

RESEARCH REPORT

Student Achievement in the First Two Cohorts of Partnership Schools

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Introduction

The COVID-19 pandemic disrupted K-12 education across the globe. In the United States, the COVID-19 pandemic was particularly challenging for the lowest performing schools, making it difficult to implement ongoing reform efforts in schools already slated for improvement and turnaround. Among those undergoing turnaround were schools being served by Michigan's Partnership Model of school and district turnaround. Prior to the COVID-19 pandemic, Michigan's Partnership schools were showing some evidence of improvements in academic outcomes (Strunk et al., 2021; Burns et al., 2023). However, due to the suspension of state accountability testing (i.e., M-STEP in grades 3-7, PSAT in grade 8, and SAT in grade 11) in 2019-20 and the optional nature of these exams in 2020-21, little is known thus far about how students in Partnership schools fared during the COVID-19 pandemic. This is a critical gap to fill because interrupted learning and general pandemic disruptions in Partnership schools may have undermined pre-pandemic progress toward school improvement—requiring targeted efforts toward supporting these schools and the students they serve.

In this report, we provide a descriptive look at student achievement in Partnership schools and districts over three distinct periods: pre-turnaround years, pre-pandemic turnaround years, and pandemic-affected turnaround years. We show that students in Partnership schools made gains relative to the rest of the state, although there is clear evidence of disrupted learning, especially in math.

BACKGROUND

Following state and federal law, the Michigan Department of Education (MDE) had identified three rounds of Partnership schools for inclusion in the state’s school turnaround efforts well before the COVID-19 pandemic. Round 1 Partnership schools, which were identified in spring 2017 and began Partnership implementation in the 2017-18 school year, were schools that had been identified as Priority schools, meaning they were in the bottom 5% of schools on Michigan’s Top-to-Bottom school index for three consecutive years from 2013-14 through 2015-16. Round 2 Partnership schools were identified in fall 2017 and began implementation in 2018-19. MDE selected schools for Round 2 if they were low performing in 2015-16 and experienced continued low achievement in 2016-17. Round 3 schools were identified in spring 2018 and also started implementation in 2018-19. These schools were the bottom 5% of schools on the state’s Every Student Succeeds Act (ESSA) school index system that was first released for the 2017-18 school year. We analyze the three rounds of schools in two implementation cohorts and refer to Round 1 as Cohort 1 and Rounds 2 and 3 together as Cohort 2 because they implemented on the same timeline.

Before the COVID-19 pandemic, there was evidence that the Partnership Model was improving student outcomes with the largest positive effects in Cohort 1. In particular, students assigned to Cohort 1 schools performed better in math and ELA than their counterparts assigned to similarly

low-performing non-Partnership schools in both intervention years. In both implementation cohorts, the lowest achieving students assigned to Partnership schools were faring better in both subject areas than their peers assigned to similarly low-performing schools (Burns et al., 2023; Strunk et al., 2020, 2021).

However, beginning in 2020, the COVID-19 pandemic disrupted schooling across the United States—along with the lives of educators, students, and their families. These disruptions were especially stark in Partnership schools and districts, which serve communities with higher rates of poverty and greater shares of Black students than the rest of the state. These communities grappled with greater

COVID-19 spread and death rates, especially in the early days of the COVID-19 pandemic before treatments were available. In turn, educators in Partnership districts perceived that their students were dealing with out-of-school challenges that hindered their ability to engage with remote learning (Harbatkin et al., 2022; Strunk et al., 2021, 2022).

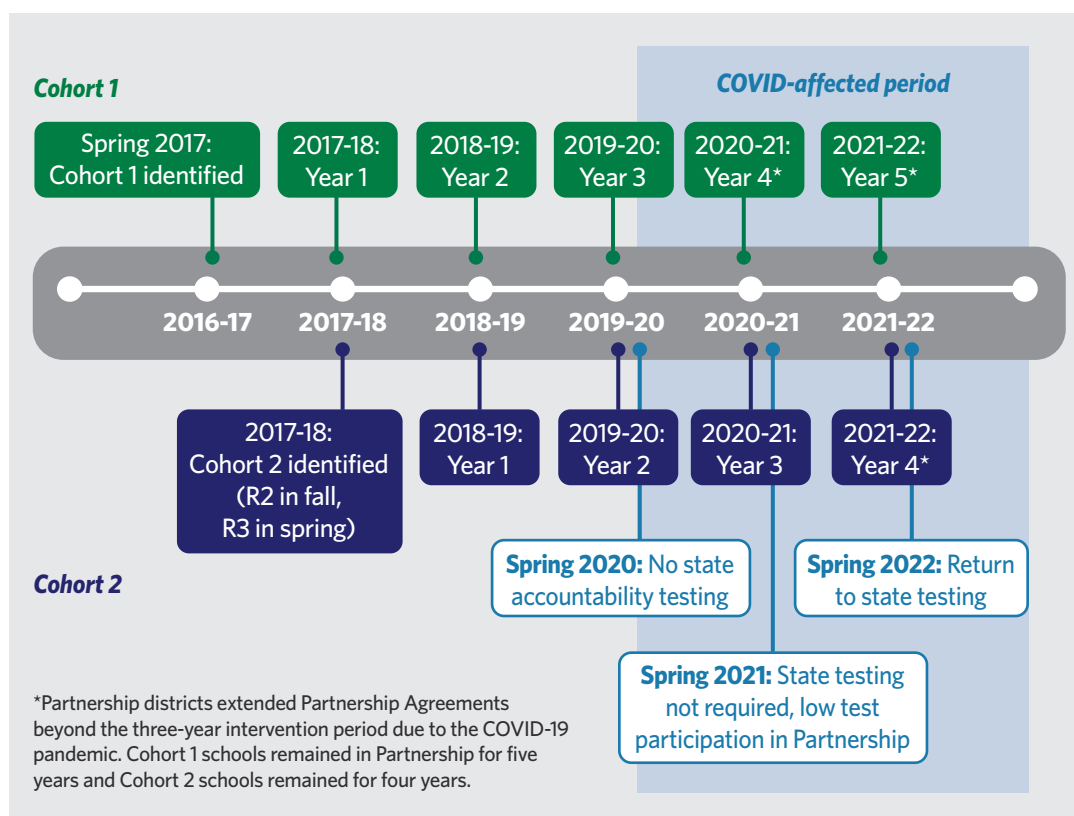
The Partnership Model was intended to be implemented over a three-year period (see the [Year 1](#) and [2](#) annual reports for a description of the Partnership Model as intended). However, Partnership districts agreed to remain in Partnership through 2021-22 to continue receiving supports from the Office of Partnership Districts (OPD) and additional state funds for turnaround. Cohort 1 schools therefore remained under Partnership Agreements for five years while Cohort 2 schools remained for four. Ultimately, 42 of these schools (43% of the 97 that remained in Partnership through 2021-22) would be reidentified for Round 4, either because they were in the bottom 5% on the state school index system in 2021-22 school year or they had a graduation rate below the 67% state threshold (or both).¹

Before the COVID-19 pandemic, there was evidence that the Partnership Model was improving student outcomes.

SAMPLE AND DATA

Figure 1 displays the Partnership timeline visually, with Partnership identification and implementation on top and state testing on the bottom. After being identified for Partnership, Cohort 1 schools (shown in green) received two and a half years of the intervention prior to the onset of the COVID-19 pandemic (2017-18, 2018-19, and fall 2019), while Cohort 2 schools (in blue) received one and a half years (2018-19 and fall 2019).

FIGURE 1. Partnership Identification and Implementation Timeline



To examine student achievement in Partnership schools and districts, we draw on statewide administrative data from 2014-15 through 2021-22 on all Michigan K-12 students provided by MDE and the Center for Educational Performance and Information (CEPI). We observe two years of assessment data prior to Partnership identification for Cohort 1 schools and three years prior to identification for Cohort 2 schools. Because state testing was suspended in spring 2020, we have test score data for two pre-pandemic intervention years for Cohort 1 and one pre-pandemic intervention year for Cohort 2. While districts administered accountability assessments in 2020-21, the state received a waiver from the U.S. Department of Education exempting it from minimum participation requirements. M-STEP participation rates were approximately 70% statewide, but participation was substantially lower in Partnership schools and districts, which spent most of the 2020-21 school year under remote instruction (Harbatkin et al., 2022; Strunk et al., 2021). Because of these especially low participation rates in Partnership schools and districts and because those

who participated were observably different from those who did not, we do not show M-STEP or SAT findings in 2020-21 (Strunk et al., 2021, 2022).²

We therefore pick up student achievement analyses in 2021-22 after a two-year interruption. This represents the culmination of five years of turnaround for Cohort 1 and four years for Cohort 2. In both cases, the last two and a half years were carried out during the COVID-19 pandemic.

Table 1 summarizes the characteristics of districts, schools, and students included in the sample. Specifically, in grades 3-8, we observe about 168,000 unique students in 275 schools in 129 districts for a total of more than 350,000 student-year observations. In grade 11, we observe about 45,000 students in 121 schools in 89 districts.

We compare students in the two cohorts of Partnership schools with peers in three subgroups of schools. The first subgroup, “comparison schools,” are schools that are re similarly low performing in the Cohort 1 and 2 identification years but were not identified for Partnership. These are the schools we used as our comparison group in our econometric models in previous reports.³ The trajectories here represent the expected counterfactual for Partnership schools; in other words, these schools’ trajectories are our best guess for how Partnership schools would have fared in the absence of the intervention.

We then examine trajectories for the subset of these comparison schools that were not in Partnership districts because there may be indirect effects of Partnership into other district schools. Indeed, the intervention’s theory of change specifically posits spillovers to other non-Partnership schools in Partnership districts; see the [Year 1 annual report](#). These are schools that received some Partnership supports from the state but were not explicitly targeted for school turnaround. Finally, we explore these spillover effects directly through trajectories for students in non-Partnership schools in Partnership districts. This latter group includes both comparison and non-comparison schools in Partnership districts.

TABLE 1. Data Sources		
Outcome of Interest	N School Years	N Student Years
Grades 3-8 student achievement (M-STEP and PSAT)	651 Partnership (167 Cohort 1, 484 Cohort 2)	137,717 Partnership (42,632 Cohort 1, 95,085 Cohort 2)
	1,051 comparison	213,778 comparison
	738 comparison schools not in Partnership districts	142,338 comparison not in Partnership districts
	325 non-Partnership schools in Partnership districts	73,856 non-Partnership schools in Partnership districts
Grade 11 student achievement (SAT)	202 Partnership (87 Cohort 1, 115 Cohort 2)	16,172 Partnership (7,219 Cohort 1, 8,953 Cohort 2)
	547 comparison	28,001 comparison
	459 comparison not in Partnership districts	19,146 comparison not in Partnership districts
	98 non-Partnership schools in Partnership districts	9,619 non-Partnership schools in Partnership districts

METHODS

In this report, we describe student achievement trajectories in Partnership schools relative to trajectories in the subgroups described above. Specifically, we plot student-level average scores in math and reading by year across each of the five subgroups (Cohort 1, Cohort 2, comparison, comparison excluding non-Partnership schools in Partnership districts, all non-Partnership schools in Partnership districts). We standardize scores across the full sample of schools by exam and school year to have a mean of zero and a standard deviation of one. We run this analysis separately for math and ELA in grades 3-8 (M-STEP and PSAT) and 11 (SAT), respectively.⁴

Mechanically, this norm-referenced approach will produce an average statewide score in each year of zero, and each subgroup's average in a given year will be relative to the other subgroups in that year. However, learning disruptions during the COVID-19 pandemic led to decreased student achievement statewide (Kilbride et al., 2022), and test scores standardized by subject and year will not reflect those declines. Thus, an increase in assessment scores among students in Partnership schools from one year to the next reflects improved performance relative to the statewide average in a given year—and not necessarily improved absolute performance relative to the prior year.

We therefore undertake a second set of criterion-referenced analyses to understand overall changes over time by subgroup. Specifically, we plot proficiency rates for grades 3-8 using state proficiency thresholds for each grade and subject. Proficiency provides a less nuanced measure of individual student achievement because it only measures whether a student crosses a given threshold and does not capture variation away from that threshold. However, it has the benefit of allowing us to assess the share of students meeting standards over time and in particular to identify pandemic-induced interrupted learning. We then examine 11th-grade trajectories by subgroup using the SAT math and ELA scale scores rather than relying on proficiency rates. Because the SAT is designed to allow for comparability over time and because the SAT scale score is widely understood, we can use this approach to understand overall trajectories.^{5,6}

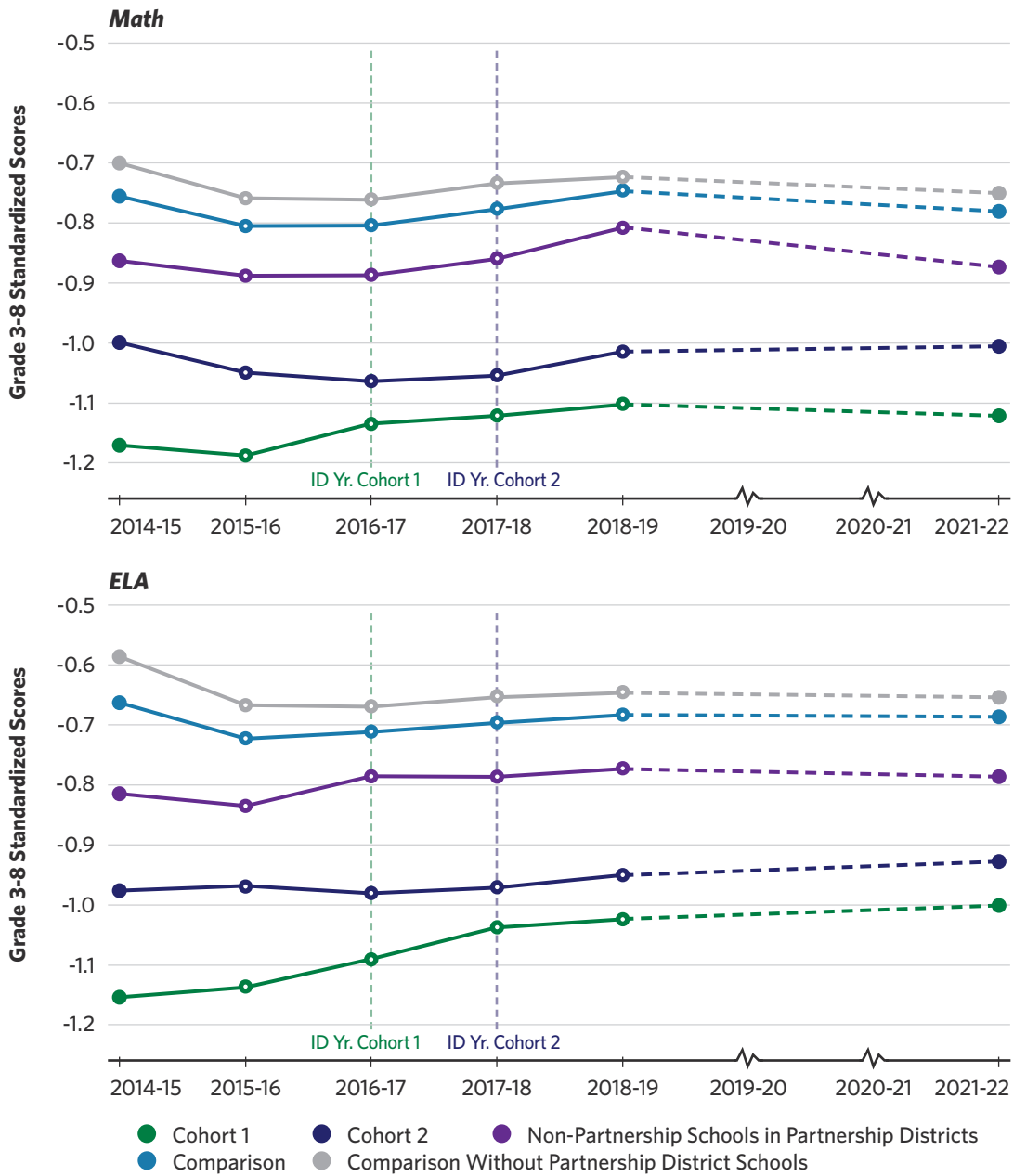
Finally, in order to examine whether there are differential patterns by school level, we repeat each of the grades 3-8 analyses (standardized scores and proficiency rates) separately for elementary and middle schools. While we do not display analyses by school level, we report meaningful differences between elementary and middle school students in the text of this report.

FINDINGS

Finding 1: While Students in Partnership Schools Made Gains Over the Course of the Intervention, These Schools Remain the Lowest Performing in the State

Cohort 1 (green) schools—which were identified because they were in the bottom 5% of schools for three straight years—are consistently the lowest performing in both math and ELA, and Cohort 2 (blue) schools are the next-lowest performing. This was the case before schools were identified for Partnership and continued to be the case after the Partnership Model was implemented. Non-Partnership schools in Partnership districts (purple) consistently perform just above Cohort 2 schools. Students in the two versions of the comparison group (teal and gray, respectively) perform just above non-Partnership schools in Partnership districts.

FIGURE 2. Grades 3-8 Test Scores by Partnership School and District Status Over Time, 2013-14 through 2021-22



Note: Markers represent average standardized scores by subgroup and year. Scores are standardized by subject and year to have a mean of zero and a standard deviation of one. Grades 3-7 use M-STEP and Grade 8 uses PSAT. Dashed lines between 2018-19 and 2021-22 represent the time period without required state testing.

While Partnership schools remain the lowest performing in the state, it is clear that both cohorts of Partnership schools were making improvements during the intervention before the pandemic. Those improvements were steeper in Cohort 1 ELA in particular, which is where we found the strongest positive effects in earlier econometric models (Burns et al., 2023).

Finding 2: Relative to Schools Statewide, Partnership Schools Largely Continued Improvements in Grades 3-8 During the COVID-19 Pandemic, With the Most Consistent Gains in ELA

Relative to students in comparison schools, students in Partnership schools have largely continued to make academic improvements since the onset of the COVID-19 pandemic. Specifically, since the last pre-pandemic year, relative to students in other schools throughout the state, students in Cohort 2 improved in both math and ELA while students in Cohort 1 improved in ELA, dipping slightly in math.

In comparison schools, our best guess at how Partnership schools would have fared in the absence of Partnership supports, relative scores declined in math while remaining mostly steady in ELA. This provides some suggestive evidence that Partnership may have contributed to more positive student outcomes during the COVID-19 pandemic. Though not shown here, ELA gains in Partnership schools relative to comparison schools were greatest at the elementary level. Cohort 2 math improvements were driven by middle schools; Cohort 2 elementary schools remained steady in math. In other words, the youngest students fared better in ELA.

Meanwhile, non-Partnership schools in Partnership districts declined in both math and ELA through the COVID-19 pandemic. While we cannot say with certainty what may have contributed to these declines, we have shown in past reports that Partnership school teachers perceived their school leaders to be more effective and their school climates to be more positive than their in-district peers in non-Partnership schools. In this most recent year, Partnership school principals also reported greater use of high-impact accelerated learning strategies, including one-on-one tutoring and spending extra time on core subjects. Together, these differences between Partnership and non-Partnership schools may have contributed to differences in pandemic learning (Strunk et al., 2022). Another possibility is that districts may have targeted resources to their Partnership schools over their non-Partnership schools, though we do not have evidence of this type of resource diversion in our data.

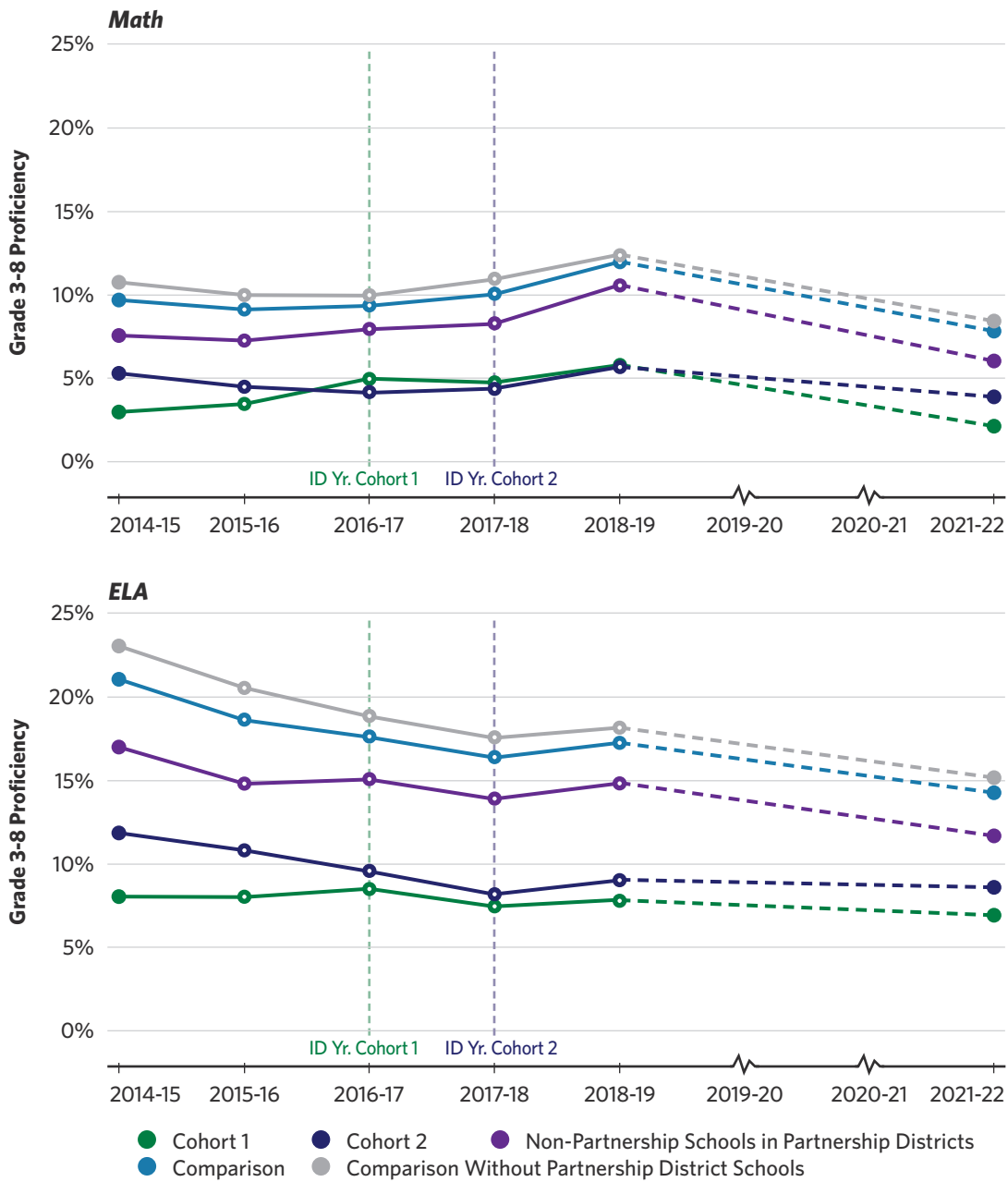
Finding 3: Grade 3-8 Math Proficiency Rates Declined in Partnership Schools While ELA Proficiency Remained Stable

While Figure 2 shows that students in Partnership schools improved relative to others in the state, these patterns do not speak to whether they are meeting state standards. If students statewide experienced interrupted learning during the COVID-19 pandemic, scores standardized relative to that year's test-takers could show increases in Partnership schools even if achievement among Partnership school students declined. Figure 3 displays proficiency rates, which provide a measure of whether students met a predetermined achievement threshold rather than how they fared relative to other students in the state in that school year.

As expected, Partnership schools have the lowest rates of both math and ELA proficiency in the state; Partnership proficiency rates were well below 10% even pre-pandemic. During the COVID-19 pandemic, math proficiency rates dropped among all groups. However, these declines in math proficiency were less steep in both cohorts of Partnership schools than in comparison schools, meaning that students in Partnership schools made *relative* math proficiency gains compared with other groups in the state. In ELA, proficiency rates remained stable in both cohorts of Partnership

schools while declining in all other subgroups of schools. This provides additional evidence that the Partnership Model appeared to partially shield students in Partnership schools from the most deleterious effects of the COVID-19 pandemic, while also underscoring the need for continuous improvement in Partnership schools and districts as well as other low-performing schools.

FIGURE 3. Grades 3-8 Proficiency Rates by Partnership School and District Status Over Time, 2013-14 through 2021-22

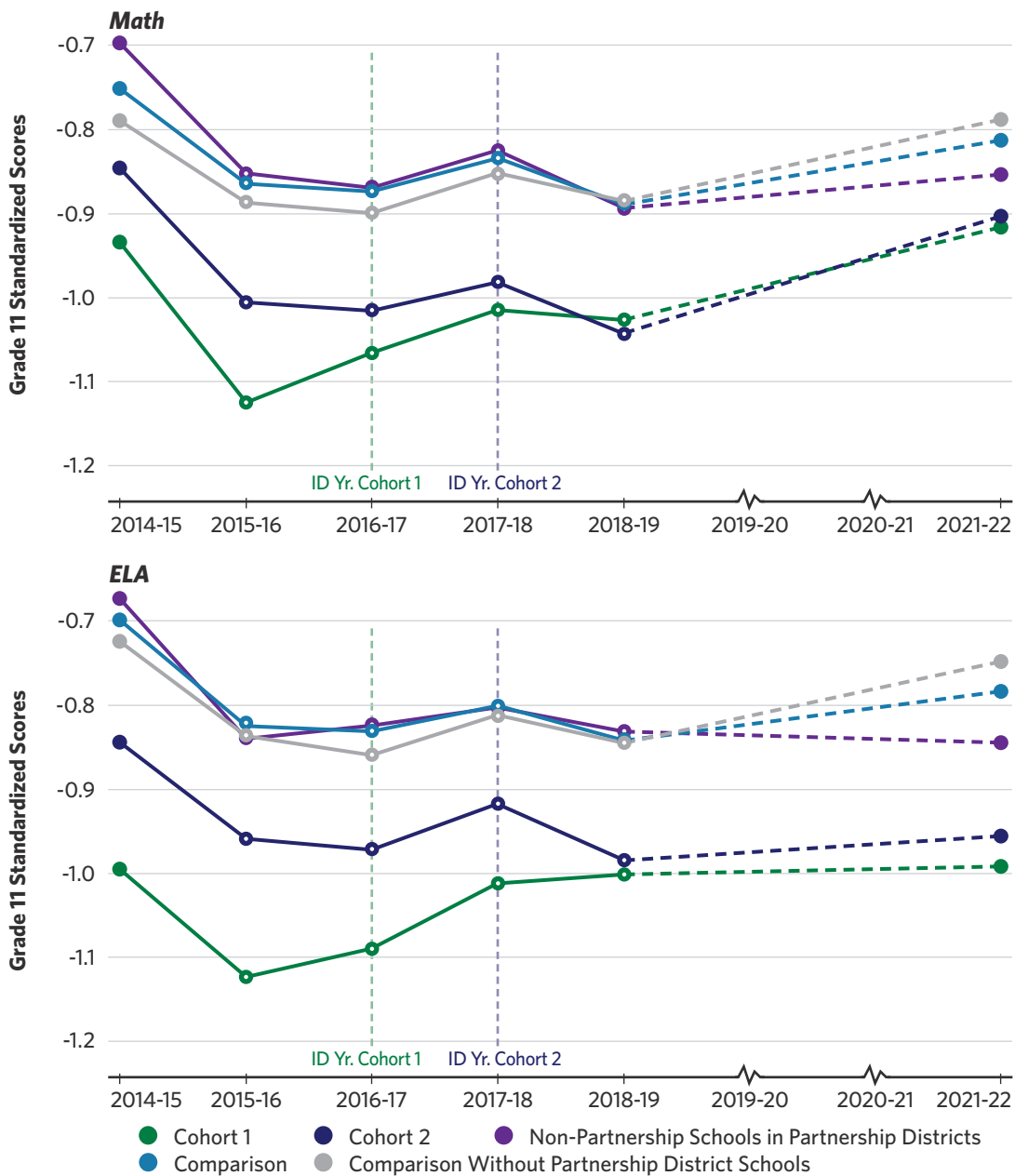


Note: Markers represent proficiency rates by subgroup and year (i.e., percentage of students scoring at or above proficient). Grades 3-7 use M-STEP and Grade 8 uses PSAT. Dashed lines between 2018-19 and 2021-22 represent the time period without required state testing.

Finding 4: Partnership High Schools Fared Better in Math Than Similarly Low-Performing Schools During the COVID-19 Pandemic While Remaining Stable in ELA

Students in both cohorts of Partnership high schools made greater gains in math than any of the other subgroups over the course of the COVID-19 pandemic. Comparison schools also made improvements but at a slower rate than Partnership schools, again pointing to potential positive effects of Partnership during the COVID-19 pandemic. These gains follow two years of pre-pandemic improvements in Cohort 1 and a year of declining scores in Cohort 2. As in grades 3-8, non-Partnership schools in Partnership districts did not improve.

FIGURE 4. Grade 11 Test Scores by Partnership School and District Status Over Time, 2013-14 through 2021-22



Note: Markers represent average standardized scores by subgroup and year. Michigan used the ACT as its high school accountability exam in 2014-15 and switched to the SAT from 2015-16 onward. Scores are standardized by subject/exam and year to have a mean of zero and a standard deviation of one. Dashed lines between 2018-19 and 2021-22 represent the time period without required state testing.

In ELA, scores remained consistent with pre-pandemic scores in both cohorts of Partnership schools, while relative test scores climbed slightly in comparison schools. Comparing Partnership school patterns with comparison school patterns—especially the comparison group that

excludes Partnership district schools—points to potential losses in ELA, especially in Cohort 1. These patterns again follow a pre-pandemic intervention trajectory that was positive in Cohort 1 and negative in Cohort 2.

In both subjects, non-Partnership schools in Partnership districts again made the least progress of all the subgroups.

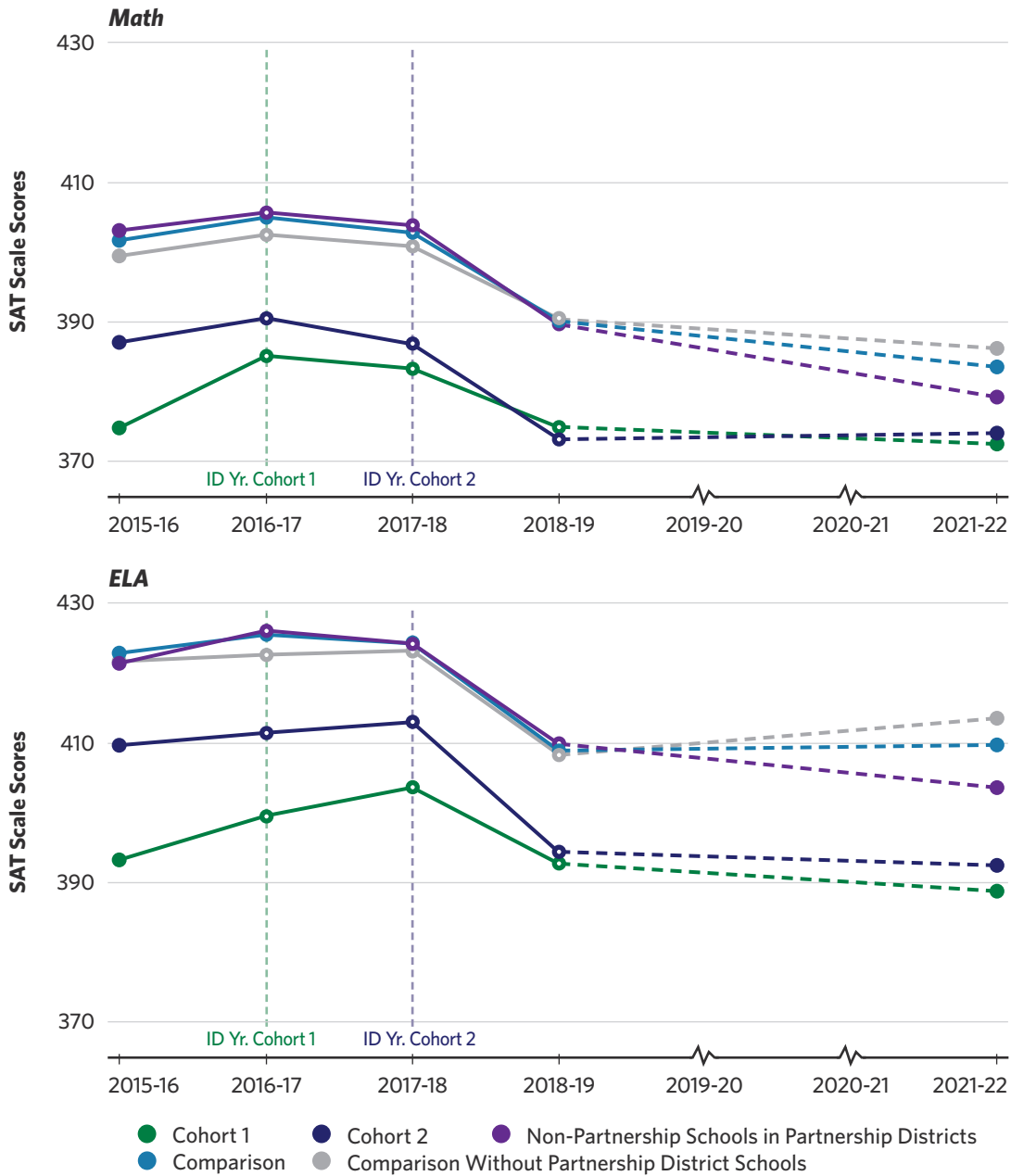
Students in both cohorts of Partnership high schools made greater gains in math than any of the other subgroups over the course of the COVID-19 pandemic.

Finding 5: In Absolute Terms, Partnership School SAT Scores Neither Improved Nor Declined From Pre-Pandemic Levels

As with the grades 3-8 scores, these standardized scores again obscure potential COVID-19 learning interruptions. This is evident in Figure 5, showing trends in SAT scale scores, which can be interpreted consistently over time. Here, we see that although Partnership schools improved relative to the rest of the state, absolute scale scores did

not improve in either subject area. Students in Partnership schools in 2021-22 earned similar SAT scores to their peers in Partnership schools in 2018-19. However, these stable trends may be a bright spot for Partnership schools. While scores declined across all groups in the last year before the COVID-19 pandemic, that trend continued in all other subgroups of schools in math and in non-Partnership schools in Partnership districts in ELA. Meanwhile, both cohorts of Partnership schools were able to stabilize their scores in math while substantially tempering the decline in ELA. This suggests that Partnership high schools may have had some success mitigating COVID-19 pandemic learning disruptions in high school math in particular.

FIGURE 5. Grade 11 SAT Scale Scores by Partnership School and District Status Over Time, 2015-16 through 2021-22



Note: Markers represent average SAT scale scores by subgroup and year. Time period begins with 2015-16 because this is the first year Michigan used the SAT as its accountability exam. Minimum possible score for each subject is 200 and maximum possible is 800. During the pre-pandemic time period, average scores for students in Michigan schools outside of these subgroups were 495-503 in math and 500-514 in reading. In 2021-22, average scores for students outside of these subgroups dipped to 475 in math and 494 in reading. Dashed lines between 2018-19 and 2021-22 represent the time period without required state testing.

POLICY IMPLICATIONS

Policymakers Should Stay the Course with Partnership Schools and Districts to Facilitate Continued Progress

Together with past research, these findings show that Partnership appeared to be improving student achievement prior to the COVID-19 pandemic and may have helped to cushion students enrolled in Partnership schools from COVID-19's deleterious effects. The state turnaround supports—both in terms of the increased funding and the assistance provided by the Partnership Agreement liaisons and ISDs—appear to be helping. Policymakers should continue to provide these supports to help Partnership schools and districts continue their progress and to build toward similar improvements in newly identified Partnership schools.

Equity-Based Funding Will Be Important for the Success of Students in Partnership and Similarly Underresourced Schools

The equity-based Partnership Model passed as part of the 2022-23 fiscal year state budget takes important steps toward allocating education appropriations according to student need. This is an important consideration in school funding moving forward, given that despite improvements, Partnership schools remain among the lowest performing in the state and will continue to need support even after exiting Partnership status. Equity-based funding will provide extra resources to schools serving students with greater levels of need. Even those schools that have successfully climbed from the bottom 5% in the state and exited Partnership will continue to require support to meet student needs and continue improvement trajectories.

Intensive Elementary Math Supports Are Critical for Partnership Schools to Rebound From Pandemic-Induced Learning Disruptions

Our findings show that interrupted learning was most stark in math, especially in elementary schools. These more severe interruptions in math than ELA align with similar patterns nationwide (Cohodes et al., 2022). State and district education leaders will therefore need to prioritize accelerated learning strategies that result in extended learning time in math in particular. These strategies could include high-dosage tutoring, math vacation academies, or others that increase the amount of math instructional time. This does not mean that the state should lessen interventions and supports for literacy, which has long been a focus of MDE's strategy for all schools in the state, and particularly for Partnership schools. Rather, policymakers should provide additional resources to assist Partnership schools in improving math outcomes for students.

Non-Partnership Schools in Partnership Districts May Need Additional Attention

Although the Partnership Model is primarily focused on improving outcomes in Partnership schools, state and district leaders should not lose sight of non-Partnership schools in Partnership districts. Although these schools are not among the very lowest performing in the state, they were low performing before the pre-pandemic and our analyses show that they may have struggled disproportionately during the COVID-19 pandemic. The Partnership Model's theory of change already views the district as the primary lever of change for low-performing schools so, in theory, it should be able to propel improvements across all district schools in addition to Partnership schools. However, our findings suggest that these schools may need explicit attention to support their COVID-19 pandemic recovery efforts.

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NOTES

1. This figure excludes eight schools that were identified for Partnership Cohort 1 or 2 but exited prior to spring 2022. In total, 50 of the schools that were ever identified for Partnership were reidentified (Singer & Cullum, 2023)
2. 2021 M-STEP participation rates were 23% in Cohort 1 schools, 19% in Cohort 2 schools, and 23% across Partnership districts. SAT participation rates were 9% in Cohort 1, 6% in Cohort 2, and 7% across all 11th graders in Partnership districts.
3. The comparison group includes schools that were a Priority school in 2016-17 (Cohort 1's identification year) or in the bottom 10% on the state school index system in 2017-18 (Cohort 2's identification year) but were never identified for Partnership. For more information on the comparison group, see the [Year Two](#) and [Three](#) Partnership reports.
4. In past reports, we have also run econometric analyses to identify plausibly causal effects of the Partnership Model. While we are working to develop models that can isolate Partnership effects on student achievement in these later years, we are limited by the long time period post-identification and the missing 2019-20 and 2020-21 data. Specifically, we previously used an “intent-to-treat” approach to estimate the effects of Partnership on the students who were in Partnership schools at the time of identification. By 2021-22, the students who were in Partnership schools at the time of identification had largely moved beyond tested grade levels. Meanwhile, the younger students who have entered tested grade levels in Partnership schools do not have pre-intervention test scores that would allow us to calculate their year-to-year growth.
5. In these analyses, we begin from 2015-16 rather than 2014-15 because 2015-16 was the first year the state began using the SAT as its 11th-grade assessment. Previously, the state used the ACT, which is measured on a different scale.
6. The M-STEP is also designed to be comparable over time within a grade, but we do not run analyses on the M-STEP scale scores for two reasons. First, we are pooling these analyses across multiple grades and the proficiency thresholds vary by grade level (e.g., a 550 in grade 3 is not equivalent to a 550 in grade 4). Second, the state uses as its eighth-grade assessment the PSAT, which is measured on a different scale than the M-STEP.



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