



The Democratic Deficit in U.S. Education Governance

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America's decentralized system of public school governance is premised on the assumption that the interests of voters who elect school boards will be aligned with the educational needs of students. We explore the plausibility of this assumption by comparing the demographic characteristics of voters and students across four states. Using official voter turnout records and rich microtargeting data, we document considerable demographic differences between voters who participate in school board elections and the students attending the schools that boards oversee, suggesting that the assumption is unlikely to describe reality in many settings. For example, we show that most majority-nonwhite districts in our sample have a majority-white electorate and that these electoral disparities are associated with racial achievement gaps. Our novel analysis provides important political context for considering the electoral incentives facing school boards and how these incentives shape the quality of public education.

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The Democratic Deficit in U.S. Education Governance*

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Abstract

America's decentralized system of public school governance is premised on the assumption that the interests of voters who elect school boards will be aligned with the educational needs of students. We explore the plausibility of this assumption by comparing the demographic characteristics of voters and students across four states. Using official voter turnout records and rich microtargeting data, we document considerable demographic differences between voters who participate in school board elections and the students attending the schools that boards oversee, suggesting that the assumption is unlikely to describe reality in many settings. For example, we show that most majority-nonwhite districts in our sample have a majority-white electorate and that these electoral disparities are associated with racial achievement gaps. Our novel analysis provides important political context for considering the electoral incentives facing school boards and how these incentives shape the quality of public education.

Keywords: K-12 governance, school board elections, achievement gaps

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A unique feature of the American public school system is the extent to which authority over key policy decisions remains politically decentralized. Despite increasing federal involvement in recent years (Henig 2013), the nation’s roughly 13,500 school districts retain considerable discretion over a variety of policies, including those governing teacher promotion and compensation, the choice of curricula, and school discipline. Elected school boards influence the day-to-day experience and, ultimately, the achievement and attainment of students who attend the schools they govern.

This governance model is, in many ways, an accident of history. Puritans living in the Massachusetts Bay Colony enacted the nation’s first public education law in the 1600s, mandating the teaching of literacy to enable residents to read the Bible and requiring all towns to establish and maintain public schools. Initially overseen by town selectmen, growth in the complexity of local government and the expansive geographic scope of school systems eventually led to the appointment of special boards to exclusively oversee schools, hiving off the governance of education from other municipal functions (Danzberger 1992).¹ As other colonies (and later, states) took steps to enact their own public education laws, they borrowed heavily from Massachusetts (Kaestle 1983).²

State and federal influence over school district governance increased considerably over the past 50 years, yet local control of education remains a central philosophical rallying point. For example, national civil rights leaders fervently opposed Maryland’s attempt to take over the troubled Baltimore school system in the mid-1990s, stating: “We will not accept Baltimore becoming a colony of the State, with its citizens having no say in the education of their children” (Waldron and Zorzi 1997). More than two decades later, a member of Toledo’s school board pleaded for a repeal of the Ohio law allowing the state

¹For a complete history of the origins of public education in the U.S. and the development of our school district system, see Butts and Cremin (1966), Cremin (1970) and Morison (1936).

²In the South, where school districts continue to be organized around county and Parrish boundaries, the historical origins are somewhat different (see Butts and Cremin 1966).

to take over persistently under-performing school districts, telling lawmakers, “We need to maintain local control.”³ Similar criticism have undermined support for recent reform efforts, including the adoption of Common Core education standards and the expansion of publicly funded charter schools.⁴

The scholarly literature provides some reasons to suggest that a school governance model organized around locally elected boards might be superior to a more centralized approach. To the extent that voter preferences and student needs vary across space — for example, an urban school district might face very different challenges than a rural system — ensuring that policy decisions and priorities are made locally could improve targeting, efficiency, and satisfaction (see Oates 1972 for a formalization of this argument).⁵ Bringing decision-making closer to parents and students could also improve monitoring of government officials, decreasing waste and improving services (see, e.g., Fan, Lin and Treisman 2009). In addition, decentralization allows voters to use the performance of neighboring jurisdictions as a “yardstick,” potentially increasing the pressure on policymakers to improve their performance relative to their peers (Besley and Case 1995, Gottlieb 2016). Thus, in theory, local elections should increase preference alignment and improve the quality of public services.

Empirically, however, the evidence that elections lead to the selection of policymakers

³Testimony available at http://search-prod.lis.state.oh.us/cm_pub_api/api/unwrap/chamber/133rd_ga/ready_for_publication/committee_docs/cmte_s_education_1/testimony/cmte_s_education_1_2019-05-29-0330_635/hb166_adc_provarwig.pdf.

⁴For example, in a statement opposing charter schools, the Black Lives Matter movement has called for “[a]n end to the privatization of education and real community control by parents, students, and community members of schools including democratic school boards and community control of curriculum, hiring, firing, and discipline policies.” The statement continued that “privatization strips Black people of the right to self-determine the kind of education their children receive.”The full statement is available at <https://policy.m4bl.org/community-control/>.

⁵The empirical evidence for this idea is mixed. On one hand, there is considerable evidence that local policy is responsive to geographic variation in voter preferences (see, e.g., Einstein and Kogan 2016, Tausanovitch and Warshaw 2014). On the other, there is also evidence that similar responsiveness can be achieved under a centralized system (Kogan 2017).

who share the voters' policy priorities or serve as an effective mechanism of control is mixed at best. For example, school board members tend to be wealthier than the districts they represent, and school board candidates emerge disproportionately from the most affluent neighborhoods in their districts (Bartanen et al. 2018, Hess and Meeks 2010). In addition, when student achievement is made politically salient via publicized school report cards, voters do not appear to consistently hold incumbents accountable for poor performance (Berry and Howell 2007, Kogan, Lavertu and Peskowitz 2016, Payson 2017).

It is important to emphasize that, aside from the limited research described above, neither scholars nor policymakers know much about the dynamics of representation on school boards or the elections through which these boards are chosen. The central challenge to examining these dynamics is limited data — America's system of election administration is almost as decentralized as its system of education governance, and assembling the necessary data requires methodically collecting records from numerous local election offices. In addition, although several recent surveys of sitting school board officials have asked for their perception of local elections (e.g., about the competitiveness of their most recent election) we know of no research that provides a descriptive sense of voters who participate in these elections or compares the characteristics of these voters to the students that local schools actually educate. Such a comparison is important because a representative electorate is desirable in its own right. In addition, gaps in political participation may be troubling because voter demographic characteristics such as race and socioeconomic status are often correlated with school attendance boundaries and explain important variation in voter preferences toward education policies, especially on issues related to school choice and student discipline (e.g., Henderson et al. 2020).

In this study, we provide what is to our knowledge the first systematic examination of voters who participate in local school board elections and assess how representative these

electorates are of local student bodies. Specifically, we combine two sources of administrative data — official election turnout records obtained from state and local voter files and information about the composition and achievement of students attending public schools in four states — to document what we describe as a “democratic deficit” in local education governance. In many school districts in the four states we examine, there is a sharp demographic disconnect between the students being educated in local schools and the voters who select the governing boards of these school districts.

Our analysis documents three important patterns. First, the majority of voters who cast ballots in typical school board elections do not actually have children who attend local schools. Second, the voters in these elections often look very different than the students these schools serve. We show that the gap is most pronounced in terms of race and ethnicity — with majority-white electorates determining the outcome of school board elections in more than two-thirds of the majority-nonwhite school districts in our sample — but is also present in terms of socioeconomic status as well.

Third, and perhaps most worrying, the magnitude of the representational gap between the demographics of the electorates and the local student bodies corresponds to disparities in student achievement. We find that the achievement gap between white and nonwhite students tends to be larger in districts where the electorate looks most dissimilar from the student population. Although we do not argue that these associations are causal, they do suggest that school board members face the least political and electoral pressures to close racial achievement gaps in precisely the districts where these gaps are largest. These latter results may also help rationalize why, despite the persistence of racial achievement gaps, many school board members report that voters do not hold them accountable for taking steps to narrow the gaps (Flavin and Hartney 2017).

In the remainder of the paper, we describe the new dataset on voter demographics

we constructed, examine voters' parental status, and compare students and voters on the dimensions of race and income. We then show that larger racial shortfalls in terms of voter participation are associated with bigger racial achievement gaps. We conclude with a discussion of the implications of these patterns for education research and policymaking. In particular, researchers should consider the political context we describe when making policy recommendations. Because key implementation decisions will typically be made by local school boards, it is important to understand whether electoral incentives these boards face are aligned with the broader policy objectives. When most voters do not have children and look little like the students educated in local schools in terms of their race or income, the electoral pressures facing local board members may not not fully align with the interests of students or promote faithful implementation of policy designed to improve student learning.

Data Sources

To identify voters participating in local school board elections, we use validated turnout as recorded in state and county voter files. We obtained this information from Catalist, LLC, a national microtargeting vendor that works primarily with political campaigns.⁶ Catalist acquires digital copies of official voter files, cleans and standardizes these records, and compiles them into a single national database.

We focus specifically on California, Illinois, Ohio, and Oklahoma, four large states with numerous school districts and, crucially, significant racial variation in the composition of students attending these districts.⁷ In the latter three states, local school board elections

⁶We identified the relevant school board election dates by also collecting school board election results from a variety of state and local sources.

⁷We had also hoped to include Texas and New York, two other large states, in our analysis. However, local school districts typically administer their own elections in these states, so turnout in school board elections is often not recorded in the official voter file.

are held on uniform off-cycle dates, and we identify the individuals recorded as having voted on these dates.⁸ In California, school board election timing varies considerably across and within districts, so we identify the dates relevant for each district using official election results maintained by the California Election Data Archive (CEDA) at the California State University, Sacramento.⁹

We also take advantage of additional demographic information recorded in the Catalist database. Specifically, we observe the predicted race of each voter, estimated using a Bayesian procedure that combines Census racial surname distributions with the demographic composition of the Census block in which each voter resides. This procedure is widely used by empirical researchers for similar applications (Elliott et al. 2009, Imai and Khanna 2016). As we discuss in more detail in the Supplemental Appendix, validation exercises conducted by both Catalist and independent researchers show that this approach results in the correct classification of voter race for about 90 percent of all voters.

In addition, for each voter, we observe the estimated family income (coded into several income bins) and the likelihood that at least one child under the age of 18 lives in the household. These variables were sourced from a large commercial data vendor with whom Catalist has an ongoing relationship. Due to the proprietary nature of the data, no validation or other sourcing information is available to the authors.

The Catalist records are most complete starting in 2008, so we limit our sample to elections held in each state between 2008 and 2016. We calculate the racial and income breakdown in the electorate as well as the proportion of voters who may have children for each election and then average these compositional measures across all election dates

⁸In Illinois, school board elections are held on the first Tuesday in April of odd years. In Ohio, they are held on the first Tuesday following the first Monday in November of odd years. In Oklahoma, school board elections are held every year, on the first Tuesday in April. We exclude from our sample districts for which we were unable to obtain official school board election results.

⁹The CEDA data indicates whether the election was held districtwide or by ward, and our analysis excludes the small number of California districts that uses ward elections.

observed for each school district, creating one observation per district, so that our analysis speaks to the typical voter profile for each district during this period. The Catalist records are updated in real time, which means we observe the school district in which each voter currently resides, which may not be the same as the school district of residence at the time of each election. As we discuss in the Supplemental Appendix, however, other studies using the Catalist data provide convincing evidence that measurement error due to voter migration is unlikely to significantly affect our estimates.

Using these Catalist data, we construct voter composition measures for at least 70 percent of the school districts in each of our four states.¹⁰ To obtain information on students attending local schools, we rely on records from the Stanford Education Data Archive (SEDA) (Reardon et al. 2017). The SEDA collection includes student demographic data for each district compiled from the federal Common Core of Data as well as achievement estimates constructed using aggregated test scores reported by each state to the U.S. Department of Education. In the data, we observe the racial composition of students in each school district as well as the share of students who qualify for free and reduced-price lunch, which we use as a proxy for socioeconomic status. We use the pooled SEDA data, which combines student records from the 2008-09 through the 2014-15 academic years. For school districts that provide free lunch for all students regardless of income under the Community Eligibility Provision option, SEDA imputes free and reduced-lunch eligibility using a model that incorporates Census poverty estimates. When examining achievement gaps between racial subgroups, we are limited to districts with at least 20 students in each student subgroup as these are the only districts for which achievement gaps are reported in the data.

¹⁰As noted above, we drop California districts with ward elections from our sample. For Oklahoma, we also limit our sample to districts for which we observe election results because school board elections may be cancelled in cases where too few candidates run.

Table 1 compares the composition of students in the full universe of school districts available in SEDA with the subset of districts for which we have Catalist data. Overall, our Catalist sample is broadly representative of the school districts in the four states we examine in our analysis in terms of the composition of their student bodies.

[Insert Table 1 here]

Results

In the sections that follow, we describe the composition of the electorate in each school district in terms of how many voters have children in the household, their race, and their income, and compare the latter two characteristics with the demographics of students who attend each district. We then calculate the differences between voters and students and examine how these are associated with racial achievement gaps.

Child in Household

As scholars Terry Moe and John Chubb first noted nearly 30 years ago, school board elections may not lead to optimal education policies because the individuals most directly affected by these policies — school children — do not get to vote (Chubb and Moe 1990). Thus, the practical consequences of local control for student outcomes depend in large part on the extent to which the preferences of voters are aligned with the interests of students. While we cannot observe voter preferences (or student interests) directly, we do observe an important proxy — whether each voter has a child in the household.¹¹

For each voter, we observe the probability that he or she has at least one child under the age of 18 in the household. This probability is coded by Catalist into one of three categories

¹¹For older voters, these could be grandchildren, and for younger voters still living with their parents, the child could be a younger sibling.

in the Catalist data: child “likely,” “possible,” and “unlikely.” To err on the side of over-estimating the number of voters with children, we combine voters whose probability of having a child is classified as “likely” and those classified as “possible” into a single category of potential parent-voters. In Figure 1 we plot the distribution for the fraction of voters who fall into this combined category for the districts in our sample using violin plots. The plot for each state provides a visual representation of the distribution of observations, showing the median and interquartile range for the percent of voters in each district with children possibly present in the household, with a density plot overlaid on top. Strikingly, the figure shows that the majority of voters in a typical school board election in each of the four states we examine is “unlikely” to have children, using the Catalist categorization.

[Insert Figure 1 here]

Voter Race

Of course, parents are not the only voters likely to have a significant personal stake in the performance of public schools, so the distributions in Figure 1 do not by themselves imply that voter and student interests are out of sync. We now turn to comparing and contrasting voters and students on other dimensions likely to be of particular consequence for local education policy.

Race represents one such dimension, given the persistently high segregation of American schools. While much of the segregation is driven by racial disparities between school districts (Clotfelter 1999, Reardon, Yun and Eitle 2000), there is also evidence of considerable racial sorting within districts. Due to high levels of housing segregation, students of different races frequently reside in different school attendance boundaries (Billings, Deming and Rockoff 2014, Richards 2014). Because of the spatial correlation between race and residential location in many jurisdictions, a systematic skew in the racial composition of

the local electorate may have important downstream consequences (e.g., for how resources are allocated among school buildings within a district).

Figure 2 plots white students’ share of overall enrollment in each school district on the x-axis against white voters’ share of the electorate. The figure presents a binned scatter plot for each state, combining districts with similar student racial compositions and plotting the average voter composition for each group of districts on the y-axis.¹² The bottom of each panel also includes a rug plot summarizing the distribution of student composition for the district sample in each state.

Across all four states, the figure shows a pronounced racial incongruence, with a much whiter school board electorate than the corresponding student body in each district. The magnitude of the skew is quite large — in each state, the electorate typically becomes majority-white when white student enrollment reaches just 20 percent of the district total. In Table 2 we specifically focus on districts where the majority of students are nonwhite. Strikingly, we find that the typical electorate in these districts is, on average, at least 60 percent white. Indeed, at least two-thirds of the majority nonwhite districts in our sample are nevertheless governed by school boards chosen by majority-white electorates.

[Insert Figure 2 here]

[Insert Table 2 here]

Voter Income

Comparable figures for the disparities in socioeconomic status are presented in the Supplemental Appendix. Specifically, we compare the share of students who qualify for free or

¹²Specifically, we divide the districts into 10 equally sized bins, ranging from zero percent white to 100 percent white. The first bin includes districts where white students account for between zero and 10 percent of total enrollment, the second bin includes district where white students account for between 20 and 30 percent of enrollment, and so on.

reduced-priced lunch (FRPL) with the share of voters with family income under \$40,000, the approximate income cutoff for reduced-price lunch eligibility for a family of typical size during the period we examine.¹³ Admittedly, existing research suggests that FRPL status is an imperfect proxy for student family income, so some caution is warranted in drawing inferences from this comparison (Domina et al. 2018). Overall, however, the figures suggest that voters are typically wealthier than the student population, and that this gap is largest for the most economically disadvantaged districts. Interestingly, the disparities in socioeconomic status appear to be considerably smaller than the racial differences we document above.

Racial Achievement Gaps

If elected office holders respond to the preferences of the electorate, as most standard accounts of democracy would predict, systematic political under-representation of some segments of the population could give rise to inequities. Intuitively, elected officials have less incentive to respond to the needs of constituents who account for a smaller share of their electorate all else equal.

Given the over-representation of white voters in the electorate we document above, one area where these dynamics could prove consequential is in efforts to close academic achievement gaps between student subgroups. Although it is widely known that white students tend to out-perform their black and Hispanic peers on average, recent research shows that racial achievement gaps vary considerably across geographic areas even after accounting for differences in economic resource disparities between groups (Reardon, Kalogrides and Shores 2019).

In Figure 3 below, we examine whether the racial achievement differences map onto

¹³Unfortunately, we are limited by the relatively broad income bands used in the Catalist data, so cannot identify FRPL eligibility more precisely.

the representational shortfalls we have documented using California as an example. We continue to use a binned scatter plot for visual presentation, although the x-axis now corresponds to the shortfall in political participation — defined as the *difference* between white share of the electorate and the white share of student enrollment. Thus, larger values correspond to a less representative voter population. On the y-axis, the figure plots the average white-Hispanic achievement gap for each district bin. We also overlay the predicted Ordinary Least Squares regression line, estimated using the raw (unbinned) data. The regression line has a significant positive slope, indicating that the gap between the achievement of white and Hispanic students is more pronounced in districts where white voters are most over-represented in the electorate.

[Insert Figure 3 here]

s

[Insert Table 3 here]

While the figure depicts the simple bivariate relationships, we present full multivariate results in Table 3 that control for student socioeconomic status, student race, and district type. For each state, we also estimate specifications that include commuting zone fixed effects, essentially leveraging variation among neighboring school districts and accounting for unobservable determinants of achievement that are common to districts that share a commuting zone.¹⁴ These additional controls do not change the substantive results, nor does the use of precision weights provided in the SEDA data. In each case, we find that increasing white over-representation in the electorate by one percentage point is associated with an increase in the white-Hispanic achievement gap on the order of between 0.005

¹⁴The table excludes Ohio because there are too few districts with a sufficient number of Hispanic students to be included in the SEDA data.

and 0.01 standard deviations (although the effect is as large as 0.02 in Illinois in some specifications). We provide comparable estimates for the white-black achievement gap in the Supplemental Appendix.¹⁵

Of course, we do not claim that these significant statistical associations are causal. It is likely that a number of other variables simultaneously affect both political participation and student achievement. Nevertheless, we believe the associations are substantively and politically important. If elected officials are motivated to respond to voter preferences, our results suggest that school board members face the least political pressure to address persistent racial achievement gaps in precisely the districts where these gaps are largest because minority populations are most politically under-represented in these jurisdictions. As we note in the introduction, these results are consistent with surveys of school board members, who report facing little political pressure to address racial achievement gaps (Flavin and Hartney 2017)

Conclusion

America's system of deference to local school boards in making essential educational governance decisions is premised on the assumption that the objectives of voters who elect these boards will be aligned with the educational interests of public school students. Our analysis points to several reasons for doubting the validity of this assumption in many contexts. As we show, most of those who cast ballots in school board elections do not have children enrolled in local schools and these voters do not resemble the students who attend the public schools. The disconnect is especially pronounced on the dimension of race, and the gap is particularly large in majority-nonwhite districts and in places with the most

¹⁵Oklahoma is excluded from because few districts enroll enough black students to be included in the SEDA data.

worrying racial achievement gaps.

While it is beyond the scope of our research to identify the root causes of these disparities in political participation,¹⁶ we should note there is evidence suggesting that institutional reforms have the potential to narrow them considerably. For example, moving school board elections on-cycle, to coincide with higher-turnout national elections, is likely to significantly boost the political representation of households with children and increase the racial diversity of the electorate (Kogan, Lavertu and Peskowitz 2018).

Taking the representational deficits we document into account is important for designing effective policy interventions that seek to improve educational opportunity for all students. For example, recent research has shown that nearly 90 percent of the variation in racial achievement gaps is observed within states, suggesting that any interventions designed to close these gaps should be targeted to address local needs and implemented at the local level. Although we do not argue that disparities in political participation are a cause of the achievement shortfalls among nonwhite students, our findings suggest that local school districts may not be well positioned to effectively address these gaps. School boards chosen by majority-white electorates may not face strong incentives to allocate scarce resources to address the learning needs of nonwhite students, especially if these students attend schools in different parts of the district than where most white voters reside.¹⁷

We close with an example that we think highlights the importance of accounting for local electoral incentives, and the risk of ignoring participation disparities when delegating authority to local school districts. In 2013, California overhauled its state school funding

¹⁶These disparities are likely a function of differences in rates of voter registration and turnout, family structure affecting the ratio of voters to students, the rate at which children attend private instead of public schools, and lower citizenship rates for Hispanic adults, a prerequisite for voting in nearly every school district.

¹⁷To be clear, our findings should not be read as an endorsement of educational interventions that move the locus of control over education from local school boards to other entities (e.g., through state takeovers of low-achieving districts). Our evidence do not allow us to compare local control to counterfactual governance models.

formula, consolidating a series of narrow categorical programs into a single “Local Control Funding Formula” that directed more state money to districts enrolling larger numbers of English learners and impoverished students. Reflecting Gov. Jerry Brown’s belief in the principle of “subsidiarity” — the idea that policy decisions are best made at the lowest level possible — the funds came with few strings attached and local districts received considerable discretion about how to allocate resources to serve high-need students. Although the reform was effective in channeling more state resources to districts serving larger disadvantaged student populations, a recent audit found that districts used many of these extra dollars to pay for services benefiting all students, rather than the targeted disadvantaged populations. The audit concluded that the new policy “has not ensured that funding is benefiting intended student groups and closing achievement gaps” (Auditor of the State of California 2019). Several other independent evaluations have also so far found little evidence that this extra money was actually effective in closing student achievement gaps (Chen and Hahnel 2017, California Legislative Analyst’s Office 2018). Indeed, the Los Angeles Unified School District, the largest district in the state, was sued by student advocates who accused the district of taking advantage of the new discretion to divert hundreds of millions in state funding intended to benefit high-need students to pay for programs serving other student groups. (The district ultimately settled the lawsuit.) This outcome is, in our view, not surprising. When disadvantaged groups are poorly represented in the political process, local elected officials may not have strong incentives to make decisions with their interests in mind.

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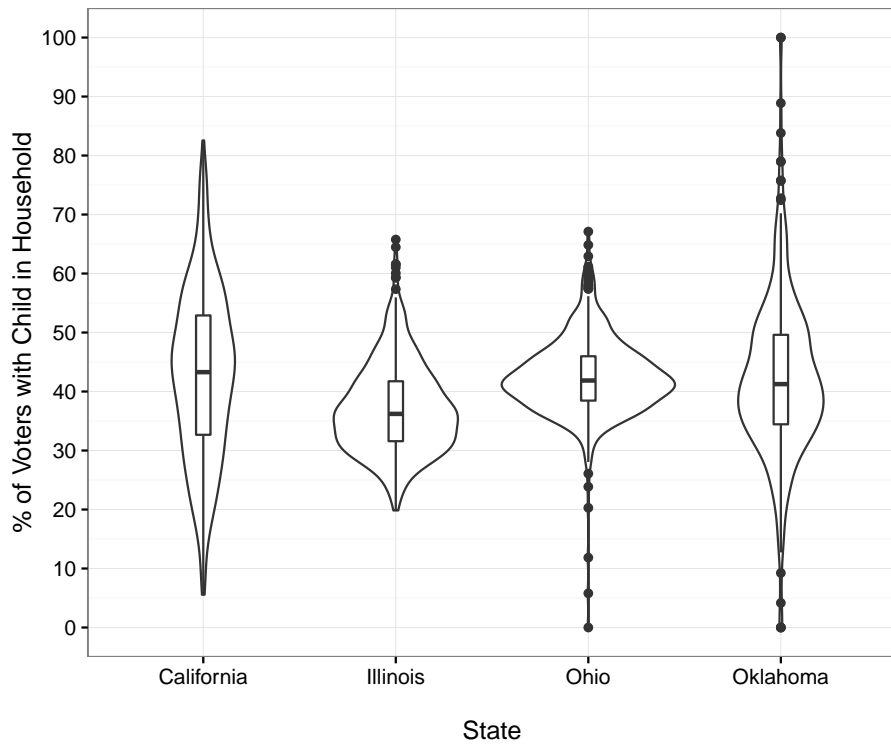
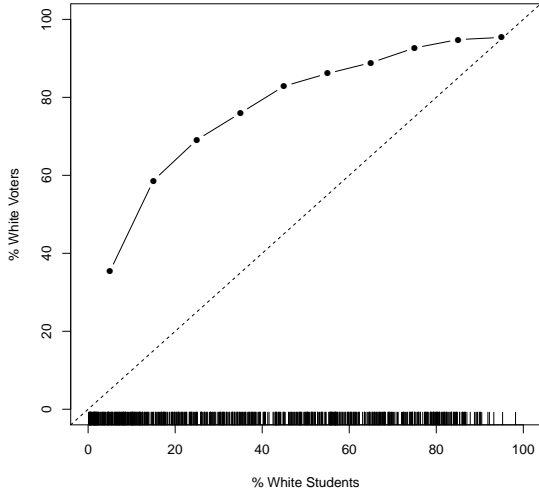
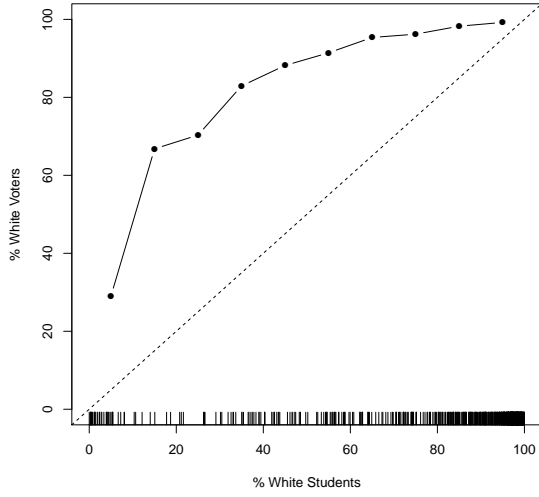


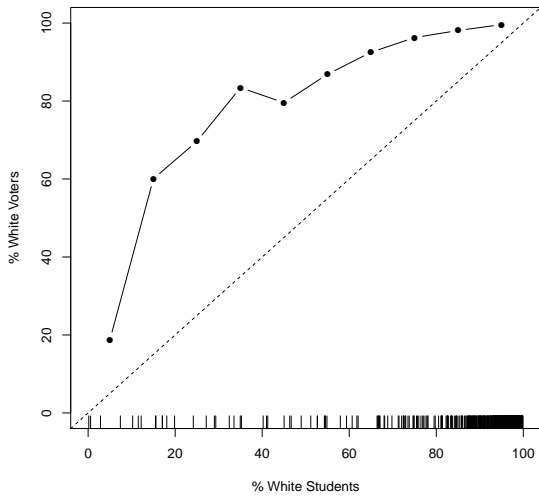
Figure 1: Percent of voters in each district whose likelihood of having a child in the household is "possible" or "likely"



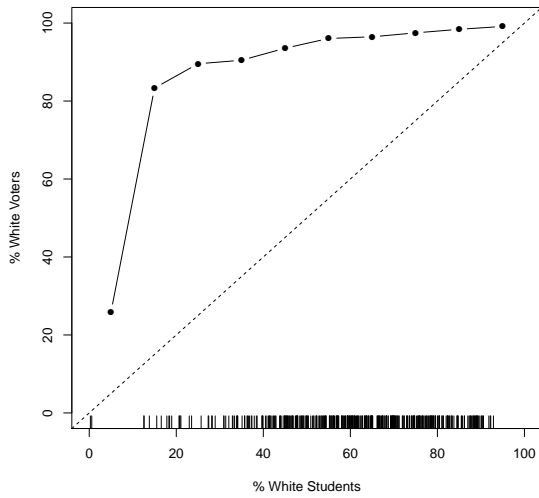
(a) California



(b) Illinois



(c) Ohio



(d) Oklahoma

Figure 2: The electorate in school board elections is typically much whiter than the students attending local public schools

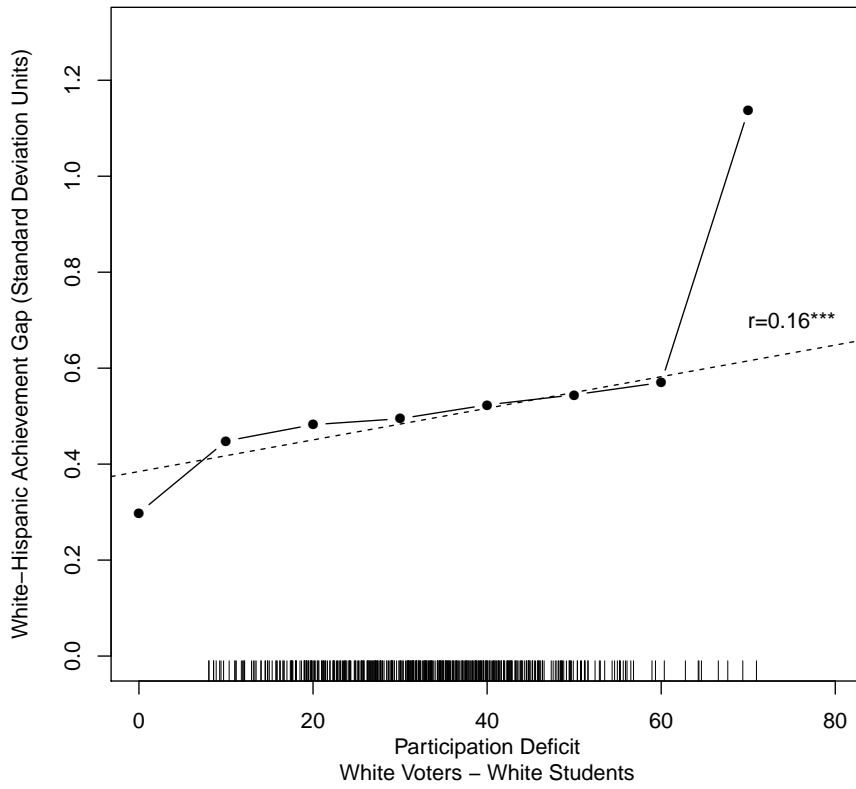


Figure 3: A whiter electorate, relative to student population, is associated with larger white-Hispanic achievement gaps among California school districts

Table 1: Descriptive statistics of analytic samples

	SEDA District Universe	Analytic Sample
<i>California</i>		
No. of Districts	973	718
Mean Student Enrollment	2897	3387
Urban	15.9%	17.3%
Rural	42%	33.9%
White	45.2%	41.4%
Special Ed	11.9%	9.4%
English Learners	17.1%	18.8%
<i>Illinois</i>		
No. of Districts	873	709
Mean Student Enrollment	1055	1001
Urban	4.7%	3.5%
Rural	40.9%	44%
White	77.8%	79.8%
Special Ed	16.2%	16.1%
English Learners	4%	3.9%
<i>Ohio</i>		
No. of Districts	617	562
Mean Student Enrollment	1275	1257
Urban	3.7%	3.6%
Rural	46.5%	45.4%
White	89.5%	89.4%
Special Ed	14.4%	14.4%
English Learners	1%	1%
<i>Oklahoma</i>		
No. of Districts	537	386
Mean Student Enrollment	537	580
Urban	1.5%	1.6%
Rural	78.6%	77.7%
White	59.7%	61.1%
Special Ed	15.2%	14.7%
English Learners	2.6%	2.4%

Table 2: More than two-thirds of majority-nonwhite school districts are governed by school board elected by majority-white electorates.

	California	Illinois	Ohio	Oklahoma
Majority Nonwhite Districts	376	92	28	106
(% of all districts)	(52.4%)	(13%)	(5%)	(27.5%)
Average White Voter Share	59.2%	59.4%	63.7%	90.2%
White Voter Majority	68.4%	64.1%	78.6%	98.1%

Table 3: Hispanic students most underperform whites in districts with least representative electorates

	White-Hispanic Achievement Gap (SDs)					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>California</i>						
Representational Gap	0.003*** (0.001)	0.008*** (0.001)	0.007*** (0.001)	0.003*** (0.001)	0.009*** (0.001)	0.007*** (0.001)
Demographic Controls	N	Y	Y	N	Y	Y
Commute Zone FEs	N	N	Y	N	N	Y
Precision Weights	N	N	N	Y	Y	Y
Districts	422	422	422	422	422	422
R ²	0.027	0.330	0.426	0.024	0.341	0.456
Adjusted R ²	0.025	0.320	0.394	0.021	0.332	0.426
<i>Illinois</i>						
Representational Gap	0.001 (0.001)	0.009*** (0.002)	0.009*** (0.002)	0.002 (0.001)	0.021*** (0.003)	0.021*** (0.003)
Demographic Controls	N	Y	Y	N	Y	Y
Commute Zone FEs	N	N	Y	N	N	Y
Precision Weights	N	N	N	Y	Y	Y
Districts	150	150	150	150	150	150
R ²	0.003	0.371	0.433	0.014	0.451	0.487
Adjusted R ²	-0.004	0.345	0.355	0.008	0.428	0.416
<i>Oklahoma</i>						
Representational Gap	0.001 (0.001)	0.004 (0.005)	0.006 (0.006)	0.003** (0.001)	0.009*** (0.003)	0.008** (0.003)
Demographic Controls	N	Y	Y	N	Y	Y
Commute Zone FEs	N	N	Y	N	N	Y
Precision Weights	N	N	N	Y	Y	Y
Observations	45	45	45	45	45	45
N	45	45	45	45	45	45
R ²	0.005	0.212	0.451	0.128	0.684	0.841
Adjusted R ²	-0.018	0.088	0.033	0.108	0.634	0.720

*p < .1; **p < .05; ***p < .01

Note: Dem. controls include % FRPL, % white student enrollment, and district type (urban, suburban, town, or rural).

SUPPLEMENTAL APPENDIX

Validating Voter Race Predictions

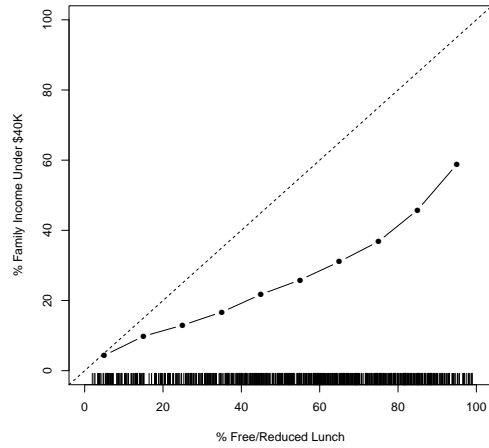
A recent study by Bernard Fraga compares Catalist predicted race with the self-reported race for respondents in the 2010 Cooperative Congressional Election Study. Overall, he finds that the Catalist predictions correctly identified 99% of white respondents, 97% of black respondents, and 80% of Latinos, for an overall accuracy of 91% (Fraga 2016). This is similar to the numbers in a validation study conducted by Catalist using official records from southern states that ask voters to identify their race on the voter registration forms. The Catalist study showed that predicted race matched the officially recorded race 90% of the time for white voters, 86% of the time for black voters, and 83% of the time for Latino voters.

Voter Migration

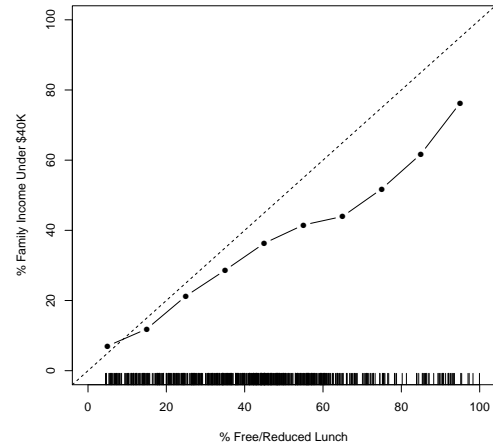
Our compositional measures are based on the current snapshot of the Catalist voter file. Unlike the official voters file, Catalist records are not “purged” as individuals become inactive or die, so the records should be complete for all elections held since 2008. However, the firm does update voter addresses as individuals change residences. Thus, a voter we might observe today living in one school district may have lived in a different school district at the time of an earlier election. Since we have access only to current addresses, we match voters to their current jurisdictions.

Several published studies and one working paper examine the consequences of this kind of migration and show that it is unlikely to affect our estimates. For example, one study compares partisanship of voters based on current addresses with official 2008 presidential results and finds that they are correlated at $r > 0.9$ (Kogan, Lavertu and Peskowitz 2018). Another study compares the total vote count based on the 2016 Catalist snapshots and historical vote counts in Ohio school levy elections and finds that the two are correlated at $r = 0.98$ (Cook et al. 2020). A similar analysis comparing current Catalist voter counts with official California elections results over the same time period as our analysis reports a correlation of $r = 0.999$ (Kogan and Hajnal 2019).

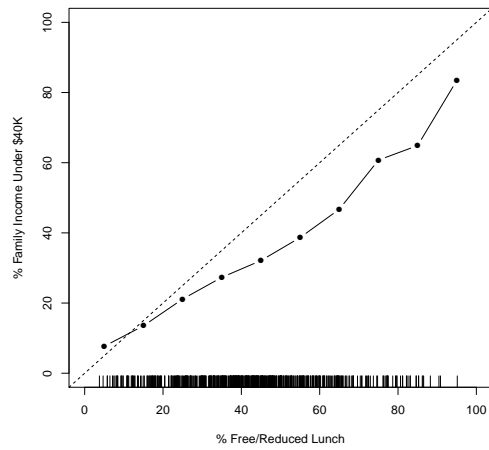
Voter Income



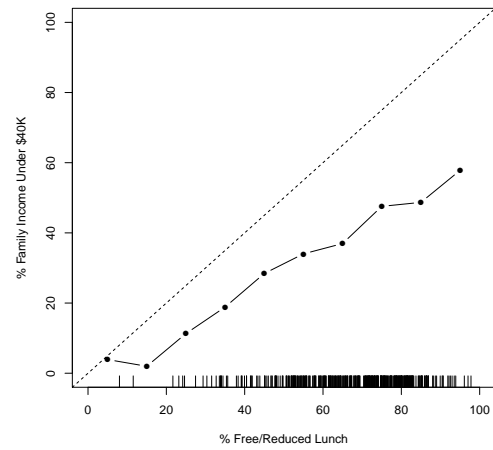
(a) California



(b) Illinois



(c) Ohio



(d) Oklahoma

Figure A.1: The electorate in school board elections is typically wealthier than the students attending local public schools.

Black-White Achievement Gaps

Table A.1: White-Black Achievement Gaps by State

	White-Black Achievement Gap (SDs)					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>California</i>						
Representational Gap	0.002 (0.002)	0.005*** (0.002)	0.005** (0.002)	0.004*** (0.002)	0.004** (0.002)	0.005*** (0.002)
Demographic Controls	N	Y	Y	N	Y	Y
Commute Zone FEs	N	N	Y	N	N	Y
Precision Weights	N	N	N	Y	Y	Y
Districts	190	190	190	190	190	190
R ²	0.010	0.167	0.287	0.036	0.176	0.395
Adjusted R ²	0.005	0.140	0.221	0.031	0.149	0.339
<i>Illinois</i>						
Representational Gap	0.0001 (0.002)	0.004* (0.002)	0.005* (0.003)	0.001 (0.002)	0.012*** (0.003)	0.010*** (0.004)
Demographic Controls	N	Y	Y	N	Y	Y
Commute Zone FEs	N	N	Y	N	N	Y
Precision Weights	N	N	N	Y	Y	Y
Districts	83	83	83	83	83	83
R ²	0.00002	0.272	0.371	0.007	0.262	0.377
Adjusted R ²	-0.012	0.215	0.181	-0.005	0.204	0.190
<i>Ohio</i>						
Representational Gap	0.001 (0.002)	0.003 (0.003)	0.0003 (0.003)	0.001 (0.002)	-0.0004 (0.003)	-0.004 (0.004)
Demographic Controls	N	Y	Y	N	Y	Y
Commute Zone FEs	N	N	Y	N	N	Y
Precision Weights	N	N	N	Y	Y	Y
Districts	101	101	101	101	101	101
R ²	0.004	0.387	0.521	0.002	0.358	0.521
Adjusted R ²	-0.006	0.348	0.423	-0.008	0.317	0.423

*p < .1; **p < .05; ***p < .01

Note: Dem. controls include % FRPL, % white student enrollment, and district type (urban, suburban, town, or rural).

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