



School Turnaround in a Pandemic: An Examination of the Outsized Implications of COVID-19 on Low-Performing Schools and Their Communities

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ABSTRACT

Turnaround schools and districts – those that are amongst the lowest-performing in their states – serve disproportionate shares of traditionally disadvantaged students. Using survey and administrative data collected during the COVID-19 pandemic, we document some of the ways in which the students in Michigan’s turnaround districts were adversely impacted by the pandemic, hindering their ability to engage in schooling and districts’ abilities to improve student achievement. We show that the communities in which turnaround schools are located were hardest hit by the pandemic and school and district operations were substantially disrupted. This resulted in high rates of student absenteeism, low student and parent engagement, and, ultimately, significantly smaller gains on math and reading benchmark assessments than in non-turnaround districts, although turnaround districts fared comparably to demographically similar districts. Our findings have implications for policy as states amplify school and district turnaround efforts that were disrupted by the pandemic.

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1. INTRODUCTION

The lowest performing schools and districts in the United States serve greater proportions of students of color, low-income students, and students with lower levels of familial education (Rabinovitz, 2016; Reardon, 2016). Moreover, persistently low performing schools and districts tend to be located in some of the poorest areas in the country, providing little in the way of educational opportunity to build up either individual or collective capacity in these communities (e.g., Dragoset et al., 2019; Heissel & Ladd, 2018; Strunk et al., 2020, 2021; Thompson et al., 2016; Zimmer et al., 2017). Together, these disparities contribute to ongoing and persistent opportunity and achievement gaps between advantaged and disadvantaged students, such that early achievement gaps between groups of students persist and grow throughout middle and high school and into postsecondary education and the workforce (e.g., Goldhaber et al., 2018; Hanushek et al., 2019; Jang & Reardon, 2019; Shores & Steinberg, 2019).

Policymakers have long sought to improve these low-performing schools and districts, thus enhancing educational opportunities for the students and communities served by these districts. Early systematic efforts at improving low-performing schools, labeled “whole school reforms,” entailed a slow and steady approach to improving student achievement in high poverty, low-performing schools (Aladjem et al., 2010; Borman et al., 2003; Herman et al., 2008). Beginning in the early 2000s, the federal government began incentivizing and eventually mandating that states implement school and district turnaround reforms focused on making “rapid and dramatic” improvements to student and school outcomes — typically within three years

(Herman et al., 2008). A growing evidence base finds that at least some of these turnaround interventions were effective at improving student achievement in the nation's lowest performing schools and districts (see Redding & Nguyen (2020) and Schueler et al. (2021) for comprehensive reviews).

However, the COVID-19 pandemic greatly disrupted K-12 education in the United States. And because the pandemic had an outsized impact on areas with high rates of poverty and underrepresented minorities (Cyrus et al., 2020; Finch & Hernández Finch, 2020), it is becoming increasingly clear that the pandemic also had an outsized impact on the schools and districts housed within them—exactly those districts undergoing turnaround interventions. Although it is too soon and there is too little assessment data to understand whether turnaround interventions were effective at shielding low-performing turnaround schools and districts from the worst impacts of the pandemic, there is reason to believe that turnaround reforms would have been stymied by the structural realities of educating students amidst a pandemic. In particular, the strategies that were integral to pre-pandemic turnaround models (e.g., extended learning time, widespread educator replacement, using data to inform school- and district-wide instructional strategies) were largely infeasible during pandemic learning. There is thus growing concern that pandemic-induced disruptions to in-school learning as well as shocks to students' out-of-school contexts in the nation's turnaround districts have resulted in lost opportunities to learn that are and will continue exacerbating existing achievement gaps, with early evidence from throughout the country bearing out those concerns (Bailey et al., 2021; Chen et al., 2021; Dorn et al., 2020; EmpowerK12, 2020; Engzell et al., 2021; Goldhaber, Kane, McEachin, & Morton, 2022; Halloran et al., 2021; Kilbride, Hopkins, Strunk, et al., 2021; Kogan & Lavertu, 2021; Kuhfeld et al., 2020, 2022; Lancker & Parolin, 2020).

Because the pandemic's challenges have been especially acute in communities with already high rates of poverty and communities of color, low-performing turnaround schools and districts located in these communities have been tasked with an especially daunting undertaking—to improve student outcomes against a backdrop of illness, death, reduced income, and lost access to previously available structural resources such as child care for younger children. In this paper, we examine the ways that the pandemic has affected low-performing schools, districts, and the communities they serve in the context of the Partnership Model, a state turnaround initiative to support the lowest performing schools and districts in Michigan. Michigan's Partnership schools and districts reflect the realities of other low-performing turnaround schools and districts across the country; they are located in communities with disproportionately high rates of poverty and unemployment, have greater shares of low-income students and under-represented minorities, and have greater challenges with education funding and associated teacher workforce concerns (Corallo & McDonald, 2001; Pendola, 2022; Strunk et al., 2021). To better understand the contexts in which teaching and learning occurred in these districts during the pandemic, we ask:

1. How did the pandemic affect health, socioeconomics, and mental health in Partnership districts and their communities?
2. How did the pandemic affect teaching and learning in Partnership districts?
3. To what extent did learning gains in Partnership districts differ from gains in non-Partnership districts during the pandemic?

To answer these questions, we draw from county-level COVID-19 data from the Michigan Department of Health and Human Services, district-level plans for instructional modality submitted to the state, survey data from teachers and principals in Partnership districts, and district-level data on fall 2020 and spring 2021 benchmark assessments. We find that Partnership communities experienced more COVID-19 cases and deaths than other communities in the state, especially in the first wave of the pandemic. Partnership districts also relied more heavily than non-Partnership districts on remote instruction, which was associated with lower learning gains statewide during the 2020-21 school year (Kilbride, Hopkins, Strunk, et al., 2021). Partnership educators reported that these conditions dramatically impacted their students' lives and hampered students' ability to attend and engage in schooling. For instance, in the 2020-21 school year, teachers in Partnership districts reported that each day, about 4 in 10 students in their districts were absent from class. Educators in Partnership districts reported significant challenges educating students who did not attend class, motivating students, and engaging parents, and believed that these challenges would ultimately hinder school and district improvement efforts. Unsurprisingly given the disproportionate challenges faced by students and educators in these districts, Partnership districts made significantly lesser learning gains, on average, than non-Partnership districts. However, we find that learning gains were similar to those of demographically similar districts with similar pre-pandemic achievement levels, suggesting that student learning in Partnership districts was not more adversely impacted than in other similar districts.

The remainder of this paper proceeds as follows. First, we review existing research that suggests the pandemic may have differentially impacted low-performing schools, districts, and the communities they serve. We then describe the Partnership Model and Partnership schools and districts in more detail. We turn next to a description of our data and methods, followed by a summary of findings organized by research question. We conclude with a discussion of the disparate impact of COVID-19 on the lowest performing districts in Michigan and policy implications.

2. LITERATURE REVIEW

In this section, we overview the literature illustrating the reasons the pandemic may have had a disparate impact on low-performing schools and the communities they serve. Next, we describe the emerging literature shaping concerns about growing achievement gaps in the wake of the COVID-19 crisis. We conclude by highlighting the subset of school turnaround literature that suggests the pandemic is likely to undermine improvement efforts.

2.1. The Pandemic's Disparate Impact on Low-Performing Schools and Their Communities

Low-performing schools are often located in communities of color with high rates of poverty (Corallo & McDonald, 2001; Harris, 2007; Hatch & Harbatkin, 2021; Reardon, 2016; Strunk et al., 2020)—the same communities that grappled with the most profound challenges stemming from the COVID-19 pandemic. These communities faced steeper economic declines, with Black, Hispanic, and economically disadvantaged households experiencing more income loss than White, Asian, and higher-income households over the first six months of the pandemic (Karpman et al., 2020). Early job losses were especially pronounced for Black and Hispanic workers in April and May 2020 when service sector jobs shut down, and Black workers re-entered the workforce at a slower rate than workers of other races (Montenovo et al., 2020). Losses fell heavily on families; during the pandemic, households with children were approximately 2.5 times more likely to be food insecure than households without (Niles et al., 2020). Decreased income contributed to higher rates of economic hardship and food insecurity—in particular prior to the adoption of the child tax credit and after its expiration (Ceron, 2021; US Census Bureau, 2021; Zippel, 2021).

Profound economic challenges came alongside acute health challenges. People in communities of color and with high poverty rates, like Partnership communities, were more likely to work in in-person settings where there was a greater risk of contracting COVID-19, while people in whiter and more affluent communities had more opportunity to work from home and evade infection (Béland et al., 2020; Montenovo et al., 2020). Partly as a result, Black and Hispanic people and those in poverty contracted, were hospitalized from, and died from COVID-19 at higher rates—especially in the early phases of the pandemic when medical providers lacked sufficient resources and were still learning how to treat infections, and mortality rates were exceedingly high (Adhikari et al., 2020; Gross et al., 2020; Wadhwa et al., 2020). Black, Hispanic, and American Indian children, in turn, lost parents and caregivers to COVID-19 at higher rates than White children (Hillis et al., 2021)

When the child care market overall contracted as a result of the pandemic (Ali et al., 2021), losses fell disproportionately on Black and economically disadvantaged families, for whom child care was already relatively less affordable and available (Hardy & Logan, 2020). Parents faced difficult decisions between leaving their jobs and giving up reliable income to stay home, care for their younger children, and support their older children's at-home learning—or going to work, exposing themselves and their families to the virus, and leaving children at home and often unsupervised (Adams & Todd, 2020; Garbe et al., 2020; Sharma, Chuang, et al., 2020; Sharma, Haidar, et al., 2020). While more affluent families may have had the reserves to survive on a single income, families already living in poverty and single-parent households—both of which are disproportionately represented in the communities served by low-performing schools—did not (Radey et al., 2021).

Limited access to resources such as reliable internet, technology devices, and parental support that may have hindered opportunity to learn prior to the pandemic became especially salient as schools shifted to remote learning. Indeed, a nationally representative survey found that Black, Hispanic, and low-income families had less reliable access to the internet, and particularly to high-speed internet, were less likely to have at least one computing device for each child in their household, and were less likely to have parents who could help with homework than White and higher-income families (Darling-Hammond et al., 2020; Haderlein et al., 2021). The implications of these inequities became more dire during the pandemic, as access to reliable internet was important to engage with online learning (Bacher-Hicks et al., 2021; Domina et al., 2021). Further, districts with lower test scores, high rates of poverty, and more students of color relied more heavily on remote learning for a longer portion of the 2020-21 school year even as other schools returned to in-person learning, and Black and Hispanic students were more likely than White students to learn remotely (Camp & Zamarro, 2022; Hopkins et al., 2021; Marshall & Bradley-Dorsey, 2020; Park, 2021; Parolin & Lee, 2021).

2.2. Growing Achievement Gaps

While we are not aware of existing research on student achievement specifically in turnaround schools during the pandemic, there is growing evidence that economically disadvantaged, Black, and Hispanic and Latino/a/x students experienced more interrupted learning than their peers during the pandemic (Agostinelli et al., 2022; Betebenner et al., 2021; Dorn et al., 2020; Engzell et al., 2021; Kilbride, Hopkins, Strunk, et al., 2021; Kuhfeld et al., 2022; Lewis et al., 2021). Testing participation rates were also lower among these groups (Jacobson, 2021; Kilbride, Hopkins, Strunk, et al., 2021; Meltzer, 2021), again suggesting they were more likely to be engaged in remote learning. There is strong evidence that remote learning was not as effective for students, on average, as in-person learning—and these disparities were even greater for economically disadvantaged students and students of color (Chetty et al., 2020; Goldhaber, Kane, McEachin, Morton, et al., 2022; Halloran et al., 2021; Kilbride, Hopkins, Strunk, et al., 2021; Kogan & Lavertu, 2021; Sass & Goldring, 2021). There is also evidence that remote learning strategies were less rigorous in school districts with higher rates of economically disadvantaged students and students of color (Center on Reinventing Public Education, 2020; Malkus, 2020; Patrick et al., 2021) and that student participation in remote learning was lower among Black and Hispanic students than their White peers (Besecker & Thomas, 2020).

2.3. The Pandemic and School Turnaround

While we know little about how turnaround schools and districts nationally fared during the pandemic, existing best practices for school turnaround would have been exceedingly difficult to implement during pandemic schooling. In particular, there are two key dimensions of school improvement that the pandemic may have impeded over and above its detrimental impact on communities, schools, and individuals: (1) building the school-level systems and processes necessary for meaningful and

sustainable improvement (Adelman & Taylor, 2007; Meyers, 2020; Peurach & Neumerski, 2015); and (2) hiring, retaining, and developing highly effective teachers (Harbatkin, 2022; Heissel & Ladd, 2018; Henry et al., 2020; Henry & Harbatkin, 2020; Malen & Rice, 2016; Papay & Hannon, 2018; Strunk et al., 2016).

Developing and sustaining effective school-level systems and carrying out a clear and coherent set of reform strategies would have been a particular challenge during the pandemic. When schools quickly pivoted to online learning in 2019-20, continuing even well-established instructional programs would have been challenging—and doing so with recently adopted programs taken up as part of turnaround efforts even more difficult (Hamilton et al., 2020; Marshall et al., 2020). Then, upon the partial return to in-person instruction in 2020-21, educators were tasked with helping their students recover from disrupted learning, and the instructional systems designed for pre-pandemic learning may have been less well-suited to student needs and more challenging to implement given the broader context. Collaboration opportunities—which are central to building and maintaining a shared sense of school culture—have suffered, and educators in turn have reported challenges stemming from lost collaboration time (Kraft et al., 2021).

In addition, there are widespread concerns that the pandemic has increased teacher burnout, uncertainty, and stress (Chan et al., 2021; Kim et al., 2022; Kraft et al., 2021; Pressley, 2021; Zamarro et al., 2021). The fallout from these dynamics likely disproportionately affected turnaround schools. In particular, a large literature demonstrates that a stable and highly effective teacher workforce is critical to successful school turnaround (Henry et al., 2020, 2022; Henry & Harbatkin, 2020; Malen & Rice, 2016; Papay & Hannon, 2018; Strunk et al., 2020), and turnaround strategies are therefore often focused on building teacher effectiveness and increasing retention of the most effective teachers. Teacher retention during the pandemic was likely a constant concern for low-performing schools, which already struggled to retain highly effective teachers prior to the pandemic (Boyd et al., 2005), and hiring may have also been a challenge as the pandemic weakened labor markets—especially among women, who make up the majority of the teacher workforce (Calarco et al., 2021; Croda & Grossbard, 2021; Zamarro & Prados, 2021). Meanwhile, the shift to online instruction involved a learning curve for all teachers (Trust & Whalen, 2020) and laid bare existing resource inequities (Darling-Hammond et al., 2020). High quality teacher coaching, which requires a certain level of intensity, job-embedded practice, and active learning, would have been highly challenging to implement while teachers were delivering instruction online and were not interacting as part of their day to day work (Desimone & Garet, 2015; Garet et al., 2001; Kraft et al., 2018; Wei et al., 2009). As a result, the pandemic may have undercut efforts to develop teachers in turnaround schools (VanLone et al., 2022)

Together, the research on effective practices for school turnaround combined with emerging research on educator experiences during COVID-19 raises concerns about

how low-performing schools and districts could have continued their turnaround efforts during the pandemic. Understanding how turnaround schools and districts experienced and responded to the pandemic will therefore be critical to unpacking the continued trajectories of the lowest performing schools moving forward.

3. SETTING

The federal Every Student Succeeds Act (ESSA) requires all states to identify their lowest performing schools for Comprehensive Support and Improvement (CSI) and turn them around over a three-year period. The Partnership Model of School and District Turnaround is Michigan's intervention to turn around its lowest performing schools under ESSA. Partnership districts—districts that house at least one Partnership school—are charged with developing and leading improvement efforts in Partnership schools. These districts work with school and district leadership, a liaison from the Office of Partnership Districts (OPD) at the Michigan Department of Education (MDE), and community stakeholders to develop a turnaround plan that examines district and school strengths and weaknesses, identifies improvement goals to be met over 18- and 36-month timeframes, outlines strategies and reforms to meet those goals, and sets consequences for failing to meet those goals. The district is charged with implementing the plan over three academic years with support from its Intermediate School District (ISD) or Regional Educational Services Agency (RESA), identified community partners, and OPD. The state identified its first cohort of Partnership schools in 2016-17 and its second in 2017-18, with implementation in each case beginning the year following identification. In this paper, we focus on the 99 schools and 27 districts operating under Partnership Agreements during the 2020-21 school year.

As is the case nationally, Partnership communities are home to a disproportionate share of the state's Black students, face higher rates of poverty and especially child poverty, have lower median incomes, and rely more on Supplemental Nutrition Assistance Program (SNAP) benefits than non-Partnership communities (Hatch & Harbatkin, 2021). Economic and racial disparities are even more pronounced when comparing Partnership schools and districts with non-Partnership schools and districts. Table 1 provides descriptive statistics using data from the U.S. Census on Partnership communities compared with non-Partnership communities (Panel A) and data from the state of Michigan on Partnership schools, districts, and non-Partnership schools (Panel B). Panel A shows that the share of Black residents is twice as high in Partnership than non-Partnership communities (27% vs. 13%). Panel B shows that these disparities are even more pronounced at the school level. Specifically, 85% of the students in Partnership schools and 77% of the students in Partnership districts are Black—compared with less than 16% of students in the rest of the state. Unlike low-performing schools in some other contexts, Partnership schools serve a relatively low share of Hispanic or Latino/a/x students, who tend to be concentrated in Michigan's rural areas.

The second section of Panel A shows that Partnership communities are also home to more individuals, families, and children in poverty than non-Partnership communities. In particular, the child poverty rate in Partnership communities is 28%—which is 8 percentage points and about 40% higher than the child poverty rate in non-Partnership communities. High rates of poverty translate to higher rates of food insecurity in Partnership communities, where nearly one-third of households with children qualify for SNAP benefits compared with about one-fifth outside of Partnership communities. Again, these differences are even more pronounced at the district and school levels, shown in Panel B. On average, more than 90% of students served by Partnership schools and districts qualify as economically disadvantaged, compared with less than 60% elsewhere in the state. In sum, these county-, district-, and school-level differences underscore the high levels of racial and economic segregation present in Michigan’s communities and schools and highlight that the state’s lowest performing schools serve a disproportionate share of its Black students and students in poverty.

TABLE 1

Though not shown here, technology access is also less pervasive in Partnership than non-Partnership communities. Residents of Partnership communities are more likely to rely exclusively on smartphones rather than desktop or laptop computers. Additionally, while Partnership districts are largely located in urban areas where broadband infrastructure is in place, residents of non-urban Partnership communities are about 9% less likely to have access to broadband (Hatch & Harbatkin, 2021). While we do not have the data to measure these technology disparities at the school level, the county- versus district- and school-level differences in Table 1 highlight that Partnership schools and districts tend to serve the most disadvantaged populations in their communities, suggesting that school-level technological disparities are likely more pronounced than county-level differences.

4. DATA AND METHODS

We rely on multiple data sources to understand the experiences of Partnership schools, districts, and their communities, and the strategies districts employed for teaching and learning during the pandemic. Drawing on these sources, which span the county, district, and school levels, we conduct descriptive analyses to examine differences between Partnership and non-Partnership communities, districts, and schools.

4.1. COVID-19 Transmission and Death Rates

We rely on publicly available COVID-19 confirmed case and death counts from the Michigan Department of Health and Human Services (MDHHS) for all 83 counties in Michigan, 11 of which are home to Partnership districts, to understand how the pandemic may have differentially affected Partnership districts in terms of health

outcomes.¹ We convert these case and death counts to rates per 100,000 using 2019 county population estimates from the U.S. Census Bureau American Community Survey and then calculate seven-day rolling averages for each day in order to account for county reporting idiosyncrasies. We use data from March 1, 2020, through June 14, 2021, approximately the end of the 2020-21 school year. For each county, we also calculate the cumulative confirmed case and death rates per 100,000 as a measure of the cumulative toll over the same period. Because case and death data are reported at the county level, we assign county-level values to districts and then calculate means for Partnership and non-Partnership districts, weighted by district size. As a result, the means can be interpreted as representing the experience of the average student in a Partnership or non-Partnership district.

4.2. District Plans for Instructional Modality

To understand differences in instructional modality, we rely on data from Extended COVID-19 Learning (ECOL) plans, which Michigan districts were required to submit monthly for the duration of the 2020-21 school year. Each month, the state received ECOL plans from between 808 and 814 of 814 applicable school districts, including all Partnership districts in each month. In these plans, districts reported whether they planned to provide instruction fully in-person, fully remote, or in a hybrid format.²

We conduct two descriptive analyses using the ECOL data to examine (1) district offerings, and (2) take-up of those offerings. To assess the extent to which districts offered different modalities over time, we create three mutually exclusive categories for each district in each month from September 2020 through May 2021. The first category, “in-person option,” classifies districts that have any students attending fully in person. The second, “hybrid,” classifies districts without a fully in-person option that have any students attending under a hybrid model, in which they attend in-person for part of the week and remotely for part of the week. The final category, “fully remote,” identifies districts in which all students attend remotely each day. We exclude districts that operated virtually (i.e., fully remote) before the pandemic, including one Partnership district. We then compare the percentages of Partnership districts and non-Partnership districts offering each of the three modalities.

While the first analysis examines the share of districts providing each modality, the second estimates the share of Partnership and non-Partnership district *students* that received instruction in each modality. To conduct this analysis, we draw from a question that asked districts to specify the approximate percentage of students receiving each modality each month, with range options of less than 25%, 25-49%, 50-74%, 75-99%, and 100%. We combine responses to this question with district-level student enrollment to estimate the share of all Partnership and non-Partnership students that received each instructional modality. Specifically, for each district, we calculate the number of students that would have received a given mode of instruction under both the low- and high-end assumption based on the district ECOL report (i.e., if the district respondent selected 25-49% then the low end for that modality would be

25% and the high end would be 49%) by multiplying the low and high end values by district enrollment. We then provide monthly ranges representing the estimated share of students across all Partnership and non-Partnership districts, respectively, participating in each instructional modality.

4.3. Teacher and Principal Surveys

Over three years of a larger evaluation of the Partnership Model (2018-19 through 2020-21), we administered annual surveys to all principals and teachers in Partnership districts. The survey window for the most recent wave, in which we asked questions specific to educators' perceptions of and experiences with schooling during the COVID-19 pandemic, was between February and early March of 2021. To identify the population of teachers and principals in Partnership districts, we drew from statewide administrative data identifying all school and district employees. Teacher response rates were 38% in the first year, 49% in the second, and 39% in the third. Principal response rates were 29%, 38%, and 47%, respectively, over the three years (See Appendix Table A-1 for a breakdown of response rates by survey wave and Partnership status). Over the three survey waves, we sent 19,738 surveys to eligible teachers and 765 to eligible principals. In total, we received 8,284 teacher and 285 principal responses.

Although the surveys covered many topic areas, we focus in this study on questions related to perceptions of pandemic-related challenges and on schoolwide factors that research suggests may have been influenced by the pandemic. The former category of questions provides a snapshot in time of educator perceptions in February and early March 2021. The latter category provides a comparison over three years of educator perceptions of school climate-related factors. We focus on four pandemic-related questions. One, on both the teacher and principal surveys, asked educators to estimate the share of students with immediate and other family members who contracted COVID-19, with response options of <10%, 10-25%, 26-50%, 51-75%, 76-90%, and >90%. A second question asked teachers and principals to estimate the share of students who were absent each day, with the same ranges as response options. A question to teachers only asked about the extent to which a variety of conditions presented a challenge for their students that year, and included categories such as access to health care, homelessness or housing instability, food insecurity, having a parent or guardian who is a frontline worker, parent or guardian job loss, taking on new childcare responsibilities, mental health, and access to mental health care. Response options were "not a challenge," "a minimal challenge," "a moderate challenge," "a major challenge," and "the greatest challenge." Finally, the fourth pandemic-related question asked teachers about the extent to which they agreed that their students had a variety of at-home resources necessary for remote learning, including a quiet place to learn with reliable heat and electricity, parents or guardians who can assist, reliable internet, non-technology resources such as paper and pencils, and tech devices. Response options followed a five-point Likert scale from strongly disagree to strongly agree.

We also draw from three question items that were asked in each year of the survey. The first, which asked teachers and principals about their perceptions that students were enthusiastic to learn, came from a larger bank of items about school climate and culture in which response options followed a five-point Likert scale from strongly disagree to strongly agree. The other two came from a question that asked both teachers and principals to indicate the extent to which they believed a variety of factors were hindrances to school improvement. Response options were “not a hindrance,” “a slight hindrance,” “a moderate hindrance,” “a great hindrance,” or “the greatest hindrance.”

In all analyses, we weight teacher and principal responses separately by year using sampling and nonresponse weights. We calculate the sampling weight using the school-level coverage of our sampling frame and calculate the nonresponse weight as the inverse probability of response based on demographic characteristics (race/ethnicity, gender) for both teachers and principals, and certification type (i.e., elementary, secondary) for teachers. We analyze these survey responses using item-level descriptive statistics and present weighted means and distributions of all teachers across Partnership districts. Where teacher and principal responses meaningfully differ, we provide principal responses alongside teacher data. To better understand the extent to which disadvantage is further concentrated within Partnership schools, we run hypothesis tests comparing responses from Partnership school teachers with those from their district peers and highlight significant and meaningful differences in the text. For question items that we observe over time, we examine the extent to which responses changed after the onset of the pandemic by running a parallel set of hypothesis tests comparing spring 2020-21 (February/March 2021) with fall 2019-20 (November/December 2019) responses.³

4.4. Benchmark Assessments

Michigan required all school districts to administer approved math and reading benchmark assessments to all K-8 students in fall 2020 and spring 2021. Twenty-three of the 26 districts under Partnership during the 2021-22 school year made assessment data available through the Michigan Data Hub.⁴ Of those 23 Partnership districts, 19 used NWEA's MAP Growth assessments and four used Curriculum Associates' i-Ready assessments. We focus specifically on grades 3–8 to reduce bias arising from parental help that evidence suggests may have occurred frequently in early grades in fall in particular when many districts were operating remotely (Kilbride, Hopkins, Strunk, et al., 2021).

We draw from district-by-grade-by-subject mean scale scores for Partnership and non-Partnership districts and convert mean scale scores to standard deviation units using student-level means and standard deviations. We run separate analyses for the two assessments because although the two assessments measure similar constructs, they cover slightly different content and use different scales. There are also differences in the districts that used each assessment,⁵ so stacking the assessments in the same model would involve inaccurately assuming that the mean MAP district was equivalent to the mean i-Ready district. We present estimates from MAP assessments in order to

leverage data from the greatest number of Partnership districts, though we run parallel analyses on i-Ready data where possible and find similar results.

We compare Partnership districts' benchmark achievement growth over the 2020-21 school year to achievement growth in non-Partnership districts using the same tests. We begin with a naïve OLS value-added model that takes the form

$$SpringScore_{dg} = \beta_0 + \beta_1 Partnership_d + \beta_2 FallScore_{dg} + \rho_g + \varepsilon_{dg}, \quad (1)$$

predicting the average math or reading district score in spring 2021 for district d in grade g as a function of the Partnership district indicator, the average district fall 2020 score, a grade level fixed effect, ρ , and a heteroskedasticity-robust idiosyncratic error term, ε . The estimate on β_1 provides the simple difference in fall-to-spring growth between Partnership and non-Partnership districts. This model allows us to examine the extent to which Partnership districts fared differently from non-Partnership districts during the 2020-21 school year, on average.

Next, to examine the extent to which being assigned to turnaround may have mitigated the detrimental effects of the pandemic on student achievement in Partnership districts, we employ a kernel-based matching model in which we compare Partnership districts with similar districts and control for a rich set of district-level covariates. This model takes the form

$$SpringScore_{dg} = \beta_0 + \beta_1 Partnership_d + \beta_2 FallScore_{dg} + \gamma X'_d + \rho_g + \varepsilon_{dg}, \quad (2)$$

where X ' is a vector of district-level covariates drawn from statewide administrative data provided by the Michigan Department of Education (MDE) and the Center for Educational Performance and Information (CEPI). These covariates include 2018-19 grade 3-8 proficiency in math (math models) or ELA (reading models); and 2019-20 student demographics including economically disadvantaged, special education, English learner, Black or African American, Hispanic or Latino/a/x, other race/ethnicity, and a quadratic function of student 2019-20 student enrollment. While we would ideally like to match on each of these control variables, the district-level data requires that we focus on a more parsimonious set of matching variables in order to ensure common support. We use multivariate distance matching on 2018-19 math or ELA proficiency rate, as well as the share of district students in 2019-20 who were Black and economically disadvantaged, respectively.⁶ We prioritize matching on Black and economically disadvantaged because Partnership districts are home to disproportionate shares of the state's Black and economically disadvantaged students and, as we describe above, the pandemic had disparate impacts on Black communities and those with high rates of poverty. We match on pre-pandemic proficiency rates because we want to compare Partnership districts with those that were similarly low performing prior to the pandemic. We also require exact matches on governance model (traditional public school district or charter), Census locale (urban, suburban or town, and rural), assessment provider (NWEA), and grade level. Raw and matched balancing statistics are provided in Table A-2. The matched weighted sample has slightly lower Black and

economically disadvantaged shares and slightly higher proficiency rates, but differences are small in magnitude and within 0.2 standard deviations.

These analyses are descriptive in nature due to the limitations stemming from having only post-pandemic and district-level data. However, we also run additional analyses to examine the robustness of our descriptive findings. First, to approach a more nuanced estimate of the relationship between Partnership and student outcomes within the context of district-level data, we replace the binary Partnership district indicator with a continuous measure representing (a) the share of schools in the district in Partnership, and (b) the share of students in the district assigned to Partnership schools. For each of these alternative treatment variables, we run naïve and then covariate-adjusted OLS models (without matching), replacing the Partnership district indicator with the continuous Partnership measure. This provides a slightly more fine-grained measure of Partnership by allowing the relationship between Partnership and student gains to vary depending on the extent of Partnership schools in the district. If Partnership schools fared differently from non-Partnership schools in their districts, estimates on the Partnership share variable would be larger than the main estimates on the indicator.

Second, in an effort to examine whether differences in Partnership districts were driven by a greater reliance on remote learning, we draw on the district modality data described above to run models adding a control for number months the district spent fully remote. Here, we add a continuous variable representing months remote as well as an indicator denoting whether the school was virtual prior to the pandemic to the simple covariate-adjusted OLS model as well as to the matched model.

Each of these approaches yields very similar results and remote learning does not appear to mediate the relationship between Partnership and student learning gains. We therefore present only the naïve, covariate-adjusted OLS, and matched models, though we provide results from the additional models in a supplementary appendix.

5. FINDINGS

5.1 How did the pandemic affect health, socioeconomics, and mental health in Partnership districts and their communities?

5.1.1. Health Outcomes

The COVID-19 pandemic struck Partnership communities especially hard in the early days of the pandemic. Figure 1 illustrates the stark differences in viral spread and health outcomes between Partnership and non-Partnership communities in the earliest phase of the pandemic, with confirmed cases in Panel A and confirmed deaths in Panel B. At the height of the first wave, Partnership communities were experiencing twice as many cases and deaths per 100,000 residents as non-Partnership communities, with 24 cases in early April 2020 and 2.8 deaths in mid-April 2020 per

100,000 residents. Although in the second wave of the pandemic, cases and deaths in non-Partnership communities slightly exceeded those in Partnership communities, by the third wave, in spring 2021, the pattern reverted back and Partnership communities again were experiencing higher case and death rates.

FIGURE 1

Table 2 shows that by the end of the 2020-21 school year, Partnership communities had suffered greater health consequences from the pandemic than non-Partnership communities, with more than 9,000 cases per 100,000 residents—nearly 5% higher than the approximately 8,600 in non-Partnership communities. The discrepancy in deaths was starker, with 244 people per 100,000 residents of Partnership communities dying, 28% more than the 191 in non-Partnership communities. By dividing the death rate by the case rate, we can also estimate the percent of confirmed cases that ended in death. Approximately 2.7% of confirmed cases resulted in death in Partnership communities relative to 2.2% of cases in non-Partnership communities. This is likely attributable to other factors that speak to the inequitable differences in conditions between communities, including health disparities (e.g., health insurance, access to high quality health care) and economic conditions (e.g., ability to take off work).

TABLE 2

These high rates of community spread and disparate COVID-19 deaths permeated the experiences of Partnership district educators and students, who were working to teach and learn as the pandemic struck their communities. The bottom rows of Table 2 show that teachers in Partnership districts estimated that about 22–39% of their students had immediate family members and about 28–46% had non-immediate family members who contracted COVID-19 by February or March of 2021. Together, these findings highlight that students in Partnership districts grappled with substantial health concerns as a result of COVID-19—and that county-level case and death rates may even understate COVID-19 conditions for students in Partnership districts, where educators estimated that an especially large share of their students had family members who contracted COVID-19 in the first year of the pandemic.

5.1.2. Socioeconomic Challenges

As the pandemic undercut public health, it also introduced new socioeconomic challenges for students and families—especially those in Partnership schools and districts who were already grappling with substantial economic disadvantage prior to the pandemic. Figure 2 provides teacher responses to items asked about students' socioeconomic challenges. The bottom two bars show that teachers believed the most salient socioeconomic challenges for their students were new child care responsibilities due to the pandemic and parent or guardian job loss. Specifically, more than 70% of teachers reported that these were “a major challenge” or “the greatest challenge” for their students in the classroom during the 2020-21 school year.

About 60% reported that having a parent or guardian as a frontline worker during the pandemic was a major or the greatest challenge for their students. Additionally, teachers reported that high proportions of their students faced substantial challenges regarding food insecurity (59% reporting a major or the greatest challenge), homelessness or housing instability (44%), and access to health care (39%). Notably, very few teachers believed that these factors were not a challenge for their students.

FIGURE 2

5.1.3. Mental Health

Perhaps unsurprisingly given the data discussed above, mental health emerged as a salient challenge for students in Partnership districts. Though not shown here, educators in Partnership districts estimated that 47–63% of their students experienced socioemotional trauma as a result of COVID-19. In turn, teachers believed that mental health and mental health care were major challenges for their students during the pandemic. Figure 3 shows that nearly two-thirds of teachers in Partnership districts said mental health and access to mental health care was a major or the greatest challenge for their students during the 2020-21 school year. The far majority—more than 80%—said these were moderate challenges or greater.

FIGURE 3

In summary, the pandemic wrought outsized health effects on Partnership communities, which are home to a disproportionate share of the state’s Black residents and families in poverty. In Partnership districts, educators perceived that a substantial share of their students had family members who contracted the virus within the first year COVID-19 was first detected in the United States, suggesting that health challenges were even more pronounced in Partnership districts than in the rest of the state. Socioeconomic challenges were also evident across Partnership districts, with exceptionally high shares of teachers reporting that their students grappled with new child care responsibilities and challenges associated with having parents working as frontline workers in particular. Across Partnership districts, as in the rest of the country, mental health and access to mental health care was a salient challenge for students.

5.2. How did the pandemic affect teaching and learning in Partnership districts?

Given the challenges discussed above, it is not surprising that Partnership districts faced unique challenges with respect to teaching and learning during the pandemic. In this section, we examine four dimensions of teaching and learning during the pandemic: (1) instructional modality offered by districts and student take-up of modality options; (2) teacher perceptions of resources for teaching and learning; (3) student absenteeism; and (4) educator perceptions of student motivation and parent engagement.

5.2.1. Instructional Modality

Figure 4 provides the share of Partnership and non-Partnership districts, respectively, that offered each of three instructional modalities (in-person, remote, or hybrid) for each month of the 2020-21 school year, by Partnership district status. Partnership districts were about twice as likely as non-Partnership districts to begin the school year with fully remote instruction and less than half as likely to offer an in-person option. By December 2020, all but one Partnership district had shifted to fully remote, compared with just under 50% of non-Partnership districts. As districts moved away from remote-only instruction in spring 2021, Partnership districts relied on hybrid instruction even as non-Partnership districts reopened for fully in-person instruction. This finding is concerning because research shows that each additional month of remote schooling in Michigan during the pandemic was associated with a 1 percentage point increase in the share of students scoring “significantly behind grade level” on state math assessments in spring 2021 (Kilbride, Hopkins, Strunk, et al., 2021).

FIGURE 4

Given the high rates of community spread in Partnership communities and the large share of Black residents, who polls suggest were on average less comfortable returning to in-person schooling than parents of other races (Camp & Zamarro, 2022), it may be the case that Partnership districts remained remote longer because of parent preferences. Figure 5 provides evidence on the take-up of instructional modality by Partnership district status, shedding light on these preferences. We provide four unique values to understand student take-up of each modality: the percent of students offered each instructional modality (represented by the outermost light gray bars), the maximum estimated percentage of students receiving each modality (represented by the lightest shades within those bars), the minimum estimated percentage of students receiving each modality (represented by the middle shades), and the percentage of students who were not offered any other modes of instruction and therefore could not choose their learning modality (represented by the darkest shades).

The bars covering early fall 2020 and spring 2021—the time periods when more families in Partnership districts had non-remote options—illuminate the extent to which preferences varied between families in Partnership and non-Partnership districts. The first panel shows that a greater share of families in Partnership districts opted into fully remote instruction even when other options were available. By contrast, a lesser share of families in non-Partnership districts selected into fully remote options that were available to them. The second two panels show that as Partnership districts began to offer hybrid and in-person instruction, the share of Partnership district families choosing available hybrid options was greater than the share choosing available fully in-person options. In non-Partnership districts during the latter half of the 2020-21 school year, parents largely opted for fully in-person instruction. By the end of the school year, fewer than 20% of students in Partnership districts were estimated to be attending school fully in person compared with as many as 60% of students in non-Partnership districts.

FIGURE 5**5.2.2. Resources for Teaching and Learning**

Longer term reliance on remote schooling intensified existing resource gaps for students in Partnership schools and districts. Figure 6 provides Partnership district teacher responses to survey items related to the resources and supports students had at home. Fewer than half of teachers agreed or strongly agreed that their students had access to any of the listed resources. Of each of the options, teachers were most likely to report that their students had the technology resources needed to learn (e.g., computers, software)—perhaps unsurprising given district efforts to provide technology devices (Hatch & Harbatkin, 2021). Still, just over 40% of teachers agreed or strongly agreed with this statement, and fewer (about 20%) believed their students had reliable internet access, highlighting the challenges that remained for students despite districts’ investments to close the digital divide. Even fewer teachers believed their students had the non-technological resources (e.g., paper, pencils, subject specific tools such as lab materials, musical instruments) they needed to learn.

FIGURE 6

Teachers were least likely to agree and most likely to strongly disagree that their students had “a quiet, well-appointed place to learn with reliable electricity and heat at home”—an important ingredient for engaging in online learning— and only about 10% believed that their students had “parents or guardians who can assist with classwork, assignments, and comprehension as needed.”

A second dimension of resource availability involves the resources and capacity that teachers have for instruction. Figure 7 shows that across Partnership districts, only about 40% of teachers believed they had the data they needed to target instruction and the resources necessary to educate their students. By extension, only about 1 in 5 teachers said they were able to educate their students at least as well as in prior years.

FIGURE 7**5.2.3. Student Absenteeism**

Survey data suggest that student absenteeism was widespread in Partnership districts in the 2020-21 school year and that educators perceived student absenteeism to be a major challenge in their classrooms. Though not shown here, teachers estimated that 23–41% of their students were absent each day. In turn, the vast majority of teachers in Partnership districts (82%) perceived that educating students who did not attend class was the greatest challenge or a major challenge in the classroom.

5.2.4. Student Motivation and Parent Engagement

A separate but related challenge for Partnership schools and districts was how to engage students and their families—a critical element of successful turnaround. Panel

A of Figure 8 shows that even prior to the pandemic, educators in Partnership districts were reporting relatively low student enthusiasm to learn—and perceptions dropped sharply during the 2020-21 school year. This decline was especially pronounced among principals' reports, who previously tended to perceive higher student enthusiasm than teachers. Panel B shows a parallel increase in perceptions of low student motivation as a hindrance to school improvement. In 2020-21, about three-quarters of teachers and principals perceived that low student motivation was a hindrance to their improvement efforts. Although not shown here, there were differences in educator perceptions between Partnership and non-Partnership schools in Partnership districts pointing to even more pronounced challenges in Partnership schools. In particular, educators in Partnership schools were less likely than their district peers in non-Partnership schools to agree that students were enthusiastic to learn ($p=0.001$) and more likely to report that low parent engagement was a great hindrance to improvement ($p<0.001$).

FIGURE 8

Finally, in addition to reporting challenges related to student motivation, educators perceived that low parent engagement was a growing hindrance to school improvement. Panel C follows similar patterns to Panel B, showing that perceptions of low parent engagement as a hindrance to improvement increased for teachers and principals across Partnership districts in 2020-21. The change was again steepest among principals' reports, and by 2020-21, about 60% of both teachers and principals were reporting that low parent engagement was a great or the greatest hindrance to school improvement. Together, these findings suggest that educators in Partnership districts struggled with student enthusiasm, student motivation, and parent engagement prior to the pandemic—especially in Partnership schools. The pandemic, in turn, appeared to exacerbate these challenges across Partnership districts, as educator perceptions were significantly more negative ($p<0.001$ in all three comparisons) in spring 2021 than they were before the pandemic in fall 2019.

5.3. To what extent did learning gains in Partnership districts differ from gains in non-Partnership districts during the pandemic?

As might be expected given the ways in which steep challenges in Partnership communities permeated teaching and learning in schools, Partnership districts fared worse on math and reading benchmarks, on average, than non-Partnership districts. However, they made comparable learning gains to districts with similar demographic composition and pre-pandemic achievement. Table 3 provides the regression results for math and reading, respectively, with naïve OLS estimates in columns 1 and 4, covariate-adjusted OLS estimates in columns 2 and 5, and covariate-adjusted matched estimates in columns 3 and 6. The naïve estimates show that on average, Partnership district gains during the 2020-21 school year were about 0.18 standard deviations

lower in math and 0.13 standard deviations lower in reading. After controlling for district-level covariates, these differences are close to zero, though they are relatively imprecise. The coefficients in the matched models become slightly larger in magnitude but remain insignificant.

TABLE 3

Estimates from robustness checks are presented in the appendix, with Table A-3 showing results from models that include remote months, Table A-4 and Table A-5 showing results from models that operationalize Partnership as a continuous variable, and Table A-6 showing results from i-Ready districts. Models that add remote months find that an additional month of remote learning is associated with decreases about 0.02 standard deviations in math and 0.01 standard deviations in reading, but do not change the estimates on Partnership. This suggests that while remote learning was associated with smaller learning gains, the reduced learning in Partnership districts does not appear to be driven by their reliance on remote instruction. Instead, the models suggest that their slower growth is related to district characteristics.

Estimates that operationalize treatment as a continuous variable are similar but slightly larger in magnitude in the naïve models for both math and reading. Covariate-adjusted models with continuous treatment remain highly imprecise. Finally, we find similar estimates in i-Ready districts, though we again caution that these estimates are based only on four Partnership districts.

6. DISCUSSION AND CONCLUSION

Turnaround reforms like the Partnership Model are intended to quickly and substantially improve school and district operations and increase student performance. It is imperative that such reforms are successful; turnaround schools and districts, which are by definition the lowest performing schools and districts in each state, are home to disproportionately large shares of low-income students and underrepresented minorities. They serve communities that are themselves among the most disadvantaged in the country. Improving student outcomes in these schools and districts is critical if we hope to shrink the opportunity and achievement gaps that have long permeated America's public education system.

While there is some evidence that such initiatives have been successful in improving student outcomes, this kind of dramatic progress is difficult even in the best of circumstances, much less during and in the aftermath of a pandemic. Unfortunately, the communities that house turnaround schools and districts were also those most adversely impacted by the COVID-19 pandemic. While there is a growing body of research documenting the steep challenges for K12 schools wrought by the pandemic, and some evidence addressing the disproportionate impact of the pandemic on low-income students and students of color, there has been less attention paid to the

particular challenges experienced by the lowest-performing turnaround schools and districts as they were expected to dramatically improve student performance amidst the pandemic. In this study, we aim to shed light on the ways in which the COVID-19 pandemic affected students and educators in Michigan's turnaround districts, and the ways that teaching and learning necessarily changed as a result of the challenging pandemic context.

Our findings paint a dire picture, showing that Partnership communities and districts experienced substantially greater adverse impacts of the pandemic than higher performing more affluent communities and districts. Perhaps the most obvious disparity is found in the data about COVID-19 spread in Partnership relative to other communities. Partnership communities suffered more cases (especially in the early days of the pandemic), more deaths, and disproportionately high death rates given their case rates. Accordingly, teachers reported that many of their students had family members who contracted COVID-19 in the early pandemic waves.

Comparing our results with those from other surveys and studies highlights the disparate and inequitable realities Partnership communities faced relative to the population on average across the country. For instance, the study that serves as the closest comparison to our own in terms of the direct health impacts of COVID but uses a national sample, the Understanding Coronavirus in America tracking survey, asked respondents to indicate how many family members and close friends they had and how many of those family members and close friends had been infected with the coronavirus. Respondents who took the Understanding Coronavirus in America survey during the Partnership survey administration window estimated that about 13–15% of their close friends and family had been infected with the virus.⁷ The substantially higher estimates by Partnership district educators combined with the severe community spread in Partnership districts shown above provide reason to be concerned that students in Partnership schools and districts were, indeed, more likely to personally experience the adverse health effects of the pandemic than students in less disadvantaged districts.

Students and families in Partnership communities also grappled with substantial economic and mental health hardships that inevitably affected educators' abilities to teach and students' abilities to learn during the 2020-21 school year. National survey data related to students' mental health during the pandemic reinforce the substantial mental health challenges students faced during the 2020-21 school year and again highlight the extent to which mental health was an even greater challenge for students in Partnership districts. Our data show that 63% of teachers in Partnership districts reported that mental health was a major or "the greatest" challenge for students during the 2020-21 school year. A poll administered to a national sample of children ages 13-17 in late February 2021 found that 51% reported worse personal mental health than prior to the pandemic (Morning Consult & EdChoice, 2021). A U.S. Centers for Disease Control (CDC) report based on a NORC survey administered in fall 2020 to

a nationally representative survey of households with children ages 5-12 found that 22% of parents reported that their children experienced worse mental health due to the pandemic (Verlenden et al., 2021).⁸ Together, these figures underscore that mental health was a salient challenge for students across the country, and that mental health challenges among students in Partnership districts were especially stark.

These external-to-school factors necessarily seeped into Partnership districts, schools, and classrooms. Partnership districts responded to high community transmission rates by remaining fully remote much further into the 2020-21 school year than higher performing districts, but lacked sufficient resources to effectively close resource gaps as their students were learning from home. Student absenteeism was exceedingly high in Partnership districts during remote instruction, and educators perceived critical challenges related to student motivation and parent engagement—central pillars of successful turnaround. Nationally representative data again highlight the extent to which the pandemic led to greater opportunity gaps in Partnership districts than elsewhere. For instance, we find that Partnership teachers estimated that 23–41% of their students were absent each day, and 82% of teachers reported that educating students who were not in attendance was a major or the greatest challenge in the classroom during the 2020-21 school year. A RAND study conducted in the spring of 2021 asked teachers what share of their students were absent “on most school days per week over the past month,” and 91% reported between 0 and 25% (Kaufman et al., 2021). Eighty-three percent of teachers in the RAND study estimated that between 0 and 25% of students were absent “1-2 days per week over the past month”—far lower than Partnership district teachers’ estimates.

While our study examines only the low-performing turnaround districts in one state—Michigan—our results are likely generalizable to similar districts and communities across the country. The socioeconomic and population characteristics of Michigan’s Partnership districts are similar to those in other states’ low-performing and turnaround districts, and the disparities between Michigan’s Partnership and non-Partnership districts reflect differences across the nation (Corallo & McDonald, 2001; Harris, 2007; Reardon, 2016; Strunk et al., 2020). Therefore, the pandemic-induced difficulties we document in Partnership districts will likely be the same as in other low-performing districts across the country, with the same immediate impacts on teaching and learning that are likely to lead to longer-term consequences for the ability of these schools and districts to continue on their improvement trajectories.

These findings, then, should serve as a caution for policymakers and stakeholders expecting to see dramatic turnaround improvements in low-performing schools and districts in the years coming out of the pandemic. Although the Partnership Model was showing early signs of effectiveness in improving student achievement, especially for Partnership schools’ lowest-performing students, prior to the pandemic, the substantial impacts of COVID-19 on Partnership communities and districts will make it challenging for these districts and students to return to a pre-pandemic “normal,” much less an acceleration of the type expected of turnaround interventions.

Policymakers will therefore need to adjust accountability policies to take into consideration how to support and evaluate school performance within this new context. While it will be tempting to return to “business as usual,” setting achievement growth targets and holding schools and districts to meeting them, our results make clear that turnaround schools and districts may not be able to reach those targets at the pace that is expected of them. Partnership students and their communities have suffered great losses that have impacted their physical, mental, and economic health, as well as their learning over the course of the pandemic. It will therefore be necessary for policymakers to understand the immense challenges facing turnaround schools and districts in the aftermath of the pandemic so that they can allocate supports and resources in ways that enable students to recover academically, physically, and socioemotionally. In particular, policymakers will need to provide sufficient and ongoing funding to enable low-performing turnaround districts like Partnership districts to purchase necessary intervention tools (e.g., curriculum, Tier I and II programs), technology, and infrastructure upgrades to allow for students’ safe return to school buildings. In addition, turnaround districts will need resources and supports to effectively recruit and retain educators as teachers and principals appear to be exiting low-performing schools and districts at higher rates (Hatch & Harbatkin, 2021).

In sum, schools and districts undergoing turnaround reforms prior to the pandemic were already those that needed the most support and assistance, and the pandemic has only exacerbated and added to the challenges they were facing. Low-performing schools and districts are now working to make dramatic improvements to student achievement after more than a year of interrupted learning and within the context of new and exacerbated health, mental health, socioemotional, and economic challenges. Pandemic recovery efforts—especially those targeting improvement in low-performing schools and districts—will need to acknowledge the outsized toll the pandemic has taken on the students and educators teaching and learning in turnaround districts, and on the communities these districts serve. With this in mind, policymakers at the national, state, and local levels can design interventions and provide resources intended to support these districts, helping them to rebuild capacity so they can in turn support their students and the communities in which they live.

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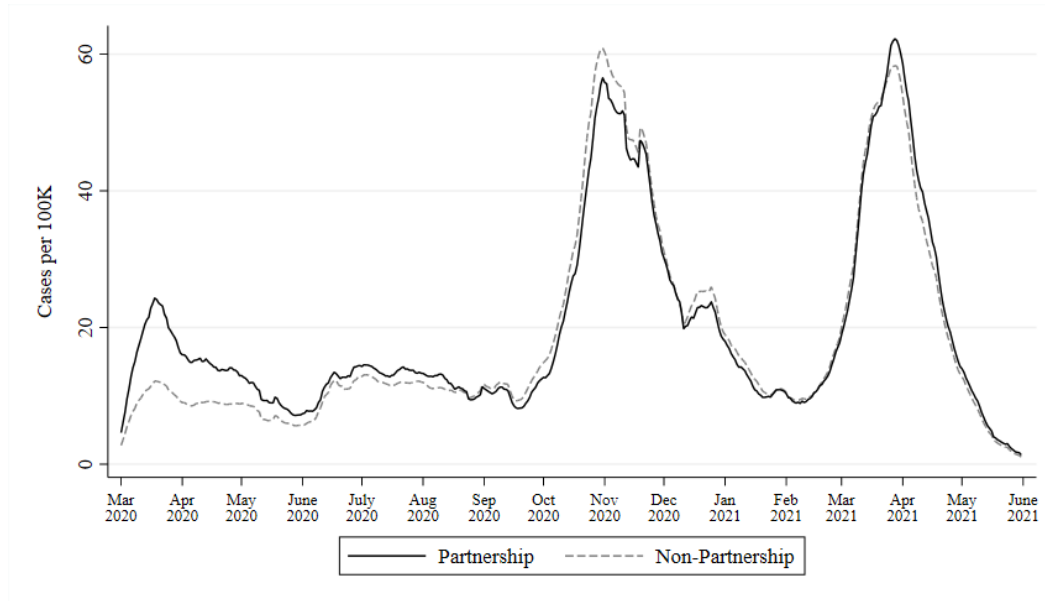
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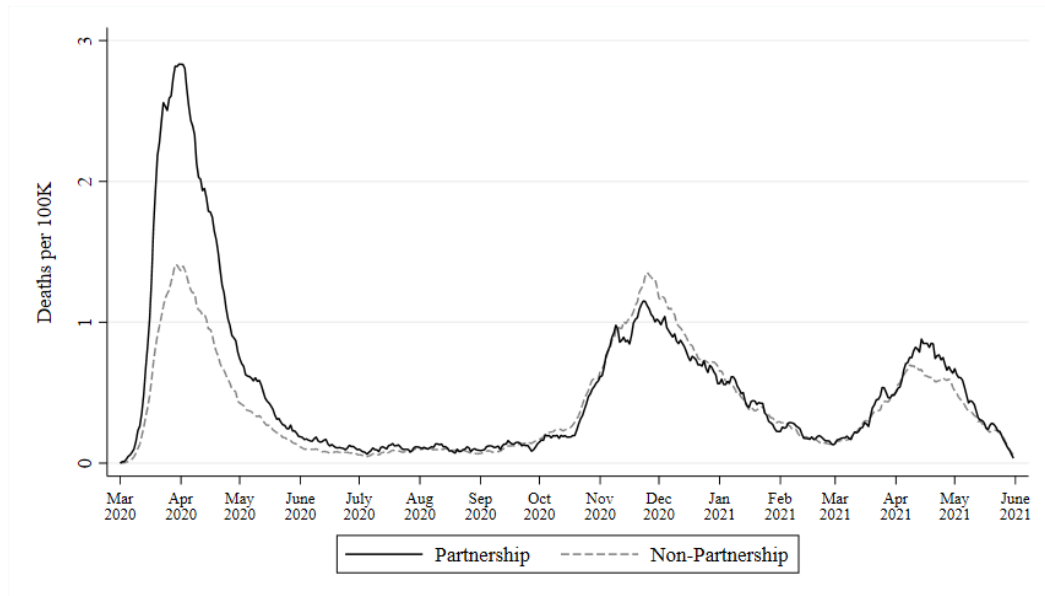
FIGURES

Figure 1. Case, death, and positivity rates over time by Partnership status

Panel A. Cases

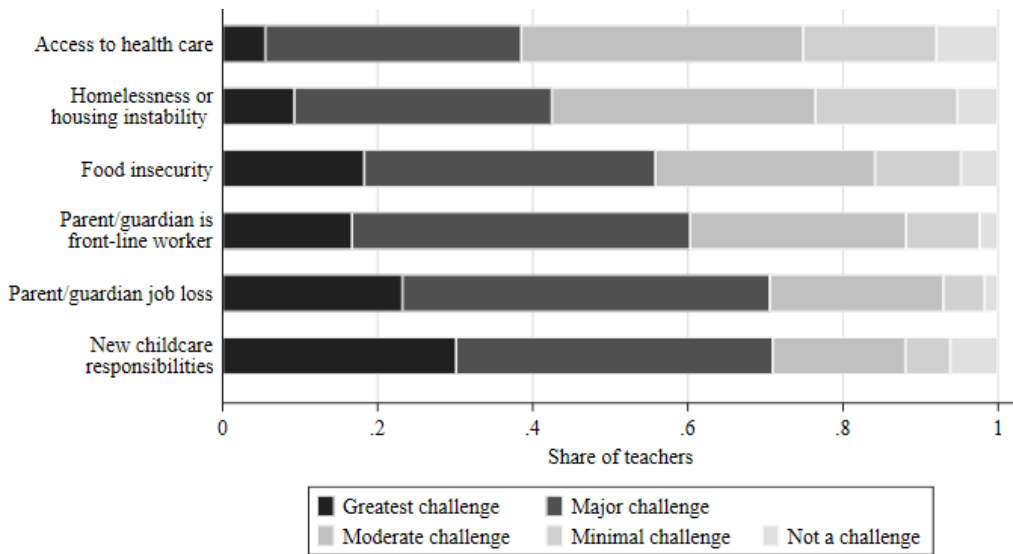


Panel B. Deaths



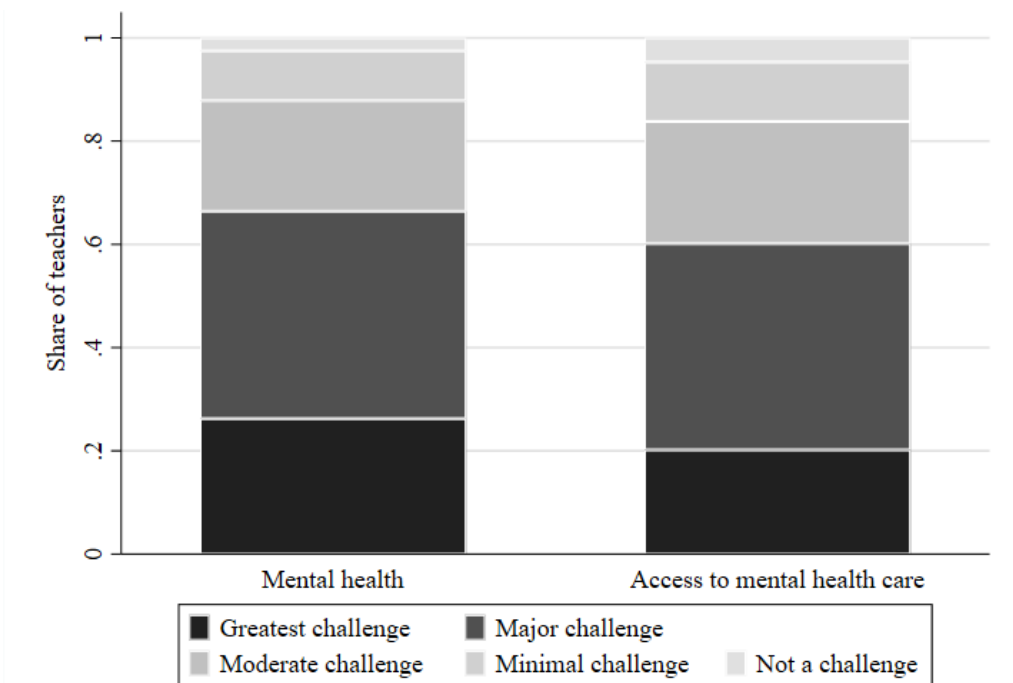
Note: Data from the Michigan Department of Health and Human Services, downloaded June 15, 2021. Seven-day rolling averages of county cases per 100,000 population and deaths per 100,000 population applied to school districts, weighted by student enrollment, from March 15, 2020 through June 14, 2021.

Figure 2. Teacher perceptions of selected items as a challenge for their students



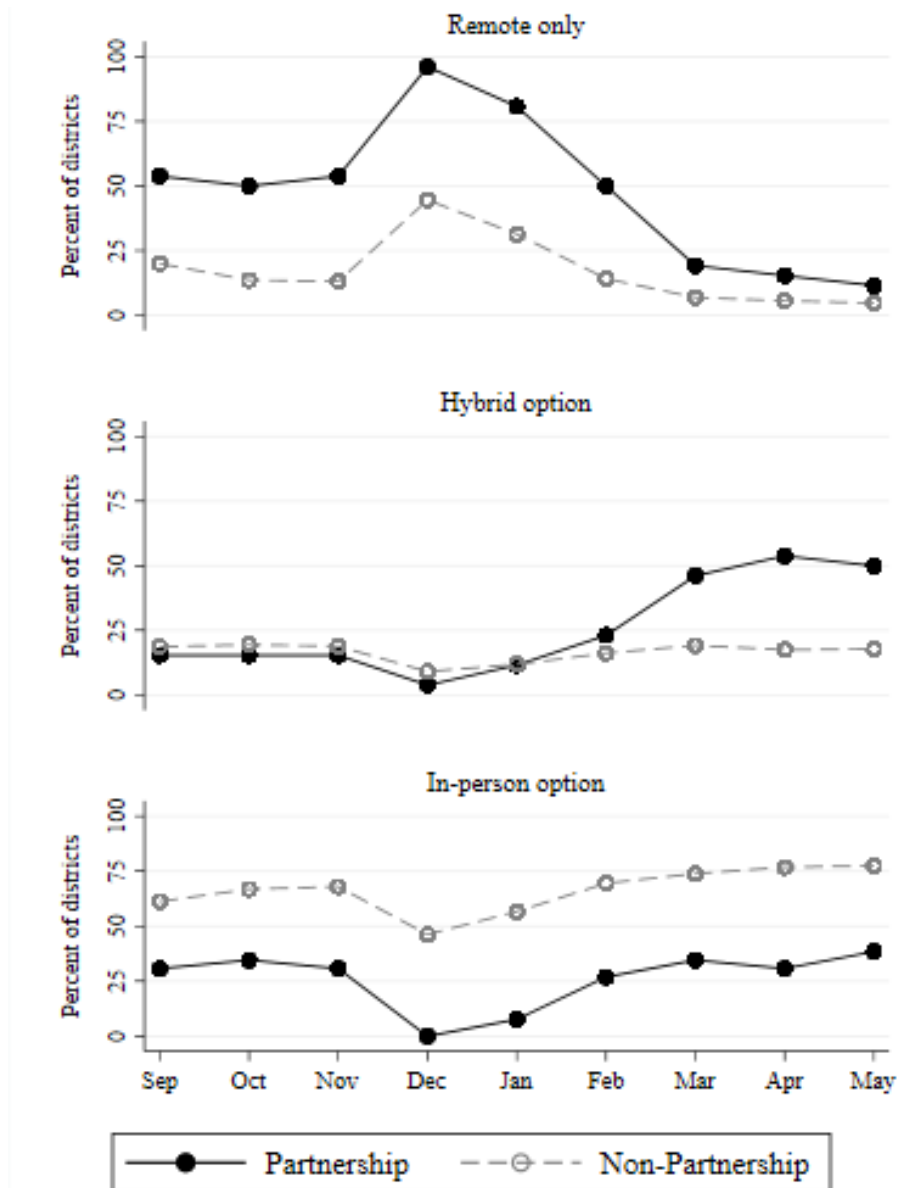
Note: Teachers were asked, “To what extent have each of the following been a challenge for your students this school year?” Response options were “not a challenge,” “a minimal challenge,” “a moderate challenge,” “a major challenge,” and “the greatest challenge.” Bars provide weighted share of teacher respondents selecting each option across Partnership districts (Partnership and non-Partnership schools).

Figure 3. Teacher perceptions of student mental health challenges



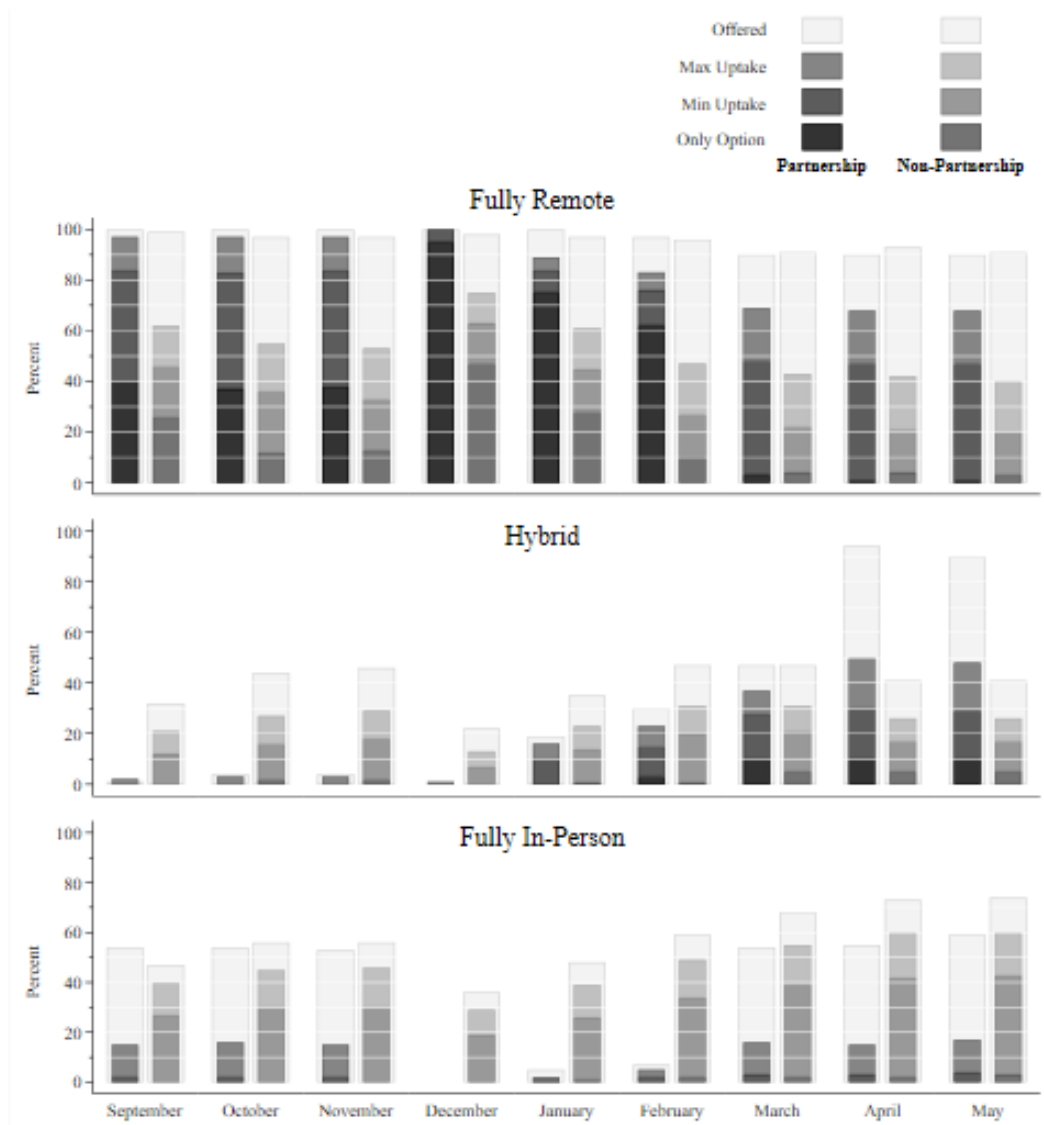
Note: Teachers were asked, “To what extent have each of the following been a challenge for your students this school year?” Response options were “not a challenge,” “a minimal challenge,” “a moderate challenge,” “a major challenge,” and “the greatest challenge.” Bars provide weighted share of teacher respondents selecting each option across Partnership districts (Partnership and non-Partnership schools).

Figure 4. District modality plans by month and Partnership status



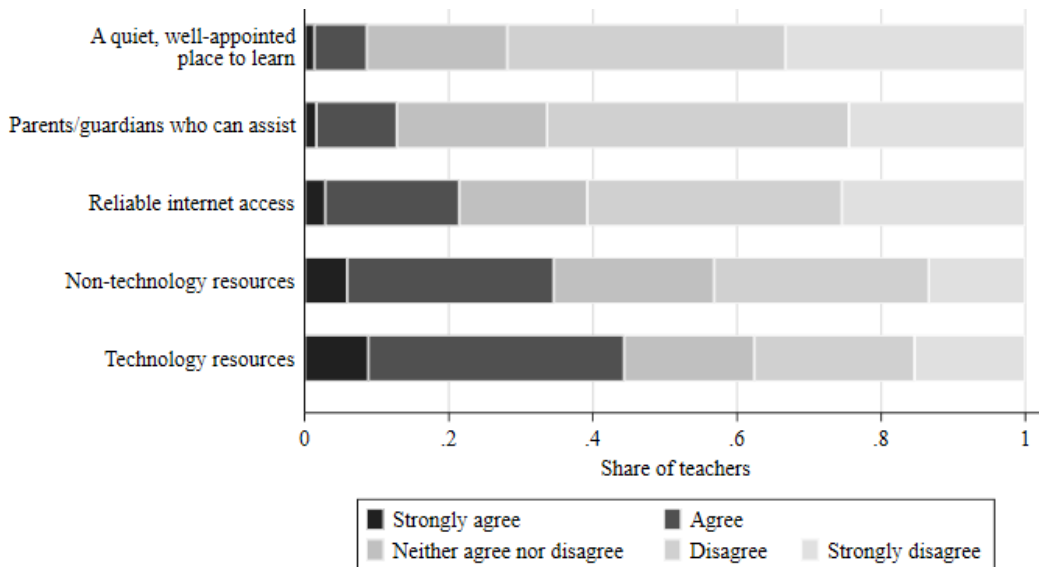
Note: Marker heights represent the share of Partnership districts that reported plans to operate in a given modality in a given month. Fully in-person option means districts have an option for students to attend in-person for all days. Hybrid classifies districts without a fully in-person option that have any students attending a hybrid model. Fully remote identifies districts in which all students attend remotely. Figures exclude virtual districts that were remote prior to the pandemic.

Figure 5. Estimated take-up of instructional modality by month and Partnership district status



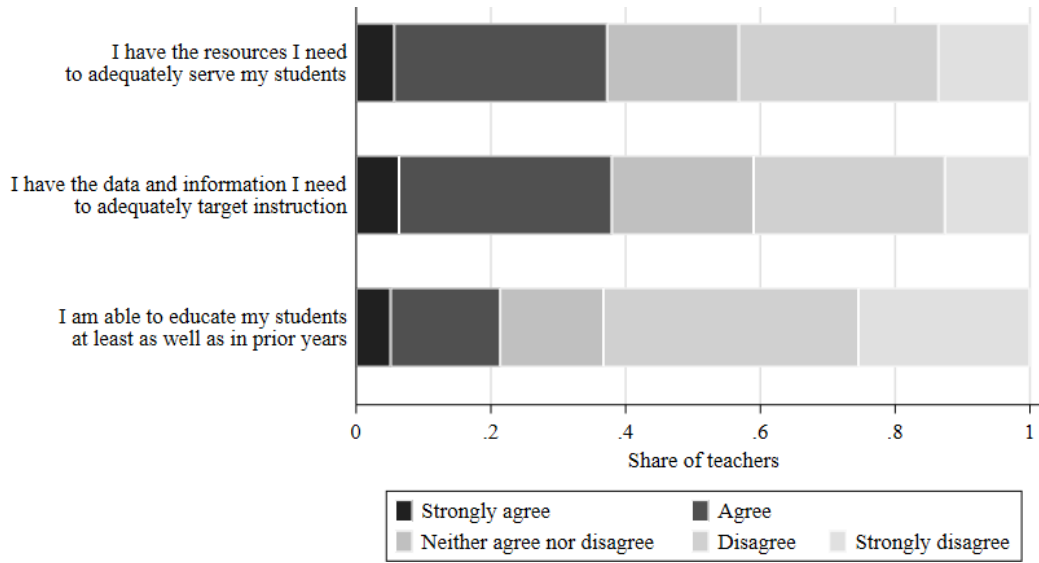
Note: Lightly shaded outer bar denotes the percent of students offered each modality. Darker shaded ranges denote the estimated percent of students who received instruction in each modality in Partnership and non-Partnership districts, respectively, with the darkest colors within each bar indicating that the modality is the only option, next darkest denoting the estimated minimum share of students in that modality, and the lightest denoting the estimated maximum share of students in that modality.

Figure 6. Teacher perceptions of student at-home resources and learning supports



Note: Teachers were asked, "To what extent do you agree with each of the following statements?" where the full statements indicate that they believe their students have the listed resource (e.g., "My students have a quiet, well-appointed place to learn," "My students have parents or guardians who can assist with classroom, assignment, and comprehension as needed."). Response options were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree." Bars provide weighted share of teacher respondents selecting each option across Partnership districts (Partnership and non-Partnership schools).

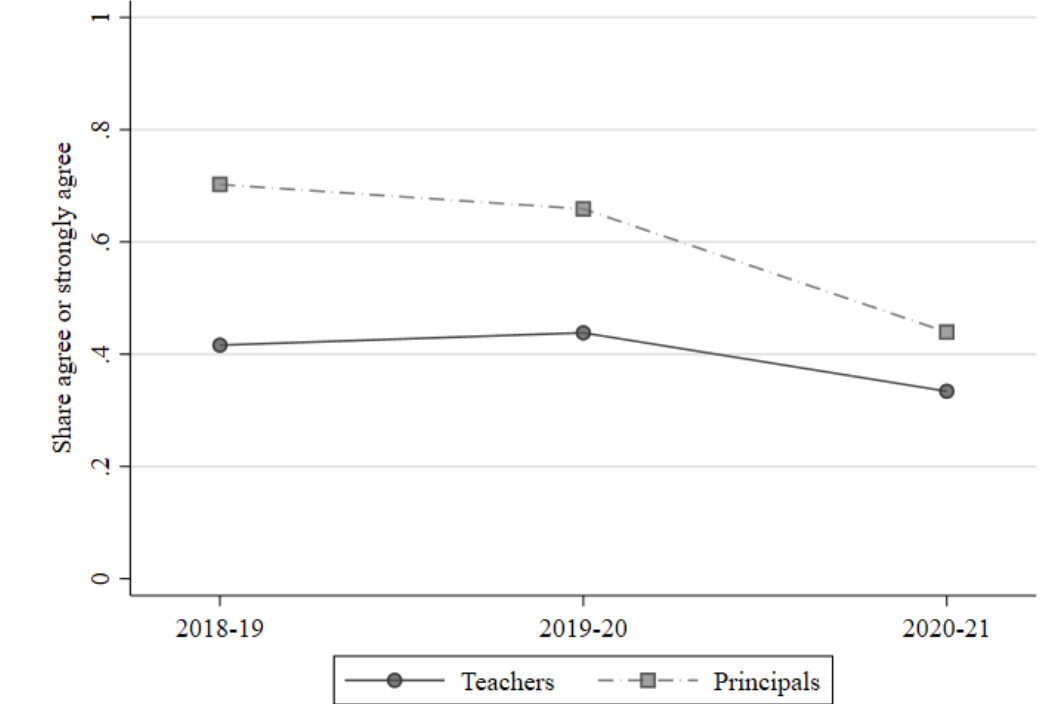
Figure 7. Teacher reports of resources and capacity to educate students



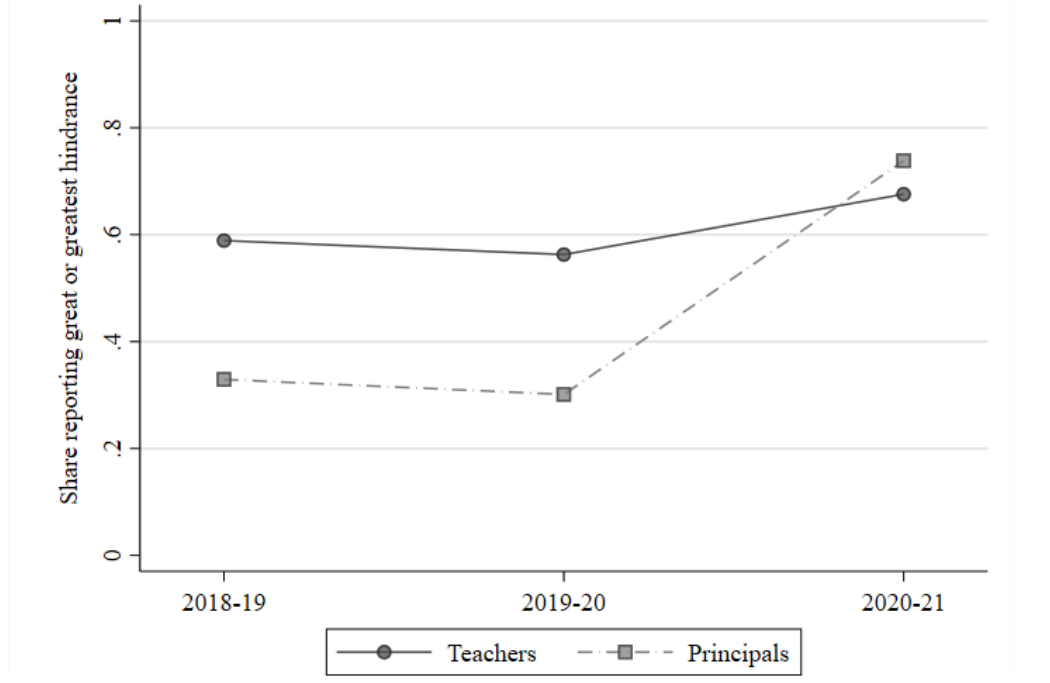
Note: Teachers were asked, “To what extent do you agree with each of the following statements?” where the full statements indicate that they believe they have the listed resource or capacity (e.g., “I have the data and information I need to adequately target instruction to students,” “I have the resources I need to adequately serve my students,” “I am able to educate my students at least as well as in prior years.”) Response options were “strongly agree,” “agree,” “neither agree nor disagree,” “disagree,” and “strongly disagree.” Bars provide weighted share of teacher respondents selecting each option across Partnership districts (Partnership and non-Partnership schools).

Figure 8. Educator perceptions of student enthusiasm and parent engagement over time

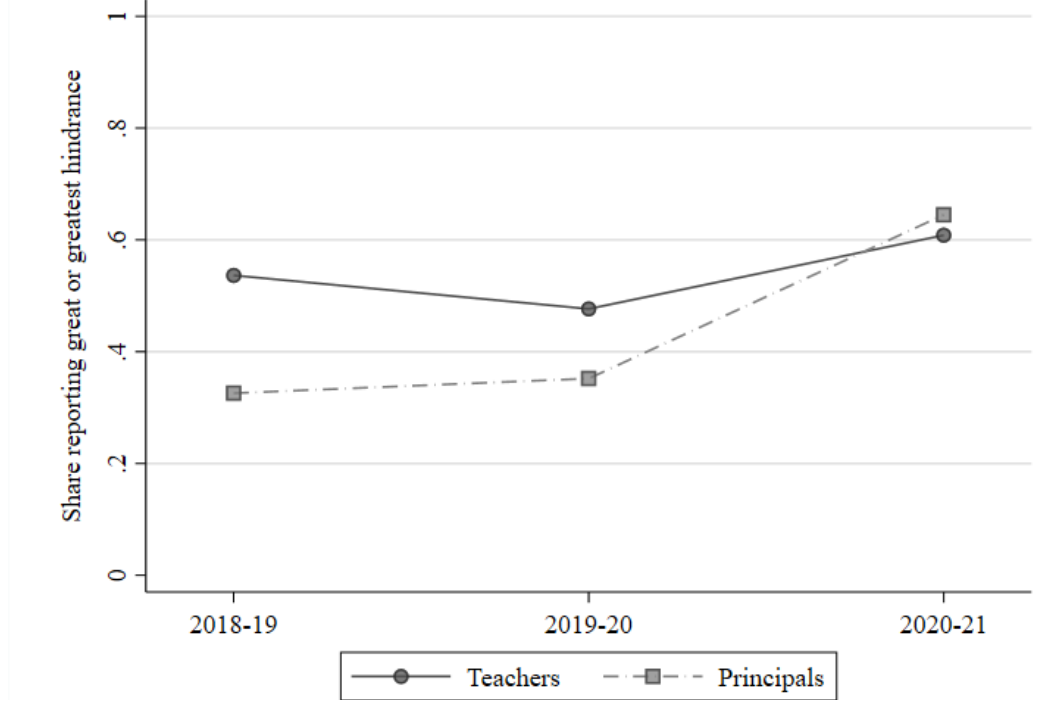
Panel A. Educator agreement over time that students are enthusiastic to learn



Panel B. Educator perceptions over time of low student motivation as a hindrance to improvement



Panel C. Educator perceptions over time of low parent engagement as a hindrance to improvement



Note: Data for Panel A come from a question in which educators were asked to indicate the extent to which they agreed with the statement, “Students are enthusiastic and excited to learn.” Response options were “strongly agree,” “agree,” “neither agree nor disagree,” “disagree,” and “strongly disagree.” Marker heights reflect the share of educators selecting “agree” or “strongly agree” in each year of the survey. Data for Panels B and C come from a question in which educators were asked to indicate the extent to which lack of student motivation was a hindrance to achieving improvement goals. Response options were “not a hindrance,” “a slight hindrance,” “a moderate hindrance,” “a great hindrance,” or “the greatest hindrance.” Marker heights reflect the share of educators selecting “a great hindrance” or “the greatest hindrance” in each year of the survey.

TABLES

Table 1. Student population characteristics by Partnership status		
	Partnership	Non-Partnership
Panel A. Community characteristics		
RACE AND ETHNICITY		
Black	29.40 (12.89)	13.04 (12.30)
White	62.54 (12.55)	79.31 (13.46)
American Indian or Alaska Native	0.36 (0.12)	0.52 (1.08)
Asian	3.01 (1.20)	3.05 (2.49)
Native Hawaiian or Pacific Islander	0.03 (0.01)	0.03 (0.02)
Other race	1.86 (0.76)	1.20 (1.00)
Two or more races	2.80 (0.61)	2.86 (0.96)
Hispanic or Latino/a/x	6.42 (1.89)	5.02 (2.49)
POVERTY		
Individual poverty rate	20.03 (4.64)	14.68 (5.14)
Family poverty rate	15.06 (4.08)	10.25 (4.19)
Under 18 poverty rate	29.43 (7.84)	20.19 (8.47)
FEDERAL ASSISTANCE		
Household SNAP recipients	9.54 (2.46)	6.30 (2.75)
Households with children SNAP recipients	31.44 (8.40)	21.58 (9.09)
Observations (county)	11	72

	Partnership schools	Non-Partnership schools	Partnership districts	Non-Partnership districts
Panel B. School and district characteristics				
Economically disadvantaged	91.2 (4.9)	58.5 (24.6)	90.5 (5.9)	58.5 (24.6)
English learner	3.9 (9.1)	6.1 (12.5)	6.6 (13.3)	6.1 (12.5)
Black	85.0 (21.3)	15.6 (25.4)	77.1 (26.0)	15.6 (25.4)
Latinx or Hispanic	5.8 (12.8)	8.0 (11.3)	9.1 (16.3)	8.0 (11.3)
Other nonwhite	2.8 (4.0)	8.2 (8.9)	4.4 (5.4)	8.2 (8.9)
White	6.4 (12.0)	68.1 (28.2)	9.4 (13.9)	68.1 (28.2)
Special education	17.5 (6.5)	18.6 (20.6)	17.5 (6.8)	18.6 (20.6)
Observations	100	3283	168	3283

Note: Partnership schools and districts defined as those that remained in the Partnership Model in the 2019-20 school year. Panel A uses county-level data from U.S. Census Bureau American Community Survey five-year estimates, 2013–2018, applied to districts and weighted by district size. The ACS asks about ethnicity separately from race; categories within the race and ethnicity panel therefore do not sum to 100. Panel B uses statewide administrative education data from 2019-20 collapsed to the school level.

Table 2. Cumulative case and death rates per 100,000 residents by Partnership status		
	Partnership	Non-Partnership
MDHHS data		
Cumulative cases per 100K	9,049.3	8,629.6
Cumulative deaths per 100K	244.3	190.7
Deaths per confirmed cases	2.7%	2.2%
Teacher perception data		
Students with immediate family members with COVID-19	22–39%	†
Students with other family members with COVID-19	28–46%	†

NOTE: Top rows provide county-level case and death rates from Michigan Department of Health and Human Services per 100,000 applied to districts and weighted by district size. Totals as of June 14, 2021. Bottom rows provide teacher perception data from teacher survey.

† Survey administered to educators in Partnership districts only. Perception data not available for non-Partnership districts.

Table 3. Regression estimates for district-level spring benchmarks						
	Math			Reading		
	(1)	(2)	(3)	(4)	(5)	(6)
	NAIVE	COVARIATE-ADJUSTED	MATCHED	NAIVE	COVARIATE-ADJUSTED	MATCHED
Partnership district	- 0.176*** (0.024)	-0.008 (0.023)	-0.011 (0.023)	- 0.132*** (0.021)	0.008 (0.022)	0.023 (0.023)
Fall	0.996*** (0.015)	0.782*** (0.032)		0.938*** (0.013)	0.768*** (0.028)	
Constant	0.067*** (0.015)	0.001 (0.058)		0.036** (0.012)	-0.122* (0.057)	
Grade FE	X	X		X	X	
District covariates		X			X	
N	2,815	2,815	2,815	2,814	2,814	2,814
R ²	0.794	0.848		0.773	0.814	

NOTE: Estimates from OLS regressions with heteroskedasticity-robust standard errors. Covariates include 2018-19 district proficiency rate in math (math models) or reading (reading models); 2019-20 district means of economic disadvantage, special education, English learner, Black, Hispanic, other race/ethnicity, and a cubic function of enrollment; and district locale code (urban, suburb/town, or rural). Matched model uses multivariate distance (mahalanobis) matching on district proficiency rate in math (math models) or reading (reading models) and 2019-20 district means of economic disadvantage and Black, and exact matching on governance model (TPS/charter), assessment provider, and grade. + p<.10, * p<.05, ** p<.01, *** p<.001

SUPPLEMENTAL TABLES

Table A-1. Survey response rates by year		
	Teachers	Principals
Wave 1 (2018-19)	38.3% (2,718)	28.6% (81)
Wave 2 (2019-20)	49.2% (3,224)	37.8% (88)
Wave 3 (2020-21)	38.5% (2,342)	46.6% (116)

NOTE: Percentages are response rates as a share of total eligible teachers and principals, respectively, to whom the survey was administered in each wave. Figures in parentheses are total respondents. These numbers exclude individuals who responded that they were not eligible (i.e., not classroom teachers or principals) or who opted out. Total respondents include partial responses, which are those that answered at least one question beyond the introductory feeder questions.

Table A-2. Balancing statistics for matched models						
	Raw			Matched		
	Treated	Untreated	Std Diff	Treated	Untreated	Std Diff
PANEL A. MATH						
Economic disadvantage	0.927	0.612	1.827	0.927	0.901	0.150
Black	0.776	0.186	2.132	0.776	0.758	0.064
2018-19 proficiency	0.100	0.327	-1.888	0.100	0.120	-0.161
PANEL B. READING						
Economic disadvantage	0.927	0.613	1.828	0.927	0.903	0.138
Black	0.776	0.185	2.137	0.776	0.759	0.060
2018-19 proficiency	0.150	0.391	-2.021	0.150	0.169	-0.162

Table A-3. Regression estimates for district-level spring benchmarks with remote months controls, standardized								
	Math				Reading			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS		MATCHED		OLS		MATCHED	
Partnership district	-0.008 (0.023)	-0.002 (0.021)	-0.011 (0.023)	-0.007 (0.023)	0.008 (0.022)	0.011 (0.021)	0.023 (0.023)	0.024 (0.023)
Fall	0.782*** (0.032)	0.791*** (0.032)			0.768*** (0.028)	0.771*** (0.028)		
Remote months		-0.020*** (0.002)				-0.013*** (0.002)		
Virtual school		0.098** (0.031)				0.051+ (0.028)		
Constant	0.001 (0.058)	0.035 (0.058)			-0.122* (0.057)	-0.109+ (0.057)		
Grade FE	X	X	X	X	X	X	X	X
District covariates	X	X	X	X	X	X	X	X
Remote months		X		X		X		X
N	2815	2815	2815	2815	2814	2814	2814	2814
R2	0.848	0.853			0.814	0.816		

NOTE: Estimates from OLS regressions with heteroskedasticity-robust standard errors. District covariates include district means of ED, special education, EL, Black, Hispanic, other race/ethnicity, enrollment and enrollment squared, and 2018-19 proficiency. Matched models include covariates (and remote months and virtual school variables in relevant columns), but coefficient estimates are not provided as goal of matching is to isolate the relationship between treatment and outcome and the estimates on covariates within matched weighted sample are not meaningful.

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table A-4. OLS estimates for district-level spring benchmarks, continuous treatment (school share), standardized						
	Math			ELA		
	(1)	(2)	(3)	(4)	(5)	(6)
	NAIVE	COVARIATE-ADJUSTED	ADDS REMOTE MONTHS	NAIVE	COVARIATE-ADJUSTED	ADDS REMOTE MONTHS
Partnership school share	-0.195*** (0.036)	0.012 (0.033)	0.012 (0.030)	-0.149*** (0.031)	0.026 (0.031)	0.027 (0.029)
Fall	1.000*** (0.015)	0.783*** (0.032)	0.792*** (0.032)	0.941*** (0.013)	0.768*** (0.028)	0.772*** (0.028)
Remote months			-0.020*** (0.002)			-0.013*** (0.002)
Virtual school			0.098** (0.031)			0.050+ (0.028)
Constant	0.066*** (0.015)	0.002 (0.058)	0.035 (0.058)	0.035** (0.012)	-0.123* (0.057)	-0.110+ (0.057)
Grade FE	X	X	X	X	X	X
District covariates		X	X		X	X
N	2815	2815	2815	2814	2814	2814
R ²	0.793	0.848	0.853	0.773	0.814	0.816

NOTE: Estimates from OLS regressions with heteroskedasticity-robust standard errors. Treatment is share of district schools that are Partnership (0-1). District covariates include district means of ED, special education, EL, Black, Hispanic, other race/ethnicity, enrollment and enrollment squared, and 2018-19 proficiency. Matched models include covariates, but coefficient estimates are not provided as goal of matching is to isolate the relationship between treatment and outcome and the estimates on covariates within matched weighted sample are not meaningful.

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table A-5. OLS estimates for district-level spring benchmarks, continuous treatment (student share), standardized						
	Math			ELA		
	(1)	(2)	(3)	(4)	(5)	(6)
	NAIVE	COVARIATE-ADJUSTED		NAIVE	COVARIATE-ADJUSTED	
Partnership student share	-0.192*** (0.037)	0.014 (0.033)	0.013 (0.030)	-0.145*** (0.031)	0.029 (0.031)	0.028 (0.029)
Fall	1.001*** (0.015)	0.783*** (0.032)	0.792*** (0.032)	0.942*** (0.013)	0.768*** (0.028)	0.772*** (0.028)
Remote months			-0.020*** (0.002)			-0.012*** (0.002)
Virtual school			0.098** (0.031)			0.050+ (0.028)
Constant	0.065*** (0.015)	0.002 (0.058)	0.035 (0.058)	0.035** (0.012)	-0.123* (0.057)	-0.110+ (0.057)
Grade FE	X	X	X	X	X	X
District covariates		X	X		X	X
N	2815	2815	2815	2814	2814	2814
R2	0.793	0.848	0.853	0.772	0.814	0.816

NOTE: Estimates from OLS regressions with heteroskedasticity-robust standard errors. Treatment is share of district schools that are Partnership (0-1). District covariates include district means of ED, special education, EL, Black, Hispanic, other race/ethnicity, enrollment and enrollment squared, and 2018-19 proficiency. Matched models include covariates, but coefficient estimates are not provided as goal of matching is to isolate the relationship between treatment and outcome and the estimates on covariates within matched weighted sample are not meaningful.

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table A-6. OLS estimates for district-level spring i-Ready benchmarks, standardized						
	Math			Reading		
	(1)	(2)	(3)	(4)	(5)	(6)
Partnership district	-0.097* (0.039)	0.044 (0.055)	-0.018 (0.056)	-0.067+ (0.036)	0.059 (0.054)	0.014 (0.053)
Fall	0.919*** (0.047)	0.754*** (0.044)	0.770*** (0.041)	0.950*** (0.039)	0.869*** (0.042)	0.882*** (0.042)
Remote months			-0.029*** (0.007)			-0.020** (0.007)
Virtual school			0.179* (0.075)			0.129 (0.118)
Constant	0.022 (0.037)	-0.645*** (0.142)	-0.525*** (0.128)	0.038 (0.033)	-0.546** (0.172)	-0.455** (0.167)
Grade FE	X	X	X	X	X	X
District covariates		X	X		X	X
N	263	263	263	243	243	243
R ²	0.845	0.904	0.910	0.886	0.919	0.922

NOTE: Estimates from OLS regressions with heteroskedasticity-robust standard errors. District covariates include district means of ED, special education, EL, Black, Hispanic, other race/ethnicity, enrollment and enrollment squared, and 2018-19 proficiency. Matched models not included here due to lack of common support within i-Ready districts.

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

ENDNOTES

¹ We also analyzed positivity rates and found they followed the same patterns as case rates.

² Hopkins et al. (2021) provides a comprehensive analysis of statewide ECOL plans.

³ We compare groups by dichotomizing categorical variables (for example, for questions with Likert scale response options, we create binary variables taking a value of 1 for those who responded with strongly agree or agree and 0 for those who responded with strongly disagree, disagree, or neither agree nor disagree. We then compare means of the dichotomous variable using a corrected F-test of the comparison of weighted means.

⁴ Please see <https://epicedpolicy.org/michigans-2020-21-benchmark-assessments/> for more information about benchmark data availability.

⁵ For example, districts using i-Ready enrolled a greater share of Black students and English learners and a lesser share of White students than the state on average, while districts using MAP enrolled a greater share of special education students than the state on average (Kilbride, Hopkins, & Strunk, 2021).

⁶ We run the matched models with the user-written Stata *kmatch* package, employing multivariate distance matching using mahalanobis distance (Jann, 2020).

⁷ A one-to-one comparison between the Partnership survey and national survey is not possible for several reasons—perhaps most importantly, the surveys asked about different populations (immediate and other family vs. family and close friend), and asked the questions to different populations (asking educators about their students' families vs. asking individuals about their own families and friends). However, the national survey does provide some context for interpreting the Partnership district data.

⁸ Again, we note that these national surveys were administered to children and parents, respectively, rather than teachers.