

**Meetings** Most school boards in the US operate through regular meetings, which occur at least once a month.[4] Due to so-called "sunshine laws," most states have rules requiring that school boards be accessible to the public. The calendar and agenda of each meeting is thus made public in advance and meetings are open to the general public, who can participate in the discussion. The content of the meetings is also disclosed in detail in the form of minutes, typically published on each district's website.

**School Boards in California** Boards in California share many features with boards across the country, but a few California-specific characteristics are important to highlight. Like most other school boards, elections are staggered and members are elected to four year terms. Additionally, school boards in California must bargain with teachers' unions at least once every three years (Shi and Singleton, 2023). Since the passage of Proposition 13 in 1978, California school boards do not have the power to set local property tax rates, a common source of funds for school operations (Loeb, 2001). However, they retain the authority to initiate local bond measures to raise funds for capital projects, subject to voter approval, and can decide how to allocate additional state funds for these projects (Cellini et al., 2010; Biasi et al., 2024). In sum, California school boards have three main channels through which they can directly influence district policy: 1) choosing or otherwise influencing district leadership; 2) allocating funds from a fixed budget to different uses, including through negotiations with teachers' unions; and 3) raising additional funds for capital projects.

[3] Exceptions include Hawaii's single statewide district, certain districts in Indiana, and city school systems like Chicago.

[4] See records of the National School Boards Association (NSBA), available at https://www.nsba.org.

## 2.2 Data

### 2.2.1 School Board Elections

Our analysis combines data from several sources. Data on school board elections come from the California Elections Data Archive (CEDA) of California State University, Sacramento and cover the years 1998-2022. These records include the name of the school district, the type of election (at-large or by trustee area, full- or short-term), the date, the name of each candidate, the number of votes received, and each candidate's occupation.[5] We limit our sample to board elections for K-12 local education agencies (LEAs) and exclude elections of college boards, county boards of education, and the state board of education.

We predict candidate gender and race/ethnicity based on names as reported in election records.[6] Using names, we additionally link each candidate to their political affiliation as reported in the L2 Historical Voter Record, a proprietary database containing the history of voter registrations for the near population of the US. We obtain a gender prediction for 89% of candidates, a race prediction for 86%, and a political affiliation for 75%. Appendix D provides more detail on data construction.

Panel A of Table 1 describes the school board candidates in our data. In total, we observe 22,426 candidates running in 5,782 elections. 22% of the candidates are Hispanic, 45% are female, and 49% are registered Democratic (with the remaining 51% of politically-affiliated candidates registered as either Republicans or independents). 17% are teachers; this is the second most common listed occupation after incumbent board members, which accounts for 38%.

### 2.2.2 Political Platforms

To describe candidates' policy viewpoints, we link their records to data from the now-defunct Voter's Edge website. Voter's Edge was a partnership between the League of Women Voters of California and Maplight, a non-profit organization that provided voters with an online guide to federal, state, and local races in California.[7] On the Voter's Edge website, each candidate had a

[5] Among all elections in our data 59% are at-large, accounting for 73% of all candidates. 96% of candidates in our data ran for a full-term position.

[6] For race/ethnicity, we use the Python package *ethnicolr*, which uses Census data to predict the probability that a name belongs to a race/ethnicity group. We classify a candidate as Hispanic if the predicted probability exceeds 0.5. For gender, we use *gender_guesser*, which predicts each name's gender probability using a database of 40,000 name-gender pairs.

[7] The League of Women Voters of California is a non-partisan organization that promotes voters' rights; its website can be accessed at https://lwvc.org/. Maplight is a non-profit organization that provides campaign finance, lobbying,

page with their name, picture, the position they were running for, their occupation, any endorsements, and their political platform. Figure 1 shows the profile of a candidate running for a board member position in the San Leandro Unified School District, Area 2. We scrape the profiles for 10,069 school board candidates running in California races between 1998 and 2022. We link 37.8% of all candidates to a Voter's Edge profile (Table 1, panel A).

#### 2.2.3 District Outcomes

We quantify the effects of board elections on a range of outcomes measured at the district level. Our main analysis focuses on enrollment, funding, and achievement. Enrollment and finance data come from the Common Core of Data (CCD) for the academic years 1985-86 through 2021-2022 (from now on, we reference academic years with the calendar year of the Spring semester and use calendar years for elections). The CCD reports counts of students in grades K-12 attending schools in each district, broken down by race and ethnicity. Additionally, it lists total expenditures; expenditure on instruction, teacher wages, and capital projects; total revenues; and revenues earmarked for specific programs such as bilingual education, compensatory and basic skills, gifted and talented students, vocational programs, and safety programs. Starting in 2019, the CCD reports funding information on charter schools separately from that of their main districts. Because the size of the charter sector is potentially affected by board elections, our main analysis focuses on school finance outcomes for the 2017-18 academic year and earlier (see Appendix D for details). We express all finance variables in 2019 U.S. dollars.

Our achievement data come from the Stanford Education Data Archive (SEDA), which provides mean standardized scores in statewide Math and English assessments by district, grade, demographic group, and year. These data, described in detail in Fahle et al. (2021), are available for the years 2009-2019. We report results in student-level standard deviation units, normalizing the state-level mean at the state level to be zero. To obtain student level standard deviations, we divide district-level standard deviations by 2.86, the scaling factor from cross-district to cross-student SDs reported in Biasi et al. (2024).

Panel B of Table 1 describes funding and educational outcomes for school districts in our sample in the year before each election. Average spending is about $9,700 per pupil. Average test scores

and ethics disclosure solutions to state and local governments. We accessed the Voter's Edge site at https://www.maplight.org/ between October 5, 2023 and December 15, 2023.

in our sample are 0.06 SDs below the state-level mean; mean scores for Hispanic students and low-income students are -0.17 and -0.15, respectively.

We use three other datasets to measure priority-relevant district outcomes. The first is information on student suspensions, a measure of behavior that we obtained from Civil Rights Data Collection (CRDC) of the U.S. Department of Education. The second includes teacher personnel information, such as turnover rates and salary schedules from the California Department of Education. The third is data on district superintendents from Stemper and The Broad Center (2025). See Online Appendix D for details on the construction of these datasets.

#### 2.2.4 School Board Meeting Minutes

We measure board actions using a new dataset on meeting minutes, compiled by manually collecting PDF files of meeting minutes for the years 2016 through 2023 from each district's website. In total, we collected information on 74,056 school board meetings from 573 school districts. School board meetings typically follow Robert's Rules of Order.[8] Minutes record start and end times, attendance, motions proposed, individual votes, and vote outcomes. Figure A1 shows an example of a minutes file. Online Appendix F describes how we parse the minutes files to recover both meeting-level data on motions proposed and passed and board-member level voting records.

Panel C of Table 1 reports descriptive statistics from meeting minutes data in the year prior to the election. On average, districts hold 22 meetings, with 5.25 members present per meeting. An average 153 motions are proposed in each district and year and almost all of them pass.

## 3 Measuring Board Members' Ideology and Actions

### 3.1 From Political Platforms to Priorities

We use candidates' political platforms to extract information on the policy items they care about. We refer to these as their priorities. Platforms vary greatly in length and detail. Table 2 provides some examples. Some platforms, such as the first one listed in Table 2, include a detailed text of the candidate's views. Others, such as the last one listed, include only a short list of items. The average candidate has a platform of 253 characters in length, with a standard deviation of 141.

[8] Robert's Rules of Order is a guide for conducting meetings and making group decisions. It is the most widely used manual among a wide range of organizations in the U.S. See https://robertsrules.com/.

To assign priorities from platforms, we feed the text of each platform into an LLM and pose a set of queries about twelve priorities, specified ex ante, which we identify as follows. We start with three policy types studied by existing research on school board decision-making: expanding equity in access to educational resources (*equity*), reducing school spending (which we label *fiscal conservatism*), and supporting teachers and teachers' unions (*teacher support*). We then add six additional topics that are the subject of debate in the economics literature and for which board decisions are important: investments in *school facilities*, declines in *enrollment* and competition for students, reduction in *dropout* rates, the health and safety of students in schools (*safety*), *career and technical education* (*CTE*), and improvement in academic achievement (*test scores*). Because one of the school board's core responsibilities is to select the superintendent, we also consider each candidate's positions on superintendent hiring and monitoring (*superintendent accountability*). We complete the list with two priorities that are the subject of public debate and which candidates frequently mention: *community engagement* and the presence of undesirable views or biases in academic curricula, policies, and practices (*agenda bias*).

For each priority, we ask the LLM to rate each platform on a three-point scale indicating whether the priority is not relevant (1), somewhat relevant (2), and directly relevant (3). To help with accuracy, we provided the LLM with annotated examples illustrating the scoring rules. We code candidates as having a given priority if their platform receives a score greater than 2. The full list of queries can be found in Online Appendix E.

### 3.2 Validating Priority Codes

We test the validity of our priority codes along two dimensions. The first is accuracy, defined as the extent to which our priority codes reliably capture human intuition about platform content. The second is completeness, which we define as the degree to which our priority codes provide a reasonably full picture of candidates' stated priorities.

A first step in assessing accuracy is to ensure that the LLM codes seem intuitively reasonable. The right columns of Table 2 show the codes the LLM assigns to each platform. The first candidate mentions maintaining a balanced budget (which alludes to *fiscal conservatism*), a high-quality education (*test score*), and a highly qualified workforce (*teacher support*); he also stresses gains for all students (*equity*) and mentions building new schools (*facilities*) and the need to prepare for a declin-

ing enrollment (*enrollment*). The second candidate, with a much more concise platform, mentions the *safety* of students, serving *parents* as well as students, no social experimentation in the classroom (*agenda bias*), and a sound financial plan to cut wasteful spending (*fiscal conservatism*). The last candidate only lists three items, two of which ("parent involvement" and "school safety") connect directly to our priorities. To further illustrate how platform text translates into priorities, Appendix Figure A2 displays word clouds for the platforms of candidates who prioritize fiscal conservatism (panel (a)) and equity (panel (b)). Common terms for fiscal conservatism include "fiscal responsibility," "budget," and "accountability." Common terms for equity include "achievement gap," "equity," and "access."

To systematically assess the accuracy of the LLM classification, we compare LLM decisions to those of multiple human raters. We asked two research assistants to answer each query for a random sample of 200 platforms and compute the correlation between their responses and those of the LLM as a measure of inter-rater reliability (IRR). Across all questions and platforms, the correlation between the responses of the two human raters is 0.77, a fairly high value for an IRR (Koo and Li, 2016). The correlations between the LLM responses with those of each human rater are 0.84 and 0.75, similar to the human-human IRR. Appendix Table B7 provides the details of this calculation. We conclude that machine-generated codes accurately capture the perceptions of human raters.

We assess completeness in two ways. First, we show that our approach allows us to categorize nearly all platforms (97.3% of our sample) by assigning them at least one priority. Furthermore, the median number of assigned priorities per platform is 3 (with a mean of 2.9), exactly equal to the number of priorities candidates are supposed to list. Second, we extract priorities directly from the text of each platform using both a Latent Dirichlet Allocation and an LLM. In both cases, the extracted priorities closely match those assigned by our primary method (see Appendix Tables B2 and B3 for details).

Though our priority codes appear to provide an accurate and comprehensive approximation of what a human reader would conclude from reading the platform text, it is still possible that candidates' true policy priorities deviate from the ones we assign. For example, candidates may not write what they believe or write things they do not believe. They may also choose not to submit a platform even if they have strong opinions on some priorities. Each of these possibilities may lead us to misclassify candidates' ideologies. To the extent that misclassifications are not systemat-

ically related to outcomes, we expect them to generate classical measurement error and to bias our estimated ideology effects towards zero.

### 3.3 From Priorities and Identities to Outcomes

We use the priorities data to evaluate whether board members deliver on what they claim to prioritize. Doing so requires mapping each priority to one or more district-level outcome variables related to that priority. In some cases, the mapping is clear. For example, candidates who want to reduce spending succeed if district spending falls relative to the counterfactual. Other mappings are reasonably clear but potentially multi-dimensional. For example, candidates who want to promote educational equity presumably succeed if achievement for disadvantaged groups improves, but there is more than one plausible definition of "disadvantaged group."

Our approach is to consider multiple variables when there is ambiguity. We thus assess the success of candidates with an equity priority using measures of achievement for both economically disadvantaged students and Hispanic students. Similarly, we measure the success of candidates who support teachers using teacher exit rates (which we expect to decline) as well as salaries for entering and experienced teachers (i.e., those with a BA and 60 semester units). Appendix Table B5 reports the full mapping between priorities and outcome variables.

For identity groups, we evaluate causal impacts of changes against expectations grounded in theory or evidence. To this end, we begin by cataloging identities and outcomes—and the hypothesized relationships between them—that have been the focus of prior work on school boards. For example, Kogan et al. (2021) points out that non-white voters typically express more support for school spending than white voters while also representing different (and non-white) constituencies, so electing more Hispanics may change school finance decisions and educational outcomes for Hispanic students. Similarly, Shi and Singleton (2023) makes the point that teachers on school boards may try to shift policies in ways that help teachers.

We then augment this list with new hypotheses that arise from the systematic differences in priorities across identity groups that we uncover with the platform data. For example, we see that Hispanics disproportionately prioritize CTE, which implies that an additional Hispanic elected to the board will cause spending on CTE programs to increase. We detail the relationships between identities and priorities in Section 4. Appendix Table B6 provides a list of identity-related hypothe-

ses we test.

### 3.4 Measuring Members' Actions from Meeting Minutes

To extract data on the topics, votes, and passage or failure of motions discussed in board meetings, we follow a similar approach to what we used to extract priorities from platforms. Specifically, we feed each set of meeting minutes through an LLM model and ask it to extract (i) a list of all motions and their outcomes, (ii) each board member's vote on each motion, and (iii) the topic of each motion. Two differences between the motions and the priorites are important to note. First, while we are able to capture the topic of a motion, we do not capture its stance. For example, meeting minutes typically make clear when a motion relates to a budget proposal, but not whether that proposal raises or lowers spending relative to some alternative. Second, many motions are purely procedural. For example, 33% of all motions are raised to approve the minutes of the previous meeting or to adjourn. We exclude these from our analysis. Appendix F explains the process more in detail.

Appendix Table B4 shows three examples of our minutes data and illustrates our topic assignment process. Overall, our process appears both accurate and complete: human-machine measures of IRR are high and approximately equal to human-human IRR (Appendix Table B8), and 100% of non-procedural motions reference at least one of our twelve priorities.

## 4 Identity and Ideology Among Board Members

### 4.1 Can Group Identity Predict Ideology?

We begin our analysis by exploring the joint distribution of group identity and ideology on school boards. To describe how candidates' stated priorities vary across identity groups, Table 3 reports the share of candidates from each identity who have a platform (top rows) and who have different views (lower rows). Bolded entries are those where the difference in viewpoint shares across an identity group split (e.g., between Hispanic and non-Hispanic candidates, or between male and female candidates) is statistically significant at the 5% level. The rightmost columns report out-of-sample prediction accuracy for a random forest that attempts to predict the characteristic listed in the row using the identity variables. This captures the degree to which identity variables jointly predict platform attributes.

A preliminary observation is that the probability that a candidate has a platform differs by identity. For example, non-Hispanic candidates are more likely to have platforms than Hispanic candidates, and female candidates are more likely to have platforms than male candidates. However, many candidates in each identity group have platforms, and, taken together, identity variables accurately predict whether a candidate will have a platform only 65% of the time, a modest improvement over the 53% rate that can be obtained with a random prediction with knowledge of the variable mean.[9]

Turning to the platform content, we find that candidates' identities and ideologies are correlated in expected ways. For example, candidates who are Hispanic, teachers, or Democrats are less likely to be fiscally conservative than their counterparts, while Hispanics, females, and Democrats are more likely to prioritize equity. Differences by gender and political affiliation are pronounced: women are 15 percentage points more likely than men to prioritize equity (55% of the average for men), while Democrats are 16 percentage points more likely to do so than Republicans (61% of the Republican average).

However, substantial ideological variation persists within identity groups. One way to see this is simply to note that, although some of the differences in Table 3 are statistically significant, many are relatively small. More systematically, the joint predictive power of all identity variables for viewpoints is weak. For example, the random forest model correctly predicts whether a candidate prioritizes fiscal conservatism 58% of the time, only a modest improvement over the 51% accuracy one could obtain through random guessing. For equity, random forest predictions are correct only 66% of the time, compared to 55% for random guessing. The observation that the correlation between identity and ideology is not that strong proves to be important for understanding the effect of election outcomes.

# 5 Identity, Ideology, and School District Outcomes

## 5.1 The Regression Discontinuity Design

We now ask how altering the composition of the board shapes outcomes for school districts. To estimate causal effects of board composition, we must address the potential endogeneity of elected

[9]Since 38% of candidates have a platform, the probability of correctly whether any candidate has a platform based purely on chance is $0.38^2 + (1 - 0.38)^2 = 0.53$.

members' characteristics. The selection of school board members is not random; it may reflect electorate preferences that also influence the outcome variable. For example, boards with more equity-focused members may represent districts with better outcomes for low-income students because non-board actors in the district prioritize equity in many ways, including but not limited to voting in school board elections.

To overcome this issue, we exploit quasi-experimental variation arising from close elections using a regression discontinuity (RD) framework. Continuing with the working example, suppose we are interested in the causal effect of electing an equity-focused candidate on some district outcome. We estimate the following model in the sample of elections where one of the two marginal candidates (i.e., the winner with the lowest vote share and the loser with the highest vote share) prioritizes equity and the other does not:

$$y_{i,t,t+k} = \beta_0 + \beta D_{i,t} + f(m_{i,t}) + \theta_{t+k} + \varepsilon_{i,t,t+k} \tag{1}$$

$y_{i,t,t+k}$ is the outcome in district $i$ with election in $t$, measured in year $t+k$, with $k$ ranging from 0 to 4. To increase precision, we generally specify the dependent variable $y_{i,t,t+k}$ as the difference from the year preceding the election.[10] The variable $D_{i,t}$ equals one if district $i$ elects the equity candidate in $t$; in cases where a candidate's platform information is missing, we set $D_{i,t} = 0$.[11] The running variable $m_{i,t}$ is the vote share margin, defined as the difference between the vote share of the equity candidate and either (i) the closest losing candidate (if the equity candidate wins) or (ii) the closest winning candidate (if the equity candidate loses). We assume $f$ to be piecewise linear, allowing its slope to differ on either side of the cutoff, and use a quadratic function in robustness checks. We control for calendar year fixed effects in the vector $\theta_{t+k}$, and cluster standard errors at the election level.

We estimate equation (1) on the subsample of close elections, selected using the mean-squared error optimal bandwidth of Calonico et al. (2020). Under the assumption that any unobservable determinants of outcomes are continuous around the cutoff, estimates of $\beta$ correspond to the aver-

[10] As we show below, prior-year outcomes are balanced across the cutoff and we obtain similar results if we use them as controls rather than differencing them out.

[11] If many candidates who do not submit platforms in fact hold the focal priority this will likely bias estimates downward. We show below that our findings are robust to restricting the sample to elections where we observe platforms for both marginal candidates.

age treatment effect of electing a candidate with a given attribute on a given district-level outcome, among districts with close elections. This approach can be used to estimate the effects of electing members from any identity or ideology group by appropriately redefining $D_{i,t}$, $m_{i,t}$, and the estimation sample.

We estimate equation (1) for each identity and ideology type described above. To facilitate exposition, we focus in the main text on three leading examples: equity-focused candidates, fiscally conservative candidates, and Hispanic candidates.

In order to summarize impacts across multiple candidate attributes (identities and priorities) and outcomes, we also estimate "stacked" regression discontinuity specifications (Pop-Eleches and Urquiola, 2013). These stacked models pool individual estimation samples defined by a given attribute and given outcome in a single estimation sample and take the form:

$$y_{i,t,t+k,s} = \beta_0 + \beta D_{i,t,s} + f(m_{i,t,s}) + \theta_{t+k} + \tau_s + \varepsilon_{i,t,t+k,s} \tag{2}$$

where $s$ indexes stacks—unique candidate attribute and outcome variable combinations. We add fixed effects for each stack ($\tau_s$).

Our design relies on close elections between candidates with differing policy priorities or identities. Fortunately, many school board elections fit this description. Columns 2-5 of Table 1 describe our sample of marginal elections, defined here as those where the gap between the winner's and loser's outcome is five points or fewer. As reported in column 2, there are 2,519 close elections, and attributes of the candidates, districts, and board meetings are similar to those for the full election sample. Columns 3-5 describe close elections where the marginal candidates differ in terms of the listed priority or identity. Up to differences due to variation in choice of optimal bandwidth, these are the samples we use in the regression discontinuity analysis. There are 1,090 marginal elections where one candidate is fiscally conservative and the other is not. 66% of candidates in these elections have platforms, above the rate in the full sample. This is mechanical: the fiscally conservative candidate in each marginal pair by definition has a platform. Candidates in these elections are less likely to be Hispanic, and the elections take place in districts that spend more and are slightly higher achieving than in the full sample. Equity-marginal elections are also somewhat less likely to feature Hispanic candidates, and take place in higher-spending and higher-scoring

districts. Hispanic-marginal elections are mechanically more likely to include Hispanic candidates but otherwise closely resemble the full sample of elections.

The design passes standard tests of RD validity. Table 4 reports results from three sets of tests: (i) McCrary tests for bunching above the cutoff, (ii) tests for balance in lagged outcomes around the cutoff, and (iii) tests for balance in match rates to district outcomes and meeting minutes data around the cutoff. We conduct separate balance tests for each of our leading example specifications as well as for the pooled identity and ideology specifications. In total, the table contains the results for 24 tests of the null of no imbalance, of which three fail at the ten percent level. The three tests that fail are for the density of the running variable in specifications focused on candidate identity. The finding that the RD is balanced is consistent with the idea that election outcomes are hard to manipulate (Lee, 2008).

### 5.2 Changes in Identity Group Representation and Boards' Ideological Composition

We first explore how electing candidates from different ideology and identity groups affects the distribution of priorities on the board. Figure 2 displays regression discontinuity results for our three leading examples. The left plot in each set of two panels is a standard regression discontinuity graph where the horizontal axis is the (relative) vote share of the reference-group candidate and the vertical axis is the mean share of board members for whom a view of the listed type is observed, relative to the share in the year before election. The right plot in each pair displays RD effects separately from three years before to four years after the election. Light gray diamonds are below-threshold mean values. Darker circles with confidence intervals are above-threshold means, computed here as the below-threshold value plus the estimated RD effect.

Our first finding is that marginally electing members with a specific priority substantially shifts the share of board members who hold that view. Panels (a) and (b) of Figure 2 show results for the elections on the equity margin. As expected, there is a discontinuous jump in the share of board members prioritizing equity when an equity candidate beats a non-equity candidate. The size of this jump is 0.19, consistent with a one-member change and an average board size of 5.87. This represents a 80% increase on the baseline share of 0.25. Panel (b) shows that gaps in the share of equity-focused board members open up precisely in the year the equity-focused candidate wins (i.e., there is no correlation between marginal wins and board composition in prior years) and stays

open for four years, the length of a typical term. Panels (c) and (d) describe the effects of electing a fiscally conservative candidate. The picture is similar to what we saw for equity, with an increase at the cutoff equal to 0.16 (80% of the baseline share of 0.20) that is sustained for four years.

Our second finding is that electing a candidate with a given identity does not shift a board's ideological composition much, even for priorities that are correlated with the identity in the cross-section. The bottom panels of Figure 2 show how electing a Hispanic candidate (relative to a non-Hispanic candidate) affects the share of fiscally conservative board members. Table 3 shows that Hispanic members are 10 percentage points less likely than non-Hispanic members to list fiscal conservatism as a priority. However, as reported in the bottom panels of Figure 2, electing a Hispanic candidate does not produce a statistically significant shift in the share of fiscally conservative board members.

Figure 3 summarizes these results across all of the priority and identity categories. In panel (a), the vertical axis shows the RD estimate of the effect of electing a candidate of a given type (defined by identity or viewpoint) on the share of board members with a given viewpoint. As described earlier, we consider two types of hypotheses about the relationship between identity and ideology: those posited in previous school board studies (denoted by squares) and those that we generate by looking at the joint distribution of identities and viewpoints (circles). Triangles denote effects of electing candidates with a given priority. The RD estimates from the previous figure for equity, fiscally conservative, and Hispanic candidates are labeled on the graph. The horizontal axis shows the *predicted* effect of electing a candidate of type A relative to a candidate of type not-A based on cross-sectional differences in views. For example, Hispanic candidates are 3 percentage points more likely to report an equity priority than non-Hispanic candidates. Given an average board size of 5.87 members, the predicted shift in the share of board members with an equity view would be $0.03/5.87 = 0.005$. Similarly, the predicted effect of electing an equity-focused candidate relative to a non-equity candidate would be $1/5.87 = 0.17$. Points fall on the 45-degree dashed line if the observed effect on priorities is equal to the predicted effect based on cross-sectional viewpoint data. Comparing RD estimates with cross-sectional predictions allows us to understand whether the small RD estimates of ideological differences across identity groups are an artifact of close elections or emerge in the cross section as well.

The first point to take from this panel is that the effects of electing a candidate with a given

viewpoint on the distribution of viewpoints on the board are much larger than the effects of electing a candidate from a given identity. We see this because the triangles lie above all other points along the vertical axis on panel (a).

Panel (b) of Figure 3 summarizes results from the attribute- and outcome-specific estimates in panel (a) using the stacked design, as in equation (2). Each bar displays the estimated coefficient from a specification that pools type-outcome combinations belonging to a given category. On average, electing a candidate with a given priority raises the share of board members who hold that priority by 0.18, while electing a candidate with a given identity shifts the board share with the associated viewpoint by only 0.01. This minimal impact of changes in identity on the overall board's ideological composition holds for both hypotheses from the existing literature and those newly-generated from the correlations between identities and priorities. This point follows directly from the observation in Section 4 that identities are not particularly strong predictors of priorities.

The second takeaway from panel (a) of Figure 3 is that the effects of identity on ideology that we observe in marginal elections are similar to those we see in the cross-section: all of the identity dots fall in the bottom left corner of the graph, along the 45-degree line. In short, cross-sectional differences in ideology by identity exist but are not that big, and when we look at how identity affects ideology in marginal elections, we find effects that exist but are not that big.

### 5.3 District Outcomes

Next, we examine the effect of electing board members from different identity and ideology groups on district outcomes. Following the structure of Figure 2, Figure 4 displays standard RD plots on the left within each panel, with year-by-year RD estimates on the right. Again, we focus our discussion first on our leading examples and primary outcomes with which they are associated.

Electing an equity-focused candidate raises test scores of economically disadvantaged (ECD) students by 0.04 SDs over the following four years (Figure 4, panel (a)). The discontinuity is visually obvious and highly statistically significant ($p<0.001$).[12] Panel (b) additionally shows that scores are balanced in the pre-election period. Gains for ECD students appear in the year following the election and persist for at least four years.

[12] An interesting feature of the RD plot is that the slope of the relationship between ECD test scores and the vote margin—the running variable— is negative. This suggests that that equity-focused candidates tend to get higher vote shares in districts where scores for low-income students are declining relative to the year before the election. One possible interpretation is that voters react to increased challenges for low-income students by voting for equity candidates.

Fiscally conservative candidates succeed in reducing district spending: electing a candidate with this priority reduces per pupil district spending by $1,277 (13% of the below-threshold average spending level; Figure 4, panel (c)). This occurs via a reduction in the *growth* of district spending, rather than a reduction in spending (panel (d)). These effects appear immediately in the year of the election.

The effects of electing equity-focused or fiscally conservative board members are large relative to other education interventions. The effect of electing an equity-focused board member on ECD students' test scores is similar to the effect of assigning every such student to a teacher who is 0.3-0.4 SDs higher in the distribution of teacher value-added (Chetty et al., 2014). The reduction in spending from electing a fiscally conservative board member is similar in size to the increase in spending experienced by low-income districts following state-level school finance reforms (Lafortune et al., 2018).

These findings contrast with the effects of electing an Hispanic board member, which raises per pupil spending by only $173 (1.8% of the below-threshold mean; Figure 4, panels (e) and (f)). This is consistent with the fact that electing a Hispanic member does not on average change how fiscally conservative the school board is (Figure 2).

### 5.4 Aggregating Multiple Priorities and Identities

Our case studies—members with equity and fiscal conservatism priorities and Hispanic members—help build intuition on the channels through which ideology and identity affect outcomes. We now ask how our findings generalize to other priorities and identities. For ease of interpretation and comparison, we first normalize all outcome variables to have a standard deviation equal to one and a sign consistent with the hypothesized direction of the effect (see Appendix Tables B6 and B10 for hypothesized direction). We then consider three stacked specifications: one where each focal candidate attribute is an ideology and we consider the associated outcomes (see Appendix Table B5), one where each candidate attribute-outcome pair comes from an identity-related hypothesis tested in prior literature, and one where each attribute-outcome pair comes from a novel identity-related hypothesis.

We find that the effects on outcomes of changes in a board's ideological composition are larger than the effects of changes in identity group composition. The average standardized effect of elect-

ing a candidate with a given priority is to increase the level of the associated district outcome by 0.16 SDs (95% CI=[0.136,0.188], 14 ideology-outcome pairs; Figure 5, right bar). In contrast, the average standardized effect from identity-outcome hypotheses tested in prior literature is 0.07 SDs (95% CI=[0.063,0.073], 6 identity-outcome pairs, left bar) and the average standardized effect from novel identity-outcome hypotheses is negative at -0.01 (95% CI=[-0.012,-0.010], 24 identity-outcome pairs, middle bar). These findings are consistent with the hypothesis that ideology is a key factor driving outcomes and our previous finding that the effects of shifts in identity on ideology are relatively small.

Appendix Tables B11 through B14 report estimates for each regression that contributes to these averages (in raw rather than standardized units). There are several interesting results. For example, candidates who prioritize facilities raise capital spending; candidates who prioritize teacher support raise teacher entry salaries and reduce teacher exit; and candidates who prioritize superintendent accountability raise the probability of a change in superintendent relative to the base period. A notable null effect is that candidates who prioritize academic achievement do not affect test scores. On the identity side, we find that electing a teacher raises spending and teacher salaries and reduces teacher turnover, confirming results from Shi and Singleton (2023).

### 5.5 Identity vs. Ideology in Determining Districts' Outcomes

The evidence presented thus far shows that marginal changes in boards' ideological composition have larger impacts than marginal changes in the representation of identity groups. However, these findings rely on analyses that consider one dimension of identity or ideology at a time and do not hold other attributes constant. The limitation of this is that, because identity and ideology are correlated, the univariate estimates of identity impacts include both direct effects of representation and effects that operate through changes in the board's ideological makeup.

In this section, we use two approaches to test whether and how much identity matters once ideology is held constant, and vice versa. Our first approach extends the analysis from section 5.4. Specifically, we estimate stacked specifications (equation 2) that restrict the sample of elections used to test identity-related hypotheses to those where the outcome-relevant priority has the same value for both marginal candidates. For example, if the outcome in question is ECD test scores, and the identity type is Hispanic, this analysis would only consider elections where a) one marginal

candidate is Hispanic and the other is not and also b) the two candidates share the same value of the equity priority variable. This allows us to focus on elections where the relevant identity is changing but the relevant ideology is not.

Similarly, for ideology-related hypotheses, we restrict the sample to include only elections where the marginal candidates have very similar identities, in an outcome-relevant sense. To operationalize this, we use the random forest predictions described in Section 4 to generate predicted ideologies using the full set of identities. We then restrict the sample to elections where the predicted values of the relevant ideology for the marginal candidates differ by less than 0.01. For example, if the ideology type we are considering is equity, our analysis would only consider elections where a) one marginal candidate lists an equity priority and the other does not, and b) the two candidates are similar in terms of the identity variables that predict an equity priority, such as Hispanicity, gender, and political affiliation (Table 3). Panel (b) of Figure 5 reports results from these exercises.

We find that, when we hold ideology fixed, the effect of identity on outcomes is small and negative across the board (left two bars). Notably, this holds for identity-outcome hypotheses tested in previous literature, for which we found a positive effect in specifications that did not hold ideology fixed. We also find that holding identity fixed does not alter our estimates of the effects of ideology on outcomes. As shown in the rightmost bar, estimated ideology effects are essentially unchanged. In short, these results suggest that differences in ideology explain the identity effects we find.

Our second approach extends the univariate RD model in equation (1) to allow for the simultaneous effects of multiple candidate attributes by exploiting close elections where candidates differ along one dimension, but agree on others. Suppose we are interested in attributes $j$ and $l$. We estimate the following model across the full sample of elections:

$$\begin{aligned} y_{i,t,t+k} &= [\beta_0^j + \beta^j D_{i,t}^j + \gamma_0^j m_{i,t}^j + \gamma^j D_{i,t}^j m_{i,t}^j] \times S_{i,t}^j \mathbf{1}(|m_{i,t}^j| \leq BW_j) \\ &+ [\beta_0^l + \beta^l D_{i,t}^l + \gamma_0^l m_{i,t}^l + \gamma^l D_{i,t}^l m_{i,t}^l] \times S_{i,t}^l \mathbf{1}(|m_{i,t}^l| \leq BW_l) \\ &+ \theta_0 \times S_{i,t}^l \mathbf{1}(|m_{i,t}^l| \leq BW_l) \times S_{i,t}^j \mathbf{1}(|m_{i,t}^j| \leq BW_j) \\ &+ \theta_{i,t+k} + \varepsilon_{i,t,t+k}, \end{aligned} \tag{3}$$

where $D_{i,t}^n$ and $m_{i,t}^n$ are defined relative to attribute $n \in \{j, l\}$, $S_{i,t}^n$ equals one if the winner and the closest losing candidate differ with respect to characteristic $n$, and $BW_n$ is the chosen bandwidth

for characteristic $n$. Intuitively, this model estimates regression discontinuity specifications for each candidate attribute simultaneously, imposing the assumption that effects are separable across attributes. The parameters of interest are $\beta_j$ and $\beta_l$, capturing the effects of electing a candidate with characteristic $j$, conditional on $l$, and vice versa. These parameters are estimated off of the subsamples of elections where the winner and the closest losing candidate differ with respect to the characteristic, and where the vote margin falls within the mean-squared error optimal bandwidth of Calonico et al. (2020). The inclusion of the term $S^l_{i,t}\mathbf{1}(|m^l_{i,t}| \leq BW_l) \times S^j_{i,t}\mathbf{1}(|m^j_{i,t}| \leq BW_j)$ allows for different intercepts across elections based on whether the vote margin falls within the bandwidth for characteristic $j$, for characteristic $l$, for both, or for neither. This framework can be extended to accommodate more than two characteristics.

Table 5 presents estimates of equation (3) that consider four dimensions of identity (gender, ethnicity, occupation, and political affiliation) jointly with the priority relevant for our two leading outcomes: school spending and test scores for low-income students. Our estimates confirm that ideology plays a stronger role in determining district outcomes than identity across most domains. For example, even conditioning on the four dimensions of identity, electing a candidate who prioritizes fiscal conservatism reduces spending per pupil by \$1,390 (column 1). Similarly, electing a candidate who prioritizes equity increases ECD students' test scores by 0.033 SDs (column 2). A joint test of the hypothesis the that ideology variables tested in Table 5 are equal to zero rejects the null at conventional levels ($p = 0.002$)

Meanwhile, the effects of identity are all close to zero and statistically insignificant. Notably, this includes effects of candidate-outcome pairs that were significant in the baseline regression discontinuity specification. For example, in our standard RD specification we found that electing a Hispanic candidate raises school spending by \$170 per pupil. In specifications that account for candidates' fiscally conservative views, the effect of electing a Hispanic candidate becomes negative and statistically insignificant. A test of the null that the identity variables tested in Table 5 are jointly zero fails to reject the null ($p = 0.744$).

In Table 6, we expand the analyses in Table 5 and consider all attributes at once. Specifically, we estimate equation (3) for different sets of identity and ideology variables and for different outcomes. In each panel, the first row (*Examined in Prior Studies*) refers to specifications that consider the effects of identity traits examined in the literature on their associated outcomes (described in the top panel

of Appendix Table B6), accounting for the ideologies associated with those outcomes (Appendix Table B5). For example, we consider the effect of electing a Hispanic candidate on spending, while accounting for fiscal conservatism. In the second row (*Augmented using Ideological Differences*), we identify identity-ideology pairs for which we observe systematic differences across identity groups (described in the bottom panel of Appendix Table B5) and consider the identity-outcome pairs associated with each ideology. For example, we see that Hispanic candidates are more likely to prioritize Career and Technical Education (CTE). We therefore test whether a Hispanic candidate raises more revenue for CTE-related programs. In the third row (*All Identities and Ideologies*) we consider all identity and ideology traits. Panel A shows p-values of chi-squared tests of the joint significance of identity (column 1) and ideology variables (column 2). For reference, panel B shows the same p-values when we estimate identities and ideologies in separate regressions.

Two main findings emerge from this table. The first is that identity effects tend to be jointly zero: none of the p-values shown in column 1 is below 0.05. This is true whether we test only identity-outcome hypotheses considered in prior studies (first row), the augmented set of hypotheses based on cross-group ideological differences (second row) or all identities considered at once. None of the tests has a p-value below 0.05. The second is that we consistently reject the null that ideology effects are jointly zero: p-values in column 2 range from 0.001 to 0.005.

### 5.6 Robustness

Our findings are robust to alternate approaches to estimation and measurement. Appendix Tables B15 and C2 show that our results are qualitatively unchanged and quantitatively very similar for under different values of key tuning parameters and specification choices within the Calonico et al. (2020) framework, including the use of alternate control sets, higher-order polynomial terms, uniform rather than triangular kernels, and alternate approaches to computing standard errors. We use an optimally chosen bandwidth under each of these modifications. This implies that the bandwidths used in these robustness tests vary substantially: for example, when we study the election of an equity candidate, we consider bandwidths ranging from 2.2 to 7.5. Finally, Figures A5 and A6 show that our findings are robust to restricting the sample to elections where we observe platforms for both marginal candidates.

### 5.7 Mechanisms

When interpreting our results so far, it is important to consider that board members have limited direct authority over many of the inputs that shape outcomes such as student achievement or operational spending. In that context, it is important to ask what policy tools they are using to obtain the results we detail above. Recall from section 2.1.1 that these tools consist primarily of budget allocation, capital spending, and superintendent accountability. Table 7 returns to our three leading examples to explore how electing different types of candidates shapes these intermediate outcomes.

We find that board members pull the levers available to them in ways that are consistent with our headline results, though the exact combination depends on the candidate type. For example, equity-focused board members increase funds for schools that enroll a higher share of disadvantaged students. We show this using school-level funding data from California's School Facility Program, which provides matching grants to individual schools for capital improvements and whose funds can be traced back to individual schools.[13] When an equity candidate is elected, schools with a share of ECD students above the state median are 22 percentage points more likely to receive funding through the program (Table 7, panel A, column 1), while those with a share of ECD students below the median are 6 percentage points less likely (column 2). Similarly, equity candidates tend to shift SFP funds towards schools with a share of Hispanic students above the median (column 3) and away from those with a share of Hispanics below the median (column 4).

In principle, these candidates could also achieve their stated goal of increasing equity by improving the socio-demographic composition of schools in ways that predict higher scores. We test for this by predicting each district's average test scores using enrollment shares and using this prediction as the outcome variable. We do not find any evidence for this mechanism (column 5). Equity candidates could also try to achieve their goal by inducing the board to select a new superintendent. Estimates in column 5 of Table 7 show that this is not the case.

Turning to fiscally conservative candidates (who, as shown in panel (c) of Figure 4, reduce the budget by about $1,280 per pupil), we find that they primarily achieve their role by reducing capital spending. Specifically, capital expenditures fall by $1,250 per pupil after the election of a fiscally conservative member, explaining almost all of the $1,277 overall decline in spending (Table 7, panel

[13] While a relatively small share of total spending, it is one of few funding sources for which data is systematically available at the school level (Fischer, 2023).

B, column 4). Teacher pay also declines when these members are elected, but only slightly (column 1). This is consistent with the observation that school boards in California have limited power to set operational budgets, but can issue capital expenditure bonds and negotiate teacher contracts.

Fiscally conservative board members also exert substantial pressure on district leadership. Electing a fiscal conservative causes a 17 percentage point increase in the likelihood of a superintendent change in the four years following an election (44% of the below-threshold mean).

These large effects for candidates' ideology types again contrast with the small effects of electing candidates from a given identity group. For example, electing an Hispanic board member slightly increases superintendent turnover and staff salaries and causes a small reduction in capital spending (Table 6, panel C). This is consistent with the observation that overall spending effects are much smaller (in absolute value) for Hispanic candidates than for fiscally conservative candidates.

### 5.8 Other Outcomes and Policy Tradeoffs

Our analyses thus far have focused on whether candidates implement their stated priorities. We now ask: what are the tradeoffs? For example, equity-focused candidates may raise costs or increase achievement for low-income students at the expense of the district as a whole, while fiscally conservative candidates may cut spending at the expense of student outcomes. Continuing to focus on our three leading examples, Online Appendix C discusses the effects of electing equity-focused, fiscally conservative, and Hispanic candidates on leading non-focal outcomes.

The evidence on tradeoffs is mixed. For equity-focused candidates, we see little evidence that these tradeoffs are at play. These candidates raise scores for Hispanic students and for the student body overall, though gains are about half those for ECD students. They also do not appear to raise per-pupil spending; if anything, they decrease it.

For fiscally conservative candidates, we do find that their election reduces student scores, as reported in Stemper (2022a). Our estimates are smaller on a per dollar basis than those found in the literature (see Jackson and Mackevicius, 2024, for a review). This is consistent with our previous finding (Table 7) that the budget cuts come primarily from reductions in construction spending, often ineffective at improving achievement (Biasi et al., 2024).[14]

[14] Biasi et al. (2024) show that school construction projects that involve school facilities —among the most expensive ones— have no significant effects on test scores.

# 6 Identity, Ideology, and School Boards' Actions

A potentially surprising element of our findings is that electing a single board member can have such a large effect on district outcomes. In this section, we use voting records from board meetings to examine the actions members take to shift district outcomes and to distinguish between different theories of change.

We consider two main theories about how individual members may succeed in shaping board governance, drawn from the economics and political science literature and summarized by Kogan et al. (2021) in the school board context. The first is that boards govern by consensus: even if their opinion is not in the majority, board members can shift policies in the direction of their preferences by influencing the behavior of other members or by shifting the board's discussions. The second is that policies are made by the majority, and that board members influence policy by casting pivotal votes.

These theories have straightforward implications for voting outcomes. If the consensus theory holds, we expect to see changes in meeting agendas and the quantity and content of board motions, but not necessarily contentious votes. On the other hand, if the majority-rule theory holds, we expect to see members who narrowly win cast pivotal votes on closely contested motions. We measure these outcomes directly using data from meeting minutes. To test the two theories, we estimate equation (1) using as outcomes records of either the quantity and type of motion passed or candidates' voting records. For concision we focus on our leading examples: the effect of equity candidates and fiscally conservative candidates.

Our first finding is that equity-focused candidates appear to shape policy by casting pivotal votes on contentious motions. As reported in Panel A of Table 8, we see no evidence that electing an equity-focused candidate leads a school board to propose or pass more motions (counted here at the annual level), either on equity (the focal topic of these candidates, column 1) or overall (column 2). We do see that boards become much more likely to pass non-unanimous motions, which are very rare at baseline. For example, when an equity-focused member is elected, the number of non-unanimous equity-related motions a board passes per year rises by 0.67, or 34% from a base of 1.92.

Results in Panel B confirm that equity-focused candidates often cast pivotal votes themselves.

We measure pivotal votes by counting how many times the winner of the reference election votes with the winning side on a motion decided by one vote in each outcome year, and taking these counts as outcome measures in equation 1. We find that equity-focused board members cast 0.19 more pivotal votes per year on equity measures (almost 200% of a baseline mean of 0.10) and 1.36 (118%) more pivotal votes overall than the candidates they defeat. We find similar results when we define an analogous outcome based on non-unanimous votes (including those decided by more than one vote). Panels (a) and (b) of Figure 6 contrast the clear discontinuity in marginal votes cast on equity motions with the absence of a discontinuity in total equity motions passed.

In contrast, fiscally conservative candidates appear to shape outcomes by shifting board consensus. As reported in Panel A of Table 8, electing a fiscally conservative candidate reduces the number of budget motions proposed by 16.15 per year (35%), and the number of motions passed on any topic by 53.6 (34%). Effects on passed motions are almost identical. However, in contrast to what we saw for equity-focused candidates, the number of non-unanimous motions does not change at all: there are fewer votes taken, but votes do not become more contentious. Results in Panel B show that, when elected, fiscal conservatives are no more likely to cast pivotal votes on fiscal issues or overall than their electoral competition. Panels (c) and (d) of Figure 6 contrast the large reduction in total fiscal motions passed with the absence of an effect on pivotal votes cast.

The last two columns of Table 8 explore how electing a Hispanic candidate—the third of our three leading examples—shapes voting outcomes. We see some evidence that electing a Hispanic candidate leads to boards passing more equity measures. However, when Hispanic candidates win elections they are no more likely to cast pivotal votes on equity issues than the candidate they defeat. This is consistent with observation that Hispanic board members do not appear to shift district outcomes in a more equitable direction, while equity-focused members both affect equity-related outcomes and cast pivotal votes on equity motions. Though electing a Hispanic candidate does not affect the total number of budget motions proposed or passed, it does raise the likelihood that a board will pass a non-unanimous budget motion. Hispanic board members also appear to be more likely to cast pivotal votes on fiscal issues, although this effect is noisy. Our findings are consistent with finding from Section 5.3 that electing Hispanic candidates has a small positive effect on per-student funding.

Stepping back, our analysis of meeting minutes provides support for both the consensus and

majority-vote models of board governance, but suggests that which of these models is more important may be domain-specific. It also provides supporting evidence for our results on district outcomes by filling in the last link of the causal chain from the election to board actions to intermediate outcomes such as budget allocation or superintendent choice and then to end-line outcomes like district spending and student outcomes.

# 7 Conclusion

This study highlights the importance of school board members' ideologies in shaping educational outcomes, and demonstrates that these ideologies cannot be adequately proxied by socio-economic identities alone. Our findings show that the election of board members with specific priorities leads to significant changes in district-level outcomes across a wide variety of domains, including student achievement and school spending. Board members implement policy changes that track their ideologies both by shifting the board agenda and by casting pivotal votes on controversial issues; these actions shift intermediate outcomes like district spending and executive leadership in ways that are consistent with members' goals but circumscribed by the limits of board authority. In contrast, electing a board member with a given demographic, professional, or political background has more limited effects on both the ideological mix of the board and on school district policies.

Our findings shed light on the mechanisms through which changes in board composition *can* shape policy but also on reasons they often do not. Specifically, our findings support a model in which board members have agency: they shift board activity towards their priorities and this produces large policy change. Our findings also show that demographic shifts in board composition may relate only weakly to ideological shifts.

Our results suggest that researchers seeking to understand the effects of policies that shift board composition would benefit from gathering data on members' policy preferences; predicted changes in preferences based on aggregate demographic shifts—the basis for much hypothesis generation in the literature on board governance—may be poor proxies for the actual ideological changes that take place on boards. From a policy perspective, our results show that changing who sits on boards can have large effects on organizational outcomes, but suggest that policies targeting priorities may be more effective than those that target identities.

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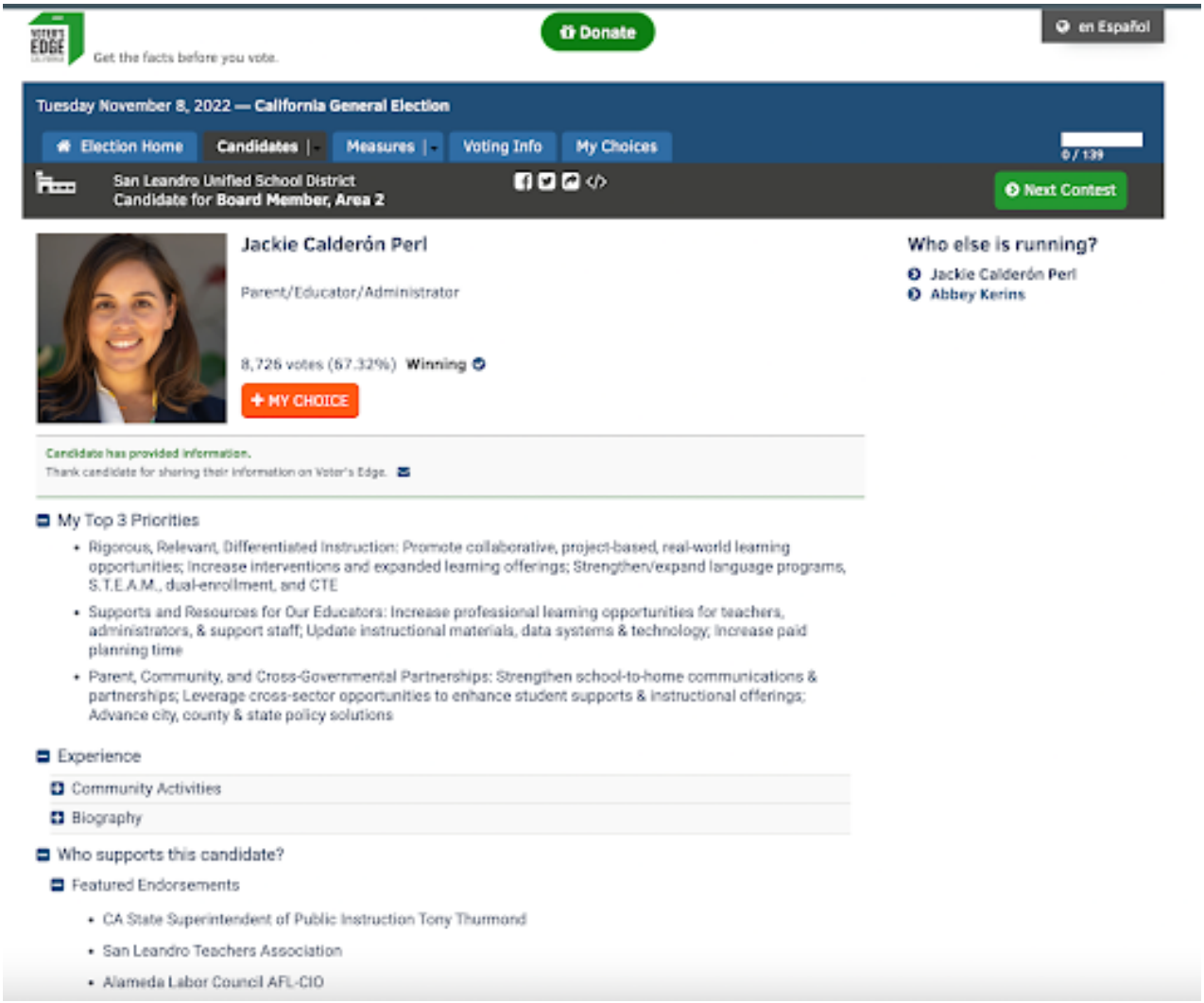
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# Figures

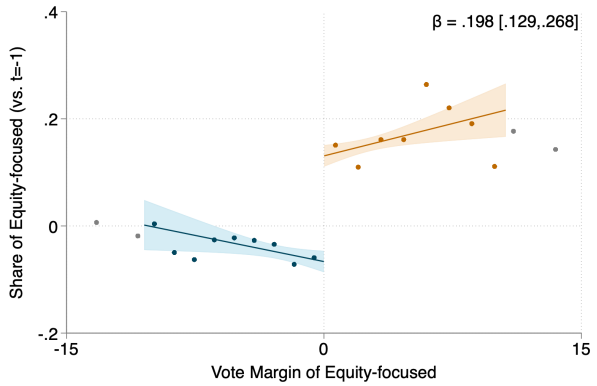
Figure 1: Example of a Candidate Profile on Voter's Edge



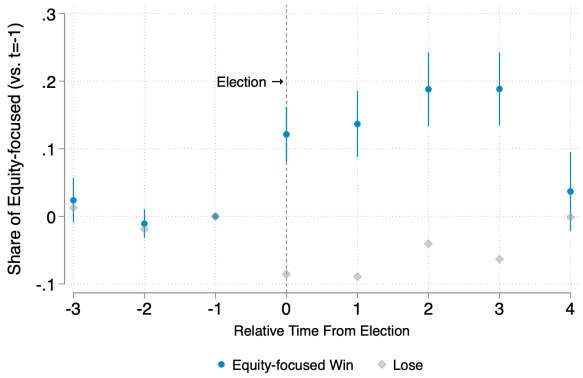

Notes: Example of a candidate profile from the Voter's Edge website.

Figure 2: Elected Candidates' Identity and Ideology and School Boards' Ideological Composition

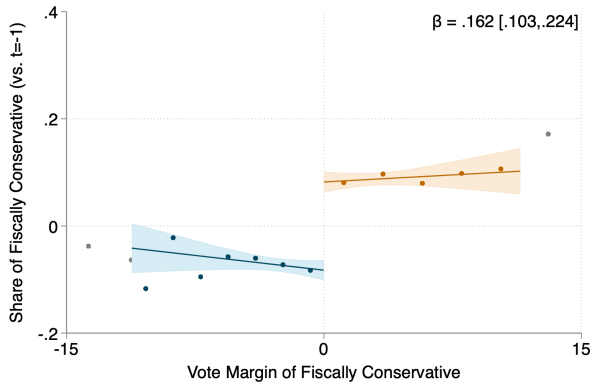
(a) Equity Candidate and Share w/Same Priority



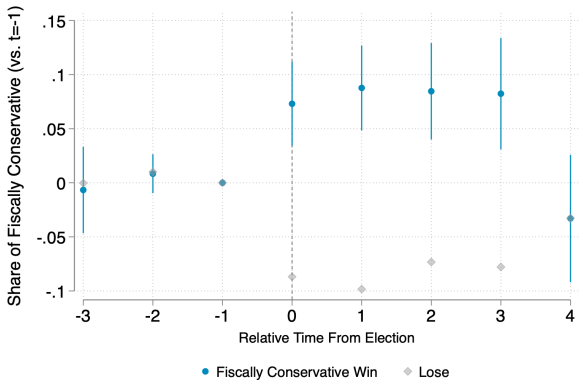

(b) Equity Candidate – Dynamic Effects



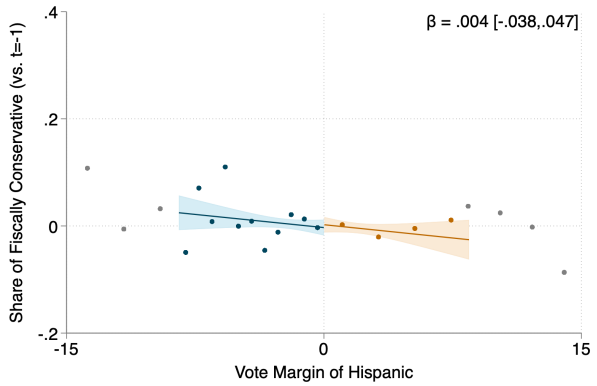

(c) Fiscally Conservative Candidate and Share w/Same Priority



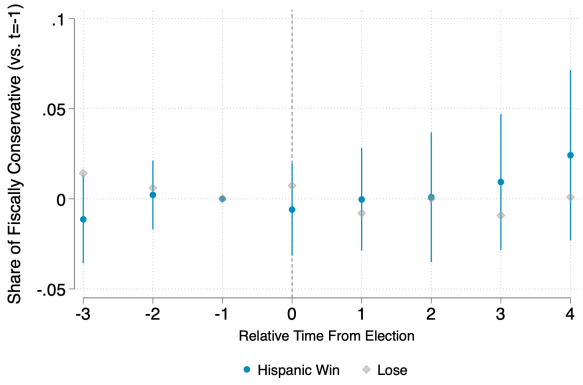

(d) Fiscally Conservative Candidate – Dynamic Effects




(e) Hispanic Candidate and Share Fiscally Conservative



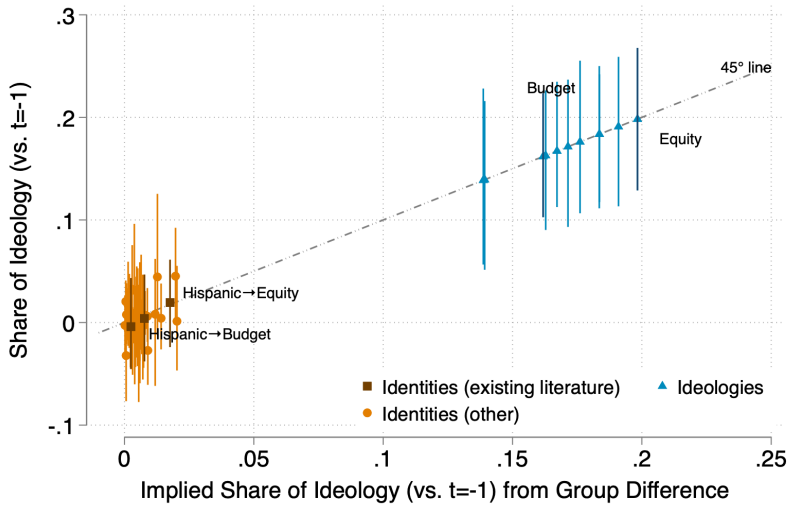

(f) Hispanic Candidate – Dynamic Effects



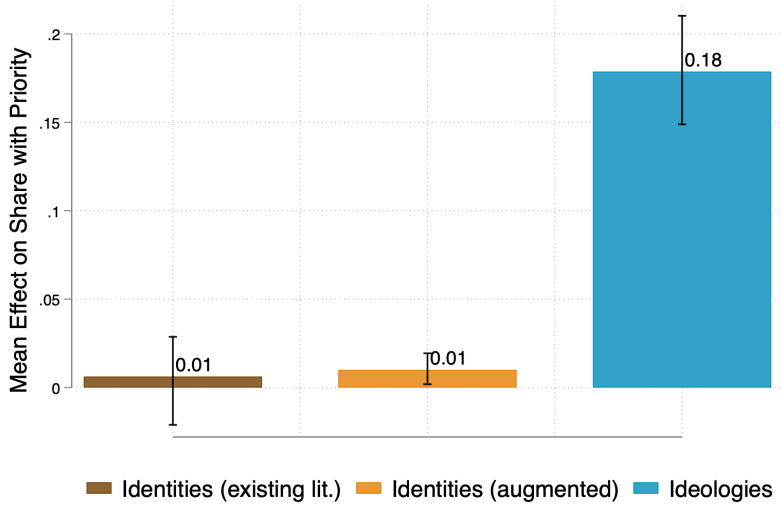

Notes: The left panels display regression discontinuity estimates of the effect of electing a candidate with a given characteristic (fiscal conservatism, equity focus, or Hispanic identity) on the share of board members with that characteristic in the five years following an election. We pool observations across years 0 to 4 since the election so that each district-election contributes up to five post-election outcomes to the estimating sample. Shaded regions represent 95% confidence intervals of the local linear fit. The right panels show dynamic RD estimates, where the same model is estimated separately for each year relative to the election. All estimates are obtained using equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the corresponding focal characteristic and their vote margin, respectively. The dependent variable in all panels is expressed as the change relative to the year before the election. All models include year fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020). We use standard errors clustered at the election level in the left panels and robust standard errors in the right panels.

Figure 3: Elected Candidates' Identity and Ideology and School Boards' Ideological Composition: All

(a) Change in Share w/Priority: RD Estimates vs. Cross-Sectional Predictions



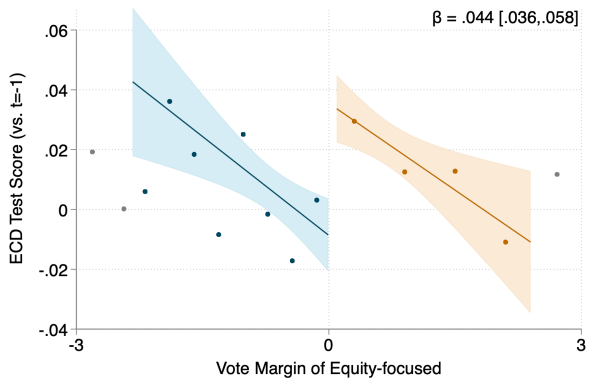

(b) Mean Change in Share w/Priority



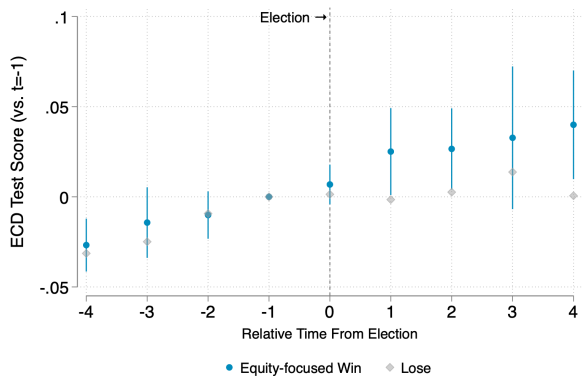

Notes: Panel (a) plots RD estimates of the effect of electing a candidate with a given characteristic (identity or ideology) on the subsequent share of board members with a given priority (y-axis) against the effect of the same characteristic that would be predicted given differences in priorities across identity groups in the raw data (x-axis). The predicted effect is calculated from the average difference in priorities between candidates with and without the focal characteristic. RD estimates are obtained using equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the corresponding focal characteristic and their vote margin, respectively. The dashed line is the 45-degree line. Panel (b) shows the mean of RD estimates by characteristic group, obtained using equation (2). *Identities (existing literature)* includes three identity-ideology pairs (Hispanic-Equity, Hispanic-Fiscal Conservatism, Teacher-Teacher Support). *Identities (augmented)* includes other identity-ideology pairs where viewpoint difference is significant by the identity group (Table B6). *Ideologies* includes the effects of electing a candidate with a given ideology on the share of that ideology in the board and considers all ideologies. In both panels, the dependent variable is the change in share relative to the year before the election; we pool observations over the four years following an election. In panel (b) we additionally multiply each outcome by the sign of the corresponding effect, so that all aggregated effects have a positive sign. All models control for year fixed effects; estimates in panel (b) additionally control for identities-ideologies pair fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level.

Figure 4: Elected Candidates' Identity and Ideology and School Districts' Outcomes

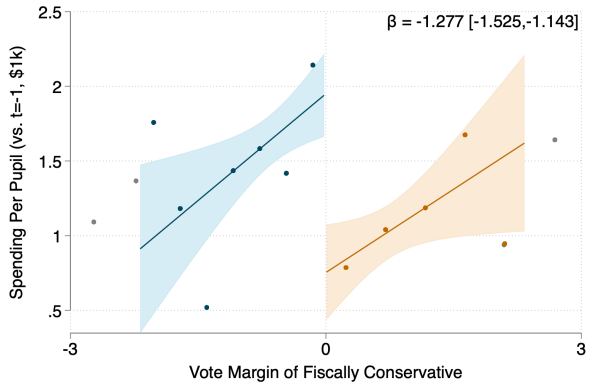
(a) Equity Candidates and ECD Test Scores



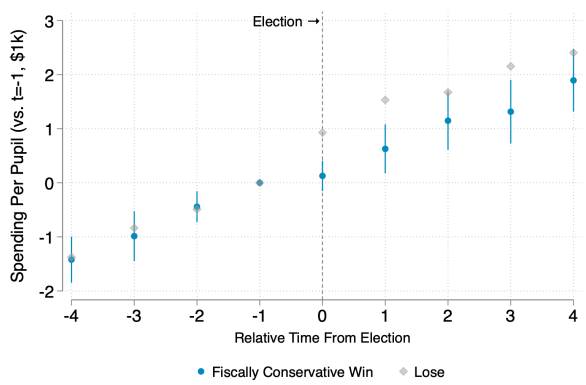

(b) Equity Candidates - Dynamic Effects



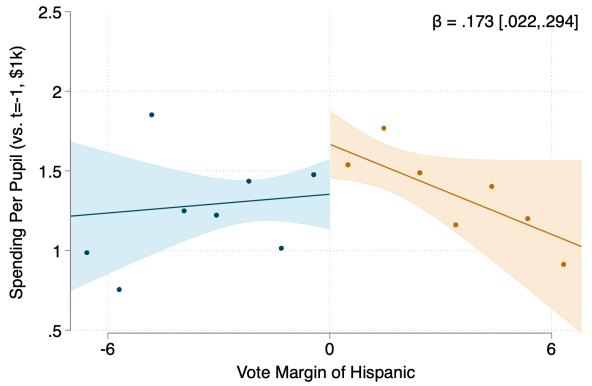

(c) Fiscally Conservative Candidates and Per Pupil Spending



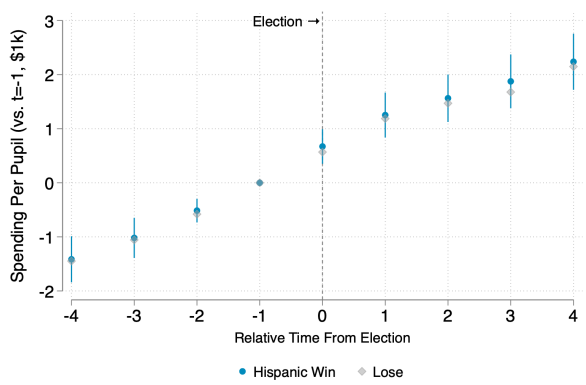

(d) Fiscally Conservative Candidates - Dynamic Effects




(e) Hispanic Candidates and Per Pupil Spending



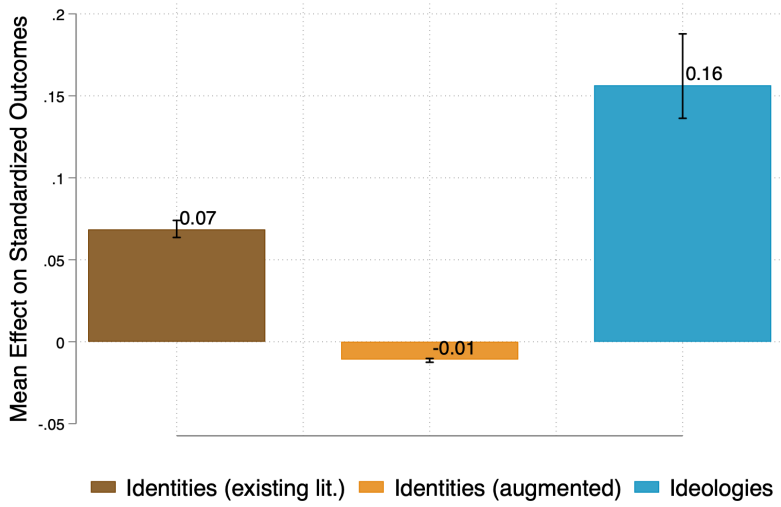

(f) Hispanic Candidates - Dynamic Effects



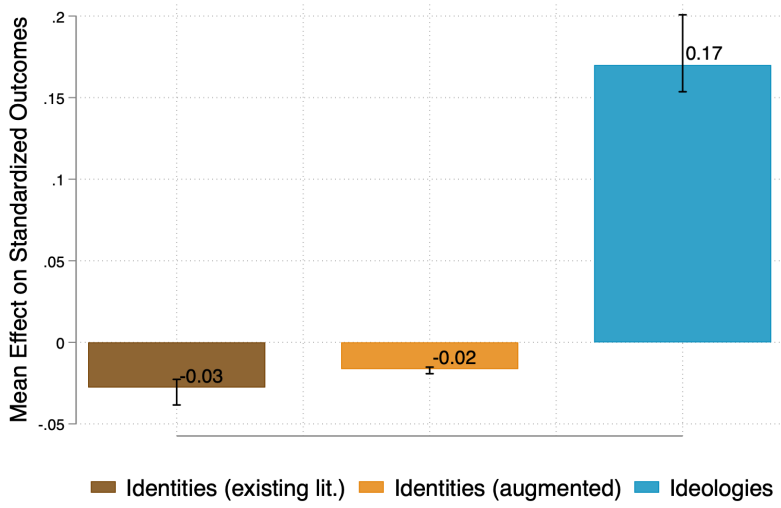

Notes: The left panels display RD estimates of the effect of electing a candidate with a given characteristic (fiscal conservatism, equity focus, or Hispanic identity) on district outcomes. We pool observations across years 0 to 4 since the election so that each district-election contributes up to five post-election outcomes to the estimating sample. Shaded regions represent 95% confidence intervals of the local linear fit. The right panels show dynamic RD estimates on the same outcomes, where the same model is estimated separately for each year relative to the election. All estimates are obtained using equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the corresponding focal characteristic and their vote margin, respectively. The dependent variable are standardized test scores for ECD students (panels (a) and (b)) and per pupil spending (in $1,000, panels (c), (d), (e), and (f)). These outcomes are all expressed as the change relative to the year before the election. All models include year fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020). We use standard errors clustered at the election level in the left panels and robust standard errors in the right panels.

Figure 5: Elected Candidates' Identity and Ideology and School Districts' Outcomes: Aggregate Effects

(a) Main Effects



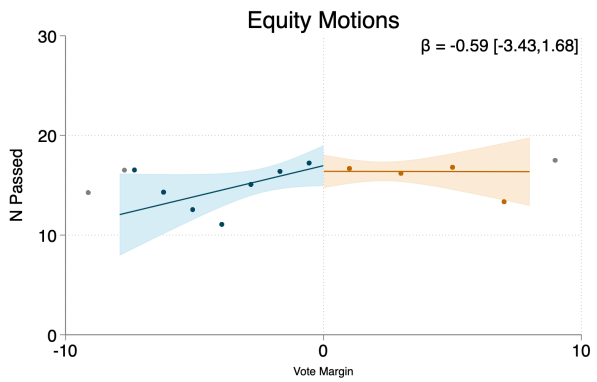

(b) Effects Holding Other Characteristics Constant



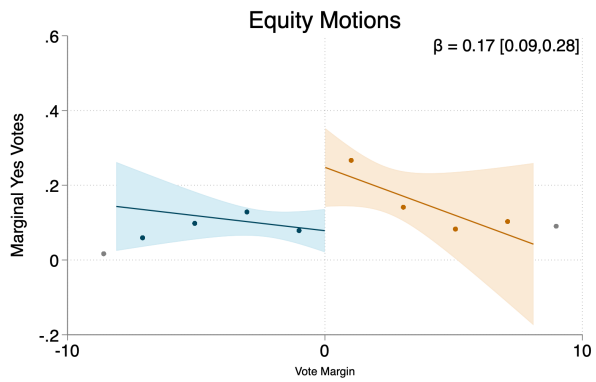

Notes: Mean RD estimates on district outcomes by characteristic group, obtained estimating equation (2) on a stacked dataset where each stack is constructed by considering a focal characteristic and its corresponding outcome, and where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the relevant characteristic and their vote margin, respectively. We include 6 characteristic–outcome pairs for the *Identities (existing literature)* category, 24 for *Identities (augmented)* category, and 14 for *Ideologies* category (see Table B6 and B5 for the full list of characteristics-outcome pairs). The dependent variable in each stack is standardized to have variance equal to one and expressed as the change relative to the year before the election; we pool observations over the four years following an election. For ease of interpretation, we multiply each outcome by the hypothesized direction of the effects based on the sign of raw difference in viewpoint by identity group in Table B10 (see Table B6 and B5 for the full list). All models control for year and stack fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. In panel (b), we restrict attention to races where the two marginal candidates have the same ideologies associated with a given identity (left and center bar) and to races where the two marginal candidates have similar predicted identities (i.e., with a difference smaller than one percentage point, right bar). We predict identities using the random forest shown in Table 3.

Figure 6: Board Ideology, Passed Motions, and Marginal Votes

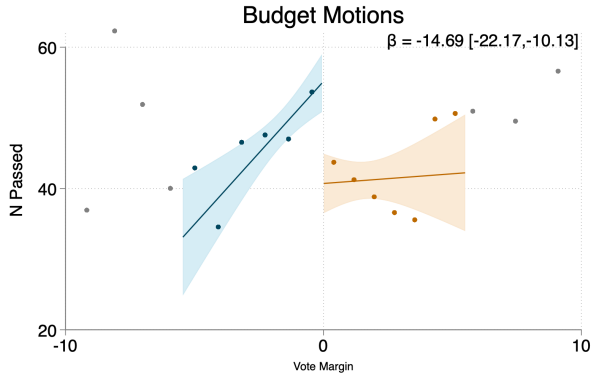
(a) Equity Members and # Passed Motions



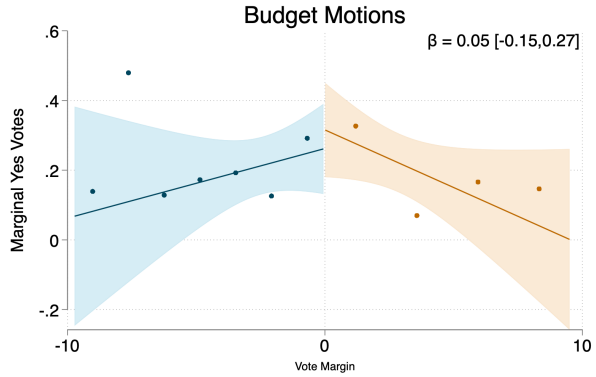

(b) Equity Members and Marginal Votes




(c) Fiscally Conservative Members and # Passed Motions




(d) Fiscally Conservative Members and Marginal Votes




Notes: The top panels show RD estimates of equation (1), where $D_{i,t}$ indicates the election of either an equity candidate (panels (a) and (b)) or a fiscally conservative candidate (panels (c) and (d)) and $m_{i,t}$ is their respective vote margin. The outcome variable is the number of motions related to the focal priority passed by the board (panels (a) and (c)) and the candidates' marginal votes on the focal priority, i.e., yes votes that shift the majority (panels (b) and (d)). All models include year fixed effects. We pool observations over the four years following an election. Shaded regions represent 95% confidence intervals of the local linear fit. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level.

# Tables

Table 1: Summary Statistics

| | All Elections | Close Elections (< 5 pp) | | | |
|---|---|---|---|---|---|
| | | Any | Fiscally Conservative | Equity | Hispanic |
| | (1) | (2) | (3) | (4) | (5) |
| ***Panel A: Candidate Characteristics*** | | | | | |
| Share Hispanic | 0.22 | 0.22 | 0.16 | 0.18 | 0.44 |
| Share Female | 0.45 | 0.44 | 0.45 | 0.49 | 0.43 |
| Share Teacher | 0.17 | 0.18 | 0.21 | 0.23 | 0.16 |
| Share Registered Democrat | 0.49 | 0.50 | 0.52 | 0.56 | 0.52 |
| Share Having a Platform | 0.38 | 0.39 | 0.66 | 0.69 | 0.32 |
| N Candidates | 22,426 | 5,038 | 4,470 | 3,601 | 3,988 |
| N Elections | 5,782 | 2,519 | 1,090 | 905 | 1,004 |
| ***Panel B: Educational Outcomes in the Year Before the Election*** | | | | | |
| Spending Per Pupil ($1k) (1998-) | 9.72 | 9.51 | 10.07 | 10.93 | 9.75 |
| Total Enrollment (1998-) | 11926 | 11797 | 16518 | 17740 | 16454 |
| Share White (1998-) | 0.35 | 0.36 | 0.38 | 0.34 | 0.23 |
| Share Hispanic (1998-) | 0.45 | 0.45 | 0.38 | 0.41 | 0.59 |
| N Districts x Years | 3,654 | 1,973 | 910 | 706 | 813 |
| Test Scores (2009-) | -0.06 | -0.06 | -0.01 | -0.01 | -0.11 |
| Hispanic Test Scores (2009-) | -0.17 | -0.17 | -0.15 | -0.15 | -0.18 |
| ECD Test Scores (2009-) | -0.15 | -0.15 | -0.12 | -0.13 | -0.17 |
| Share ECD Students (2009-) | 0.56 | 0.57 | 0.48 | 0.50 | 0.67 |
| N Districts x Years | 1,319 | 726 | 365 | 252 | 313 |
| ***Panel C: Meeting Characteristics in the Year Before the Election*** | | | | | |
| Total Number of Meetings | 21.92 | 21.60 | 23.29 | 23.16 | 21.83 |
| Present Members per Meeting | 5.25 | 5.08 | 5.21 | 5.21 | 5.33 |
| Proposed Motions per Year | 153.31 | 152.47 | 154.18 | 158.43 | 157.71 |
| Passed Motions per Year | 151.44 | 150.51 | 152.36 | 156.57 | 155.68 |
| N Districts x Years | 1,316 | 411 | 252 | 300 | 247 |

Notes: Summary statistics for school board elections and district characteristics. Columns show averages across all elections (column 1), close elections with a vote margin smaller than 5 percentage points (column 2), and close elections where a candidate with a given focal characteristic (fiscally conservative, equity-focused, or Hispanic) either won or lost narrowly (columns 3–5). Panel A reports candidate characteristics. Panel B summarizes educational outcomes in the year before the election, including per-pupil spending from the Common Core of Data (CCD) and average test scores from the Stanford Education Data Archive (SEDA), disaggregated for Hispanic and economically disadvantaged (ECD) subgroups. Years of data availability are shown in parentheses. Spending is reported in thousands of 2019 U.S. dollars. Panel C reports average school board meeting characteristics in the year prior to the election.

Table 2: Examples of Platform and Priorities

| Example of Candidate Platform | Equity | Fiscal Conservatism | Agenda Bias | Community Engagement | CTE | Dropout | Enrollment | Facility Improv. | Safety | Sup Accountability/Hiring | Teacher Support | Test Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Maintain a balanced budget** to meet the needs of providing a high-quality education for all students while maintaining a prudent reserve. **Maintain and support a highly-qualified workforce** to provide a rigorous academic program, top-notch extracurricular activities, up-to-date technology, and continuous improvement for all students. To develop a sustainability plan to ensure that we are providing **best possible education for all students** as our district reaches its capacity to **build new schools** and we possibly move to a **declining enrollment**. (2016, Rocklin Unified) | ✓ | ✓ | | | | | ✓ | ✓ | | | ✓ | ✓ |
| **Safety** of Students, Serve Parents and Students – **no social experimentation in the classroom**, **Sound Financial Plan** for the District –more dollars to the classroom and no wasteful spending (2008, Grossmont High) | | ✓ | ✓ | ✓ | | | | | ✓ | | | |
| **School Safety**, Smaller Class Sizes, **Parent involvement** (2018, El Rancho) | | | | ✓ | | | | | ✓ | | | |

Notes: Examples of candidate platform statements and their corresponding priorities. Each row presents a platform portion, along with indicators for coded priorities. We highlight in bold language indicative of assigned priorities.

Table 3: Priorities by Demographic Group

| | Share w/Priority by Demographic Group | | | | | | | | Prediction Accuracy | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Hispanicity | | Gender | | Occupation | | Political Affiliation | | R-forest | Mean Only |
| | Hispanic (1) | Non- (2) | Female (3) | Male (4) | Teacher (5) | Non- (6) | Democrat (7) | Republican (8) | (9) | (10) |
| N Candidates | 6235 | 1165 | 3866 | 3440 | 6299 | 2168 | 1771 | 3661 | | |
| Have a Platform | **0.26** | **0.40** | **0.41** | **0.36** | **0.56** | **0.34** | **0.44** | **0.31** | 0.65 | 0.53 |
| ***Share with Priority Among Candidates with Valid Platform*** | | | | | | | | | | |
| Equity | **0.37** | **0.34** | **0.41** | **0.27** | 0.35 | 0.34 | **0.42** | **0.26** | 0.66 | 0.55 |
| Fiscal Conservatism | **0.34** | **0.44** | 0.43 | 0.43 | **0.40** | **0.43** | **0.41** | **0.48** | 0.58 | 0.51 |
| Agenda Bias | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | **0.03** | **0.08** | 0.96 | 0.92 |
| Community Engagement | **0.46** | **0.42** | **0.48** | **0.38** | 0.43 | 0.43 | **0.45** | **0.40** | 0.57 | 0.51 |
| Career and Technical Education | **0.18** | **0.16** | 0.16 | 0.15 | **0.18** | **0.15** | 0.16 | 0.15 | 0.84 | 0.73 |
| Dropout | **0.15** | **0.10** | **0.11** | **0.09** | **0.12** | **0.10** | **0.13** | **0.08** | 0.89 | 0.81 |
| Enrollment | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.93 | 0.87 |
| Facility Improvement | 0.27 | 0.26 | 0.25 | 0.27 | **0.24** | **0.27** | **0.25** | **0.28** | 0.74 | 0.61 |
| Safety | **0.40** | **0.32** | **0.36** | **0.30** | 0.33 | 0.34 | 0.35 | 0.34 | 0.66 | 0.55 |
| Superintendent Accountability | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.05 | 0.06 | 0.05 | 0.95 | 0.90 |
| Teacher Support | 0.22 | 0.24 | 0.25 | 0.23 | **0.26** | **0.23** | **0.25** | **0.20** | 0.76 | 0.64 |
| Test Scores | **0.39** | **0.36** | **0.38** | **0.35** | 0.37 | 0.36 | 0.36 | 0.35 | 0.64 | 0.54 |

Notes: Number of candidates, share of candidates with a valid platform, and share of candidates with each stated priority among those with a platform. Columns 1–2 compare Hispanic and non-Hispanic candidates; columns 3–4 compare female and male candidates; columns 5–6 compare teachers and non-teachers; and columns 7–8 compare Democrats and Republicans. Values in bold indicate that the difference in the share of candidates stating a given priority between identity groups (e.g., Hispanic vs. Non-Hispanic) is statistically significant at the 5% level. Column 9 shows the share of all candidates for whom we can accurately predict a priority using all the identity variables in a random forest classification with 1,000 iterations, calculated using out-of-bag errors. Column 10 shows the share of candidates for whom we accurately predict priorities using only the share of each priority in the sample, i.e., purely out of chance (for example, since 35% of candidates prioritize equity, the probability of correctly predicting a candidate's priority based purely on chance is $0.35^2 + 0.65^2 = 0.55$).

Table 4: Regression Discontinuity Design — Specification Checks

| | Case-Study Characteristics | | | Aggregates Across All Characteristics | | |
|---|---|---|---|---|---|---|
| | Equity | Fiscally Conservative | Hispanic | Identity (Literature) | Identity (Other) | Ideology |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| ***Panel A: McCrary Test*** | | | | | | |
| p-value | 0.638 | 0.452 | 0.085 | 0.009 | 0.019 | 0.452 |
| N | 505 | 624 | 555 | 902 | 2024 | 3240 |
| ***Panel B: Selection into Outcome Sample*** | | | | | | |
| Estimate | 0.064 | 0.007 | -0.001 | 0.072 | -0.016 | -0.027 |
| | [-0.186, 0.314] | [-0.036, 0.050] | [-0.044, 0.041] | [0.022, 0.123] | [-0.041, 0.009] | [-0.115, 0.061] |
| N | 807 | 1880 | 1769 | | 23025 | |
| ***Panel C: Pre-Treatment Outcome Balance*** | | | | | | |
| Estimate | -0.041 | -0.007 | 0.003 | 0.016 | 0.015 | -0.001 |
| | [-0.193, 0.112] | [-0.020, 0.007] | [-0.012, 0.018] | [-0.022, 0.053] | [-0.014, 0.044] | [-0.111, 0.108] |
| N | 332 | 1715 | 1528 | | 13761 | |
| ***Panel D: Selection into Minutes Sample*** | | | | | | |
| Estimate | -0.041 | -0.007 | 0.003 | 0.016 | 0.015 | -0.001 |
| | [-0.171, 0.277] | [-0.450, 0.282] | [-0.461, 0.089] | [-0.044, 0.137] | [-0.184, 0.297] | [-0.043, 0.142] |
| N | 704 | 241 | 567 | | 8169 | |

Notes: Results of RD specification tests. Columns 1-3 correspond to candidate characteristics: Equity (column 1), fiscal conservatism (column 2), and Hispanic ethnicity (column 3). Columns 4-6 consider aggregated identity characteristics tested in the literature (see Table B6, column 4), other identity characteristics (column 5), and ideology characteristics (column 6). Panel A shows $p$-values from a McCrary test for discontinuities in the density function of each characteristic around the electoral cutoff. Panel B tests for selection into the outcome sample by showing estimates and confidence intervals of the parameter $\beta$ in equation (1) obtained using an indicator for an observation having non-missing outcomes (per pupil spending for fiscal conservatism and Hispanic and ECD test scores for equity) as the dependent variable. Panel C tests for balance in pre-treatment outcomes by estimating the same equation using the pooled changes in the outcome between each of the three pre-election years ($t-2$, $t-3$, $t-4$) and the baseline year ($t-1$). Panel D tests for selection into the minutes data by estimating the same equation using an indicator for having non-missing minutes records as the outcome variable. In panels B, C, and D we show estimates and confidence intervals (in parentheses) use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020), we control for year fixed effects, and we cluster standard errors at the election level. 95% confidence intervals are shown in brackets.

Table 5: Identity vs. Ideology: Multivariate Regression-Discontinuity Estimates with Case-study Candidate Characteristics

| | Spending per pupil ($1,000) (1) | ECD Test Scores (2) |
|---|---|---|
| Fiscal Conservatism | -1.357 | |
| | (0.448) | |
| Equity | | 0.030 |
| | | (0.011) |
| Hispanic | 0.008 | 0.009 |
| | (0.284) | (0.009) |
| Female | -0.362 | 0.010 |
| | (0.355) | (0.007) |
| Teacher | 0.260 | -0.003 |
| | (0.259) | (0.007) |
| Democrat | 0.155 | -0.001 |
| | (0.407) | (0.010) |
| N | 4843 | 2161 |
| R2 | 0.160 | 0.063 |
| *Joint Tests Results* | | |
| **$H_0$**: Identities jointly zero | $\chi^2(7) = 4.309, p = 0.744$ | |
| **$H_0$**: Ideologies jointly zero | $\chi^2(1) = 9.684, p = 0.002$ | |

Notes: Estimates of the parameters $\beta^j$ in equation (3), where $D^j_{i,t}$ and $m^j_{it}$ indicate the election of a candidate with characteristic $j$ and their vote margin, respectively, and we consider all the characteristics included in each column at once. We pool observations across the five years following each election. The dependent variable is the change in spending per pupil (column 1) and in ECD test scores (column 2) in each year following the election relative to the year before the election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors in parentheses are clustered at the election level. At the bottom of the table we report results from chi-squared tests of the null hypothesis that either all identity variables (Female, Teacher, Democrat, Hispanic) or all ideology variables (Fiscal Conservatism and Equity) are jointly zero across the two specifications.

Table 6: Identity vs. Ideology: Multivariate Regression-Discontinuity Estimates with All Candidate Characteristics

| | $\mathbf{H_0}$: Identities jointly zero (p-value) (1) | $\mathbf{H_0}$: Ideologies jointly zero (p-value) (2) |
|---|---|---|
| ***Panel A: Identity and Ideology Variables Tested Simultaneously*** | | |
| Examined in Prior Studies | 0.810 | 0.001 |
| Augmented Using Ideological Differences | 0.569 | 0.003 |
| All Identities and Ideologies | 0.074 | 0.005 |
| ***Panel B: Identity and Ideology Variables Tested Separately*** | | |
| Examined in Prior Studies | 0.735 | 0.001 |
| Augmented Using Ideological Differences | 0.684 | 0.001 |
| All Identities and Ideologies | 0.099 | 0.001 |

Notes: P-values of chi-squared tests of joint significance of identity and ideology characteristics using the multi-outcome regression discontinuity (RD) framework in equation (3)). Each row in each panel corresponds to different cells of identities, priorities, and outcomes. *Examined in Prior Studies* refers to specifications that consider the effects of identity traits examined in the literature on their associated outcomes (described in the top panel of Appendix Table B6), accounting for the ideologies associated with those outcomes (Appendix Table B5). *Augmented using Ideological Differences* uses identify identity-ideology pairs for which we observe systematic differences across identity groups (described in the bottom panel of Appendix Table B5) and consider the identity-outcome pairs associated with each ideology. *All Identities and Ideologies* refers to all identity and ideology traits. Panel A shows tests of the joint significance of identity (column 1) and ideology variables (column 2) estimated in the same regression. For reference, panel B shows the same p-values when we estimate identities and ideologies in separate regressions. All models include year fixed effects. Standard errors are clustered at the election level.

Table 7: Mechanisms: Identity, Ideology, and Intermediate Outcomes

***Panel A: Equity Candidates***

| | SFP Funds to Schools with | | | | | |
|---|---|---|---|---|---|---|
| | High ECD Share | Low ECD Share | High Hispanic Share | Low Hispanic Share | Predicted Test Scores | Super Turnover |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Estimate | 0.222 | -0.065 | 0.149 | -0.058 | 0.001 | 0.010 |
| | [0.203, 0.275] | [-0.116, -0.017] | [0.128, 0.188] | [-0.105, -0.017] | [-0.001, 0.002] | [-0.013, 0.049] |
| N | 1,731 | 1,848 | 2,356 | 2,036 | 447 | 1,476 |

***Panel B: Fiscally Conservative Candidates***

| | Spending By Sub-Category | | | | | |
|---|---|---|---|---|---|---|
| | Teacher Salaries | Staff Salaries | Total Capital | Construction | Predicted Test Scores | Super Turnover |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Estimate | -0.054 | -0.004 | -1.253 | -1.232 | 0.004 | 0.173 |
| | [-0.098, -0.029] | [-0.022, 0.009] | [-1.385, -1.194] | [-1.353, -1.179] | [0.002, 0.005] | [0.150, 0.213] |
| N | 1,321 | 2,125 | 856 | 866 | 704 | 1,453 |

***Panel C: Hispanic Candidates***

| | Spending By Sub-Category | | | | | |
|---|---|---|---|---|---|---|
| | Teacher Salaries | Staff Salaries | Total Capital | Construction | Predicted Test Scores | Super Turnover |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Estimate | 0.016 | 0.073 | -0.062 | -0.110 | 0.000 | 0.065 |
| | [-0.020, 0.062] | [0.047, 0.110] | [-0.162, -0.001] | [-0.207, -0.052] | [-0.001, 0.002] | [0.036, 0.089] |
| N | 1,888 | 1,703 | 1,323 | 1,298 | 600 | 2,502 |

Notes: RD estimates of the effect of electing an equity candidate (panel A), a fiscally conservative candidate (panel B), or a Hispanic candidate (panel C) on a set of intermediate outcomes, obtained estimating equation (1). In panel A, the dependent variable is an indicator for the receipt of School Facility Program (SPF) funds by schools with an ECD student share above the median (column 1), receipt of SPF funds by schools with an ECD share below the median (column 2), receipt of SPF funds by schools with a share of Hispanic students above the median (column 3), and receipt of SPF funds by schools with a share of Hispanic students below the median (column 4). In panels B and C, the dependent variable is spending per pupil on teacher salaries (column 1), staff salaries (column 2), capital investments (column 3), and school construction, all measured in thousands of 2019 U.S. dollars. In all panels, the dependent variable in column 5 are test scores as predicted using district enrollment shares, and in column 6 is an indicator for superintendent turnover relative to the baseline year. We pool observations over the five years following an election. Dependent variables in all panels are expressed as the change relative to the year before the election. All models control for year fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020), and we cluster standard errors at the election level. 95% confidence intervals are shown in brackets.

Table 8: Minutes Analysis: Motions Proposed and Votes Cast

| | Equity | | Fiscal | | Hispanic | |
|---|---|---|---|---|---|---|
| | Focal | All | Focal | All | Equity | Fiscal |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| ***Panel A: Proposed Motions*** | | | | | | |
| Estimate | -0.878 | -8.443 | -16.149 | -53.609 | 3.572 | 0.699 |
| | [-3.433, 1.677] | [-26.383, 9.496] | [-22.165, -10.134] | [-71.001, -36.217] | [0.722, 6.422] | [-3.648, 5.046] |
| Mean dep. var. | 15.106 | 158.329 | 46.053 | 158.839 | 16.914 | 43.754 |
| N | 706 | 730 | 500 | 529 | 560 | 531 |
| ***Panel B: Passed Motions*** | | | | | | |
| Estimate | -1.111 | -9.315 | -16.050 | -53.881 | 3.357 | 0.501 |
| | [-3.605, 1.383] | [-27.342, 8.712] | [-22.118, -9.983] | [-71.391, -36.371] | [0.559, 6.154] | [-3.885, 4.887] |
| Mean dep. var. | 15.020 | 156.295 | 45.558 | 156.058 | 16.547 | 43.188 |
| N | 696 | 730 | 501 | 517 | 560 | 535 |
| ***Panel C: Non-Unanimous Motions*** | | | | | | |
| Estimate | 0.673 | 3.184 | -0.032 | -1.200 | 1.415 | 1.916 |
| | [0.065, 1.281] | [0.184, 6.184] | [-1.119, 1.054] | [-4.663, 2.263] | [0.708, 2.123] | [0.668, 3.165] |
| Mean dep. var. | 1.918 | 14.831 | 3.585 | 14.000 | 1.924 | 4.255 |
| N | 670 | 674 | 772 | 694 | 574 | 621 |
| ***Panel E: Marginal Votes in One-Margin Votes*** | | | | | | |
| Estimate | 0.188 | 1.355 | 0.060 | 0.126 | -0.002 | 0.137 |
| | [0.093, 0.283] | [0.803, 1.908] | [-0.149, 0.268] | [-0.725, 0.976] | [-0.060, 0.056] | [0.001, 0.273] |
| Mean dep. var. | 0.095 | 1.152 | 0.206 | 1.172 | 0.102 | 0.189 |
| N | 715 | 623 | 714 | 743 | 641 | 703 |
| ***Panel D: Marginal Votes in Non-Unanimous Votes*** | | | | | | |
| Estimate | 0.546 | 4.499 | 0.932 | 1.750 | 0.251 | 0.509 |
| | [0.223, 0.869] | [2.047, 6.951] | [0.098, 1.767] | [-1.492, 4.993] | [-0.198, 0.699] | [-0.372, 1.390] |
| Mean dep. var. | 0.796 | 10.337 | 1.718 | 10.234 | 1.108 | 2.328 |
| N | 626 | 598 | 647 | 719 | 574 | 619 |

Notes: RD estimates of the effects of electing an equity candidate (columns 1 and 2, a fiscally conservative candidate (columns 3 and 4), or a Hispanic candidate (columns 5 and 6) on motions and votes cast in school board meetings, obtained estimating equation (1). In panel A, the dependent variable is the number of proposed motions on each candidate's focal issue (e.g., equity for equity candidates; columns 1 and 3), on all issues (columns 2 and 4), on equity motions (column 5), and on budget motions (column 6). In panel B, the dependent variable is the number of passed motions on the same issues. In panel C, the dependent variable is the number of non-unanimous motions, i.e., those passed with at least one negative vote. In panel D, the dependent variable counts the number of yes votes cast by each member on motions on each issue that pass with a margin of only one vote. In panel E, the dependent variable counts the number of yes votes cast by each member on motions on each issue that pass with at least one negative vote. We pool observations over the four years following each election. All models control for year fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020), and we cluster standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

# A Additional Figures

Figure A1: Meeting Minutes: Examples

(a) Date and List of Present Members — Dublin Unified School District, 2021

**MINUTES**
**DUBLIN UNIFIED SCHOOL DISTRICT**
**BOARD OF TRUSTEES**
**REGULAR BOARD MEETING**
**Meeting Held via Zoom Video Conference / Live streaming**
**Tuesday, February 9, 2021, and Wednesday, February 10, 2021**

**Members present**
Dan Cherrier, Megan Rouse, Gabrielle Blackman, Kristin Pelham, Catherine Kuo, Katherine Cheng, Michael Riley.

(b) Example of Meeting Discussion — Dublin Unified School District, 2021

Action: 3. FACILITIES - Facilities Solutions - Short and Long Term Solutions to the Challenges Faced in the Dublin Unified School District Building Program
President Cherrier noted the lateness of the hour, and noted that the remainder of the agenda would take a few hours to complete. He proposed that the Board plan to continue the meeting at a yet-to-be determined date at time, in order to complete all agenda items. He proposed that, prior to recessing the meeting, that the Board receive staff's presentation on Item G-3, ask clarifying questions, and hear the public comment from those wishing to speak who are not able to return at the continuation of the meeting. By general consensus, it was agreed by all to take this approach, and to plan the continuation of the meeting for Wednesday, February 10, 2021 at 6:30 PM.

Interim Superintendent Moirao, along with Chris Hobbs, Interim Assistant Superintendent of Business Services and Thomas Moore, Assistant Superintendent of Facilities, Construction, and Planning presented information on the budget shortfall on the District's facilities projects. The presentation included various options for moving forward, as well as the current state of progress on the projects at Murray Elementary, Emerald High School, and Dublin Elementary. Also included was staff's recommendation to fund the shortfall at Murray with $15M with accumulated interest and additional developer fees; to fund the Dublin Elementary project for $43M, including $10M from Measure J; and to fund the shortfall at EHS Phase 1 from Measure J for $103M. Staff addressed clarifying questions from the Board, then took public comment from those speakers who were not able to return to make comment at the continuation of the meeting tomorrow.

(c) Example of a Motion — Antioch Unified School District, 2016

**Motion:** Approve tentative settlement agreement of Special Education matter - Case No. 2016070742, Case No. 2016070703, Case No. 2016070134, Case No. 2016070060, and Case No. 2016070266. **Action:** Approve. **Moved by:** Mr. Walter Ruehlig, **seconded by:** Mr. Alonzo Terry. **Vote:** Motion carried by 3-2 vote. **Yes:** Mr. Alonzo Terry, Mr. Walter Ruehlig, Ms. Diane Gibson-Gray. **No:** Mr. Fernando Navarro, Ms. Debra Vinson.

Notes: Excerpts from school board meeting minutes.

Figure A2: Word Clouds from Platforms of Fiscally Conservative and Equity Candidates

(a) Equity Candidates

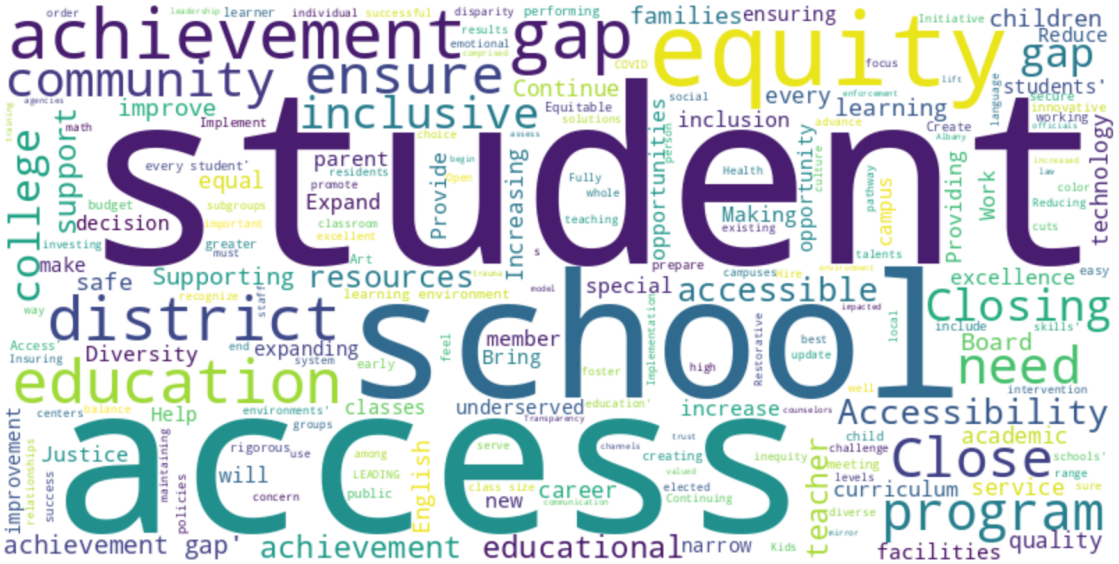
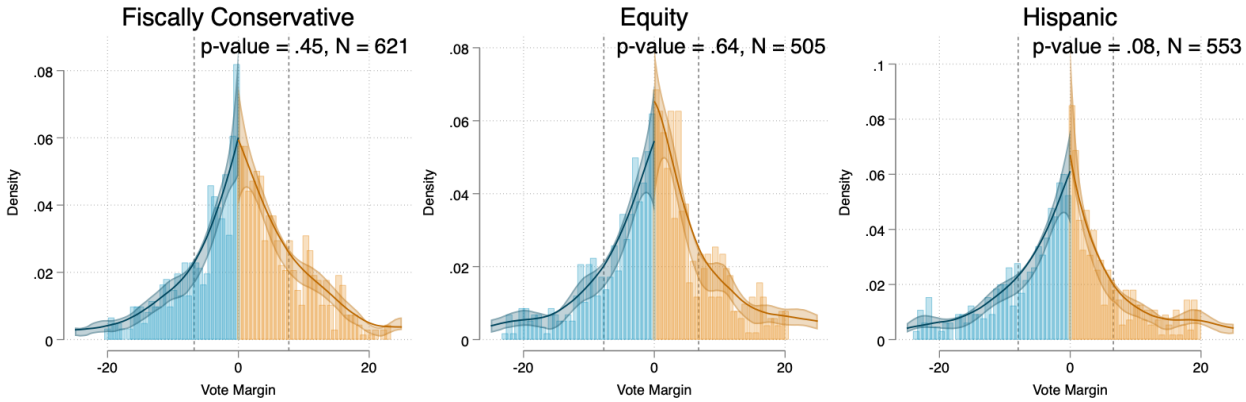



Figure A3: Fiscally Conservative Candidates

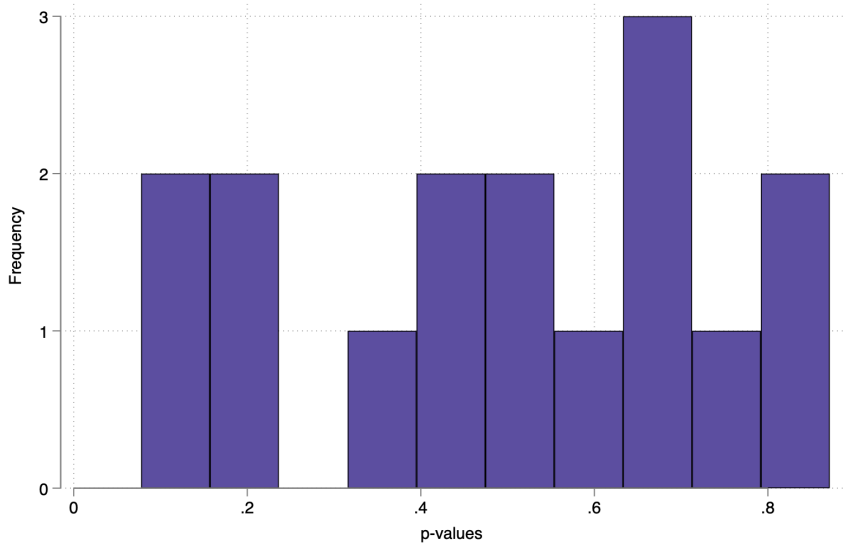
Notes: Word clouds constructed using the text of the platforms of equity (panel (a)) and fiscally conservative candidates (panel (b)) as coded by our assignment process. Larger words denote higher frequency across statements linked to the corresponding theme. The visualizations are based on a 10% sample of school board candidates' platforms.

Figure A4: Distribution of Candidates' Vote Margins

(a) Case-study Characteristics

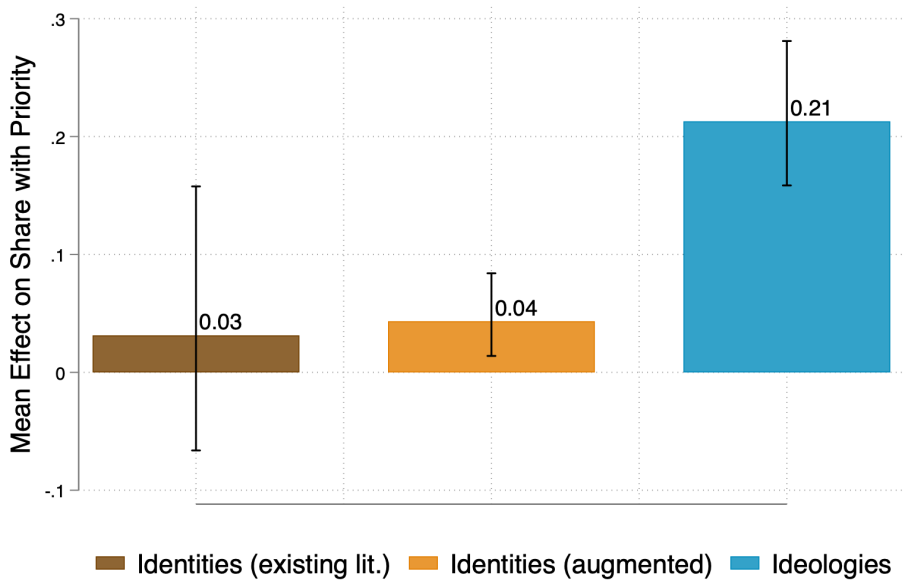



(b) All Ideology and Identity Characteristics



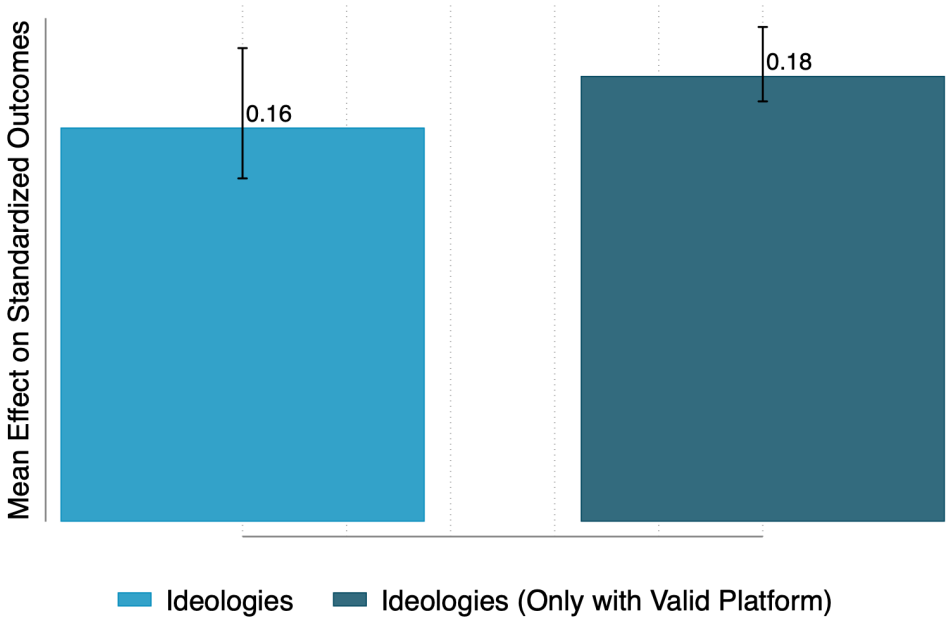

Notes: Panel (a) shows the distribution of vote margins around the electoral cutoff for fiscally conservative, equity, and Hispanic candidates. The vote margin is defined as the difference between the vote share of the least popular winning candidate and the most popular losing candidate, and it is positive when the focal candidate is the least popular winner and negative when they are the most popular loser. Shaded regions denote confidence intervals for a McCrary test of discontinuity of the density function around the cutoff, for which p-values are reported. The dotted lines mark the optimal bandwidth used for the same test. Panel (b) summarizes the distribution of p-values from McCrary tests for all ideology and identity characteristics used in the analysis.

Figure A5: Elected Candidates' Identity and Ideology and School Boards' Ideological Composition: Only Elections w/Platforms for Winners and Losers




Notes: Mean of RD estimates by characteristic group, obtained using equation (2) on the subsample of elections where both winners and losers have platforms. *Identities (existing literature)* includes three identity-ideology pairs (Hispanic-Equity, Hispanic-Fiscal Conservatism, Teacher-Teacher Support). *Identities (augmented)* includes other identity-ideology pairs where viewpoint difference is significant by the identity group (Table B6). *Ideologies* includes the effects of electing a candidate with a given ideology on the share of that ideology in the board and considers all ideologies. The dependent variable is the change in share relative to the year before the election; we pool observations over the four years following an election. We multiply each outcome by the sign of the corresponding effect, so that all aggregated effects have a positive sign. All models control for year and identities-ideologies pair fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level.

Figure A6: Elected Candidates' Identity and Ideology and School Districts' Outcomes: Aggregate Effects




Notes: mean RD estimates on district outcomes, obtained estimating equation (2) on a stacked dataset where each stack is constructed by considering a focal characteristic and its corresponding outcome, and where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the relevant characteristic and their vote margin, respectively. The left bar is our main specification, the rigt bar is when we restrict the sample to elections where both the winner and the loswer have valid platforms. We include 14 characteristic–outcome pairs for *Ideologies* category (see Table B5 for the full list of characteristics-outcome pairs). The dependent variable in each stack is standardized to have variance equal to one and expressed as the change relative to the year before the election; we pool observations over the four years following an election. For ease of interpretation, we multiply each outcome by the hypothesized direction of the effects (see B5 for the full list). All models control for year and stack fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level.

# B Additional Tables

Table B1: Candidates, Elections, and Districts With and Without Platforms

| | No Platform (1) | Yes Platform (2) |
|---|---|---|
| ***Panel A: Candidate Characteristics*** | | |
| Female | **0.42** | **0.47** |
| Hispanic | **0.26** | **0.16** |
| Teacher | **0.12** | **0.26** |
| Democrat | **0.45** | **0.56** |
| ***Panel B: Election Characteristics*** | | |
| N Candidates/election | **4.81** | **4.69** |
| N Positions/election | **2.27** | **2.24** |
| Vote Margin ($\Delta$Vote Share, Least Popular Winner vs. Most Popular Loser) | 7.95 | 8.06 |
| ***Panel C: District Characteristics*** | | |
| Enrollment | **10232** | **17645** |
| Share White | **0.34** | **0.37** |
| Share Hispanic | **0.49** | **0.39** |
| Share Black | **0.05** | **0.05** |
| Share Asian | **0.07** | **0.14** |
| Spending Per Pupil ($1k) | **9.11** | **9.89** |
| Total N Candidates | 13959 | 8467 |

Notes: Candidate, election, and district characteristics, with at least one candidate platform (column 1) and with no platform (column 2). Panel A summarizes candidates' demographic characteristics; Panel B summarizes characteristics of elections in which the candidates ran; and Panel C summarizes characteristics of districts whose elections candidates ran in. Values in bold indicate that the difference between candidates with and without a stated platform is statistically significant at the 5% level.

Table B2: Priorities Identified Via Latent Dirichlet Allocation Algorithm

| Top Words (1) | Topic (2) | Mapped Priorities (3) |
|---|---|---|
| community, class, health, safe, board, learning, increase, support, mental, environment | Supportive learning environment and academic rigor | Equity, Test Score |
| safety, success, needs, ensure, increase, improve, academic, retention, safe, meet | Safety, student needs, and success outcomes | Safety, Dropout |
| communication, fiscal, teachers, sure, children, special, plan, accountability, transparency, community | Parent-teacher communication and fiscal transparency | Community Engagement, Fiscal Conservatism |
| fiscal, parents, responsibility, fiscal responsibility, community, education, making, decision, teacher, decision making | Financial responsibility and parental involvement | Fiscal Conservatism, Community Engagement |
| financial, college, career, budget, funding, programs, funds, resources, college career, continue | College and career readiness | CTE, Test Score |
| teachers, staff, support, high, administrators, quality, retain, teachers staff, community, best | Teacher retention and professional development | Teacher Support |
| community, teachers, parents, educational, build, administration, stakeholders, needs, ensure, programs | Community collaboration and school success | Community Engagement |
| budget, programs, achievement, technology, gap, access, social, achievement gap, education, balanced | Equity in programs, tech access, and achievement gaps | Equity, Facility Improvement |
| education, academic, quality, achievement, improve, excellence, learning, quality education, continue, focus | Raising academic standards and student opportunity | Test Score, Equity |
| accountability, best, test, scores, ensure, test scores, board, educational, music, high | Testing, evaluation, and accountability systems | Test Score |

Notes: Set of priorities identified via a Latent Dirichlet Allocation (LDA) topic modeling of school board candidate platforms. Column (1) shows the highest-probability words within each topic, as produced by the LDA model. Column (2) shows a list of researcher-labeled topics based on the content of the top associated terms. Column (3) contains subsets of the 12 priorities used in our analysis that authors find being mapped to topics identified based on top words from the LDA model. Before implementing the LDA model, we converted all text to lower case, removed standard stop-words, and performed lemmatization. The model uses 10 topics with a symmetric Dirichlet prior (alpha=auto) and 1,000 training iterations.

Table B3: Priorities Identified by a Large-Language Model

| Top Words (1) | Topic (2) | Mapped Priorities (3) |
|---|---|---|
| academic achievement, test scores, standards, rigor, excellence, core subjects, learning outcomes, proficiency, performance | Academic Achievement & Standards | Test Score |
| teacher pay, attract, retain, quality teaching, professional development, staffing, support teachers, qualified, educator pipeline | Teacher Quality & Pay | Teacher Support |
| class size, instructional materials, resources, reduce ratio, classroom support, supplies, staffing levels | Class Size & Instructional Resources | Teacher Support, Facility Improvement |
| fiscal responsibility, transparency, budget, oversight, bond spending, financial planning, efficient use | Fiscal Accountability & Efficiency | Fiscal Conservatism |
| mental health, social emotional, well-being, counselors, SEL, whole child, behavior, trauma-informed | Social-Emotional & Mental Health Supports | Safety & Health |
| college readiness, career pathways, vocational, CTE, dual enrollment, workforce skills, future preparation | College & Career Readiness | CTE, Dropout |
| early childhood, kindergarten readiness, reading by 3rd grade, literacy, foundational skills, preschool, early education | Early Childhood & Foundational Learning | N/A |
| safe schools, discipline, security, bullying, campus safety, violence prevention, emergency response | School Safety & Discipline | Safety & Health |
| parental involvement, community input, communication, stakeholder voice, family engagement, board access, outreach | Parent & Community Engagement | Community Engagement |
| equity, underserved, marginalized, close gaps, inclusive, justice, opportunity for all, underrepresented | Equity in Access & Outcomes | Equity |

Notes: Notes: Set of priorities identified by a Large Language Model (LLM, ChatGPT 4o, used on June 16, 2025) given the following prompt: *"I want you to imagine a mindset of an established economist who has expertise in economics of education. Based on the sample priorities I uploaded and frequent topics studied in prior economics of education literature, pick 10 topics you think important to study. After picking these 10 priorities, we will investigate the effect of electing a member with each priority on relevant educational outcomes. So the choice doesn't necessarily have to based on only the frequency of words, as you would do in LDA. Give me 10 topics, and associated keywords."* Column (1) and (2) show the highest-probability words within each topic, and list of topics as produced by the LLM. Column (3) contains subsets of the 12 priorities used in our analysis that authors find being mapped to topics identified by the LLM.

Table B4: Examples of Meeting Minutes and Motion Topics

| **Example of Meeting Motions** | Equity | Fiscal Conservatism | Agenda Bias | Community Engagement | CTE | Dropout | Enrollment | Facility Improv. | Safety | Sup Accountability/Hiring | Teacher Support | Test Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Barbara Patterson, Deputy Superintendent, Business & Operations, requested approval of the Retiree Benefits Actuarial Study. Superintendent Stock stated that Rocklin Unified School District is one of the few public entities that has nearly funded this liability and commended the Board for their foresight and fiscal discipline to address this issue. (2017, Rocklin Unified, Passed Unanimously) | | ✓ | | | | | | | | | ✓ | |
| Approve tentative settlement agreement of Special Education matter - Case No. 2016070742, Case No. 2016070703, Case No. 2016070134, Case No. 2016070060, and Case No. 2016070266. (2016, Antioch Unified, Passed by 3 vs. 2) | ✓ | ✓ | | | | | | | | | | |
| ...in Closed Session, the Board discussed the expulsion of student No. 06-2019/2020. The student shall be expelled from the El Rancho Unified School District and shall have successful participation in an alternative education program... (2018, El Rancho, Passed Unanimously) | | | | | | | | | ✓ | | | |

Notes: Examples of portions of meeting minutes referring to motions and associated topic keywords. Each row presents a minute portion, along with indicators for coded topics.

Table B5: Priorities—Outcomes Mapping

| Priority | Outcomes (Expected Direction) |
|---|---|
| Equity | ECD & Hispanic test scores (↑) |
| Fiscal conservatism | Spending per pupil (↓);<br>Bond amount issued per pupil (↓) |
| Agenda bias | N/A |
| Community Engagement | N/A |
| CTE | Revenues for CTE programs per pupil (↑) |
| Dropout | log(Enrollment) (↑) |
| Enrollment | log(Enrollment) (↑) |
| Facility Improvement | Capital spending per pupil (↑) |
| Safety and Health | Share students suspended (↑) |
| Superintendent Accountability and Hiring | Superintendent turnover(↑) |
| Teacher support | Teacher exit rates (↓)<br>Salaries of novice & experienced teachers (↑) |
| Student Achievement | Test scores |

Notes: Full list of priorities and associated outcomes, with expected direction of effects. All these combinations are included in the "Ideologies" category in Figure 5.

Table B6: Identities and Outcomes Tested in the Prior Literature

| Identity | Study | Priorities | Outcomes (Expected Direction) |
|---|---|---|---|
| ***Panel A: Prior Literature*** | | | |
| Hispanic | Kogan et al. (2021), Fischer (2023) | - | Hispanic test scores (↑), Spending per pupil (↑), Bond amount issued per pupil (↑) |
| Teacher | Shi and Singleton (2023) | - | Teacher exit rates (↓), Salaries of novice (↑) & experienced teachers (↑) |
| ***Panel B: Augmented Based on Difference in Viewpoints*** | | | |
| Hispanic | - | CTE | Revenues for CTE programs per pupil (↑) |
| Hispanic | - | Dropout | log(Enrollment) (↑) |
| Hispanic | - | Safety and Health | Share students suspended (↑) |
| Hispanic | - | Test Score | Test scores (↑) |
| Female | - | Equity | ECD & Hispanic test scores (↑) |
| Female | - | Dropout | log(Enrollment) (↑) |
| Female | - | Safety and Health | Share students suspended (↑) |
| Female | - | Test Score | Test scores (↓) |
| Teacher | - | Fiscal Conservatism | Spending Per Pupil (↑) |
| Teacher | - | CTE | Revenues for CTE programs per pupil (↑) |
| Teacher | - | Dropout | log(Enrollment) (↑) |
| Teacher | - | Facility Improvement | Capital spending per pupil (↓) |
| Democrat | - | Equity | ECD & Hispanic test scores (↑) |
| Democrat | - | Fiscal Conservatism | Spending per pupil (↑) |
| Democrat | - | Dropout | log(Enrollment) (↑) |
| Democrat | - | Facility Improvement | Capital spending per pupil (↓) |
| Democrat | - | Teacher support | Teacher exit rates (↓); Salaries of novice & experienced teachers (↑) |

Notes: Panel A reports 6 unique identity-outcome pairs tested in prior studies. This set of pairs is included in the "Identities (existing literature)" category in Figure 5 and Table 6. Panel B presents 24 additional pairs of identities and outcomes through priorities; a pair is added when the significant raw differences in candidate viewpoints across identity groups in Table B10 is statistically significant at 5 percent level. This set of pairs is included in the "Identities (augmented)" category in Figure 5 and Table 6. Outcomes associated with each priority are mapped according to Table B5. Expected direction is based on the sign of difference in Table B10.

Table B7: Inter-Rater Reliability Across Human Graders and LLMs - Candidate Platforms

| Priority | RA 1 - GPT | RA 2 - GPT | RA 1 - RA 2 | RA 1 - Claude | RA 2 - Claude | GPT - Claude |
|---|---|---|---|---|---|---|
| Equity Concern | 0.77 | 0.62 | 0.60 | 0.74 | 0.67 | 0.74 |
| Enrollment Concern | 0.85 | 0.75 | 0.82 | 0.72 | 0.66 | 0.88 |
| Academic Concern | 0.71 | 0.65 | 0.67 | 0.57 | 0.46 | 0.66 |
| Union Friendly Q1 | 0.64 | 0.56 | 0.48 | 0.51 | 0.55 | 0.64 |
| Union Friendly Q2 | 0.56 | 0.35 | 0.43 | 0.56 | 0.28 | 0.75 |
| Union Friendly Q3 | -0.01 | . | . | 0.51 | . | -0.01 |
| Union Friendly Q4 | 0.62 | 0.76 | 0.55 | 0.64 | 0.89 | 0.67 |
| Union Friendly Q5 | 0.59 | 0.45 | 0.47 | 0.46 | 0.35 | 0.54 |
| Agenda Bias Q1 | 0.62 | 0.58 | 0.61 | 0.69 | 0.56 | 0.65 |
| Agenda Bias Q2 | 0.81 | . | . | 0.35 | . | 0.43 |
| Agenda Bias Q3 | 0.66 | 0.73 | 0.73 | 0.51 | 0.56 | 0.77 |
| Agenda Bias Q4 | 0.59 | 0.28 | 0.44 | 0.48 | 0.19 | 0.77 |
| Fiscal Conservatism Q1 | 0.92 | 0.79 | 0.83 | 0.90 | 0.80 | 0.94 |
| Fiscal Conservatism Q2 | 0.91 | 0.76 | 0.77 | 0.75 | 0.70 | 0.83 |
| Fiscal Conservatism Q3 | 0.55 | 0.44 | 0.58 | 0.51 | 0.39 | 0.65 |
| Fiscal Conservatism Q4 | 0.58 | 0.12 | 0.04 | 0.51 | 0.18 | 0.39 |
| CTE Concern | 0.88 | 0.79 | 0.82 | 0.84 | 0.80 | 0.91 |
| Mental Health Concern | 0.87 | 0.82 | 0.88 | 0.86 | 0.85 | 0.89 |
| Safety Health Concern | 0.96 | 0.81 | 0.81 | 0.92 | 0.85 | 0.92 |
| Parent Involvement | 0.87 | 0.66 | 0.65 | 0.84 | 0.66 | 0.89 |
| Police In School | 0.77 | 0.31 | 0.34 | 0.68 | 0.33 | 0.74 |
| Teacher Staff | 0.83 | 0.73 | 0.79 | 0.69 | 0.76 | 0.76 |
| Overall | 0.84 | 0.75 | 0.77 | 0.78 | 0.71 | 0.81 |

Notes: Pearson correlations between ratings assigned by two research assistants and two large-language models (LLMs) for a random sample of 200 school board candidate platforms from our full sample. GPT refers to OpenAI's GPT-4.0 model. Claude refers to Anthropic's 3.5 Sonnet model. Correlation values could not be computed for the Union Friendly Q3 and Agenda Bias Q2 categories for RA 2 because they gave all platforms the same rating.

Table B8: Inter-Rater Reliability Across Human Graders and LLMs - Meetings Minutes

| Item<br>Field | RA1 - RA2 | RA1 - RA3 | RA2 - RA3 | RA1 - LLM | RA2 - LLM | RA3 - LLM |
|---|---|---|---|---|---|---|
| ***Panel A: General Information*** | | | | | | |
| Date | 0.93 | 0.97 | 1.00 | 0.99 | 0.97 | 0.99 |
| Cancelled | 0.97 | 1.00 | 1.00 | 1.00 | 0.99 | 1.00 |
| Regular | 0.93 | 0.93 | 0.93 | 0.97 | 0.97 | 0.93 |
| Runtime | 0.95 | 1.00 | 0.95 | 0.99 | 0.99 | 0.97 |
| Present | 0.90 | 0.93 | 0.90 | 0.94 | 0.96 | 0.96 |
| Absent | 0.95 | 0.97 | 0.95 | 0.96 | 0.97 | 0.97 |
| Comments | 0.72 | 0.70 | 0.93 | 0.90 | 0.73 | 0.67 |
| Document Quality | 0.95 | 0.85 | 0.80 | 0.99 | 0.99 | 0.80 |
| Dissent | 0.97 | 0.60 | 0.55 | 1.00 | 0.97 | 0.57 |
| ***Panel B: Motions*** | | | | | | |
| Total Number Voted on | 0.68 | 0.68 | 0.60 | 0.69 | 0.66 | 0.54 |
| Description | 0.95 | 0.93 | 0.88 | 0.99 | 0.90 | 0.97 |
| Member Proposed | 1.00 | 0.93 | 1.00 | 1.00 | 1.00 | 0.96 |
| Member Seconded | 1.00 | 0.97 | 1.00 | 0.99 | 1.00 | 0.97 |
| Passed | 1.00 | 0.95 | 0.97 | 1.00 | 0.99 | 0.97 |
| Unanimous | 0.93 | 0.95 | 0.95 | 1.00 | 0.96 | 0.96 |
| Votes | 0.93 | 0.95 | 0.95 | 1.00 | 0.94 | 0.94 |
| Keywords | 0.50 | 0.95 | 0.70 | 0.89 | 0.64 | 0.96 |
| ***Panel C: Members*** | | | | | | |
| Member | 0.82 | 0.88 | 0.75 | 0.94 | 0.90 | 0.86 |
| Present | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Role | 0.88 | 1.00 | 0.97 | 1.00 | 0.91 | 1.00 |
| Keywords | 0.60 | 0.88 | 0.62 | 0.86 | 0.54 | 0.94 |

Notes: Pearson correlations between ratings assigned by three research assistants and a large-language model (LLM, Claude Anthropic's 3.5 Sonnet model) for a random sample of 200 school board meeting minutes from our full sample.

Table B9: Elected Candidates' Identity and School Boards' Identity Composition: All Identities

| | Hispanic<br>(1) | Female<br>(2) | Teacher<br>(3) | Democrat<br>(4) |
|---|---|---|---|---|
| Estimate | 0.200 | 0.244 | 0.212 | 0.251 |
| | [0.132, 0.250] | [0.194, 0.300] | [0.150, 0.270] | [0.178, 0.330] |
| Bandwidth | 9.725 | 9.213 | 9.043 | 13.162 |
| N | 2510 | 4628 | 3246 | 2702 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the identity characteristic indicated in the column header. The dependent variable is the change share of members on the board with the same identity relative to the year before the election. We pool observations across the five years following each election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

Table B10: Elected Candidates' Ideology and School Boards' Ideological Composition: All Priorities

| | Fiscal Conservatism | Equity | Agenda Bias | Facility Improvement | Community Engagement | Safety and Health |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Estimate | 0.161 | 0.198 | 0.165 | 0.191 | 0.187 | 0.166 |
| | [0.103, 0.220] | [0.129, 0.270] | [0.084, 0.230] | [0.113, 0.260] | [0.122, 0.250] | [0.094, 0.230] |
| Bandwidth | 11.655 | 10.510 | 9.208 | 8.163 | 9.220 | 9.997 |
| N | 3154 | 2430 | 382 | 2064 | 2978 | 2448 |
| | Teacher Support | Dropout | Enrollment | CTE | Test Scores | Superintendent Accountability |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Estimate | 0.167 | 0.133 | 0.139 | 0.184 | 0.175 | 0.295 |
| | [0.112, 0.240] | [0.042, 0.210] | [0.057, 0.230] | [0.111, 0.250] | [0.106, 0.250] | [0.165, 0.460] |
| Bandwidth | 12.691 | 10.816 | 11.482 | 8.566 | 9.099 | 7.591 |
| N | 2288 | 1052 | 680 | 1260 | 2734 | 414 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the ideology characteristic indicated in the column header. The dependent variable is the change share of members on the board with the same ideology relative to the year before the election. We pool observations across the five years following each election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

Table B11: Elected Candidates' Identity and School Districts' Financial and Student Outcomes

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | Spending Per Pupil | | Revenue Per Pupil | log(Enrollment) | Test Scores | | | % Suspended |
| | Total | Capital | CTE | | ECD | Hispanic | All | |
| ***Panel A: Hispanic*** | | | | | | | | |
| Estimate | 0.172 | -0.062 | -0.449 | 0.034 | 0.002 | 0.004 | 0.002 | -0.005 |
| | [0.019, 0.290] | [-0.162, 0.000] | [-0.970, -0.070] | [0.028, 0.040] | [-0.003, 0.010] | [0.000, 0.010] | [-0.002, 0.010] | [-0.020, 0.010] |
| Bandwidth | 6.833 | 3.639 | 9.603 | 3.046 | 8.459 | 7.717 | 8.313 | 9.656 |
| N | 1848 | 1323 | 2120 | 1507 | 601 | 552 | 614 | 484 |
| Mean Dep. Var. | 1.360 | 0.278 | 1.423 | -0.013 | 0.013 | 0.009 | 0.009 | -0.020 |
| ***Panel B: Female*** | | | | | | | | |
| Estimate | -0.170 | -0.025 | -0.412 | 0.013 | 0.012 | -0.003 | -0.001 | -0.005 |
| | [-0.307, -0.080] | [-0.099, 0.040] | [-0.595, -0.260] | [0.011, 0.020] | [0.007, 0.020] | [-0.011, 0.000] | [-0.007, 0.000] | [-0.015, 0.010] |
| Bandwidth | 3.793 | 5.562 | 4.975 | 1.903 | 8.584 | 7.074 | 5.362 | 8.443 |
| N | 2604 | 3274 | 3042 | 1834 | 1064 | 922 | 938 | 827 |
| Mean Dep. Var. | 1.439 | 0.162 | 1.642 | 0.010 | 0.006 | 0.013 | 0.013 | -0.016 |
| ***Panel C: Teacher*** | | | | | | | | |
| Estimate | 0.226 | 0.080 | -0.364 | 0.014 | -0.003 | 0.002 | -0.001 | 0.029 |
| | [0.142, 0.290] | [0.014, 0.130] | [-0.531, -0.160] | [0.012, 0.020] | [-0.009, 0.000] | [-0.002, 0.010] | [-0.004, 0.000] | [0.017, 0.050] |
| Bandwidth | 4.785 | 4.784 | 7.468 | 2.264 | 9.996 | 3.969 | 9.179 | 5.128 |
| N | 2218 | 2218 | 2699 | 1664 | 854 | 487 | 874 | 498 |
| Mean Dep. Var. | 1.130 | -0.001 | 0.867 | -0.024 | 0.022 | 0.021 | 0.017 | -0.039 |
| ***Panel D: Democrat*** | | | | | | | | |
| Estimate | 0.008 | 0.089 | -0.396 | 0.011 | 0.002 | -0.003 | 0.022 | 0.005 |
| | [-0.106, 0.190] | [0.005, 0.230] | [-0.630, -0.060] | [0.008, 0.020] | [-0.003, 0.010] | [-0.010, 0.000] | [0.015, 0.030] | [-0.008, 0.020] |
| Bandwidth | 4.739 | 3.955 | 7.605 | 1.751 | 7.380 | 7.346 | 3.641 | 8.060 |
| N | 1349 | 1244 | 1799 | 880 | 492 | 446 | 349 | 435 |
| Mean Dep. Var. | 1.129 | 0.073 | 1.062 | 0.017 | 0.005 | 0.011 | -0.011 | -0.029 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the identity characteristic indicated in the panel label. The dependent variable is total spending per pupil (column 1), spending per pupil on capital projects (column 2), revenues per pupil for CTE programs (column 3), log enrollment (column 4), test scores for ECD students (column 5), test scores for Hispanic students (column 6), test scores for all students (column 7), and the share of suspended students (column 8). All variables are measured as changes relative to the year before the election. We pool observations across the five years following each election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

Table B12: Elected Candidates' Identity and School Districts' Staffing Outcomes

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | | Teachers | | Superintendent |
| | Exit Rate | BA60 Salary | Entry Salary | Turnover |
| ***Panel A: Hispanic*** | | | | |
| Estimate | 0.038 | 0.045 | 0.024 | 0.000 |
| | [-0.023, 0.110] | [0.020, 0.070] | [0.005, 0.050] | [-0.031, 0.020] |
| Bandwidth | 9.237 | 7.002 | 4.947 | 8.082 |
| N | 352 | 1173 | 1375 | 1761 |
| Mean Dep. Var. | -0.018 | 0.048 | 0.059 | 0.216 |
| ***Panel B: Female*** | | | | |
| Estimate | 0.034 | 0.014 | -0.007 | -0.004 |
| | [0.007, 0.060] | [0.006, 0.030] | [-0.016, 0.000] | [-0.022, 0.010] |
| Bandwidth | 11.623 | 5.443 | 6.375 | 8.815 |
| N | 695 | 1975 | 2705 | 3262 |
| Mean Dep. Var. | -0.006 | 0.098 | 0.094 | 0.175 |
| ***Panel C: Teacher*** | | | | |
| Estimate | -0.021 | 0.012 | 0.008 | -0.007 |
| | [-0.030, -0.010] | [0.009, 0.020] | [-0.002, 0.010] | [-0.030, 0.010] |
| Bandwidth | 6.278 | 1.639 | 4.377 | 8.619 |
| N | 437 | 700 | 1790 | 2446 |
| Mean Dep. Var. | 0.014 | 0.106 | 0.115 | 0.194 |
| ***Panel D: Democrat*** | | | | |
| Estimate | -0.008 | -0.018 | 0.008 | -0.039 |
| | [-0.039, 0.020] | [-0.033, -0.010] | [-0.006, 0.030] | [-0.063, -0.010] |
| Bandwidth | 12.745 | 5.284 | 6.446 | 6.780 |
| N | 407 | 940 | 1408 | 1602 |
| Mean Dep. Var. | 0.020 | 0.075 | 0.064 | 0.186 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the identity characteristic indicated in the panel label. The dependent variable is the share of teachers who leave the district (column 1), the scheduled salary for a teacher with a BA and 60 semester units (column 2), the scheduled teacher entry salary (column 3), and an indicator for superintendent turnover (column 4). *BA60 Salary* and *Entry Salary* are from J90 data and are calculated by fixing the composition of teachers across steps to the year before the election. Thus, coefficients capture the change in the wage schedule net of changes in teacher composition across steps. Both salary variables are reported in thousands of 2019 dollars. All variables are measured as changes relative to the year before the election. We pool observations across the five years following each election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

Table B13: Elected Candidates' Ideology and School District Outcomes

| Priority: | (1) Fiscal Conservatism | (2) Facility | (3) CTE | (4) Enrollment | (5) Dropout | (6) Equity | (7) Equity | (8) Achievement | (9) Safety |
|---|---|---|---|---|---|---|---|---|---|
| Outcome: | Spending p.p. | Cap Spending p.p. | CTE rev. p.p. | log(Enrl) | log(Enrl) | ECD test | Hispanic test | Test scores | % Suspended |
| Estimate | -1.280 | 0.483 | 0.321 | 0.038 | 0.042 | 0.044 | 0.022 | -0.007 | 0.019 |
| | [-1.527, -1.150] | [0.398, 0.630] | [-0.033, 0.930] | [0.034, 0.040] | [0.039, 0.050] | [0.036, 0.060] | [0.018, 0.030] | [-0.011, 0.000] | [0.003, 0.040] |
| Bandwidth | 2.335 | 2.496 | 6.416 | 0.786 | 2.562 | 2.416 | 4.944 | 5.418 | 5.179 |
| N | 962 | 844 | 740 | 171 | 476 | 197 | 344 | 559 | 322 |
| Mean Dep. Var. | 1.951 | 0.099 | 1.154 | 0.014 | -0.002 | -0.009 | 0.005 | 0.016 | -0.035 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the priority indicated in the first row label. The dependent variable is total spending per pupil (column 1), spending on capital projects per pupil (column 2), revenues per pupil on CTE (column 3), log enrollment (columns 4 and 5), test scores for ECD students (column 6), test scores for Hispanic students (column 7), test scores for all students (column 8), and the share of suspended students (column 9). All variables are measured as changes relative to the year before the election. We pool observations across the five years following each election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

Table B14: Effects of Board Member's Ideology on Staffing Outcomes

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Priority: | Teacher Support | | | Superintendent Accountability |
| Outcome: | Exit rate | BA60 Salary | Entry Salary | Super Turnover |
| Estimate | -0.043 | -0.003 | 0.081 | 0.118 |
| | [-0.059, -0.040] | [-0.012, 0.010] | [0.071, 0.100] | [0.097, 0.180] |
| Bandwidth | 2.753 | 5.808 | 2.683 | 4.292 |
| N | 126 | 955 | 768 | 245 |
| Mean Dep. Var. | 0.047 | 0.106 | 0.042 | 0.098 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the priority indicated in the first row label. The dependent variable is the share of teachers who leave the district (column 1), the scheduled salary for a teacher with a BA and 60 semester units (column 2), the scheduled teacher entry salary (column 3), and an indicator for superintendent turnover (column 4). *BA60 Salary* and *Entry Salary* are from J90 data and are calculated by fixing the composition of teachers across steps to the year before the election. Thus, coefficients capture the change in the wage schedule net of changes in teacher composition across steps. Both salary variables are reported in thousands of 2019 dollars. All variables are measured as changes relative to the year before the election. We pool observations across the five years following each election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

Table B15: Robustness Checks – Case Studies

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | | | RD Tuning Parameters | | | |
| | Main | Dep. var. | Quadratic | Uniform | N Neighbors | |
| | | in levels | polynomial | kernel | 4 | 5 |
| ***Panel A: Effect of Equity-Focused on ECD Test Scores*** | | | | | | |
| Estimate | 0.044 | 0.044 | 0.042 | 0.028 | 0.030 | 0.028 |
| | [0.036, 0.058] | [0.037, 0.057] | [0.034, 0.055] | [0.022, 0.038] | [0.017, 0.052] | [0.014, 0.050] |
| Bandwidth | 2.416 | 2.458 | 5.753 | 3.261 | 4.271 | 4.726 |
| N | 197 | 197 | 380 | 268 | 322 | 346 |
| Mean Dep. Var. | -0.009 | -0.144 | -0.007 | 0.001 | -0.001 | 0.000 |
| ***Panel B: Effect of Fiscally Conservative on Spending Per Pupil*** | | | | | | |
| Estimate | -1.280 | -1.114 | -1.280 | -1.383 | -1.199 | -0.849 |
| CI | [-1.527, -1.145] | [-1.358, -0.983] | [-1.532, -1.117] | [-1.614, -1.249] | [-1.479, -1.052] | [-1.449, -0.455] |
| Bandwidth | 2.335 | 2.552 | 5.247 | 1.878 | 2.666 | 5.116 |
| N | 962 | 1014 | 1804 | 810 | 1052 | 1772 |
| Mean Dep. Var. | 1.951 | 9.396 | 1.959 | 1.994 | 1.910 | 1.740 |
| ***Panel C: Effect of Hispanic on Spending Per Pupil*** | | | | | | |
| Estimate | 0.172 | 0.060 | -0.006 | 0.229 | 0.168 | 0.178 |
| CI | [0.019, 0.292] | [-0.048, 0.159] | [-0.176, 0.117] | [0.062, 0.376] | [-0.092, 0.371] | [-0.258, 0.616] |
| Bandwidth | 6.833 | 6.657 | 6.383 | 4.902 | 6.572 | 8.713 |
| N | 1848 | 1811 | 1779 | 1573 | 1798 | 2023 |
| Mean Dep. Var. | 1.360 | 9.601 | 1.551 | 1.247 | 1.360 | 1.394 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the characteristic and on the outcome indicated in the panel label. Column 1 presents the main specification, with the dependent variable measured as changes relative to the year before the election and a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Column 2 reports results using outcome levels rather than changes, controlling for the level of per pupil spending in the year before the election. Columns 3-6 alter the default tuning parameters from Calonico et al. (2020): column 3 controls for a local quadratic polynomial rather than a linear function of the running variable; column 4 uses a uniform kernel; and columns 5-6 increase the number of neighbors used to calculate clustered standard errors from 3 to 4 and 5, respectively. 95% confidence intervals are shown in brackets.

Table B16: Robustness of Aggregated Effects

| | | | RD Tuning Parameters | | | |
|---|---|---|---|---|---|---|
| | Main | Dep. var. | Quadratic | Uniform | N Neighbors | |
| | | in levels | polynomial | kernel | 4 | 5 |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| ***Panel A: Effect of Identities (Existing Literature)*** | | | | | | |
| Estimate | 0.068 | 0.027 | 0.047 | 0.044 | 0.068 | 0.071 |
| | [0.063, 0.073] | [0.019, 0.035] | [0.042, 0.053] | [0.036, 0.049] | [0.059, 0.082] | [0.024, 0.116] |
| Bandwidth | 4.919 | 2.545 | 6.445 | 1.629 | 4.324 | 9.323 |
| N | 7599 | 4678 | 8638 | 3538 | 6989 | 10113 |
| ***Panel B: Effect of Identities (Other)*** | | | | | | |
| Estimate | -0.020 | -0.009 | 0.020 | -0.015 | -0.020 | -0.020 |
| | [-0.021, -0.020] | [-0.010, -0.008] | [0.020, 0.020] | [-0.016, -0.016] | [-0.022, -0.021] | [-0.021, -0.020] |
| Bandwidth | 1.740 | 1.645 | 0.978 | 1.366 | 2.040 | 1.715 |
| N | 31395 | 25619 | 19387 | 26191 | 36229 | 31095 |
| ***Panel C: Effect of Ideologies*** | | | | | | |
| Estimate | 0.157 | 0.079 | 0.162 | 0.170 | 0.156 | 0.156 |
| | [0.136, 0.188] | [0.069, 0.098] | [0.140, 0.191] | [0.150, 0.208] | [0.136, 0.189] | [0.131, 0.198] |
| Bandwidth | 3.178 | 2.259 | 5.447 | 1.963 | 3.016 | 2.930 |
| N | 8544 | 5992 | 12191 | 5852 | 8119 | 7892 |

Notes: Robustness checks of the effects of electing a board member with characteristics in each category used in Figure 5. To obtain each estimate, we first stack datasets, each containing a focal characteristic and its corresponding outcome; we include 6 characteristic–outcome pairs for the "Identities (existing literature)" category, 46 for "Identities (other)" category, and 14 for "Ideologies" category. See Table B6 and B5 for the full list of characteristics-outcome pairs. Aggregated effects are then estimated by applying RD regression on the stacked data set, using equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of a candidate with the relevant characteristic and their vote margin, respectively. Dependent variables are constructed by standardizing outcomes within each year and calculating the change in these outcomes relative to the year prior to the election. We assign outcomes a sign consistent with the hypothesized directions of the effects based on the sign of raw difference in viewpoint by identity group in Table B10 (See Table B6 and B5 for the full list). Column 1 presents the main specification, with the dependent variable measured as changes relative to the year before the election and a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Column 2 reports results using outcome levels rather than changes, controlling for the level of per pupil spending in the year before the election (we exclude superintendent turnover effects from this specification since this variable is by definition a change). Columns 3-6 alter the default tuning parameters from Calonico et al. (2020): column 3 controls for a local quadratic polynomial rather than a linear function of the running variable; column 4 uses a uniform kernel; and columns 5-6 increase the number of neighbors used to calculate clustered standard errors from 3 to 4 and 5, respectively. 95% confidence intervals are shown in brackets.

Table B17: Minutes Analysis: Member Votes

| | Equity | | Fiscal | | Hispanic | |
|---|---|---|---|---|---|---|
| | Focal | All | Focal | All | Equity | Fiscal |
| ***Panel A: Yes votes, own*** | | | | | | |
| Estimate | -0.965 | -11.569 | -13.936 | -75.476 | 2.001 | -0.604 |
| | [-2.923, 0.992] | [-32.106, 8.968] | [-18.461, -9.410] | [-98.072, -52.880] | [-0.548, 4.551] | [-4.228, 3.021] |
| Mean Dep. Var. | 10.837 | 192.539 | 34.458 | 191.896 | 13.248 | 33.971 |
| N | 653 | 719 | 554 | 506 | 557 | 691 |
| ***Panel B: No votes, own*** | | | | | | |
| Estimate 0.268 | 0.780 | -0.079 | -1.209 | 0.414 | 0.100 | |
| | [0.080, 0.456] | [-0.766, 2.326] | [-0.371, 0.213] | [-2.723, 0.305] | [0.228, 0.600] | [-0.296, 0.496] |
| Mean Dep. Var. | 0.468 | 4.958 | 0.813 | 4.870 | 0.255 | 0.743 |
| N | 630 | 748 | 710 | 732 | 649 | 574 |
| ***Panel C: Yes votes, others*** | | | | | | |
| Estimate | -9.865 | -1.795 | -66.436 | -334.134 | 13.559 | -8.329 |
| | [-21.993, 2.263] | [-112.203, 108.614] | [-93.893, -38.978] | [-460.399, -207.868] | [-0.380, 27.497] | [-31.602, 14.944] |
| Mean Dep. Var. | 58.390 | 1006.074 | 181.644 | 1003.404 | 69.371 | 183.387 |
| N | 594 | 706 | 554 | 558 | 527 | 605 |
| ***Panel D: No votes, others*** | | | | | | |
| Estimate | 1.207 | 10.046 | 0.511 | -3.217 | 1.061 | 1.209 |
| | [0.297, 2.117] | [4.792, 15.300] | [-1.066, 2.088] | [-9.844, 3.409] | [0.082, 2.039] | [-0.081, 2.500] |
| Mean Dep. Var. | 2.003 | 22.354 | 3.914 | 23.204 | 2.315 | 4.357 |
| N | 709 | 626 | 723 | 829 | 619 | 622 |

Notes: RD estimates of the effects of electing an equity candidate (columns 1 and 2, a fiscally conservative candidate (columns 3 and 4), or a Hispanic candidate (columns 5 and 6) on votes cast in by the elected members and by others. In panel A, the dependent variable is the number of yes votes cast by the focal member; in panel B, it is the number of no votes cast by the focal member; in panel C, it is the number of yes votes cast by other members; and in panel D, it is the number of no votes cast by other members. The sample is restricted to motions on each candidate's focal issue (e.g., equity for equity candidates; columns 1 and 3), on all issues (columns 2 and 4), on equity motions (column 5), and on budget motions (column 6). We pool observations over the four years following each election. All models control for year fixed effects. We use a triangular kernel with MSE-optimal bandwidths from Calonico et al. (2020), and we cluster standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

# C Tradeoffs and non-focal outcomes

This Appendix examines how our three leading candidate types affect non-focal outcomes. We focus on total spending, district average test scores, and test scores for low-income students and Hispanic students. Table C1 presents estimates of equation 1 for the outcome listed in the row and the candidate type listed in the column.

We have three findings. Focus first on equity. We see that electing an equity candidate raises average scores in the district by 0.022 standard deviations. This indicates that equity candidates improve academic performance overall rather than engaging in zero-sum trades between ECD students and other students. We also see that electing an equity candidate substantially *reduces* spending. As we show below, in contrast to our other results, the magnitude of the negative effect of equity candidates is sensitive to alternate specification choices, so we interpret this finding cautiously. Nevertheless, none of the specifications we estimate suggest that electing equity candidates raises spending, so the *absence* of spending gains does appear to be a robust finding.

Next, turn to fiscal conservatism. Electing a fiscally conservative candidate reduces average district scores by 0.006 SDs (95% CI=[-0.0013, -0.001]). Reductions are similar for ECD students and somewhat larger for Hispanic students. Scaling by the spending reduction, we find that a $1,000 decline in per-pupil spending reduces scores by 0.005 SDs, smaller Jackson and Mackevicius (2024)'s estimate of 0.036 SDs.

Finally, consider Hispanic candidates. Hispanic candidates slightly raise spending. We see no effect of electing an Hispanic candidate on overall scores or ECD scores. We see moderate increases in scores for Hispanic students (0.004 SDs, 95% CI=[0.000, 0.008]). This finding echoes Fischer (2023).

Table C2 considers the robustness of the equity and fiscal conservatism spending effects. Columns 1-5 vary the control set and tuning parameters in RD estimation, as in Appendix Table B15. Both results are robust to these changes. Columns 7 and 8 consider two additional checks. Column 7 considers only district-year observations where we also observe test scores—i.e., the data we use to estimate the focal-outcome specifications for equity candidates. Here we see the equity coefficient on spending fall by about half, to -0.554 (95% CI=[-1.171,-0.089]). We can still rule out null effects, but not relatively small effects. In contrast, the fiscal conservative effect becomes more negative (-1.664, 95% CI=[-2.171,-1.377]). Column 8 excludes observations where there are very large changes in per-pupil construction expenditures, defined here as more than $6,000. There are 30 such cases in the equity sample and 54 in the fiscal conservatism sample. Again, the equity effect falls towards zero while the fiscal conservative effect is unchanged. We conclude that evidence for a *reduction* in spending from electing an equity candidate is somewhat uncertain, but that we can rule out that equity candidates *raise* spending.

Table C1: Tradeoffs: Effects of Candidate Characteristics on Other Outcomes

| | Equity | Fiscally Conservative | Hispanic |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Panel A: Effect on Total Spending p.p.*** | | | |
| Estimate | -1.187 | -1.280 | 0.172 |
| | [-1.548, -0.977] | [-1.527, -1.145] | [0.019, 0.292] |
| N | 708 | 962 | 1,848 |
| ***Panel B: Effect on Test Scores*** | | | |
| Estimate | 0.022 | -0.006 | 0.002 |
| | [0.018, 0.030] | [-0.013, -0.001] | [-0.002, 0.006] |
| N | 357 | 694 | 614 |
| ***Panel C: Effect on ECD Test Scores*** | | | |
| Estimate | 0.044 | -0.005 | 0.002 |
| | [0.036, 0.058] | [-0.014, 0.001] | [-0.003, 0.008] |
| N | 197 | 705 | 601 |
| ***Panel D: Effect on Hispanic Test Scores*** | | | |
| Estimate | 0.022 | -0.009 | 0.004 |
| | [0.018, 0.030] | [-0.018, -0.003] | [0.000, 0.008] |
| N | 344 | 579 | 552 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of an equity-focused (column 1), fiscally conservative (column 2), or Hispanic candidate (column 3). The dependent variable is total spending per pupil (panel A), test scores for all students (panel B), test scores for ECD students (panel C), and test scores for Hispanic students (panel D). All variables are measured as changes relative to the year before the election. We pool observations across the five years following each election. All specifications control for year fixed effects. Local linear regressions use a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Standard errors are clustered at the election level. 95% confidence intervals are shown in brackets.

Table C2: Robustness: Effects of Board Members' Ideology on Spending Per Pupil

| | | | RD Tuning Parameters | | | | Sample Restriction | |
|---|---|---|---|---|---|---|---|---|
| | Main | Dep. var. | Quadratic | Uniform | N Neighbors | | w/ECD | Excl. Construction |
| | | in levels | polynomial | kernel | 4 | 5 | Test Scores | Outliers |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| ***Panel A: Effect of Equity-focused*** | | | | | | | | |
| Estimate | -1.187 | -1.122 | -1.274 | -1.009 | -1.102 | -0.735 | -0.554 | -0.578 |
| | [-1.548, -0.977] | [-1.539, -0.891] | [-1.605, -1.052] | [-1.296, -0.860] | [-2.018, -0.580] | [-1.995, 0.182] | [-1.171, -0.089] | [-0.943, -0.369] |
| Bandwidth | 2.215 | 2.689 | 6.106 | 2.799 | 3.387 | 5.551 | 7.447 | 2.994 |
| N | 708 | 817 | 1353 | 866 | 982 | 1308 | 337 | 900 |
| Mean Dep. Var. | 2.547 | 11.600 | 2.641 | 2.488 | 2.500 | 2.275 | 1.589 | 1.821 |
| ***Panel B: Effect of Fiscal Conservative*** | | | | | | | | |
| $\beta$ | -1.280 | -1.114 | -1.280 | -1.383 | -1.199 | -0.849 | -1.664 | -1.043 |
| CI | [-1.527, -1.145] | [-1.358, -0.983] | [-1.532, -1.117] | [-1.614, -1.249] | [-1.479, -1.052] | [-1.449, -0.455] | [-2.171, -1.377] | [-1.269, -0.911] |
| Bandwidth | 2.335 | 2.552 | 5.247 | 1.878 | 2.666 | 5.116 | 4.061 | 2.674 |
| N | 962 | 1014 | 1804 | 810 | 1052 | 1772 | 420 | 1039 |
| $\bar{y}$ | 1.951 | 9.396 | 1.959 | 1.994 | 1.910 | 1.740 | 2.078 | 1.741 |

Notes: Estimates of the parameters $\beta$ in equation (1), where $D_{i,t}$ and $m_{i,t}$ indicate the election of an equity-focused (panel A) or fiscally conservative candidate (panel B) on spending per pupil. Column 1 presents the main specification, with the dependent variable measured as changes relative to the year before the election and a uniform kernel with MSE-optimal bandwidths from Calonico et al. (2020). Column 2 reports results using outcome levels rather than changes, controlling for the level of per pupil spending in the year before the election. Columns 3-6 alter the default tuning parameters from Calonico et al. (2020): column 3 controls for a local quadratic polynomial rather than a linear function of the running variable; column 4 uses a uniform kernel; and columns 5-6 increase the number of neighbors used to calculate clustered standard errors from 3 to 4 and 5, respectively. Column 7 restricts the sample to districts included in the ECD test score analysis, and column 8 excludes observations where the change in per pupil construction spending exceeds $6,000. 95% confidence intervals are shown in brackets.

# D Data Cleaning Procedure

## D.1 School Board Elections

- We use school board elections in elementary, high, and unified school districts. Starting from 6,312 elections, we drop 393 county- or state-level board elections. In the next step, we exclude 88 uncontested elections and 49 elections that lack a declared winner, resulting in a runoff. This leaves us with 5,782 elections.
- Some districts have multiple elections in a given year. We drop cases where two elections in the same district have opposite results in a given year (e.g., budget hawk wins non-budget hawk in one election but the opposite happens in the other). When multiple elections have the same results, we focus on the election with the closest margin.
  - We drop a small number of elections from the first criteria. Among 1,213 district and year observations with at least one election where either the least popular winner is a budget hawk and the most popular loser is not or the other way around, only 38 observations are dropped because the district has multiple elections of opposing results.

## D.2 Merging Election Records with L2 Voter Data

- To identify candidates' political orientation, we link election records with L2 Historical Voter records (available starting from the year 2000). These voter records contain individuals' full names, home addresses, ages, and political party affiliations. We employ a fuzzy matching algorithm based on names, constrained within district-year combinations.[A-1] Since California Education Code §35107 requires school board candidates to reside within their district, restricting matches to within-district improves our match accuracy.
- With this matching process, we uniquely identify 71.8% of candidates in our election records within the L2 voter registration database. An additional 3.4% of candidates match multiple L2 entries but with consistent political affiliations, yielding a total of 75.2% usable matches for our analyses of political affiliation.

## D.3 District Level Education Outcomes

- For variables related to district finances, we restrict our analysis to the 2017–18 academic year and earlier to minimize inconsistencies arising from changes in how the CCD reports financial data. Starting in 2018–19, the CCD began reporting district-level outcomes for charter schools separately. As a result, the number of school districts in California jumps from 1,165 to 2,198 in the raw CCD data.
  - Prior to 2018–19, only funding for charter schools that was funneled through their geographic school districts is reflected in the districts' finance variables. Direct funding to charter schools' independent accounts in the county treasury is excluded. Due to this accounting practice, financial variables are not comparable across years even if we aggregate financial variables at the geographic school district level post-2018-19. Including post-2018–19 data would lead to a discontinuous increase in reported spending and revenue—on average, a 15% rise in real terms among geographic school districts where at least one charter school district branches out—due to the inclusion of direct charter funding only after this reporting change.

[A-1] For elections in odd-numbered years, we use L2 records from the preceding year.

- Although we also obtain enrollment data from the CCD, enrollment counts are more comparable across years. Before 2018–19, students enrolled in charter schools were included in the enrollment figures of their geographic districts. After 2018–19, we manually reintegrate charter school enrollment into geographic district totals to maintain comparability.
- For student outcome data (SEDA, CRDC), we use versions reported at the geographic district level, which include charter schools.
- Teacher outcome data from CDE exclude charter schools. We use this data as reported, since local school districts have no staffing authority over charter schools.
  - See Shi and Singleton (2023) for additional documentation and discussion of these data sources.
- Superintendent data come from Stemper and The Broad Center (2025). This dataset updates Stemper (2022b) through the 2024-25 school year. The approach follows that described in Stemper (2022b).

# E Mapping Political Platform to Priorities: Full Question List

We use eleven questions to identify eleven priorities. We now define each priority and specify the question used to identify it. Each question is designed to have a common opening and closing, main question, and some examples to facilitate the LLM's rating.

**Common opening:** Here are the top three priorities claimed by a candidate running for a school district board member election. [INSERT QUESTION HERE]

**Common closing:** Rate the candidate based on the entire statement rather than rating each priority. Provide the rating first, then briefly explain how you decided on the rating. Now, here's the statement you need to rate:

1. Equity/Equal Distribution of Resources: Is equal distribution of resources for all students of various socioeconomic statuses one of the main priorities of the candidate? Rate the statement on a scale from 1 to 3 where rate 1 means "none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant", and 3 means "at least one of the priorities is directly relevant". Rate the candidate based on the entire statement rather than rating each priority. Here are examples of candidates rated as 1 because none of their priorities is directly about equity, inclusion, or diversity: Ex 1) "Raise the district's academic ranking, Restore financial health, Increase the transparency accountability of the district's decisions." Ex 2) "Increase student achievement through expanded in-class supports and afterschool programs., Eliminate district bureaucracy and implement spending transparency, Streamline parent & teacher resources and communication." Meanwhile, these are examples of candidates rated as 3 because one of the priorities is explicitly about equity, inclusion or diversity. Ex 1) "Priority to special needs students, Strong community involvement, Efficient uses of resources." Ex 2) "School safety, Fiscal Conservatism across the school district, Raising school performance in lower income communities" Ex 3) "Devoting time, and resources to equity begins in our schools. We must have open conversations with district personnel and parents regarding equity for all. Continuing to close the achievement gap for African Americans and low-income children., Establishing policies and protocols to make sure students and staff come back to

a safe place during Covid-19 era., Fiscal solvency and transparency to make sure money is spent appropriately."

2. Fiscal Conservatism: Is the candidate committed to minimizing school district spending and opposed to increasing the educational budget if it requires raising the tax rate? Rate the candidate's commitment on a scale from 1 to 3, where 1 means 'not committed to minimizing spending and likely supports increasing the budget,' 2 means 'somewhat committed,' and 3 means 'strongly committed.' Rate as 0 if it is hard to decide because it is not the main priority. Rate the candidate based on the entire statement rather than rating each priority. Here is an example of candidates rated as 0. Ex) "Teach to the "whole child," not just "to the test"; Technology and Fine Arts; Restore community confidence in public schools." Meanwhile, this candidate is rated as 1. Ex) "Facilities. We need to build new facilities and renovate existing facilities. Most schools were built in the 1950s and 60s and need modernizing. There are more than 1 billion in identified needs and no money; There is a shortage of Science, Math, and Special Education teachers. We need to raise salaries to be competitive with Silicon Valley and the shortage of supply." Finally, this candidate is rated as 3. Ex) "Will oppose new taxes and bonds; ensure that local students receive the classes they need to graduate from El Camino College; support Wiseburn School District Unification."

3. Agenda Bias (Curriculum / Free Speech / Ideology): Is ensuring that academic instruction is free from what the candidate perceives as external agendas or ideologies one of the main priorities? Rate the statement on a scale from 1 to 3, where 1 means "none of the priorities is relevant," 2 means "at least one of the priorities is somewhat relevant," and 3 means "at least one of the priorities is directly relevant."

4. Community/Parental Engagement: Is communicating with parents or the community and encouraging them to get involved with the issues in the school district one of the main priorities of the candidate? Rate the statement on a scale from 1 to 3 where rate 1 means "none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant", and 3 means "at least one of the priorities is directly relevant". Rate the candidate based on the entire statement rather than rating each priority. Here are examples of candidates rated as 1 because none of their priorities is directly about the engagement of parents or the community. Ex 1) "Focus on student achievement and every child's growth through core programs, data analysis, differentiation, and targeted instruction., Recruiting and retaining high-quality teachers and staff who can achieve this goal, and supporting their professional development., Provide a safe environment well-equipped for learning." Ex 2) "Equity in opportunity for all students, Timely and safe reopening of schools, More sustainable and available technology." Meanwhile, these are examples of candidates rated as 3 because one of the priorities is explicitly about engagement of parents or community. Ex 1) "Student Achievement - Focusing not only on improving test scores but also ensuring a quality education that is reflective of our diverse community., Community Involvement - Preparing our students for future success through the involvement of parents and the community. Ensuring lines of communication between the district, the school board, and the community are consistently available., Labor Relations - Providing all district staff with fair wages and benefits. Empowering our labor partners with the necessary support to better our students' education." Ex 2) "Improve community engagement and communication, Invest and develop technology infrastructure, Ensure campus safety for all children."

5. Career and Technical Education: Is vocational or career technical education one of the main priorities of the candidate? Rate the statement on a scale from 1 to 3 where rate 1 means

"none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant", and 3 means "at least one of the priorities is directly relevant". Rate the candidate based on the entire statement rather than rating each priority. Here are examples of candidates rated as 1 because none of their priorities is directly about vocational or career technical education. Ex 1) "Fiscal Responsibility, Bring back the Open Door Policy, Student, teacher, and community advocacy." Ex 2) "Ensure a physically and emotionally safe learning environment for all students, Encourage and develop family, school, and community partnerships, Identify needs and manage resources effectively and efficiently". Meanwhile, these are examples of candidates rated as 3 because one of the priorities is explicitly about vocational or career technical education. Ex 1) "Increased enrollment through marketing, better communication, and more access to popular programs, Competitive teacher, administrator, and staff value proposition, including better salaries, College AND career readiness through access to rigorous coursework and technical education" Ex 2) "Expanding Career Technical Education, arts, and exploratory electives that meet the A-G requirements, Increase mental health support for students, Increasing SBUSD early literacy rates."

6. Dropout: Is reducing dropout rate one of the main priorities of the candidate? Rate the statement on a scale from 1 to 3 where rate 1 means "none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant", and 3 means "at least one of the priorities is directly relevant". Rate the candidate based on the entire statement rather than rating each priority. Here are examples of candidates rated as 1 because none of their priorities is directly about dropout/completion. Ex 1) "Raise the district's academic ranking, Restore financial health, Increase the transparency accountability of the district's decisions." Ex 2) "Equity in opportunity for all students, Timely and safe reopening of schools, More sustainable and available technology." Meanwhile, these are examples of candidates rated as 3 because one of the priorities is explicitly about dropout/completion. Ex 1) "Safe, secure, drug-free schools and reduced dropout rate', 'Wise use of taxpayer dollars', 'Reduction of overcrowding." Ex 2) "'Increase students test scores', 'Decrease student drop out rate', 'Create, Enforce & Implement policies that will bring about a sense of community in our school."

7. Enrollment: Is enrollment decline or enrollment growth one of the main priorities of the candidate? Rate the statement on a scale from 1 to 3 where rate 1 means "none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant", and 3 means "at least one of the priorities is directly relevant". Rate the candidate based on the entire statement rather than rating each priority. Here are examples of candidates rated as 1 because none of their priorities is directly about enrollment: Ex 1) "Raise the district's academic ranking, Restore financial health, Increase the transparency accountability of the district's decisions." Ex 2) "Increase student achievement through expanded in-class supports and afterschool programs., Eliminate district bureaucracy and implement spending transparency, Streamline parent & teacher resources and communication." Meanwhile, these are examples of candidates rated as 3 because one of the priorities is explicitly about enrollment. Ex 1) "Increased enrollment through marketing, better communication, and more access to popular programs,Competitive teacher, administrator, and staff value proposition, including better salaries,College AND career readiness through access to rigorous coursework and technical education" Ex 2) "Successful construction of facilities to accommodate future enrollment growth - we must live up to past practice with on-time on-budget projects adhering to the Facilities Master Plan as presented to our community, Critical budget decisions as more students enter our schools - given that we are locally funded, increased enrollment means tighter budgets while still continuing to provide a world-class education for all of our students,Support for struggling students

and mental health services - academic success for all our students must be the goal; ongoing mental health services play a critical role in this success".

8. Facility Improvement: Is modernizing/upgrading/expanding physical facilities of schools one of the main priorities of the candidate? Rate the statement on a scale from 1 to 3 where rate 1 means "none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant", and 3 means "at least one of the priorities is directly relevant". Rate the candidate based on the entire statement rather than rating each priority. Here are examples of candidates rated as 1 because none of their priorities is directly about improving facilities. Ex 1) "Raise the district's academic ranking, Restore financial health, Increase the transparency accountability of the district's decisions." Ex 2) "Equity in opportunity for all students, Timely and safe reopening of schools, More sustainable and available technology." Meanwhile, these are examples of candidates rated as 3 because one of the priorities is explicitly about improving facilities. Ex 1) "'Seeking additional sources of funding', 'Upgrading classroom facilities', 'Recruitment and retention of high quality staff" Ex 2) "Before leaving Grade 3, all children will be successful readers.', 'Ensure safe and clean school facilities that instill pride.', 'Promote a school culture in which learners and teachers can thrive."

9. Safety and Health: Is the health and safety of students and staff members one of the main priorities of the candidate? Rate the statement on a scale from 1 to 3 where rate 1 means "none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant", and 3 means "at least one of the priorities is directly relevant". Rate the candidate based on the entire statement rather than rating each priority. Here are examples of candidates rated as 1 because none of their priorities is directly about students'/staff's health and safety. Ex 1) "Fiscal Responsibility, Bring back the Open Door Policy, Student, teacher, and community advocacy." Ex 2) "Increased enrollment through marketing, better communication, and more access to popular programs,Competitive teacher, administrator, and staff value proposition, including better salaries, College AND career readiness through access to rigorous coursework and technical education." Meanwhile, these are examples of candidates rated as 3 because one of the priorities is explicitly about students'/staff's health and safety. Ex 1) "Maintaining a safe environment for students and staff,Having students read by third grade,Continue to upgrade the schools and facilities" Ex 2) "As your school board member, I will promote skills and values that will help students prepare for success in their futures, whether through college or career.,As your school board member, I will promote sound educational policies. This means having safe, healthy classrooms., My goal for the future is to work with students, teachers, staff, and parents to help create a solid educational foundation that offers students choices."

10. Superintendent Accountability and Hiring: Is strengthening or addressing the superintendent's role (e.g., hiring, holding accountable, retaining, or collaborating with the superintendent) one of the main priorities of the candidate? Rate the statement on a scale from 1 to 4, where 1 means "none of the priorities are related to the superintendent," 2 means "at least one of the priorities focuses on hiring or holding a superintendent accountable," 3 means "at least one of the priorities focuses on retaining or collaborating with an existing superintendent," and 4 means "at least one of the priorities is somewhat related to the superintendent, but does not clearly fall under category 2 or 3." Rate the candidate based on the entire statement rather than rating each priority separately Here are examples of candidates rated 1 (no superintendent focus): Ex 1) "Fiscal responsibility, bring back the open-door policy, student-teacher-community advocacy." Here are examples of candidates rated 2 (hiring or accountability focus):Ex 1) "Leadership – recruiting the best superintendent and principals for our

schools; improve academic programs; build community trust." Here are examples of candidates rated 3 (retention or collaboration focus): Ex 2) "Continue working with our superintendent to build on recent progress. Here are examples of candidates rated 4 (somewhat related but unclear focus): Ex 1) "Improve district leadership, strengthen communication, and ensure effective decision-making."[A-2]

11. Teacher Support and Union Relationships: Considering the candidate's stance on policies endorsed/opposed by teachers' unions, teachers' involvement in educational policy-making, and teachers' collective bargaining rights, how would you rate their overall friendliness towards teachers' unions? Rate the statement on a scale from 1 to 3, where 1 means "not friendly," 2 means "somewhat friendly," and 3 means "very friendly.

12. Test Score: Is raising overall standardized-test performance one of the candidate's main priorities? (Standardized tests include state proficiency exams, district benchmark assessments, SBAC/PARCC, SAT/ACT, etc.). Rate the statement on a scale from 1 to 3, where 1 means "none of the priorities is relevant", 2 means "at least one of the priorities is somewhat relevant" (mentions "academic achievement" or "ranking" but not tests explicitly), and 3 means "at least one of the priorities is directly relevant" (explicit goal to raise test scores, proficiency %, or named exam results). Rate the candidate based on the entire statement rather than rating each priority separately. Here are examples of candidates rated 1 (no direct reference to standardized tests): Ex 1) "Fiscal responsibility, bring back the open-door policy, student-teacher-community advocacy." Ex 2) "Ensure a physically and emotionally safe learning environment for all students, encourage family-school partnerships, manage resources effectively." Meanwhile, these are examples of candidates rated 3 (explicitly about test performance): Ex 1) "New High School • Better Test Scores • A United PVUSD." Ex 2) "Parents–Teachers–Board of Education all working TOGETHER to continually improve test scores. Important exclusions: Do not upgrade to 3 for language about closing achievement gaps between groups. Graduation rate, college enrollment, CTE pathways, or generic "academic excellence" count only as 2 unless tied to specific standardized tests.

# F Constructing Structured Data from School Board Meeting Minutes

To transform unstructured school board meeting minutes into structured data suitable for quantitative analysis, we use large language models (LLMs) to extract consistent information across thousands of heterogeneous PDF files. The processing script is implemented in Python and leverages Anthropic's Claude 3.5 Sonnet model through their official API.

To begin with, each PDF is passed through a preprocessing step that ensures consistent encoding and trims excessively long documents to a maximum of 75 pages. All PDFs are base64-encoded and then submitted in parallel to three LLM prompts, each targeting a distinct information domain:

- General Meeting Information: Extracts the meeting date, whether it was a regular or special meeting, whether it was cancelled, start and end times (to calculate runtime), attendance (present and absent members), and counts of public comments made by parents, teachers, and other community members.

- Motion-Level Data: Identifies each motion proposed during the meeting, including consent agenda items, and records for each: the proposer, the seconder, whether the motion passed,

[A-2]For this question, we generated a binary variable equal to 1 if the candidate prioritized superintendent accountability (rating = 2) or hiring a new superintendent (rating = 4), and 0 otherwise.

whether the vote was unanimous, individual votes (yes, no, or abstain), a one-line description, and a set of keywords indicating the motion's substantive focus (e.g., equity, budget spending). These keywords are drawn from the same controlled vocabulary used to classify candidate policy platforms in our main analysis, allowing us to link board actions to stated priorities.

- Member-Level Contributions: Extracts data on each board member's role (e.g., President, Clerk, Superintendent), presence or absence, and substantive contributions during the meeting. Based on comments from each member during a meeting (excluding proposing, seconding a motion since that is already considered in the motion level data construction), we assign a set of keywords to a corresponding to policy domains such as academic achievement, curriculum bias, or parental engagement. These keywords—again drawn from our main platform classification scheme—capture the thematic content of each member's statements or interventions. This component also includes two metadata scores: a document quality score (0–10) and a dissent score (0–10), reflecting the clarity of the minutes and the level of disagreement among board members, respectively.

To improve the precision of extraction, all prompts were designed to strictly enforce minified JSON formatting with no free-text explanation. The model was instructed to only extract information explicitly present in the document, to use null for missing values, and to return text in standardized formats (e.g., 24-hour times, ASCII characters only, and uniform handling of quotation marks and dashes). Each document was processed with temperature set to 0 to encourage deterministic behavior. API responses were cached when possible to reduce costs and latency.

After LLM responses are returned, we run a postprocessing script that parses the raw JSON responses, cleans and standardizes field values, and merges the outputs from the three prompts into a unified record per meeting.The full annotated script used for this processing is available upon request.