INFORMATION, STUDENT ACHIEVEMENT, AND PREFERENCES FOR STATE CONTROL IN EDUCATION: Evidence from a Survey Experiment

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ABSTRACT

In 2023, the Texas Education Agency stripped the elected Houston Independent School District (HISD) school board of its governing responsibilities and appointed a new superintendent, marking the beginning of a state takeover of HISD. We conduct a pre-registered survey experiment with 497 Texas residents, assessing whether information about improvements in student performance in the most-affected schools influences perceptions of the takeover. We find that Texans who were exposed to our informational treatment score 0.5 standard deviations higher on an index of support for the takeover, are 36 percentage points (72%) more likely to believe takeover policies were good for students, and 10 percentage points (15%) more likely to support the 2024 \$4.4 billion HISD bond proposal. As state and district leaders struggle to earn voters' trust, increasing awareness about student proficiency growth in affected schools has the potential to change perceptions of the district's efforts to improve its lowest-performing schools.

I. INTRODUCTION

State takeovers, district "turnaround" efforts, and school closures are often justified by lowperformance on standardized tests, (Fryer, 2014; Schueler, Goodman & Deming, 2017; Morel, 2018; Schueler & Bleiberg, 2022; Baxter et al., 2024; Kim, 2024; Lyon, Bleiberg & Schueler, 2024), but opposition to top-down reform frequently centers on process considerations, rather than student achievement (Morel, 2018; Schueler, 2019; Cassidy & Nelson, 2024). Nevertheless, parents' stated and revealed preferences demonstrate that levels and growth in academic achievement are important factors in how they evaluate and select schools for their children (Glazerman & Dottie, 2017; Houston & Henig, 2021; Valant & Weixler, 2022; Finger & Houston, 2023). In a pre-registered survey experiment, we collected data from 497 Texas residents regarding their views about the 2023 takeover of Houston Independent School District (HISD) by the Texas Education Agency (TEA). Specifically, we experimentally manipulate whether respondents observe public information about changes in student proficiency rates on standardized tests in affected schools and assess whether observing this information influences respondents' appraisal of the TEA takeover of HISD. We measure the influence of information

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about student proficiency on overall perceptions of the takeover, perceptions of specific policies associated with the takeover, and perceptions of the takeover process.

We find large changes in overall sentiments toward the takeover following exposure to our informational treatment. Individuals who are exposed to information about changes in student proficiency rates in affected schools score 0.474 standard deviations (σ) higher on a composite index of support for the takeover, our primary outcome of interest. Treatment effects on individual questions or subindices help contextualize the overall impact of the informational treatment: treated respondents are 19.5 percentage points (pp) more likely (an increase of 32%) to somewhat agree, agree, or strongly agree with the statement "I support the Texas Education Agency's decision to assume responsibility for the governance of HISD starting in the 2023-24 school year," and 35.6pp (72%) more likely to express agreement with the statement "Overall, I believe that the 'New Education System' policies, as implemented in HISD during the 2023-24 school year, were GOOD for students" (all *ps*<.001). Respondents assigned to the informational treatment were also 9.9pp (15.2%) more likely to express support for voters to approve the upcoming \$4.4 billion bond measure to invest in HISD schools (*p*=.016).

Overall, our findings suggest that as state and district leaders struggle to earn voters' trust, increasing awareness about student proficiency growth in affected schools has potential to change perceptions of the district's efforts to improve its lowest-performing schools.

II. BACKGROUND

The road to the state takeover of HISD began in 2015. In June 2015, the 84th Texas Legislature passed House Bill (HB) 1842, which mandates that should a district have a school that receives a failing accountability rating for academic performance for five consecutive years, the Texas state commissioner must take one of two actions: close the campus or replace the elected school board with an appointed board and new superintendent. Following the passage of the law, TEA Commissioner Mike Morath appointed a conservator for HISD's Kashmere High School to address its low accountability scores. Should the conservator remain in place for more than two years, the law gives Morath the same slate of options–close the campus or replace the elected school board with an appointed board and new superintendent. In 2019, HISD's Wheatley High School failed to meet state standards for the seventh consecutive year, prompting Morath to notify HISD of his intention to replace the board. To justify this decision, Morath cited Wheatley's failing scores, the length of the conservatorship over Kashmere High School, and the state's finding of HISD board misconduct (Dunlap, 2023).

The initial announcement from TEA was met with skepticism from HISD residents and others across the state, prompting a long legal battle, which is documented in Dunlap's (2023) reporting. Notably, in 2020, a state appellate court affirmed a lower court's ruling to block TEA's takeover for failure to properly implement HB 1842 on all three reasons given for the

takeover. This prompted the state legislature to enact a law in 2021 to fix the technicalities and, in 2023, the injunction was thrown out by the Texas Supreme Court, finding TEA in compliance with the new law. HISD subsequently withdrew their lawsuit, finding no legal path forward to block the takeover. By June 2023, TEA had replaced outgoing superintendent Millard House II with Mike Miles—a charter management organization CEO who had previously led Dallas ISD through a period of reform—and designated a new nine-person board of managers to assume governing responsibilities from the democratically elected school board. While the elected trustees continue to hold their positions, they have no formal power to influence district governance (Dunlap, 2023).

Upon assuming office, Superintendent Miles introduced his signature set of reforms, the "New Education System" (NES) (HISD, n.d.), which had been the core set of design principles guiding Third Future Schools, the charter management organization Miles previously led (Third Future Schools, 2024). Touted by the district as "the largest and most significant effort to transform K-12 education in the United States," the NES was first introduced in fall 2023 at 28 underperforming campuses and 57 schools that opted-in to the reform (HISD, 2024a). An additional 45 schools joined NES in fall 2024. In total, 130 HISD schools operated under the NES umbrella during the 2024-25 school year (Menchaca, 2024a). The NES introduced reforms in six main areas (González Kelly & Bauman, 2023; KHOU 11 staff, 2023; HISD, n.d.; 2024a):

- Staffing model Teachers are incentivized to teach at NES campuses and in hard-to-staff subjects through the offer of higher salaries. Other non-teaching administrative tasks move to teacher apprentices, learning coaches, or school leadership. Teachers and principals are subject to performance evaluations based on observations and student performance on standardized tests. Dedicated librarian staff positions were eliminated from the original 28 NES schools.
- Instructional model A new instructional program tied to state standards is paired with increased instructional time for struggling students. Standardized daily lesson plans and curricular materials are provided to teachers by a centralized team. Principal and district administration regularly observe classroom instruction to provide feedback and ensure that district-mandated instructional materials and practices are being implemented with fidelity.
- Student experiences In addition to changes in instructional practices and school culture, students have the opportunity to take specialty classes in critical thinking; fitness; music and fine arts; 21st-century media and technology; and hands-on science, taught by community consultants. Middle school students have the opportunity for free trips in the US and abroad.

- Team centers Schools designate flexible spaces (e.g., by repurposing library space) to be used for small-group, differentiated instruction, as well as behavior management, allowing disruptive students to join class remotely.
- School culture Strict rules for student conduct are imposed. Disruptive students are removed and, depending on circumstances, join class virtually until the next period (e.g., via Team Centers or administrative offices).
- Building hours School buildings are open earlier and close later, with an extended instructional day for students in grades 3–12 (30 additional minutes).

Since the takeover, public backlash has been sustained, citing disagreement with the political process that led to the dissolution of democratic control of the district. Since summer 2023, parents, teachers, and community members have engaged in protests, read-ins, and heated public comment at school board and community meetings (Dunlap & Lehrer-Small, 2023; Dunlap, 2023). Participants in these protests have cited a lack of transparency from the system level to the school level, the downplaying or silencing of parent voices, and the instillment of a culture of fear, particularly amongst teachers who fear that any mistakes might cost them their jobs (Zuvanich, 2023). In May 2024, Students Against Miles organized a student walk out at a handful of campuses, protesting Miles, the NES, and forced resignation of principals and teachers (Kelly & Mizan, 2024).

In addition to protests, dissatisfaction with the state takeover coincided with a spike in HISD employee departures and a downturn in student enrollments. In June 2024, over 2,400 teachers left HISD, roughly triple the average rate of attrition for HISD teachers compared with the same month (June) over the past five years (Goodwin & Mizan, 2024). At the start of the 2024-25 SY, HISD saw a nearly 9% decline in enrollment compared to last school year, dropping from 184,000 to 168,000, with the biggest declines observed in NES schools (12% decline from prior year enrollment) (Zuvanich, 2024a). Despite these ongoing protests and the marked exodus of staff and students, Miles and district leadership have pushed on with sweeping changes, expanding NES to more campuses in the 2024-25 school year.

Amid continued public outcry, the release of test scores and accountability ratings a year after the takeover suggest that the introduction of NES may be yielding early improvements in targeted schools. Results shared by the district portray notable growth in proficiency rates in the NES schools most affected by the takeover. NES and NES-aligned schools registered improvements in math and reading proficiency rates among students in grades 3-8 and in all tested subjects for high school students. Non-NES schools also saw modest improvements in proficiency levels, though less pronounced in most grades and subjects. That said, overall, HISD observed greater improvement in proficiency rates and across more subjects and grade levels than the state as a whole (HISD, 2024b).

This election season, the division over the state takeover takes center stage as HISD leadership pushes for voters to approve a \$4.4 billion bond for the district on the November ballot. The bond proposes about \$2 billion for rebuilding and renovating schools; \$1.35 billion for lead abatement, security upgrades, and heating, ventilation, and air conditioning improvements; and \$1 billion to expand early childhood education, build new career and technical education centers, and implement technology upgrades (Menchaca, 2024b). The bond measure has faced significant opposition. In a rare bipartisan display of solidarity, Harris County's Democratic and Republican parties have opposed the bond (Zuvanich, 2024b). Other opponents of takeovers such as parents and teachers have taken up the slogan "No Trust, No Bond" as a rallying cry to gain leverage over how policies are implemented in HISD schools and who has a say in what and how things get done (Menchaca & Pertain, 2024).

III. DOES INFORMATION INFLUENCE POLICY PREFERENCES?

An extensive body of evidence suggests that political preference formation and beliefs are influenced by expertise, knowledge, and information, including the quantity and quality of information (Page & Shapiro, 1992; Delli Carpini & Keeter, 1996; Blom-Hansen, Baekgaard & Serritzlew, 2016). Providing information to citizens can alter public opinion and preferences (e.g., Hastings, Van Weelden & Weinstein, 2007; Schueler & West, 2016; Lergetporer et al., 2018), although individuals may resist or ignore information that conflicts with their prior beliefs (Kuklinkski & Quirk, 2000).

Education policy scholars have assessed the influence of information in shaping preferences for school choice, school funding, teacher salaries, post-secondary enrollment, and other domains. Looking directly at the role of information in shaping public preferences about education finance, Schueler and West (2016) found that providing survey takers information about current educational spending and teacher salaries drastically decreased support for increasing either. Relatedly, in their study aimed at understanding how different conceptualizations of the goals of education shape schooling preferences, Finger and Houston (2023) conducted an online survey experiment where participants were asked to consider different purposes of schooling and then choose their preferred school options based on a variety of factors, including school distance from home, test scores, and demographic compositions. They found differences in preferred school options based on a variety of goals participants received, suggesting information can influence educational preferences. Several studies focused on higher education have found that providing high school students with information about higher education, including financial aid, tuition costs, and the potential benefits, can increase students' preference for higher-quality institutions (Bernal et al., 2024), increase their expectations of the

returns of higher education (Oreopoulos & Dunn, 2013), and increase their intention to enroll (Peter & Zambre, 2017).

Beyond education, research in economics, political science, and public health finds that exposure to new information often (but not always) shapes a wide range of policy preferences. Simple informational interventions have potential to influence preferences related to elder care (Blom-Hansen, Baekgaard & Serritzlew, 2016), foreign aid (Gilens, 2001), immigration (Grigorieff, Roth & Ubfal, 2020), prison construction (Gilens, 2001), public spending (Sawulski, Szewczyk & Kiełczewska, 2024); trade (Alfaro, Chen & Chor, 2023), vaccine mandates (Viskupič, Wiltse & Badahdah, 2022); and many other domains.

IV. DATA AND METHODS

Survey Administration

This Texas-specific sample is the first of two waves of data collection for this experiment. The survey was administered via the CloudResearch Connect platform between September 16, 2025 and October 7, 2024. In all, 519 individuals began the survey and consented to the terms of data collection. Of these, 512 completed enough questions to be assigned to a treatment group, 501 submitted responses (although some skipped individual questions), and 497 passed the attention check that was administered to all respondents and are included in the primary analytical sample. The final wave of data collection is planned to take place in a national sample in late Fall 2024.

Table 1 describes the analytic sample and assesses balance in observable characteristics between the treatment and control groups. Relative to the state of Texas as a whole, members of the analytic sample are more likely to be female, Asian, college-educated, affiliated with the Democratic party, politically unaffiliated/independent, living within the boundaries of HISD, the parent of a school-aged child (or HISD student), or intending to vote in the November 2024 presidential election. Conversely, members of the analytic sample are less likely to be male, Hispanic, multi-racial, affiliated with the Republican party, or having less than a college degree (U.S. Census Bureau, n.d.; Gallup, 2017). Across the 25 characteristics we consider, differences in all but one variable (Republican political affiliation) are no larger than would be expected by random chance, suggesting that the randomization was successful. To account for the possibility of a chance imbalance in baseline political preferences, we report treatment effects separately by political affiliation in Table 3 and add non-parametric control for political party to our main model in Appendix Table A1. However, Republican identity was assessed after the informational intervention, so we cannot rule out the possibility that the informational treatment-which cast a Republican-led policy reform in a positive light—influenced how respondents reported their political affiliation. We report how we determined our sample size, all exclusions, all manipulations, and all measures in all experiments (Simmons, Nelson & Simonsohn, 2012). All

experiments were pre-registered on the AEA RCT Registry and all pre-registrations, materials, survey instruments, data, and code will be made available via the AEA RCT Registry.¹

Survey Instrument

For respondents in both conditions, the survey began with a series of questions establishing their eligibility for the survey based on their age (above 18) and location (living in Texas); establishing their proximity to HISD; and establishing whether they were a parent or guardian, parent/guardian of school-aged-children, or parent/guardian of an HISD student. For respondents in the control condition, these questions were followed by a brief, tonally neutral description of the 2023 TEA takeover:

"Under a 2015 Texas law, if a public school fails state standards for five years in a row, the state is obligated to either close the school or assume responsibility for the operation of the school district.

In 2023, the Texas Education Agency announced that it would assume control of all schools in Houston Independent School District (HISD) on behalf of the state. Beginning in the 2023-24 school year, TEA relieved the locally elected HISD school board of its governing responsibilities and replaced it with an appointed Board of Managers.

TEA also appointed Superintendent Mike Miles to lead the district. As a part of the change in governance, Superintendent Miles implemented a program he calls the "New Education System" (NES) in schools with below-average performance on standardized tests. Within HISD, NES schools were the schools most directly affected by reforms implemented by the state-appointed district leadership. Non-NES HISD schools experienced some changes (e.g., district-wide changes to the school calendar, school visits from state administrators), and schools elsewhere in the state of Texas were largely unaffected by the state's role in HISD."

In the treatment condition, respondents were provided with additional information regarding growth in student proficiency by subject and grade in NES schools, non-NES schools, and the state of Texas based on HISD's (2024b) blog post on the topic. Figure 1 shows how the HISD infographic was adapted for the experiment. The full survey instrument can be accessed via the "Supporting Documents and Materials" section of the pre-registration on the AEA RCT registry.

Following these differentiated presentations of information about the takeover, respondents in both conditions were asked to evaluate the HISD takeover overall (4 questions); with respect to teacher and principal compensation and evaluation (4 questions); with respect to classroom instruction and lesson planning (3 questions); with respect to school culture, discipline, and

¹ AEA RCT Registry Link: https://www.socialscienceregistry.org/trials/14177

staffing (5 questions); and with respect to school operations and hours (3 questions). Respondents' answers to these 19 questions contribute to our composite measure of support for the TEA takeover of HISD, which is our primary outcome of interest.

Additionally, respondents in both conditions were asked to evaluate (1) the process by which state leadership assumed control of HISD and (2) the process by which Superintendent Mike Miles governs HISD based on whether each entity (A) provides good and sufficient evidence to justify their decisions, (B) provides adequate opportunities for community input, and (C) is responsive to the needs and concerns of community members.

Finally, respondents in both conditions were provided with a brief description of the 2024 \$4.4 billion bond proposal and asked whether they agree with the statement "I believe Houston voters should approve the bond measure."

Outcomes of Interest

To construct the primary outcome index, the 19 questions related to respondents' appraisal of the state takeover and its individual components were converted from a 6- or 7-point Likert scale of "Strongly Disagree" to "Strongly Agree" to numeric values of 0-5 or 0-6, summed, and standardized to have a mean of 0 and a standard deviation of one.

The secondary outcomes of this study include the five subindices that comprise the primary composite standardized measure of support for the takeover, including 1) An index summarizing respondents' overall rating of the state takeover of HISD; 2) respondents' overall rating of NES reforms related to teacher and principal compensation and evaluation; 3) respondents' overall rating of NES reforms related to classroom instruction and lesson planning; 4) respondents' overall rating of NES reforms related to school culture, discipline, and library staffing; 5) respondents' overall rating of NES reforms related to school operations and hours.

Additionally, we convert respondents' stated preferences about how quickly TEA should restore governing responsibilities to the elected HISD school board into a binary variable based on the median response of the control group, and report whether the informational intervention influenced respondents to prefer a longer or shorter takeover. Similarly, we convert respondents' stated preferences about the conditions under which TEA should restore governing responsibilities to the elected HISD school board into a binary variable based on the median response of the control group, and report whether the informational intervention influenced responses of the control group, and report whether the informational intervention influenced respondents to prefer stronger or weaker conditions for ending the takeover. Finally, we convert respondents' stated preferences about the \$4.4 billion 2024 HISD bond measure into a binary variable based on the median response of the control group, and response of the control group, and report whether the informational intervention a binary variable based on the median response of the control group of the state of the stated preferences about the \$4.4 billion 2024 HISD bond measure into a binary variable based on the median response of the control group, and report whether the informational intervention a binary variable based on the median response of the control group, and report whether the informational intervention influenced respondents to express more or less support for the bond measure.

Estimating Treatment Effects

Our experimental design allows us to estimate the impact of our informational treatment via a simple regression of each outcome of interest on an indicator for being assigned to the informational treatment group:

$$Y_i = \beta_0 + \beta_1 Treatment_i + \epsilon_i \tag{1}$$

where Y_i corresponds to a target outcome of interest and $Treatment_i$ is a binary indicator for being assigned to the informational treatment group. In our robustness checks, we add a set of detailed covariates to this specification to demonstrate that chance imbalances in observable characteristics do not drive our observed results:

$$Y_{i} = \beta'_{0} + \beta'_{1} Treatment_{i} + \sum_{p} \beta'_{2p} Party_{p_{i}} [+ \sum_{j} \beta'_{3j} Characteristic_{j_{i}}] + e_{i}$$
(2)

Where $\sum_{p} Party_{\mathbf{p}_{i}}$ is a mutually exclusive and exhaustive set of indicators for individual *i*'s political affiliation, $\mathbf{p} \in \{Dem., Rep., Ind., 3rd party liberal, 3rd party conservative\}$, and $\sum_{i} Characteristic_{\mathbf{j}_{i}}$ is a vector of the remaining observable characteristics reported in Table 1.

V. RESULTS

We find evidence that receiving information about growth in student proficiency on standardized tests in NES schools and non-NES HISD schools, and Texas schools outside of HISD exerts a strong influence on respondents' perceptions of and preferences for the TEA takeover of HISD. Panel A of Table 2 presents our main results. Respondents who were randomly assigned to receive information about student achievement growth in different groups of schools score 0.474σ (SE=0.088, p<.001) higher on a composite standardized index of support for the takeover, our primary outcome of interest.

Panel B of Table 2 assesses the impact of information on a selection of binary exploratory outcomes related to the takeover. Reinforcing the direction and magnitude of the main results, we find that treated respondents were 19.5pp (SE=4.0pp, p<.001) more likely to express agreement with the statement "I support the Texas Education Agency's decision to assume responsibility for the governance of HISD starting in the 2023-24 school year."

In addition to influencing generalized assessments or appraisals of the takeover, achievement information influenced preferences related to the length and intensity of state control in HISD. Treated respondents were 12.8pp (SE=4.4pp, p=.004) less likely to indicate that they believed the takeover should end within two years, and 12.0pp (SE=4.3pp, p=.005) more likely to express support for more stringent conditions to end the takeover (i.e., requiring that 90% or 100% of schools meet performance and administrative compliance benchmarks or expressing a desire that state control continue regardless of school performance). Moreover, we find suggestive evidence

that proficiency information influences voting preferences, as treated respondents were 9.9pp (SE=4.1pp, p=.016) more likely to express support for voters to approve the upcoming \$4.4 billion bond measure to invest in HISD schools when they vote in November 2024.

Panel C of Table 2 assesses domain-specific impacts of proficiency information on the subindices that comprise our primary outcome, the standardized composite index of support for the takeover described above. Examining impacts on these subindices reveals that the largest changes in preferences relate to general, rather than specific, appraisals of the takeover and its policies. While treated respondents score 0.750σ (SE=0.083, p<.001) higher on an index of general support for the takeover, in 3 of the 4 subindices related to specific practices related to takeover, we cannot reject the null hypothesis that information did not influence preferences related to staffing, pay, and evaluation practices; discipline policies; or scheduling policies. However, treated respondents score 0.334σ (SE=0.083, p<.001) higher on a subindex of support for the instructional policies associated with the takeover (i.e., reducing teachers' administrative responsibilities, providing teachers with daily lesson plans, and requiring teachers in low-performing schools to base their lessons on lesson plans provided by the district).

Surprisingly, information about student proficiency growth appears to influence respondents' perceptions of the takeover *process* as well, suggesting a more general "halo effect" (i.e., the influence of a global evaluation on evaluations of individual attributes; Nisbett & Wilson, 1977) that extends to reappraisals of past behavior and colors perceptions of the responsiveness and legitimacy of state and district leaders. Treated respondents rate the process by which the state assumed control of HISD 0.498σ (SE=0.087, p<.001) higher on an index of responsiveness, legitimacy, and community inclusion. Likewise, treated respondents rate the process by which Superintendent Mike Miles governs HISD 0.502 (SE=0.088, p<.001) higher on a similar index.

Tables 3a and 3b re-estimate our main model separately by respondents' demographic characteristics (3a), political affiliation (3b), proximity to HISD (3b), and whether they are a parent or guardian (3b). The results are generally stable across all subgroups we consider, with limited evidence that particular subgroups are more sensitive to information about student proficiency growth than others with respect to their preferences toward the TEA takeover if HISD. An exception is when we partition the sample by age. Older respondents (those over the age of 35) appear to drive our main effects, although taking point-estimates at face value, it appears that younger respondents' general appraisals of the takeover are still positively impacted by the provision of student proficiency information, albeit to a lesser extent. Treatment induced older respondents to rate the takeover 0.699σ (SE=0.123, p<.001) higher on our composite standardized index of support, while younger respondents were induced to rate the takeover just 0.200σ (SE=0.121, p=.100) higher. While individual point estimates vary across other groups—e.g., taking point estimates at face value suggests information's influence on preferences may be heterogeneous by race and ethnicity—we do not have sufficient statistical power to distinguish

between other groups' treatment effects. Notably, treated Democrats' and Republicans' perceptions of the takeover and the takeover process improved by similar magnitudes.

In Appendix Table A1, we implement a series of robustness checks to demonstrate that our main results (replicated in column 1) are not sensitive to the specific modeling decisions outlined in our pre-registration. First, in column 2, we show that our results are qualitatively unchanged when all respondents' answers are included in the analysis, not just those who submit a survey after viewing all questions (members of the analytical sample could skip individual questions, but were required to finish the survey and click submit). Next, in column 3, we show that adding non-parametric controls for an individual's political party has a negligible influence on our treatment effect estimates. Furthermore, in column (4) we demonstrate that adding the full set of covariates in Table 1 to the regression model does not meaningfully influence the estimated impact of information on our outcomes of interest. Finally, columns 5 and 6 show that the results are robust to ignoring our attention check altogether (column 5) or accounting for a secondary check that was only administered to the treatment group (column 6).

VI. DISCUSSION

This study provides confirmatory evidence that information can and does influence the policy preferences of citizens. Texans who received information about changes in proficiency rates in NES schools versus other groups of schools were significantly more likely to express general support for the state takeover of HISD and the upcoming bond measure. That said, when it comes to specific policies and practices associated with the takeover and the NES reforms, including changes to teacher and principal pay and evaluation; discipline policies; and scheduling policies, the stated preferences of treated respondents were largely indistinguishable from those of their control group peers.

This demonstrates that the largest changes in preferences relate to general, rather than specific, appraisals of the takeover and its policies. This pattern of results is consistent with a process by which prior beliefs interact with new information, reinforcing or updating preferences depending on the strength of an already-held belief or otherwise leaving the belief unaltered, as proposed by Blom-Hansen and co-authors (2016). If respondents have entrenched beliefs about educational practices but only loosely-formed beliefs about the state takeover, their overall support for the takeover may be more malleable than their support for the specific practices associated with it. While the current study is not designed to direct test the mediators of information's influence on specific and general policy appraisals, it is evident that information influences policy preferences in both complex and unintended ways, altering some beliefs while leaving others intact.

While we hypothesized that sentiments on the takeover process would have a moderating effect on the impact of information, the evidence is inconsistent with this story. Instead, information on the outcomes of students affected by the takeover appears to influence process perceptions. As noted, this is consistent with a halo effect, wherein respondents reflect more favorably on the process based on the effect of information on their overall evaluation of the takeover. While these findings suggest that the outcomes can shade perceptions of process, it would be irresponsible to downplay the important role of process in shaping how citizens feel about democratic institutions, processes, and political voice. This is particularly true for people of color, whom it has been documented can experience a sort of collective participatory debt, which Nuamah (2023) defines as "type of mobilization fatigue that transpires when citizens' repeated participation is met with a lack of democratic responsiveness" (p. 3).

The effect of collective participatory debt can mean that even though Black and Brown communities might "win" in a particular sense, say increased academic proficiency rates in their schools, they can nonetheless lose faith in elected leaders or democratic processes when policy changes are not responsive to broader community demands. This study is underpowered to test whether the effects of information on process perceptions or other outcomes vary by race, ethnicity, or other minoritized identities, but subgroup results in Table 3A are consistent with treatment effect heterogeneity by race and ethnicity. In future work, collecting process perceptions prospectively rather than retrospectively may facilitate the type of moderation analysis we had intended to conduct.

Finally, it is evident that HISD leadership and advocates for the 2024 HISD Bond proposal could benefit from a more robust communications strategy that emphasizes to voters growth in student proficiency in the schools most affected by the takeover (i.e., NES and NES-aligned schools). Sustained public protests demonstrate that community stakeholders do not believe district leadership is forthcoming with information and operating with transparency. Our results suggest that more communication on the part of the district about the early growth in student outcomes could increase confidence in the district and convince a non-trivial share of constituents that the state takeover and appointed district leaders could usher in positive changes for students. This could have multiple benefits for the district, including galvanizing support amongst voters for the \$4.4 billion November 2024 bond measure and increasing community support for instructional practices that have sparked controversy in community meetings and public discourse.

However, we conclude by emphasizing that communication is a two-way street. A strategy that only focuses on dissemination of information without genuine, meaningful engagement with stakeholders and follow-up opportunities for the community to see how their feedback, cares, and concerns have been incorporated into district plans could have the opposite effect, further entrenching distrust. As current district-community relations illustrate, once trust is gone, it is challenging to get it back. Should the bond measure fail this November, our results encourage the district to bolster their communication strategy in preparation for the next bond proposal that focuses on making positive outcomes more visible to voters while also committing to authentic, transparent community engagement.

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Figure 1: Infographic from Informational Treatment

2023-2024 STAAR GROWTH | NES SCHOOLS vs. NON-NES SCHOOLS

		NEC						CTAT		
		INES	(HISD)		NON	I-INES	(HISD)	SIAI	E OF 1	EXAS
Subject		2023	2024	+/-	2023	2024	+/-	2023	2024	+/-
D 3	Reading	31	34	3	45	42	-3	50	46	-4
ц В	Math	28	35	7	42	41	-1	45	40	-5
D 4	Reading	27	35	8	42	48	6	48	49	
G R	Math	31	32	1	45	46	1	48	44	-4
ŝ	Reading	34	42	8	52	52	0	57	53	-4
GRD	Math	29	40	11	49	49	0	51	48	-3
Q	Science	15	11	-4	31	26	-5	36	26	-10
D 6	Reading	23	33	10	49	55	6	52	55	3
GRI	Math	14	22	8	35	36	1	40	37	-3
D 7	Reading	26	32	6	52	53	1	55	52	-3
GRI	Math	15	23	8	34	32	-2	37	32	-5
	Reading	28	33	5	54	56	2	58	54	-4
8	Math	17	31	14	34	36	2	46	41	-5
GRD	Science	21	20	-1	39	42	3	47	42	-5
	Social Studies	10	8	-2	28	30	2	31	31	0
	Algebra I	19	29	10	40	43	3	45	45	0
OOL	English I	21	26	5	51	52	1	54	54	0
SCHOOL	English II	23	32	9	54	56	2	56	60	4
HIGH	Biology	22	40	18	49	56	7	57	58	1
т	U.S. History	43	48	5	71	69	-2	71	69	-2

Percent of students who met or exceeded expectations by grade and subject:

Most affected by state governance of HISD

Least affected by state governance of HISD

Note: Members of the treatment group (N=246) were shown this infographic, following a paragraph describing the differences in student proficiency growth between NES and Non-NES schools in HISD.

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Party Affiliation: Third Party.032.029003.830Likely Voter.858.869.011.734E. Missing Data003.830Missing Gender.000.008.008.153Missing Race.004.000004.323Missing HISD Residency Information.064.045019.350Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427	Party Affiliation: Republican	.187	.298	.111	.004
Likely Voter.858.869.011.734E. Missing Data.000.008.008.153Missing Gender.004.000004.323Missing Race.004.000004.323Missing HISD Residency Information.064.045019.350Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427	Party Affiliation: Independent	.315	.245	07	.084
E. Missing DataMissing Gender.000.008.008.153Missing Race.004.000004.323Missing HISD Residency Information.064.045019.350Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427	Party Affiliation: Third Party	.032	.029	003	.830
Missing Gender.000.008.008.153Missing Race.004.000004.323Missing HISD Residency Information.064.045019.350Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427	Likely Voter	.858	.869	.011	.734
Missing Race.004.000004.323Missing HISD Residency Information.064.045019.350Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427	E. Missing Data				
Missing HISD Residency Information.064.045019.350Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427	Missing Gender	.000	.008	.008	.153
Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427	Missing Race	.004	.000	004	.323
Missing Parent Information.000.004.004.313Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427					
Missing Party Identification.000.004.004.313Missing Voter Likelihood.016.008008.427					
Missing Voter Likelihood .016 .008008 .427	÷				
e	- · ·				
	Observations	251	246	497	

Notes: Columns (1) and (2) present group means of the variables listed in each row. Column (3) presents the difference between these two means (treatment-control), and column (4) presents the p-value from a test of whether the difference in column (3) is statistically distinguishable from zero.

	Control	Treatmen	t		
	Mean	Mean	Difference	P-Value	Ν
Outcome	(1)	(2)	(3)	(4)	(5)
A. Primary Confirmatory Outcome					
Std. Index of Support for Takeover	236	.238	.474 (.088)	.000	491
B. Exploratory Outcomes - Binary Measures of Supp	ort				
Support Takeover (0/1)	.610	.805	.195 (.040)	.000	497
Oppose Takeover (0/1)	.251	.118	133 (.034)	.000	497
Support Bond (0/1)	.653	.752	.099 (.041)	.016	497
Support Ending Takeover within 2 years (0/1)	.510	.382	128 (.044)	.004	497
Support Stronger Conditions to End Takeover (0/1)	.295	.415	.120 (.043)	.005	497
C. Exploratory Outcomes - Subindices of Primary Outcomes	utcome				
Std. Subindex: General Support for Takeover	362	.388	.750 (.083)	.000	496
Std. Subindex: Support for NES Pay/Eval. Policies	034	.025	.059 (.09)	.516	495
Std. Subindex: Support for NES Instructional Policies	166	.169	.334 (.089)	.000	497
Std. Subindex: Support for NES Discipline Policies	042	.037	.078 (.09)	.383	495
Std. Subindex: Support for NES Scheduling Policies	086	.079	.165 (.089)	.065	495
D. Exploratory Outcomes - Process Indices					
Std. Process Index: State Leadership	253	.245	.498 (.087)	.000	492
Std. Process Index: Superintendent Mike Miles	248	.253	.502 (.088)	.000	493

Table 2: Impact of Treatment on Perceptions of HISD Takeover

Notes: Columns (1) and (2) present group means of the variables listed in each row. Column (3) presents the difference between these two means (treatment-control), and column (4) presents the p-value from a test of whether the difference in column (3) is statistically distinguishable from zero. Column (5) presents the number of observations with non-missing data for each outcome.

Table 3A: Impacts within Gender, Race, and Age Subgroups

Outcome	Male	Female	Asian	Black	Hispanic	White	Multi-Racial	Under 35	Over 35
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. Primary Confirmatory Outcome									
Std. Index of Support for Takeover	.534***	.415***	.499*	.290	.243	.567***	.502*	.200	.699***
	(.132)	(.12)	(.227)	(.245)	(.207)	(.109)	(.244)	(.121)	(.123)
B. Exploratory Outcomes - Binary Measure	s of Suppo	ort							
Support Takeover (0/1)	.146*	.226***	.160	.087	016	.238***	031	.077	.293***
	(.064)	(.052)	(.126)	(.102)	(.101)	(.048)	(.111)	(.060)	(.053)
Support Bond (0/1)	.066	.128*	048	.119	.217*	.056	085	.024	.159**
	(.062)	(.056)	(.127)	(.096)	(.098)	(.051)	(.121)	(.058)	(.057)
Support End Takeover Within 2 years (0/1)	185**	088	039	020	.068	188***	087	058	186**
	(.068)	(.059)	(.134)	(.115)	(.105)	(.054)	(.128)	(.067)	(.059)
Support Stronger Conditions (0/1)	.095	.137*	.251*	.183	114	.139**	.130	.074	.159**
	(.063)	(.058)	(.119)	(.107)	(.107)	(.052)	(.125)	(.061)	(.059)
C. Exploratory Outcomes - Subindices of Pi	imary Ou	itcome							
Std. Subindex: General Support	.633***	.838***	.578**	.638*	.455*	.844***	.639*	.421***	1.021***
	(.127)	(.112)	(.191)	(.246)	(.211)	(.101)	(.25)	(.118)	(.113)
Std. Subindex: Support Pay/Eval. Policies	.223	111	.121	272	051	.182	.144	079	.172
	(.136)	(.122)	(.227)	(.231)	(.219)	(.113)	(.245)	(.123)	(.129)
Std. Subindex: Support Instr. Policies	.440***	.248*	.366	.058	.231	.415***	.411	.147	.491***
	(.127)	(.125)	(.275)	(.235)	(.212)	(.107)	(.263)	(.132)	(.119)
Std. Subindex: Support Discipline Policies	.202	009	.094	.185	090	.100	.155	081	.210
	(.141)	(.117)	(.246)	(.231)	(.218)	(.112)	(.254)	(.131)	(.122)
Std. Subindex: Support Sched. Policies	.104	.195	.371	050	.170	.167	.118	.055	.257*
	(.131)	(.124)	(.227)	(.237)	(.194)	(.113)	(.231)	(.125)	(.126)
D. Exploratory Outcomes - Process Indices					. ,				. *
Std. Process Index: State Leadership	.547***	.452***	.302	.357	.228	.635***	.296	.284*	.672***
_	(.136)	(.117)	(.195)	(.226)	(.226)	(.112)	(.28)	(.121)	(.123)
(Max) Observations	209	279	58	78	88	323	62	225	272

Notes: Each cell presents the difference in the outcomes listed in each row between the treatment and control groups within the subgroup indicated in each column, followed by its standard error in parentheses. Observations vary slightly by outcome (± 4 observations); the maximum sample size for each subgroup is reported in the final row.. *=p<.05 **=p<.01 ***=p<.001

Table 3B: Impacts within Political, Residential, and Parent Subgroups

Outcome	Party=	Party=	Party=	HISD	Non-HISD		Non-	HISD
	Dem.	Rep.	Ind.	Resident	Resident	Parent	Parent	Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Primary Confirmatory Outcome								
Std. Index of Support for Takeover	.469***	.599**	.239	.523**	.459***	.402**	.553***	.270
	(.129)	(.191)	(.161)	(.179)	(.104)	(.131)	(.118)	(.260)
B. Exploratory Outcomes - Binary Measures	s of Suppor	't						
Support Takeover (0/1)	.263***	.153*	.071	.202*	.182***	.193***	.205***	.048
	(.060)	(.072)	(.080)	(.084)	(.047)	(.056)	(.057)	(.124)
Support Bond (0/1)	.120*	.174	.071	.153	.053	.183**	.026	.260*
	(.056)	(.090)	(.080)	(.079)	(.049)	(.059)	(.056)	(.109)
Support End Takeover Within 2 years (0/1)	054	222*	110	084	140**	142*	120	057
	(.067)	(.087)	(.085)	(.084)	(.052)	(.064)	(.062)	(.125)
Support Weak Conditions (0/1)	.124*	.083	.075	.120	.108*	.091	.146*	050
	(.062)	(.093)	(.083)	(.077)	(.053)	(.064)	(.057)	(.119)
C. Exploratory Outcomes - Subindices of Pr	imary Out	come						
Std. Subindex: General Support	.852***	.686***	.479**	.715***	.762***	.766***	.743***	.320
	(.128)	(.161)	(.151)	(.189)	(.094)	(.122)	(.113)	(.246)
Std. Subindex: Support Pay/Eval. Policies	087	.369	.014	.128	.019	044	.168	031
	(.117)	(.217)	(.168)	(.151)	(.114)	(.131)	(.124)	(.230)
Std. Subindex: Support Instr. Policies	.253	.620***	.172	.492**	.293**	.312*	.368**	.493
	(.137)	(.179)	(.167)	(.173)	(.106)	(.124)	(.127)	(.251)
Std. Subindex: Support Discipline Policies	.028	.118	026	074	.148	021	.178	252
	(.137)	(.193)	(.159)	(.181)	(.105)	(.135)	(.118)	(.291)
Std. Subindex: Support Sched. Policies	.221	.230	.013	.331	.101	.143	.184	.375
	(.128)	(.203)	(.169)	(.172)	(.106)	(.138)	(.116)	(.283)
D. Exploratory Outcomes - Process Indices			. ,	. ,	• <i>*</i>	. ,		. ,
Std. Process Index: State Leadership	.403**	.422*	.483**	.542**	.468***	.410***	.588***	.247
	(.138)	(.165)	(.153)	(.193)	(.102)	(.126)	(.122)	(.262)
(Max) Observations	222	120	139	131	339	239	257	58

Notes: Each cell presents the difference in the outcomes listed in each row between the treatment and control groups within the subgroup indicated in each column, followed by its standard error in parentheses. Observations vary slightly by outcome (± 4 observations); the maximum sample size for each subgroup is reported in the final row.. *=p<.05 **=p<.01 ***=p<.001

Table A1: Robustness Checks	Main	+ Inc.	+ Party	+ All	+ Ignore	+ 1 Add'l
	Results	Surveys	Covars	Covars	Attn. Check	Attn. Check
Outcome	(1)	(2)	(3)	(4)	(5)	(6)
A. Primary Confirmatory Outcome						
Std. Index of Support for Takeover	.474***	.467***	.453***	.415***	.468***	.452***
	(.088)	(.088)	(.088)	(.089)	(.087)	(.088)
	491	492	491	491	494	484
B. Exploratory Outcomes - Binary Measu						
Support Takeover (0/1)	.195***	.195***	.186***	.181***	.194***	.194***
	(.040)	(.040)	(.040)	(.041)	(.040)	(.040)
Oppose Takeover (0/1)	133***	133***	133***	122***	136***	13***
	(.034)	(.035)	(.035)	(.035)	(.034)	(.035)
Support Bond (0/1)	.099*	.099*	.109*	.109*	.098*	.096*
	(.041)	(.041)	(.041)	(.042)	(.041)	(.041)
Support End within 2 years (0/1)	128**	125**	118**	105**	131**	142**
	(.044)	(.044)	(.045)	(.045)	(.044)	(.045)
Support Stronger Conditions (0/1)	.120**	.118**	.110**	.100**	.123**	.128**
	(.043)	(.043)	(.043)	(.044)	(.042)	(.043)
	497	500	497	497	501	490
C. Exploratory Outcomes - Subindices of	Primary	Outcome				
Std. Subindex: General Support	.75***	.752***	.726***	.703***	.745***	.75***
	(.083)	(.083)	(.083)	(.085)	(.082)	(.083)
	496	499	496	496	500	489
Std. Subindex: Support Pay/Eval. Policies	.059	.052	.063	.033	.061	.038
	(.090)	(.090)	(.091)	(.093)	(.090)	(.091)
	495	497	495	495	498	488
Std. Subindex: Support Instr. Policies	.334***	.332***	.323***	.313***	.327***	.318***
	(.089)	(.089)	(.089)	(.092)	(.088)	(.089)
	497	498	497	497	501	490
Std. Subindex: Support Discipline Policies	.078	.074	.052	.022	.078	.053
	(.090)	(.090)	(.090)	(.089)	(.090)	(.090)
	495	496	495	495	499	488
Std. Subindex: Support Sched. Policies	.165	.16	.165	.144	.148	.145
	(.089)	(.089)	(.090)	(.092)	(.089)	(.090)
	495	496	495	495	499	488
D. Exploratory Outcomes - Process Indice	es					
Std. Process Index: State Leadership	.498***	.498***	.461***	.445***	.496***	.474***
	(.087)	(.087)	(.087)	(.086)	(.087)	(.088)
	492	492	492	492	496	485
Std. Process Index: Supt. Mike Miles	.502***	.502***	.466***	.432***	.496***	.484***
	(.088)	(.088)	(.087)	(.088)	(.087)	(.088)
Observations	493	493	493	493	497	486

Notes: Each cell presents the difference in the outcomes listed in each row between the treatment and control groups estimated using the specification described in each column, followed by its standard error in parentheses and sample size (all estimates in panel B have the same sample size). Column (1) replicates the main results in Table 2. Column (2) adds to the sample respondents with unfinished surveys (those who did not click submit). Column (3) adds a mutually exclusive and exhaustive set of political party covariates to the model in Column (1). Column (4) adds all of the covariates in Table 1 to the model in Column (1). Column (5) adds to the sample respondents who failed the primary attention check that was administered to respondents in all conditions. Column (6) excludes from the sample respondents who failed the secondary attention check that was only administered to the treatment group. *=p<.05 **=p<.01