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September 2022

Partnership Turnaround: Year Four Report

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Partnership Turnaround: Year Four Report

September 2022

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TABLE OF CONTENTS

YEAR FOUR REPORT: EXECUTIVE SUMMARY

i • Overview
ii • Main Findings
v • Policy Recommendations

SECTION ONE: INTRODUCTION

2 • Purpose of This Report
2 • Michigan's Partnership Model
7 • Focus of the Fourth Annual Report
8 • Summary

SECTION TWO: DATA AND METHODS

10 • Introduction
11 • Data Sources
13 • Statewide Administrative Data
20 • Survey Data
25 • COVID-19 Data
26 • 21h Funds
26 • Interview Data

SECTION THREE: THE COVID-19 PANDEMIC IN PARTNERSHIP DISTRICTS

32 • COVID-19 in Partnership Communities
44 • Schools and Students Still Grappled With Major Disruptions as a Result of the COVID-19 Pandemic in 2021-22
49 • Student Absenteeism Continued to Present Substantial Challenges in 2021-22
55 • Summary

SECTION FOUR: STUDENT MOBILITY AND ENROLLMENT

58 • Student Mobility

67 • Enrollment

72 • Summary

SECTION FIVE: STUDENT ACHIEVEMENT AND ATTAINMENT

74 • Educators Were Concerned That Students Were Not on Track Academically

80 • Benchmark Growth Was Slow, But Slightly Better in Partnership Districts Than in Similar Districts

81 • Early Progress on Graduation Rates Stalled During the COVID-19 Pandemic

85 • Summary

SECTION SIX: A FOCUS ON ACADEMICS, CULTURE, AND CLIMATE

88 • Partnership Schools Maintained Their Focus on Academics During the 2021-22 School Year

91 • Partnership Schools and Districts Provided Services and Strategies Intended to Address Pandemic-Induced Interruptions to Learning

95 • A Focus on Academics, Climate and Culture, and Student Socioemotional Needs

97 • Educators Report Largely Positive Climate and Culture in Their Schools

103 • Summary

SECTION SEVEN: HUMAN CAPITAL REMAINS A PERSISTENT CHALLENGE FOR PARTNERSHIP SCHOOLS AND DISTRICTS

105 • Human Resource Challenges

113 • Teacher Turnover

122 • Teacher Retention

128 • Teacher Recruitment

133 • Teacher Salary, Incentives, and Supports

137 • School Leadership

143 • Summary

SECTION EIGHT: DEEPER CHALLENGES IN PARTNERSHIP'S FIRST COHORT

147 • The COVID-19 Pandemic Appeared to Have an Outsized Effect on Cohort 1 Schools

149 • Teachers in Cohort 1 Schools Perceived Greater Challenges Related to Classroom Management, Student Behavior, and School Safety

151 • Cohort 1 Teachers Reported More Challenging School Culture and Climate

152 • Human Capital is a Greater Hindrance to Improvement for Cohort 1 Schools

155 • Cohort 1 Schools May be Investing Greater Resources in Student Supports to Mitigate Challenges

155 • Summary

SECTION NINE: IMPLEMENTING PARTNERSHIP DURING THE COVID-19 PANDEMIC

157 • Educators Believe in Their Partnership Improvement Goals, Though Report Less Buy-in Than Last Year

160 • While Optimistic About Improvement, Educators Believed Accountability Expectations Were Unrealistic

162 • Teachers Report Fewer Challenges With Data, Resources, Emotional Connections, and Trust-Building in 2021-22

165 • Though Districts Were Struggling, the Partnership Model Provided Them With Access to Useful Supports

168 • State Turnaround Dollars and Federal COVID-19 Pandemic Relief Funds Helped Partnership Districts Alleviate Financial Constraints

171 • Summary

SECTION TEN: KEY TAKEAWAYS AND POLICY RECOMMENDATIONS

173 • Key Takeaways

177 • Policy Recommendations

KEY TERMS, REFERENCES, AND APPENDICES

Key Terms	**180**
References	**182**
Appendix A: Partnership Districts and Schools	**188**
Appendix B: Regression Results	**192**
Appendix C: Factor Loading Tables	**197**

LIST OF FIGURES

FIGURE 1. Partnership District Educator-Estimated Share of Students Experiencing Interrupted Learning for Selected Reasons, 2021-22 **ii**

FIGURE 2. Kindergarten and First Grade Enrollment in Partnership Schools, Districts, and Comparisons Over Time **iv**

FIGURE 1.1. Partnership Model Theory of Change **4**

FIGURE 3.1. COVID-19 Case and Death Rates per 100,000 Population by Partnership Status Over Time **33**

FIGURE 3.2. Partnership District Teacher-Estimated Share of Students in Partnership Districts Experiencing Health Effects of COVID-19, Past Two Years **35**

FIGURE 3.3. Partnership District Teacher Perceptions of Student Mental Health and Access to Mental Health Care as a Challenge, 2021-22 **36**

FIGURE 3.4. Partnership District Educator Agreement That School Does a Great Job Meeting Student Socioemotional Needs Over Time **38**

FIGURE 3.5. Partnership District Teacher Perceptions That Selected Economic Challenges Were a Major or Greatest Challenge for Their Students, Past Two Years **39**

FIGURE 3.6. Partnership District Teacher Perceptions That Students Were Struggling With Behavior Due to Pandemic-Related Interruptions to Schooling, 2021-22 **40**

FIGURE 3.7. Partnership District Educator Perceptions of Student Behavior as a Hindrance to Reaching Improvement Goals Over Time **42**

FIGURE 3.8. Partnership District Educator Perceptions of Student Motivation to Learn as a Hindrance to Reaching Improvement Goals, by School Year and Partnership School Status Over Time **43**

FIGURE 3.9. Percent of Partnership District Principals Who Report School and Classroom Closures for Selected Reasons, 2021-22 **45**

FIGURE 3.10. Partnership District Educator-Estimated Share of Students Experiencing Interrupted Learning for Selected Reasons, 2021-22 **47**

FIGURE 3.11. Partnership District Educator-Estimated Share of Students With Disabilities Not Receiving Full Services, Past Two Years **48**

FIGURE 3.12. Partnership District Educator Perceptions of Providing Appropriate Instruction to Students with Disabilities, Past Two Years **49**

FIGURE 3.13. Partnership District Educator-Estimated Share of Students Absent Each Day, by School Year and Partnership School Status **50**

FIGURE 3.14. Partnership District Teacher Perceptions of Student Absenteeism as a Challenge, Past Two Years **51**

FIGURE 3.15. Partnership District Teacher Perceptions of Student Absenteeism as a Challenge, by Partnership School Status and Cohort, 2021-22 **52**

FIGURE 3.16. Educator Perceptions of Low Student Attendance as a Hindrance to Reaching Improvement Goals, by Partnership School Status and Cohort, 2021-22 **54**

FIGURE 3.17. Partnership District Educator Reports of Student Attendance Interventions as a Major or Primary School Focus, Past Two Years **55**

FIGURE 4.1. Student Transfer Rates in Partnership Schools, Districts, and Comparisons Over Time **60**

FIGURE 4.2. Difference-in-Differences Estimates of the Effect of Partnership on Students Leaving School **63**

FIGURE 4.3. Difference-in-Differences Estimates of the Effect of Partnership on Students Leaving District **64**

FIGURE 4.4. Students Leaving Michigan Public Education in Partnership Schools, Districts, and Comparisons Over Time **65**

FIGURE 4.5. Difference-in-Differences Estimates of the Effect of Partnership on Students Leaving Michigan Public Education **66**

FIGURE 4.6. Kindergarten and First Grade Enrollment in Partnership Schools, Districts, and Comparisons Over Time **68**

FIGURE 4.7. Grades 2-12 Student Enrollment in Partnership Schools, Districts, and Comparisons Over Time **69**

FIGURE 4.8. Partnership District Educator Perceptions of Low Enrollment as a Hindrance to Improvement Goals, by School Year and Partnership School Status **71**

FIGURE 5.1. Partnership District Educator Agreement That Students Began on Track and Would Be Proficient by the End of the School Year, Past Two Years **75**

FIGURE 5.2. Partnership District Educator Agreement That Students Began on Track and Would Be Proficient by the End of the School Year, by Partnership School Status, 2021-22 **76**

FIGURE 5.3. Partnership District Teachers Agree that Students in Their School Are Struggling with Academic Content Due to Pandemic-Related Interruptions to Learning, 2021-22 **77**

FIGURE 5.4. Partnership District Teacher Reports That Differentiating Instruction Was a Challenge in the Classroom, 2021-22 **78**

FIGURE 5.5. Partnership District Teacher Perceptions of Maintaining Instructional Continuity Across Shifting Modalities as a Challenge, Past Two Years **78**

FIGURE 5.6.Partnership District Teacher Reports of Maintaining Instructional Continuity Across Shifting Modalities as a Challenge, by Partnership School Status, 2021-22 **79**

FIGURE 5.7. Partnership District Benchmark Performance, 2020-21 **81**

FIGURE 5.8. Average School-Level Four- and Five-Year Graduation Rates in Partnership Schools, Districts, and Comparisons Over Time **82**

FIGURE 5.9. Event Study Estimates of the Effect of Partnership on Four- and Five-Year Graduation Rates **84**

FIGURE 6.1. Partnership District Educator-Reported School Focus on Items Related to Academics, Past Two Years **89**

FIGURE 6.2 Partnership District Educator Reports of School Focus on Literacy, 2021-22 **90**

FIGURE 6.3. Partnership District Educators' Beliefs That Their Schools Are Doing a Great Job With Literacy Instruction and Practice Over Time **91**

FIGURE 6.4. Partnership District Principal Reports of Academic Supports Provided to Students, Past Two Years **92**

FIGURE 6.5. Partnership District Principal-Reported Accelerated Learning Strategies, 2021-22 **93**

FIGURE 6.6. Partnership District Principal-Reported Use of Accelerated Learning Strategies by Partnership School Status, 2021-22 **95**

FIGURE 6.7. Partnership District Principal Reports of Services and Resources Made Available to Students, Past Two Years **96**

FIGURE 6.8. Partnership District Educator-Reported School Focus on Items Related to School Culture and Climate, Past Two Years **97**

FIGURE 6.9. Partnership District Educator Perceptions of School Climate and Culture, 2021-22 **98**

FIGURE 6.10. Positive Climate and Culture Construct **100**

FIGURE 6.11. Partnership District Educator Perceptions of School Climate Over Time **101**

FIGURE 6.12. Partnership District Educator Perceptions of School Safety and Student Behavior, 2021-22 **102**

FIGURE 6.13. Positive School Safety and Student Behavior Construct **102**

FIGURE 6.14. Partnership District Educator Perceptions of School Safety and Student Behavior, by Partnership Status Over Time **103**

FIGURE 7.1. Partnership District Principal Reports of Teacher Absenteeism and Availability of Substitutes, Past Two Years **106**

FIGURE 7.2. Partnership District Educator Perceptions of Human Resources Hindrances, Past Two Years **108**

FIGURE 7.3. Human Resources Hindrances Construct **109**

FIGURE 7.4. Human Resources Hindrances by Partnership Status, Past Two Years **109**

FIGURE 7.5. Partnership District Educator Perceptions of Teacher Demoralization as a Hindrance to Improvement, Past Two Years **110**

FIGURE 7.6. Partnership District Teacher-Reported Available Resources to Support Teachers' Mental and Physical Health, Past Two Years **111**

FIGURE 7.7. Partnership District Teacher-Reported Job Satisfaction, by Partnership Status Over Time **112**

FIGURE 7.8. Average Teacher Transfer Rates in Partnership Schools, Districts, and Comparisons Over Time **114**

FIGURE 7.9. Difference-in-Differences Estimates of the Effect of Partnership on Teacher Turnover from School **116**

FIGURE 7.10. Difference-in-Differences Estimates of the Effect of Partnership on Within- and Out-of-District Transfer **117**

FIGURE 7.11. Average Teacher Exit Rates in Partnership Schools, Districts, and Comparisons Over Time **118**

FIGURE 7.12. Difference-in-Differences Estimates of the Effect of Partnership on Leaving Teaching in Michigan Public Schools **119**

FIGURE 7.13. Average First-Year and Novice Teacher Rates Over Time in Partnership Schools, Districts, and Comparisons **121**

FIGURE 7.14. Partnership District Teacher Reported Career Plans for the Next School Year, by Partnership School Status Over Time **123**

FIGURE 7.15. Ranked Partnership District Teacher-Reported Reasons for Employment Plans, by Partnership School Status and Intended Pathway **125**

FIGURE 7.16. Percent of Teachers Reporting That Various Factors Contribute to Employment Plans, by Partnership School Status and Intended Pathway **126**

FIGURE 7.17. Partnership District Teacher-Reported Salary Satisfaction, by Partnership School Status Over Time **127**

FIGURE 7.18. Partnership District Principal Reports of Teacher Hiring Difficulties Over Time **129**

FIGURE 7.19. Partnership District Principal Reports of Factors Contributing to Hiring Efforts, 2021-22 **130**

FIGURE 7.20. In-School and Out-of-School Hiring Challenges Constructs **131**

FIGURE 7.21. Partnership District Principal Perceptions of Influence of In-School and Out-of-School Hiring Factors, By Partnership School Status Over Time **132**

FIGURE 7.22. Partnership District Educator Reports of Recruitment or Retention Incentives as a Focus in Their School, Past Two Years **134**

FIGURE 7.23. Partnership District Human Capital-Related Uses of 21h Funds Over Time **135**

FIGURE 7.24. Partnership District Teacher Reports of Services and Supports Made Available to Them, Past Two Years **136**

FIGURE 7.25. Partnership District Teacher Reports of Principal Effectiveness **137**

FIGURE 7.26. Effective School Leadership Construct **138**

FIGURE 7.27. Effective School Leadership, by Partnership Status Over Time **138**

FIGURE 7.28. Partnership District Principal Reported Career Plans for the Next School Year, By Partnership School Status Over Time **139**

FIGURE 7.29. Percent of Principals Reporting That Various Factors Contribute to Plans to Remain in Role, by Partnership School Status, 2021-22 **140**

FIGURE 7.30. Partnership District Principal-Reported Job and Salary Satisfaction, by Partnership Status Over Time **141**

FIGURE 7.31. Partnership District Educator Reports of Administrator Recruitment and Hiring as a Focus in Their School, Past Two Years **142**

FIGURE 8.1. Health Care and Housing Challenges Construct **147**

FIGURE 8.2. Health Care and Housing Challenges, by Partnership Status Over Time **148**

FIGURE 8.3. Partnership School Teacher Perceptions of School Safety and Student Behavior, by Cohort, 2021-22 **149**

FIGURE 8.4. Partnership School Teacher Perceptions of Student Behavior as a Hindrance to School Improvement, by Cohort, 2021-22 **150**

FIGURE 8.5. Partnership School Teacher Perceptions of Classroom Management as a Challenge, by Cohort, 2021-22 **151**

FIGURE 8.6. Partnership School Teacher Perceptions of Climate and Culture, by Cohort, 2021-22 **152**

FIGURE 8.7. Partnership School Teacher Perceptions of Human Capital-Related Hindrances to Improvement, by Cohort, 2021-22 **153**

FIGURE 8.8. Partnership School Teacher Reports of Student Supports and Services, by Cohort, 2021-22 **154**

FIGURE 9.1. Partnership District Educator Agreement With Statements Related to Buy-In to Improvement Goals, 2021-22 **158**

FIGURE 9.2. Improvement Goal Buy-In Construct **158**

FIGURE 9.3. Partnership District Educator Reports of Improvement Goal Buy-In, by Partnership School Status Over Time **159**

FIGURE 9.4. Partnership District Educator Perceptions That Improvement Goals Are Likely to Improve Student Outcomes Over Time **160**

FIGURE 9.5. Partnership District Teacher Perceptions of Their Instructional Resources, Past Two Years **163**

FIGURE 9.6. Partnership District Teacher Perceptions of Student-Teacher Relations in Partnership Districts as a Challenge, Past Two Years **164**

FIGURE 9.7. Partnership District Principal-Reported Receipt and Quality of MDE and ISD Supports Over Time **166**

FIGURE 9.8. Partnership District Principal-Reported Receipt and Quality of MDE and ISD Supports, By Partnership School Status **167**

FIGURE 9.9. Partnership District Educator Perceptions of Financial Constraints as a Hindrance to Meeting Improvement Goals Over Time **170**

LIST OF TABLES

TABLE 1.1. School-Level Descriptive Statistics by Partnership Identification Status (Ever Partnership) **7**

TABLE 2.1. Data Sources **11**

TABLE 2.2. Partnership Survey Sample and Response Rates **21**

TABLE 2.3. Summary of Constructs **23**

TABLE 2.4. Year Four Interview Sample **27**

TABLE 3.1. Average Cumulative COVID-19 Cases and Death Rates Per 100,000 by Partnership Status **34**

Partnership Turnaround: Year Four Report

EXECUTIVE SUMMARY

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RESEARCH WITH CONSEQUENCE

September 2022

Year Four Report:
Executive Summary

Overview

This report is the fourth in our multi-year evaluation of the implementation and efficacy of the Partnership Model of school and district turnaround. The Partnership Model aims to build district capacity to improve outcomes in a set of Michigan's low-performing schools and districts by providing them with resources and supports from the Michigan Department of Education (MDE), Intermediate School Districts (ISDs), and local community partners. As part of the Partnership Model, Partnership districts and charter organizations crafted Partnership Agreements that outlined their specific needs, laid out strategies to address those needs, and detailed measurable achievement and process goals. Initially, these goals were to be met within three years. However, given the immense disruptions caused by the COVID-19 pandemic, Partnership districts were provided with additional years of support and given leeway in measuring their goal attainment.

This report examines the final year of Partnership Model implementation for the first three identification rounds (in two implementation cohorts) of Partnership districts, selected for intervention in the 2016-17 (Round 1, Cohort 1) and 2017-18 (Rounds 2 and 3, Cohort 2) school years. This evaluation includes analyses of student and teacher mobility outcomes, 2020-21 student benchmark assessment data, graduation and dropout rates, enrollment data, surveys of teachers and principals in both Partnership and non-Partnership schools in Partnership districts, interviews of Partnership district superintendents and charter leaders, and county-level data on COVID-19 transmission.

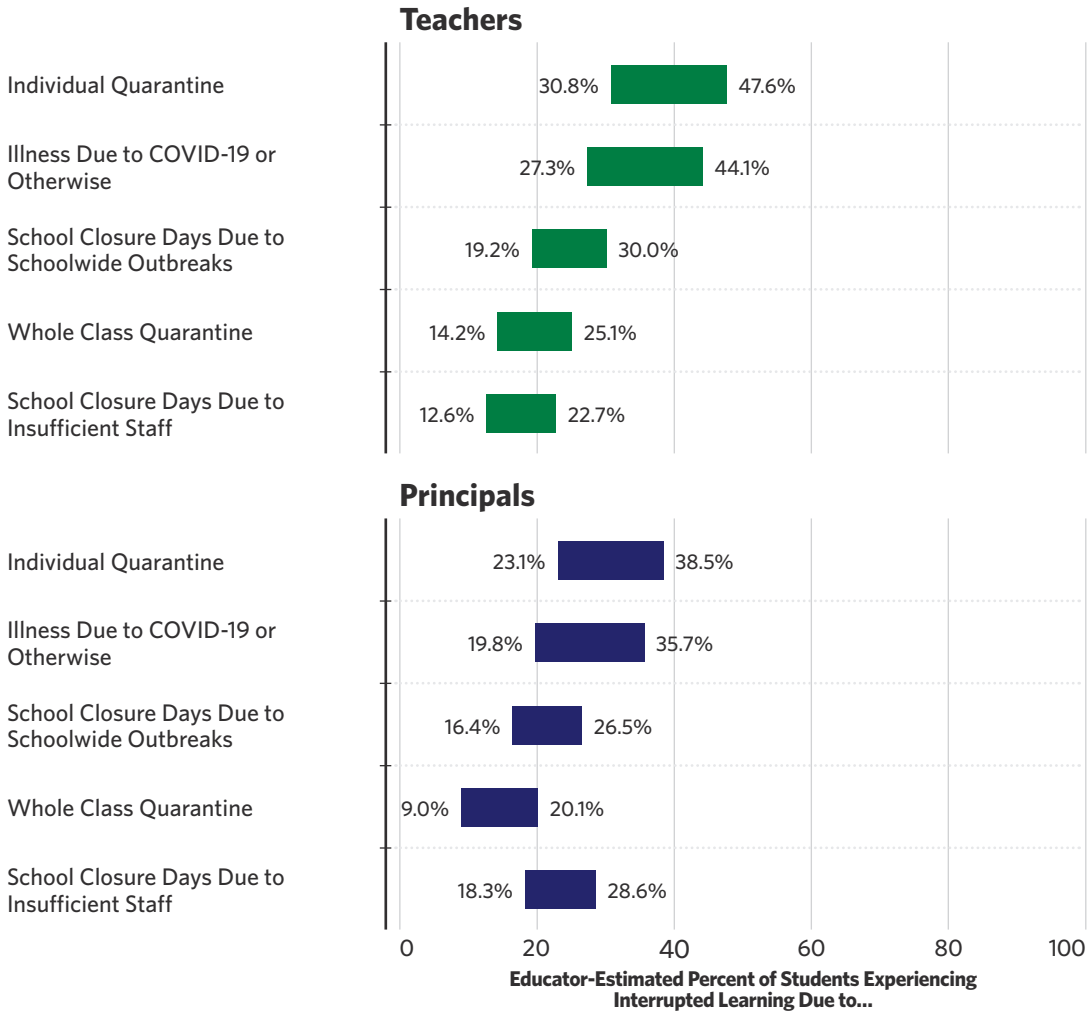
As MDE prepares to select a fourth round (third implementation cohort) of Partnership schools and districts in the fall of 2022, which will likely include schools and districts that are re-identified for Partnership due to their performance on standardized achievement tests, graduation rates, and other school outcomes, we aim to provide an updated overview of Partnership Model implementation and outcomes in Partnership schools and districts across the state. We also document how the COVID-19 pandemic has affected Partnership schools and districts as they work to support students and families during this unprecedented time.

MAIN FINDINGS

The COVID-19 Pandemic Continues to Disproportionately Affect Partnership Schools, Districts, and Communities

Although some of the pandemic-induced challenges that affected Partnership schools, districts, and communities during the 2020-21 school year eased over time, 2021-22 brought new COVID-19-related difficulties to the fore. Partnership educators reported that students struggled more with behavior and reported that as many as one-third of their students were absent from school each day in late winter of 2021-22. Partnership schools and districts faced frequent school and classroom closures that required unplanned shifts in instructional modality and led to interrupted teaching and learning. As is shown in Figure 1, the majority of Partnership district principals reported school and classroom closures by late winter of the 2021-22 school year that resulted from COVID-19 outbreaks and quarantines as well as insufficient instructional staff and a lack of available substitute teachers and staff.

FIGURE 1. Partnership District Educator-Estimated Share of Students Experiencing Interrupted Learning for Selected Reasons, 2021-22



Note: Bars provide teacher- (first panel) and principal- (second panel) estimated range of students experiencing interrupted learning due to each reason based on responses to the question, "In the 2021-22 school year, approximately what proportion of your students have experienced interrupted learning due to each of the following?" Response options were <10%, 10-25%, 26-50%, 51-75%, 76-90%, and >90%. To create estimated ranges, we assign the minimum value of the selected response option as the lower bound and the maximum value as the upper bound. We then take the weighted mean of the lower and upper bounds, respectively. The figure to the left of each bar represents the estimated mean lower bound and the figure to the right of each bar represents the estimated mean upper bound.

Partnership Schools and Districts Provided Several Services Intended to Address Interrupted Learning as Well as Support Student Mental Health and Well-Being

Partnership districts implemented several strategies intended to support and accelerate student learning during the 2021-22 school year. Although there has been a great deal of national attention paid to the strong evidence base that supports the use of one-on-one or small group tutoring, and the majority of Partnership principals reported providing tutoring, relatively few principals believed that tutoring was a priority for their districts. Instead, they described using strategies that were popular prior to the COVID-19 pandemic, including data-driven instruction, focusing on Essential Skills, and culturally responsive teaching. In addition, Partnership educators prioritized students' socioemotional, mental health, and behavioral needs during the 2021-22 school year by providing more social workers, counselors, mentoring initiatives, and restorative justice programs.

Despite Pre-Pandemic Growth, Students in Partnership Districts Struggled Academically and Improvements in Graduation Rates Stalled During the COVID-19 Pandemic

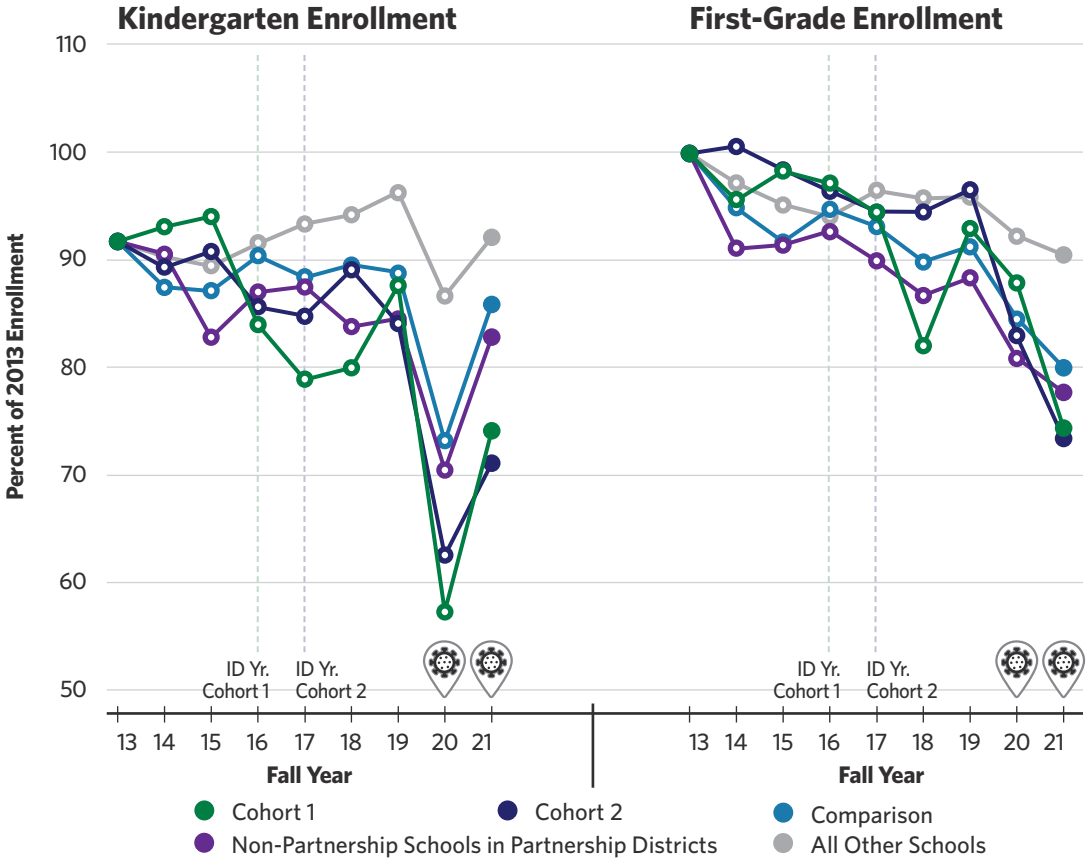
Given the many challenges experienced by students and educators in Partnership districts, it may be unsurprising that previous gains in student outcomes stalled during the COVID-19 pandemic. Partnership districts on average exhibited less growth than others throughout the state on benchmark assessments over the course of the 2020-21 school year and 80% of Partnership district teachers reported that their students were struggling with academic content because of pandemic-related disruptions to learning during the 2021-22 school year. Moreover, the COVID-19 pandemic stalled progress toward increasing some Partnership schools' graduation rates and had the most deleterious effects on graduation rates in schools and districts that were already struggling the most before the COVID-19 pandemic. However, students in Partnership districts made similar and, in some cases, greater gains on their benchmark assessments than did students in demographically and academically similar districts across the state. This suggests that while the COVID-19 pandemic generated immense challenges for student learning, the many services and supports Partnership schools and districts offered may have mitigated some of the negative effect.

Partnership District Enrollment Continued to Decline as Student Exits Remained Elevated and the Pandemic Kindergarten Cohort Did Not Return in Fall 2021

Student mobility and enrollment plagued Partnership districts during the 2021-22 school year. Although all Michigan districts experienced reduced rates of between-district transfer after the

2019-20 school year, district exit rates rebounded after the 2020-21 school year, and student exits from Michigan public schools altogether remained high. Moreover, Partnership districts experienced steep declines in kindergarten enrollment in the 2020-21 school year, and these students did not appear to return to Partnership districts in the fall of 2021, either as kindergarteners or first graders (shown in Figure 2). Together, these patterns spell out declining enrollment and increasing churn in Partnership districts that may persist in the years to come.

FIGURE 2. Kindergarten and First Grade Enrollment in Partnership Schools, Districts, and Comparisons Over Time



Note: Figures represent the share of total 2013-14 enrollment in the listed grade level for the year. A value above 100 indicates that enrollment is higher than in 2013-14, while a value below 100 indicates that enrollment is lower. Treatment is assigned as ever treated (e.g., a school that was in Cohort 1 but exited would be counted as Cohort 1 across all years). Sample restricted to 1,407 schools that served kindergarteners (left panel) and 1,431 schools that served first-graders (right panel) in all nine years of the period from 2013-14 through 2021-22. Placemarkers on the horizontal axis denote years affected by COVID-19.

Partnership Districts Experienced Substantial—and in Some Cases Exacerbated—Human Capital Challenges

Pandemic-related challenges around sickness and quarantine led to increased teacher absenteeism in the 2021-22 school year, and substitutes were often unavailable to fill in. In addition, teacher turnover and recruitment challenges continued to afflict low-performing schools across the

state, and in some cases were exacerbated in Partnership schools and districts. These staffing challenges heightened already-existing human resource constraints and difficulties, including decreased teacher morale and increased teacher reports of intentions to leave Partnership schools and districts in the coming year.

COVID-19 Relief and State Turnaround Funding Helped to Mitigate Pandemic-Induced Challenges

Partnership district leaders cited state turnaround dollars as fundamental to their turnaround efforts as they used these monies to improve technology access, address staffing challenges, and promote educator development. While substantially fewer Partnership educators believed that financial constraints were a significant hindrance to their improvement efforts during the 2021-22 school year, Partnership leaders reported that available funds were still insufficient on their own to fully address ongoing staffing challenges, in large part because of an insufficient supply of educators in their local labor markets.

POLICY RECOMMENDATIONS

Continue Supporting Partnership and Other Low-Performing Schools and Districts

The outsized effect of the COVID-19 pandemic on Partnership communities, educators, students, and school systems has made school improvement—always a difficult task—even harder. Moreover, statewide challenges with teacher recruitment and retention continue to be felt more acutely in Partnership districts. Partnership educators and leaders are working to provide the necessary academic, mental health, and socioemotional support services to help their students succeed. But these initiatives are costly—both in terms of dollars and the time and emotional toll on Partnership educators. While state turnaround dollars and one-time COVID-19 pandemic recovery funds have gone a long way to help Partnership schools and districts, the road to recovery will be long. State policymakers will need to continue funding Partnership and other low-performing schools and districts and providing them with assistance to help them build on early progress, accelerate learning, and continue to support their students. Current estimates suggest that a greater number of districts will be identified for Partnership in Round 4. However, the current budget appropriation maintains the state's investment of $6 million a year for 21h funds. These funds will likely be insufficient to adequately support an increased number of Partnership districts, especially as COVID-19 pandemic relief funds are exhausted and districts work to recover from the COVID-19 pandemic. Policymakers should allocate additional funds to Partnership districts in the coming years to better support their improvement efforts for the duration of the three-year intervention period.

Assist Partnership Educators and Leaders in the Use of Evidence-Based Interventions to Accelerate Learning

While students in Partnership districts experienced achievement growth on par with—and sometimes at higher rates than—students in similar districts, they are nonetheless performing

at levels far below average in Michigan. Principals reported implementing several important strategies in the 2021-22 school year intended to help accelerate student learning. It will be important to support Partnership school and district leaders as they continue to work to accelerate learning, in particular providing them with resources to enable the use of evidence-based interventions—such as one-on-one or small group tutoring—that hold the greatest promise to foster achievement growth.

Provide Districts Exiting Partnership with Additional Resources to Ensure Continued Improvement

The 2022-23 school year will be the first in which districts will exit turnaround status after undergoing the full Partnership intervention. Some of these districts will be re-identified for Round 4 (implementation Cohort 3) of the intervention, but a subset of Cohort 1 and Cohort 2 Partnership districts will exit Partnership entirely. These exiting districts are still among the most affected by the COVID-19 pandemic and they still serve large populations of historically disadvantaged students. Additionally, the COVID-19 pandemic undercut progress toward improvement goals and even districts that are exiting did not make as much progress toward school and district improvement as they had planned for pre-pandemic. By district and school leaders' own accounts, Partnership supports and resources helped them to improve. Losing the opportunity to access these resources and supports after more than two years of pandemic-related challenges might endanger their progress. Of course, over the past two years, school systems across the state have received considerable one-time federal Elementary and Secondary School Emergency Relief (ESSER) funds, as well as increased state per-pupil funding as a result of the updated school funding formula. But one-time funds by definition will not be available in the long -run, and increased per-pupil funding may not be enough to sufficiently address the substantial needs of exited districts as they work to recover from the COVID-19 pandemic and continue making progress. Policymakers should continue to support these newly exited districts—financially and through additional operational and developmental assistance.

As the State Focuses Efforts on Strengthening the Educator Pipeline and Workforce, Pay Particular Attention to Ensure Partnership Schools and Districts Can Recruit, Retain, and Support Teachers

Partnership schools and districts have higher rates of teacher turnover than wealthier and higher-performing school districts, and substantial proportions of Partnership educators reported low morale and greater intentions to leave in the coming years. Partnership teachers cited leadership, culture, climate, and their students as reasons to *stay* in their positions and cited pay and workload as reasons to *leave*. Policymakers should target efforts to retain and grow the educator workforce in Partnership districts in particular, focusing on improving pay, reducing workload, and retaining effective leaders who can in turn build and maintain productive and welcoming schools with supportive working conditions.

Support Partnership Schools and Districts in Efforts to Reduce Student Absenteeism

The COVID-19 pandemic exacerbated existing challenges related to student absenteeism and in particular chronic student absenteeism—reducing opportunity to learn among students who may already be grappling with significant challenges impeding their learning. Policymakers and district leaders should consider ways to decrease student absenteeism. For instance, schools can leverage existing resources (e.g., the Michigan Department of Education's ENGAGE program) to make connections with students who are facing challenges that impede their ability to consistently attend class, support student success, identify the barriers to attendance and engagement, and provide supports to mitigate those barriers. If and when absenteeism stems from required quarantine protocols, districts should continue to work to abate the negative effects of missed in-person learning (for example, through resources for engaging quarantining students and high-quality virtual engagement opportunities).

Partnership Turnaround:
Year Four Report

SECTION ONE: INTRODUCTION

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Section One: Introduction

PURPOSE OF THIS REPORT

Michigan began implementing its Partnership Model of school and district turnaround during the 2016-17 school year with the intention of improving operations and outcomes in Michigan's low-performing schools and in the districts in which those schools reside. In the spring of 2018, the Education Policy Innovation Collaborative (EPIC) at Michigan State University began a longitudinal evaluation of the implementation and efficacy of Michigan's Partnership Model. This is the fourth annual report documenting findings from the ongoing evaluation.

The purpose of this report is to provide an updated overview of Partnership Model implementation and outcomes in Partnership schools and districts across the state. We present results from analyses of student academic and non-academic outcomes, educator outcomes, surveys of teachers and principals in Partnership districts (in both Partnership and non-Partnership schools in those districts), and interviews with Partnership district system leaders. Unfortunately, the COVID-19 pandemic continues to affect the lives of the educators and students who work and learn in Michigan's Partnership schools and districts, and the operations of public schools across the state. As such, we discuss how this report's findings are inherently tied to the COVID-19 pandemic and its effects.

MICHIGAN'S PARTNERSHIP MODEL

In this section, we briefly review the development of Michigan's Partnership Model of school and district turnaround and its underlying Theory of Change. (Interested readers should look to the previous three years' reports for a more thorough description of the Partnership Model and its evolution.) We then discuss the characteristics of students enrolled in Partnership schools and a set of "near-selected" comparison schools—schools that narrowly missed inclusion in the Partnership Model based on the state's strategy for identifying its low-performing schools because they performed just slightly higher than the established cutoffs[1]—compared with students enrolled in Michigan school districts that were never identified nor nearly identified for Partnership.

The Partnership Model Theory of Change

The Partnership Model emerged in spring of 2017 under the leadership of then-state Superintendent Brian Whiston. Political developments in Michigan, along with the implementation of the federal Every Student Succeeds Act (ESSA), provided an opportunity for Superintendent Whiston to take a new tack in turning around the state's low-performing schools. Superintendent Whiston's

vision was centered on an approach to turnaround that emphasized school districts working to increase their capacity to improve student outcomes via support from the Michigan Department of Education (MDE) as well as a constellation of stakeholders within the community.

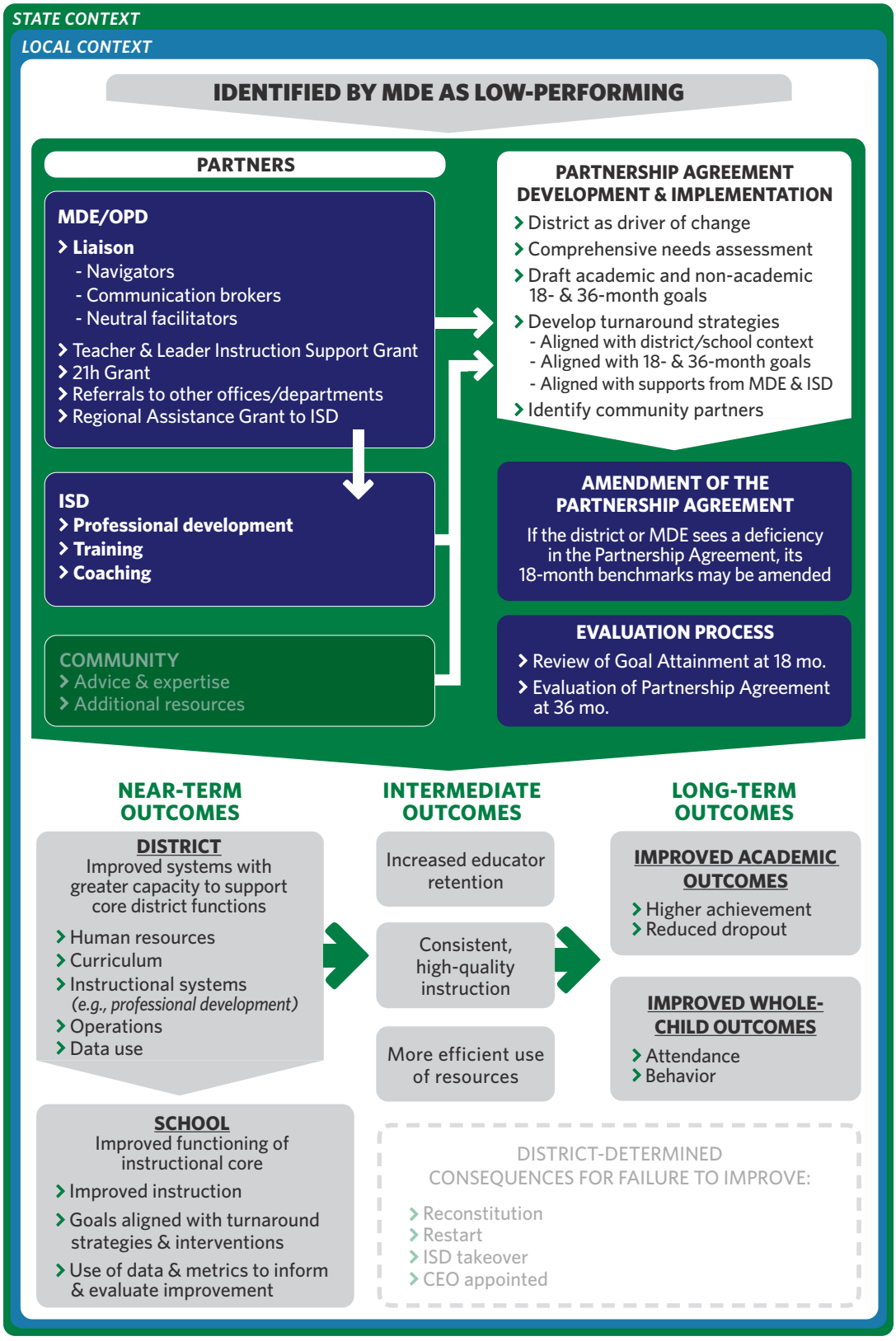
Under the Partnership Model, the state's low-performing schools were labeled "Partnership schools" and their districts, which were charged with developing and leading improvement efforts in identified schools, were labeled "Partnership districts." Partnership districts then worked with school and district leadership, a liaison from the Office of Partnership Districts (OPD) at MDE, and community stakeholders to develop a Partnership Agreement analyzing the district's strengths and weaknesses, identifying improvement goals to be met over 18- and 36-month timeframes, outlining strategies and reforms to meet those goals, and prescribing consequences for failing to meet those goals. After local stakeholders and MDE approved a Partnership district's Partnership Agreement, the district implemented the Agreement over the ensuing three academic years with support from its Intermediate School District (ISD)/Regional Educational Services Agency (RESA)[2], identified partners in its community, and the OPD. The original plan was for Partnership districts meeting the goals outlined in their Agreements to exit Partnership status after three years, but districts agreed to remain in Partnership status for an additional year due to the COVID-19 pandemic. Districts failing to meet their goals were to be subject to the consequences outlined in their Agreements. However, the COVID-19 pandemic complicated goal attainment as it disrupted learning for students in all schools—and in Partnership districts in particular. As a result, the Evaluation of Partnership Agreement meeting originally intended as the process by which the state and district leaders would evaluate goal attainment has been converted to an informal check-in to gauge goal status after the 2021-22 school year.

To date, the state has identified three rounds of Partnership schools—one each in the spring of 2017, the fall of 2017, and the spring of 2018. Because the implementation and evaluation timelines for schools identified in Rounds 2 and 3 are the same, we at times consider them together as Cohort 2, and label schools identified in Round 1 as Cohort 1. When there are reasons to expect that Rounds 2 and 3 may differ in implementation or outcomes, we also examine these two rounds of schools separately. In total, 123 schools across 35 districts have been identified for Partnership. As of the 2021-22 school year, 25 schools and nine districts have exited Partnership for various reasons, leaving 98 schools and 26 districts operating under Partnership Agreements.[3] A list of identified schools and their district for each round and cohort of Partnership is in Appendix A.

MDE intended to identify a fourth round of Partnership schools in the fall of 2021. However, due to disruptions to standardized testing and school and district operations stemming from the COVID-19 pandemic, the selection of a new round of Partnership schools was delayed and is currently planned for fall of 2022. Similarly, Cohort 1 districts that would have exited Partnership status after the 2019-20 school year and Cohort 2 districts would have exited after the 2020-21 agreed to remain in Partnership through 2021-22 in order to continue receiving supports from OPD and additional funds.

Figure 1.1 shows the Partnership Model's Theory of Change. The model has evolved over time, but much of its original intent is still in place.

FIGURE 1.1. Partnership Model Theory of Change



The Partnership Model conceives of low performance at the school level as symptomatic of issues at the district level. As such, the Partnership Model is a district-level intervention that aims to provide support for the local educational agencies (LEAs) that operate identified low-performing schools.[4] When a school is designated as a Partnership school, the LEA that operates it is designated as a Partnership district to enact and oversee the turnaround of the identified Partnership school(s). Just over half (58%) of Michigan's Partnership districts as of the end of the 2021-22 school year were charter schools (called public school academies, or PSAs, in Michigan, though we refer to them as charter schools in this report), though traditional public school (TPS) districts operate 84% of Partnership schools.

In the case of TPS Partnership schools, the parent district is charged with leading turnaround. In the case of charters, different entities may serve as the Partnership district, often their central office or educational service provider—sometimes referred to as an educational management organization, charter management organization, or management company.

After a district is identified for Partnership, a series of supports become available to guide turnaround work in identified schools. At the state level, these include a Partnership Agreement liaison from MDE to provide individualized supports to district leadership along with access to several grants available only to Partnership districts. At the regional level, districts receive greater support, typically in the form of professional development and various forms of coaching, from their ISD related to their needs. At the local level, Partnership districts are encouraged to reach out to organizations in the community, such as civic organizations, the local business community, and community health agencies, for additional supports. The original Theory of Change conceived of local partners as key players in Partnership districts' turnaround efforts, but the local organization role was de-emphasized during implementation.

Drawing on the above constellation of supports, Partnership districts develop a Partnership Agreement that serves as a contract with MDE to improve student outcomes over a 36-month period. This process begins with the district conducting a comprehensive needs assessment to identify the strengths and weaknesses of its Partnership schools as well as the district itself. The district then uses findings from the needs assessment to identify for each of its Partnership schools:

- academic and non-academic improvement goals to be met over 18- and 36-month time periods;
- strategies aligned with reaching those improvement goals;
- supports the district will receive from state, regional, and local partners; and
- accountability measures to be implemented if improvement goals are not met.

After the Partnership Agreement is drafted, the district administration is asked to approve it, along with its ISD, MDE, and key community partners the district selects. Once approved, the Agreement is implemented beginning in the following school year, though it may be amended if part of it is deemed deficient by MDE during implementation.

To monitor Partnership districts' progress toward the goals outlined in their Partnership Agreements, MDE conducts an interim evaluation after 18 months of implementation. Partnership districts that are found to be "off-track" at that juncture are required to implement additional strategies to foster improvement as well as undergo another evaluation at 24 months of implementation.

All Cohort 1 and Cohort 2 Partnership districts are at the end of their 36-month Partnership Agreements (recall from earlier that Cohort 1 and Cohort 2 districts stayed in their Agreements for an additional one or two years, respectively, during the COVID-19 pandemic). Because of the COVID-19 pandemic, OPD amended the process for the 36-month Evaluation of Partnership Agreements that determine whether Partnership districts have met their goals and can exit their agreements. Instead of having high-stakes Evaluation of Partnership Agreements, they have transitioned to informal Evaluation of Partnership Agreements that will, in collaboration with each Partnership district, review districts' progress. All Partnership districts will be released from their Agreements, and a new round of Partnership districts—which will include some re-identified districts—will be selected for inclusion in Round 4.

The aim of the Partnership Model is to foster improvement in district-level systems that in turn supports sustained improvement at the school level, particularly in identified Partnership schools. This process should lead to intermediate outcomes such as increased educator retention and higher quality instruction and eventually to improved academic and whole-child outcomes for students. Ideally, this improvement will continue beyond the time period covered by the Partnership Agreement.

Characteristics of Students Enrolled in Partnership Schools

As is the case across the country, Michigan's low-performing schools and districts have different characteristics than do districts that perform at higher levels on state standardized achievement tests and are not identified for turnaround (Sun et al., 2021). In our Year One and Year Two reports, we described in detail the different contexts in which Partnership schools and districts were working. The communities in which Partnership districts are located have fewer adults who have completed high school and college, are substantially lower income and higher poverty, and have lower labor force participation. Far fewer children in Partnership communities live in two-parent households or have health insurance.[5]

Given these disparities, it is not surprising that Partnership schools enroll higher proportions of economically disadvantaged students. As is shown in Table 1.1, students inside Partnership districts are slightly more likely to be economically disadvantaged than students enrolled in comparison schools, and far more likely to be economically disadvantaged than students in Michigan's higher performing schools that were not identified or nearly identified for Partnership (labeled "all other schools"). Because Michigan communities with high proportions of Black residents also tend to be those with the lowest levels of economic resources (Annie E. Casey Foundation, 2019), it follows that the far majority of students in Partnership schools are Black; 90% of Cohort 1 and 81% of Cohort 2 Partnership school students are Black, as are 77% of students enrolled in non-Partnership schools in Partnership districts. In contrast, only 55% of comparison "near-selected" school students and just 14% of students in higher performing schools are Black. Partnership schools are home to few White students; just 3% of Cohort 1 students and 8% of Cohort 2 students are White, as are 10% of students in non-Partnership schools in Partnership districts. Notably, 29% of students in comparison schools are White, as are 70% of students in higher performing schools across the state.

Partnership schools enroll slightly greater proportions of students with disabilities than do comparison schools, but slightly lower proportions than the remainder of the state. Partnership

schools enroll lower proportions of Hispanic or Latino/a/x students and English learners than do comparison or higher performing schools in Michigan. This is likely because Partnership schools are for the most part located in urban settings and the state's Hispanic or Latino/a/x and English learner populations largely live in rural and suburban areas.

Together, these data present a clear picture of the populations that live and learn in the communities served by Partnership schools and districts. They are the adults and children who have been most traditionally underserved by public institutions both in Michigan and across the country. Notably, these communities were disproportionately affected by the COVID-19 pandemic, a topic we discussed in detail in our Year Three Report, and for which we present new evidence in Section Three of this report.

TABLE 1.1. School-Level Descriptive Statistics by Partnership Identification Status (Ever Partnership)

	Cohort 1	Cohort 2	Comparison	Non-PS in PD	All Other Schools
Student Population					
Economically disadvantaged	91.3	90.1	86.3	89.6	55.9
English learner	2.7	4.5	9.5	6.7	5.9
Special education	17.8	16.8	15.0	17.2	19.2
Black	89.9	81.2	55.1	76.7	13.9
Hispanic or Latino/a/x	4.3	6.7	9.7	9.2	8.3
Asian	0.4	0.6	0.9	0.7	2.8
Other race	2.4	3.3	5.1	3.9	5.8
White	3.0	8.3	29.2	9.5	69.3
School Characteristics					
Enrollment	475.8	391.4	374.3	425.0	418.0
Traditional public school	97.1	80.3	66.0	88.6	0.0
Charter school	2.9	19.7	33.5	11.4	0.0
Intermediate school district	0.0	0.0	0.5	0.0	0.0
Observations	34	76	194	166	3,123

Note: School-level descriptive statistics from 2020-21 for schools that were ever identified as Partnership (regardless of current Partnership status), comparison schools, non-Partnership schools in Partnership districts (abbreviated "Non-PS in PD"), and all other schools in the state. "All other schools" category includes all schools that were never assigned to Cohort 1, Cohort 2, the comparison group, nor a Partnership district. The first three columns here reflect the sample for the difference-in-differences models described in Section Two.

FOCUS OF THE FOURTH ANNUAL REPORT

The goal of this fourth annual report is to describe how Partnership schools and districts implemented the Partnership Model during the 2021-22 school year, to document any changes in implementation over time, and to assess the Model's effect on student and educator outcomes to date. However, because the COVID-19 pandemic and associated challenges continued to affect Michigan districts, schools, educators, and students, we are in many ways unable to undertake these analyses without explicitly addressing how the COVID-19 pandemic affected Partnership Model implementation and efficacy.

Therefore, in our Year Four report, we focus on the following questions:

1. How did the COVID-19 pandemic continue to affect Partnership schools and districts during the 2021-22 school year?
2. How did student outcomes, including achievement on benchmark assessments, enrollment, mobility, and graduation rates, differ in Partnership relative to near-selected schools during the 2020-21 school year?
3. How have Partnership schools' and districts' organizational foci shifted over the course of the intervention?
4. How have the Partnership Model and the COVID-19 pandemic affected human capital over time?

SUMMARY

The Partnership Model was implemented to help Michigan's low-performing schools and districts improve school and district operations and eventually educator and student outcomes. EPIC's evaluation of the Partnership Model highlights both the successes and challenges Partnership schools and districts have experienced throughout the intervention and shines a light on the specific difficulties wrought by the continuing COVID-19 pandemic. In this fourth year report, we examine the continued implementation of the Partnership Model and its outcomes to date even as the COVID-19 pandemic and associated challenges continued to affect the state and the nation.

SECTION ONE NOTES

1. Cohort 1 Partnership schools were selected in 2016-17 after being identified as Priority Schools for the three consecutive years through 2015-16. Cohort 2 Partnership schools were selected in 2017-18 in two rounds. The first (Round 2) included schools that were low performing in 2015-16 and had continued trending downward in 2016-17. The second (Round 3) included all schools in the bottom 5 percentiles on the state's school index system in 2016-17. Comparison schools for Cohort 1 include all 2015-16 Priority Schools that were not identified in any round of Partnership. Comparison schools for Cohort 2 include all schools between the 6th and 10th percentiles on the state's school index system in 2016-17.
2. Hereafter, all references will only mention ISD as this is the more common term policymakers use.
3. One additional school closed as of July 1, 2022. As of fall 2022, the total is expected to be 97 schools in 25 districts.
4. As described in Section One note 1, not all low-performing schools based on 2015-16 outcomes were identified for Partnership; rather, Round 1 comprised just those schools that were low performing for three straight years through 2015-16 (i.e., persistently low performing) and Round 2 was made up of a subset of schools that were low performing in 2015-16 in addition to trending downward in 2016-17. Round 3 does include the full set of low-performing schools in 2016-17 (defined by federal law as the bottom 5% on the state's school index system).
5. More detail can be found on pages 2-6 of the Year Two Partnership Report.

Partnership Turnaround:
Year Four Report

SECTION TWO:
DATA & METHODS

EPIC
Education Policy
Innovation Collaborative

Section Two:
Data and Methods

INTRODUCTION

To examine the effects of the Partnership Model and better understand the experiences of educators and students in Partnership schools and districts, we use a mixed methods triangulation design (Creswell & Plano Clark, 2017) that includes multiple types of data and methods of analysis. By integrating analyses of varied sources of qualitative and quantitative data, we are able to paint a rich picture of how the Partnership Model has been implemented, the effectiveness of the reform along multiple intended outcomes, and the ways in which COVID-19 continued to permeate the educational experiences of Partnership educators and students.

We use the following data sources in the fourth year of our evaluation of the Partnership Model:

- statewide administrative data
    - student administrative data records
    - educator administrative data records
    - school enrollment data
    - district benchmark data
- surveys of educators working in Partnership schools and districts
    - teacher surveys
    - principal surveys
- COVID-19 cases and deaths
- data from the OPD on use of 21h funds, and
- interviews with Partnership district and charter leaders

Table 2.1 provides more detail about these data sources, including the outcomes of interest, the source of the data, the years and samples used in our analyses, and the specific groups of students or educators included. Administrative data analyses include student and educator outcomes through the 2020-21 school year (Cohort 1's fourth implementation year and Cohort 2's third implementation year). For student and educator mobility outcomes, we also use fall 2021 data to measure student and teacher mobility at the end of the 2020-21 school year. The analyses of school-level enrollment use data available through fall 2021.

The survey and interview analyses for this report draw on district and charter leader interviews conducted in the 2021-22 school year (the fifth year of the reform) and educators' responses to surveys administered in spring 2022. In many cases, we also draw from educator survey responses from the first three years of the study—administered in fall 2018, fall 2019, and spring 2021 to educators in Partnership districts that had an active Partnership Agreement in that school year.

While in total there have been 37 Partnership districts and 123 Partnership schools, several schools and districts exited the model, leaving 26 districts and 98 schools in the 2021-22 school year.[1]

DATA SOURCES

TABLE 2.1. Data Sources

Data	Outcomes of Interest	Source	Year	Sample Size	Subgroups
Statewide Administrative Data					
Student administrative records	Student mobility Four- and five-year high school graduation Dropout	MDE and CEPI	2013-14 through fall 2021	**Full panel:** 1,290,730 student-year observations **Difference-in-differences analyses:** 1,048,967 student-year observations	**Cohort 1:** Round 1 Partnership schools, identified in fall 2016 with first year of implementation in 2017-18 **Cohort 2:** Round 2 and 3 Partnership schools, identified in 2017-18 with first year of implementation in 2018-19 **Round 2:** Subset of Cohort 2 Partnership schools identified in fall 2017 as part of Round 2 **Round 3:** Subset of Cohort 2 Partnership schools identified in spring 2018 as part of Round 3 **Comparison:** 2016 Priority schools not part of Cohort 1 or 2, schools in the 1st-10th percentile of the Michigan Index System in 2017 not identified for Partnership
Educator administrative records	Mobility out of school and district Exit from teaching profession	MDE and CEPI	2013-14 through fall 2021	**Full panel:** 703,906 teacher-year observations **Difference-in-differences analyses:** 52,313 teacher-year observations	Teachers in schools identified as Cohort 1, Cohort 2, Round 2, Round 3, and comparison schools
School enrollment data	School-level student enrollment	MDE and CEPI	2013-14 through 2021-22	31,312 school-year observations (3,940 unique schools)	Cohort 1, Cohort 2, Round 2, Round 3, and comparison schools, all other schools in the state

TABLE 2.1. Data Sources (continued)

Data	Outcomes of Interest	Source	Year	Sample Size	Subgroups
Survey Data					
Teacher surveys*	Perceptions and experiences in Partnership schools and districts	EPIC-developed survey	Fall 2018 Fall 2019 Spring 2021 Spring 2022	**Fall 2018:** 2,718 participants (38.3% response rate) **Fall 2019:** 3,224 participants (49.2% response rate) **Spring 2021:** 2,342 participants (38.5% response rate) **Spring 2022:** 1,846 participants (29.9% response rate)	All schools in Partnership districts Partnership schools and non-Partnership schools in Partnership districts Cohort 1 and 2 Partnership schools Traditional public and charter schools
Principal surveys*	Perceptions and experiences in Partnership schools and districts	EPIC-developed survey	Fall 2018 Fall 2019 Spring 2021 Spring 2022	**Fall 2018:** 81 participants (28.6% response rate) **Fall 2019:** 88 participants (37.8% response rate) **Spring 2021:** 116 participants (46.6% response rate) **Spring 2022:** 71 participants (29.0% response rate)	All schools in Partnership districts Partnership schools and non-Partnership schools in Partnership districts Cohort 1 and 2 Partnership schools Traditional public and charter schools
COVID-19 Related Data					
Case and death rates	County-level COVID-19 cases and deaths per 100,000 population, test positivity rates	MDHHS**	Daily, April 2020 through March 2022	83 counties (11 with Partnership districts)	Counties with Partnership districts and counties without Partnership districts
21h Data					
21h spending frequency and amounts	Frequency and estimated dollar amounts of district-level 21h spending by category	OPD	2018-19, 2019-20, 2020-21	500 district-item years (27 unique districts)	All Partnership districts receiving 21h funding by year
Interview Data					
District leadership interviews	Perceptions of Partnership implementation	Interviews conducted by EPIC researchers	October 2021 through April 2022	12 interviews (46% response rate) **Response rate by:** **TPS vs. charter:** 45% TPS (N=5) 47% Charter (N=7) **Cohort 1 vs. Cohort 2:** 50% Cohort 1 (N=3) 45% Cohort 2 (N=9)	TPS/district superintendents or leaders coordinating Partnership work Charter school superintendents, principals, or leaders coordinating Partnership work

** Teacher and principal surveys administered to teachers and principals in all schools in Partnership districts, regardless of individual schools' Partnership status.*

*** Publicly available data can be found at https://www.michigan.gov/coronavirus/stats*

The remainder of this section describes each data source and the analytic methods used to examine the implementation and effects of the Partnership Model as well as the descriptive experiences of students and educators in Partnership schools and districts during the COVID-19 pandemic.

STATEWIDE ADMINISTRATIVE DATA

Sample

Statewide administrative data include longitudinal data on students and teachers, district-level funding, and school-level enrollment. Analyses using administrative data in this report focus on students and teachers in Cohort 1 and Cohort 2 Partnership schools relative to those in a set of similar comparison schools.

To examine student and teacher mobility in Partnership schools, we use administrative data records on Michigan K-12 students and public school teachers provided by MDE and the Center for Educational Performance and Information (CEPI) from 2013-14 through fall 2020. We define public school teachers as public school employees (both TPS and charter) whose primary position is as a teacher.[2] The student analyses in this report draw from data on race, ethnicity, gender, school placement, special education status, English learner status, socioeconomic status,[3] and high school graduation/dropout status when applicable. The teacher analyses in this report draw from credential information, years of experience, teaching assignment, and school assignment.

MDE identified 37 schools for inclusion in the first cohort of Partnership schools in fall 2016. These schools were selected because they had been identified as Priority schools for the three years prior, between 2014–2016. The first year of Cohort 1 Partnership implementation was 2017-18. Cohort 2 Partnership schools consist of the 86 schools that were selected as Round 2 (41 schools) or Round 3 (45 schools) Partnership schools. Both Rounds 2 and 3 were identified in the 2017-18 school year and their first year of implementation was 2018-19. Round 2 schools were identified based on low performance in 2015-16 and continued declining performance in 2016-17. Round 3 schools were the state's first Comprehensive Support and Improvement schools under ESSA. Comprehensive Support and Improvement schools are those in the bottom 5% of the Michigan School Index System, which ranks schools by their composite score on an index drawing from a variety of school effectiveness measures. We analyze Rounds 2 and 3 together as "Cohort 2" because they share an implementation timeline. Where there is sufficient power, we then estimate separate effects by round because we might expect to see differences between Rounds 2 and 3 for two reasons. First, the two rounds were identified using different criteria, as described earlier. Second, Round 3 comprises the state's Comprehensive Support and Improvement schools under ESSA, which are subject to federal accountability requirements while Round 2 schools are not. In the main text, we report cohort-specific estimates and then include round-specific estimates in cases where the effects we detect for Rounds 2 and 3 are meaningfully different. In total, the treatment group includes 930 school years (37 unique Cohort 1 and 83 unique Cohort 2 schools, including 39 in Round 2 and 44 in Round 3) with 1,290,730 student years (416,662 unique students) and 22,169 teacher years (6,758 unique teachers).

We construct a comparison group that includes near-selected schools for each cohort. This comparison group includes non-Partnership schools that were (1) 2016 Priority Schools, and/or (2)

ranked in the bottom 10 percentiles on the Michigan School Index System in 2017. Together, these schools represent the closest comparison to Partnership schools based on academic outcomes, as Cohort 1 and Cohort 2 (Round 2) schools were selected from 2016 Priority Schools and Cohort 2 (Round 3) schools were selected from schools that were low performing on the state index in 2017. The comparison schools that were not selected for Partnership were otherwise quite similar to Partnership schools in terms of academic achievement and other observable characteristics (as shown in the Year Two Report, Table 2.3). However, while Partnership schools underwent reform, comparison schools continued with "business as usual," meaning their post-reform trajectory provides the best approximation of Partnership schools' outcomes in the absence of the reform.

In all administrative data analyses, we define Partnership schools as those that were ever identified as Partnership, even if they have since exited Partnership status. This "intent to treat" sample represents the more conservative estimate of the effect of the Partnership model on various outcomes.

Student Administrative Records

Outcomes

This report focuses on outcomes related to student mobility, educational attainment for high school students, and benchmark assessments for students in 3rd-8th grade. While districts administered M-STEP assessments in 3rd-8th grades and the SAT for 11th grade in the spring of 2021, the state requested and received a waiver from the U.S. Department of Education exempting it from minimum participation requirements. While M-STEP participation rates were approximately 70% statewide, participation was substantially lower in Partnership schools and districts, which spent most of the 2020-21 school year under remote instruction (Strunk et al., 2021). In particular, 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. Because of these especially low participation rates and because those who participated were observably different from those who did not, we do not show findings from analyses of M-STEPs or SATs.

Student mobility. We measure student mobility in three ways—leaving the school, leaving the district, and leaving Michigan public education, all relative to staying in their current school. These measures are nested; a student who leaves their district necessarily also leaves their school, and a student who leaves Michigan public education necessarily leaves both their district and school. To generate these student mobility outcomes, we observe whether a student has the same school (or district) assignment in the following year. Students who move to a new school within the same district are coded as leaving their school, those who move to a new school in a new district are coded as leaving their school and leaving their district, and those who drop out of the dataset of all Michigan public school students are coded as leaving their school, district, and Michigan public education. Students who remain in the same school are coded as non-mobile. We do not count students who make structural moves (i.e., those who move to a new school due to reaching the highest grade level in their current school, those whose school closed, and those who graduate from high school) in any of these categories. This enables us to understand student mobility as a student and their family's choice to exit their school, district, or public education in Michigan.

High school graduation and dropout. We calculate high school graduation and dropout based on the exit status of a student at the end of their expected graduation year. We calculate on-track

and five-year cohort graduation rates, which typically reflect completion of high school in four and five years, respectively.[4]

Other Variables

In analyses using student data, we also include student demographics (race/ethnicity, gender), grade level, socioeconomic status, English learner status, and status as a student with a disability to adjust our estimates of the Partnership effect by each of these categories. We also control for school-level characteristics of the student body, including the proportion of students by race/ethnicity, economic disadvantage, English learner status, special education status, and school enrollment.

Teacher Administrative Records

We continue to focus on teacher mobility, a particular concern in low-performing schools and districts that has become even more salient during the COVID-19 pandemic.

Outcomes

We examine four measures of teacher mobility: leaving the school (regardless of pathway out), within-district teacher transfers, out-of-district teacher transfers, and leaving teaching in Michigan public schools. We count a teacher as a within-district transfer if they leave their school to transfer to a different school within the same district or charter network. We count a teacher as an out-of-district transfer if they leave their school to transfer to a different school in a different district or charter network in Michigan public schools. We count a teacher as leaving teaching in Michigan public schools if they are no longer employed as a teacher in Michigan public schools in the following fall. We construct each of these measures for school year *t* based on where the teacher is observed in fall of school year *t+1*.

Other Variables

In analyses using teacher data, we also include teacher race/ethnicity and gender.[5] In models predicting leaving teaching, we also include controls for promotions (i.e., moving out of teaching to become a principal, assistant principal, school director, or school supervisor). To construct the weights for our survey analyses, we also use two indicators for teacher certification type that take the value of one for elementary and secondary grade certification, respectively.

District Administrative Records

Benchmark Assessments

We draw from district-level average scores on 3rd-8th grade math and reading benchmark assessments administered in fall and spring of the 2020-21 school year.[6] Partnership districts used two different benchmark assessment providers: NWEA's MAP Growth assessments and Curriculum Associates' i-Ready assessments. Twenty-three of the 26 districts currently identified as Partnership made assessment data available through the Michigan Data Hub.[7] Of those 23 Partnership districts, 19 used MAP and four used i-Ready.

Other Variables

We merge district benchmark data with district-level measures of student demographics (economic disadvantage, race/ethnicity, English learners, special education, gender), student enrollment, and 2018-19 M-STEP proficiency rates.

Research Design

This report includes both descriptive and causal analyses. We begin with descriptive analyses on all outcomes based on administrative data and then, where possible, also conduct econometric analyses using quasi-experimental methods.

Descriptive Analyses

This report includes several descriptive analyses across each of the administrative data sources. We calculate group-by-year means on each student- and teacher-level outcome. Then, for benchmark data in particular, we focus exclusively on descriptive analyses because the district-level data at just two time points do not allow us to calculate causal estimates.

Specifically, we use district-by-grade-by-subject mean scale scores on the MAP Growth and i-Ready assessments for Partnership and non-Partnership districts. We convert mean scale scores to standard deviation units using student-level means and standard deviations. More information about these calculations can be found in Kilbride et al. (2021). We run separate analyses for NWEA and i-Ready because although the two assessments measure similar constructs, they cover slightly different content and the populations of students who participate in them tend to have different demographic characteristics.

We compare Partnership districts' benchmark achievement growth over the 2020-21 school year to achievement growth of non-Partnership districts using the same tests. We run three descriptive regressions for each of the two test providers and for each of the two subjects (math and reading), with each progressively accounting for more covariates to enable a closer comparison between Partnership and similar districts.

Equation 1:

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

Here we predict 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, and a heteroskedasticity-robust idiosyncratic error term. The grade-level fixed effect allows us to compare achievement growth in each grade across districts. The estimate on β_1 provides the simple difference in fall-to-spring growth between Partnership and non-Partnership districts.

We next add a vector of district-level covariates, with Equation 2 taking the form:

Equation 2:

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

where district covariates include 2020-21 economic disadvantage, special education, English learner, Black, Hispanic or Latino/a/x, other race/ethnicity, and a quadratic function of student enrollment. In this model, the estimate on β_1 provides the difference in fall-to-spring growth accounting for district factors that may affect achievement growth, effectively enabling the comparison between districts with similar demographic characteristics.

We then estimate a third model taking the form:

Equation 3:

$$SpringScore_{dg}=\beta_0+\beta_1\, Partnership_d+\beta_2\, FallScore_{dg}+\beta_3\, Proficiency2019_{dg} + \gamma \boldsymbol{X}'_d+\rho_g+\varepsilon_{dg,}$$

which adds the district's 2019 M-STEP math or reading proficiency rate. Here, the estimate on β_1 provides the difference in fall-to-spring growth after accounting for both district demographics and prior achievement levels, thus enabling a comparison between Partnership districts and other districts with similar demographic characteristics and that were similarly achieving.[8]

Quasi-Experimental Analyses

To estimate the effects of Partnership and the COVID-19 pandemic on teacher mobility, student mobility, graduation rates, and dropout rates, we use difference-in-differences models that compare outcomes in Partnership schools to those in a near-selected group of similarly low-performing comparison schools. Intuitively, this approach allows for the comparison over time of a treatment group—in this case, students, teachers, and schools under Partnership—with a comparison group that shares many of the same characteristics. The use of a comparison group whose outcomes are observed before and after treatment typically allows us to attribute post-Partnership differences to the Partnership reform itself. However, we caution that any effects in the past two years cannot be attributed entirely to Partnership because COVID-19 may have disproportionately affected Partnership schools, districts, and communities in ways we cannot observe and cannot necessarily account for in our difference-in-difference models. For example, as described in the Year Three Report and in Section Three of this year's report, COVID-19 disproportionately affected Partnership communities and Partnership schools. To that end, we view analyses of the 2019-20 and 2020-21 study outcomes as relevant to understanding the effect of COVID-19 on the state's low-performing schools, but not necessarily as (solely) the effect of the reform.

Specifically, we use extended two-way fixed effects Mundlak regression (Wooldridge, 2021) to compare outcomes in two cohorts of Partnership schools with outcomes in comparison schools. We use two extensions of this estimation strategy—one that models linear trends for Partnership and comparison schools prior to the Partnership identification year and assumes that each group of schools would continue the same linear trajectory in the absence of treatment, and one that allows for nonparametric pre-intervention trends and then estimates each group's deviation from an omitted reference year. Through this report, we characterize the former as a generalized difference-in-differences model and the latter as an event study.

In both estimation strategies, we pool the two implementation cohorts in a single model and center the year variable at each cohort's identification year (2016-17 for Cohort 1 and 2017-18 for Cohort 2). The generalized difference-in-difference model takes the form:

Equation 4:

$$y_{isct}=\alpha_0+\sum_{t=1}^{4}\sum_{c=1}^{2} I(Cohort_c\times Year_t)+\delta_1\,(Cohort1_{ist}\times CenteredYear) +\delta_2\,(Cohort2_{ist}\times CenteredYear)+\rho(\boldsymbol{X}'_{st=2016}\times LinearYear)+\theta \boldsymbol{Y}'_{it}+\phi_s+\psi_t+\varepsilon_{isct}$$

predicting outcome y for student or teacher i in school s in Cohort c in year t. The indicators in the double summation are dummies representing interactions between each cohort indicator and

each post-implementation year (indexed from 1 to 4 because we observe four years for Cohort 1 and three for Cohort 2). The coefficients on these indicators provide the estimated effect of the Partnership Model in each year of implementation, from years 1-4 for Cohort 1 and years 1-3 for Cohort 2, controlling for an overall nonparametric time trend and the linear deviation from that trend for the two implementation cohorts.

The δs are the estimates on a linear year variable centered at the implementation year, *CenteredYear*, for each cohort. $\boldsymbol{X}'_{st=2016} \times LinearYear$ represents a vector of school-level covariates measured in 2016 (the identification year for the first Partnership cohort) and variables that predict selection into Partnership for each identification round, interacted with a linear time trend. As a result, ρ for any given covariate represents the association *in the observed year* between the covariate in 2016 and the outcome. School covariates include the share of students who are Black, Hispanic or Latino/a/x, or another race with White as the reference category; economically disadvantaged share, English learner share, special education share, and a logged function of student enrollment. Partnership selection variables include achievement levels in 2013-14, 2014-15, and 2015-16, changes in achievement levels in the Cohort 2 identification year, and individual index scores on the ESSA index. $\boldsymbol{Y}'$ is a vector of student or teacher covariates including race (Black, Hispanic or Latino/a/x, other race), and an indicator for male gender. Φ is a school fixed effect, Ψ is a year fixed effect, and ε is an idiosyncratic error term clustered at the school level.[9]

There are two important identifying assumptions in these models. The first is that in the absence of Partnership, each group (i.e., Cohort 1, Cohort 2, and comparison schools) would follow the same linear trajectory they were on prior to Partnership identification. The estimates of interest therefore provide the estimated deviation from that continued linear trend for each treated group in each year relative to the deviation for the comparison group. The second is that there was no anticipatory effect of treatment, again conditional on covariates. Throughout this report, we display the estimates of interest graphically, though we include tables of all regression estimates in Appendix B to show that these assumptions have been met.

As we describe earlier, the selection criteria for the two Cohort 2 rounds (i.e., identification Round 2 and Round 3) were different and we might expect to see different effects for the two rounds. For this reason, we begin with estimates by implementation cohort as shown in Equation 4, and then estimate a parallel version of the model where we replace the two implementation cohorts with the three identification rounds. We show the round-specific estimates graphically only where Rounds 2 and 3 differ, and then provide all round-specific estimates in Appendix B.

We present estimates from Equation 4 for student and teacher mobility outcomes. For the school-level outcomes (four-year graduation rate, five-year graduation rate, and dropout rate), we estimate event study models, which are an extension of the difference-in-difference approach in Equation 4. We use event study models rather than difference-in-difference models with linear trends because the models predicting school-level outcomes do not meet the necessary identification assumptions described above. Specifically, because Equation 4 assumes a continued linear trajectory in the absence of Partnership, increasing graduation rates and decreasing dropout rates prior to Partnership mean the difference-in-differences model would assume that graduation rates would eventually surpass 100% and dropout rates would eventually fall below zero. Because this is an impossibility, we estimate event study models, which take the form:

Equation 5:

$$y_{isct}=\alpha_0+\sum_{t=-4}^{4}\sum_{c=1}^{2} I(Cohort_{0+c}\times Year_{0+t})+\boldsymbol{X}'_{ist}\theta+\phi_s+\psi_t+\varepsilon_{isct}$$

predicting school-level outcome y for school *s* in Cohort *c* in year *t*. The indicators in the double summation again represent interactions between each cohort indicator and a year indicator centered at the identification year. The difference between this model and Equation 4 is that here the first summation indexes years from -4 to 4 instead of 0 to 4 because we estimate a separate "effect" for each cohort in each of the pre- and post-identification years. We observe four pre-identification years for Cohort 2 and three for Cohort 1. The rest of the model follows the same format as Equation 5, except the ***X'*** vector includes only school-level covariates measured in 2016 (we do not include selection covariates because we have limited power in the school-level models and the estimates meet necessary identification assumptions without including selection covariates).

Here, there are two important identifying assumptions. The first is that the two cohorts of Partnership schools jointly followed a pre-identification trajectory parallel to that of the comparison schools, conditional on covariates. The second is again that there was no anticipatory effect of Partnership, conditional on covariates. The event study plots that we show in Section Five provide visual evidence that these assumptions are met, and we again present tables of regression estimates in Appendix B. Here, we do not estimate separate effects by round because we do not have a large enough sample of high schools (the only schools for which we observe these outcomes) in Rounds 2 and 3 on their own.

A NOTE ON GRAPHICS BASED ON ADMINISTRATIVE DATA

Throughout this report (in Section Four, Section Five, and Section Seven in particular), we include several graphics based on student- and teacher-level administrative records. One type of graphic we include is a descriptive graphic showing the average levels of a particular variable (e.g., student mobility, graduation rates, etc.) over time for five different subgroups: Cohort 1, Cohort 2, comparison schools (i.e., the comparison group in the econometric models), non-Partnership schools in Partnership districts, and all other schools in the state. In these graphics, we include a placemarker,  , to denote the years affected by the COVID-19 pandemic.

We also include graphics displaying the findings from the econometric models. We include informational breakouts describing how to interpret specific figures in the relevant sections containing the first instance of a particular type of model (i.e., Section Four for the difference-in-differences model represented by Equation 4 and Section Five for the event-study model represented by Equation 5). However, we highlight commonalities to aid in interpretation of graphics for both types of equations here.

Cohort 1 is always displayed in green and Cohort 2 in blue (with Rounds 2 and 3, when broken out separately, in shades of blue). Because we have staggered treatment adoption (i.e., Cohort 1 schools adopt a year before Cohort 2 schools), we display findings in relative years rather than school years (i.e., first implementation year, second implementation year, etc.). We therefore provide two visual cues to indicate the calendar year represented by each estimate:

- Each graphic includes the school year associated with each cohort's relative year in the color representing that cohort, and
- Each graphic includes placemarkers to denote the years affected by the COVID-19 pandemic for each cohort, again in the color representing that cohort.

SURVEY DATA

Data Source

A key component of EPIC's multi-year study of the Partnership Model is an annual survey of teachers and principals in Michigan's Partnership districts. To date, we have conducted four waves of educator surveys, in fall 2018, fall 2019, spring 2021, and spring 2022. In each of these waves (as well as in future years), the aim is to survey all teachers and principals in Partnership districts about their experiences, perspectives, and opinions on what is happening in their schools and districts. Because an aim of the Partnership Model is for districts to direct their efforts and resources toward their lowest performing schools (that is, their Partnership schools), we survey those who work in identified Partnership schools as well as those who do not. This approach allows us to gain insight into the different experiences and perceptions of educators in Partnership and non-Partnership schools within a given year and over time.

To conduct the educator survey, we worked with MDE and with the leadership of Partnership districts to identify the population of teachers and principals in Partnership districts and to obtain the email contact information to administer the survey. We administered this year's survey in February through March of 2022 (the same months as last year's survey). For the first two years, we administered the survey between late October and early January in both waves. We adjusted survey timing in the third year to better accommodate the state's existing data collection and delivery schedule. In the first wave of the survey, educators had the option to complete the survey electronically or in paper-and-pencil format, though the overwhelming majority opted to participate electronically. The last three waves of the survey were administered exclusively in an electronic format.

In all four years, all teachers and principals in Cohort 1 and Cohort 2 Partnership districts received the surveys. Table 2.2 provides the number of eligible teachers and principals who received surveys and the percentage of those educators who responded to the survey. In the most recent wave, just under 30% of the 6,418 surveyed educators (1,844 teachers and 71 principals) responded. These response rates were similar for teachers and principals. Response rates were higher in Partnership

schools (32% of the 2,735 educators surveyed) than non-Partnership (28% of 3,683), especially among Partnership school principals (40% of 98 surveyed). Response rates were also higher in charters (39% of 401) than TPSs (29% of 6,017). Response rates for Cohort 1 and Cohort 2 were similar for teachers (33% Cohort 1, 32% Cohort 2), though higher among Cohort 2 principals than Cohort 1 principals (42% Cohort 1, 36% Cohort 2). Overall, response rates were lower than in prior waves, potentially reflecting COVID-19 fatigue or general survey fatigue.[10]

TABLE 2.2. Partnership Survey Sample and Response Rates

	By Partnership Status		By School Type		By Cohort		TOTAL
	Partnership	Non-Partnership	TPS	Charters	Cohort 1	Cohort 2	
Wave 1 (2018-19)							
Teachers	42.3% (1,116)	35.9% (1,602)	38.0% (2,578)	45.0% (140)	42.6% (361)	42.1% (755)	38.3% (2,718)
Principals	28.3% (28)	28.8% (53)	25.8% (68)	68.4% (13)	16.7% (5)	33.3% (23)	28.6% (81)
Total Wave 1	**41.8% (1,144)**	**35.6% (1,655)**	**37.5% (2,646)**	**46.4% (153)**	**41.7% (366)**	**41.8% (778)**	**37.9% (2,799)**
Wave 2 (2019-20)							
Teachers	57.1% (1,325)	44.8% (1,899)	49.0% (3,079)	52.5% (145)	59.3% (471)	56.0% (854)	49.2% (3,224)
Principals	50.7% (39)	31.4% (49)	35.6% (78)	71.4% (10)	48.0% (12)	51.9% (27)	37.8% (88)
Total Wave 2	**56.9% (1,364)**	**44.4% (1,948)**	**48.6% (3,157)**	**53.5% (155)**	**58.9% (483)**	**55.9% (881)**	**48.8% (3,312)**
Wave 3 (2020-21)							
Teachers	43.3% (1,070)	35.2% (1,272)	37.8% (2,184)	51.5% (158)	46.4% (387)	41.8% (683)	38.5% (2,342)
Principals	66.0% (66)	33.6% (50)	45.0% (104)	66.7% (12)	65.5% (19)	66.2% (47)	46.6% (116)
Total Wave 3	**44.2% (1,136)**	**35.2% (1,322)**	**38.1% (2,288)**	**52.3% (170)**	**47.0% (406)**	**42.8% (730)**	**38.8% (2,458)**
Wave 4 (2021-22)							
Teachers	31.7% (835)	28.5% (1,009)	29.3% (1,699)	38.2% (145)	32.5% (296)	31.3% (539)	29.9% (1,844)
Principals	39.8% (39)	21.8% (32)	27.2% (61)	47.6% (10)	35.5% (11)	41.8% (28)	29.0% (71)
Total Wave 4	**32.0% (874)**	**28.3% (1,041)**	**29.3% (1,760)**	**38.7% (155)**	**32.6% (307)**	**31.6% (567)**	**29.8% (1,915)**

Note: Figures in cells provide the response rate (top) and the total number of responses (bottom, in parentheses). Percentages exclude individuals who responded that they were not eligible (i.e., not classroom teachers or principals) or who opted out. Percentages represent the share of those who responded at least partially. Partial responses include those that answered at least one question beyond the introductory questions.

In all four waves of survey administration, surveys focused on the following areas of the Partnership Model and related school and district contexts:

- understanding and awareness of the Partnership Model
- understanding and perceptions of school and district improvement goals
- perceptions of support from various organizations
- perceptions of school and district effectiveness and implementation
- perceptions of challenges facing school/district, with a particular focus on staffing
- school culture and climate

In the second wave of surveys, we added items related to human capital, communication related to the Partnership Model, and quality of improvement goals. Last year, we scaled back the survey questions that would be less relevant during the COVID-19 pandemic and added questions related to COVID-19. In each of the past two years, we included new questions about COVID-19 pandemic-related teaching challenges as well as teacher perceptions of their students' COVID-19 pandemic-related challenges.

In interpreting findings from these question items, it is important to note that responses to the questions about student challenges are perceptions only and are therefore framed by teacher experiences. Analyses of data from these survey responses should be interpreted as teacher perceptions that necessarily include some degree of uncertainty. In each of the past two years, we had one teacher survey and one principal survey, where many, but not all, of the items were aligned across the teacher and principal surveys. For example, we asked only teachers about their school leader effectiveness and their classroom challenges related to COVID-19, and we asked only principals about district COVID-19 policies.

Analysis

Item-Level Analyses

We run a number of descriptive analyses of teacher and principal survey responses at the item level. In our analyses, we calculate means of five-point scales, means of dichotomized variables (e.g., agree or strongly agree on a five-point Likert scale, great or greatest challenge on a five-point scale, etc.), and frequency distributions. We then compare means of the continuous and dichotomized variables from this year's survey for educators in Partnership vs. non-Partnership schools, Cohort 1 vs. Cohort 2 Partnership schools, TPS vs. charter schools, and for teachers vs. principals. We also compare Wave 4 (2021-22) with Wave 3 (2020-21) responses. For all comparisons, we evaluate statistical significance using t-tests for continuous variables and design-based F-tests (Rao & Scott, 1981) for the dichotomous variables. We focus in this report on differences that were meaningful in magnitude or pattern (in addition to statistically significant) and do not highlight all small subgroup differences.

We present item-level subgroup results in which differences between groups are statistically significant for teachers at minimum (the low principal N limits our power to detect significant differences across principal groups), or in limited instances, where we want to highlight similarities alongside differences. When we present item-level subgroup results in which at least one difference is not statistically significant, we use significance stars to denote significant differences.

Construct Analyses

In addition to examining item-level descriptives, we also conduct factor analyses to create broader constructs from multiple survey items. In order to make comparisons across years, we draw from items that were asked over multiple survey waves. For these items, we stack teacher and principal responses for all four (or in some cases, two or three) years and conduct exploratory factor analyses on subsets of items intended to capture broader constructs using principal components factors.[11] We determine the number of factors using parallel analysis (Horn, 1965), and use orthogonal varimax rotation to identify the separate factors.[12] Because we are interested in comparing subgroups, we examine factor loadings and internal consistency across populations (i.e., teachers vs. principals, Partnership vs. non-Partnership schools) and survey waves. Ultimately, we make adjustments to ensure meaningful and coherent factors that have (a) acceptable internal consistency based on Cronbach's alpha, and (b) similar factor loadings across subgroups. Drawing from the exploratory factor analyses, we run confirmatory factor analyses and generate factor scores for each respondent. Table 2.3 summarizes each construct developed in the confirmatory factor analyses, including the report section where it appears, the question items that contribute to it, the populations on which we calculate it (teachers or principals), years (all four waves, Waves 3-4, or Waves 1, 2, and 4). We provide the factor loadings and Cronbach's alphas for each construct in Appendix C.

TABLE 2.3. Summary of Constructs

Construct	Section	Items	Population	Wave(s)
Positive school climate	6: Focus on Academics, Climate, and Culture	**Agree with statements:** School meets students socioemotional needs, school meets student academic needs, teachers have strong rapport with students, teachers have high expectations, students are enthusiastic to come to school/learn	Teachers and principals	All four waves
Safe school environment	6: Focus on Academics, Climate, and Culture	**Agree with statements:** School has safe and orderly environment, teachers consistently enforce behavioral standards, students listen to staff, teachers manage behavior, fights are frequent (reverse-coded)	Teachers and principals	Waves 1, 2, and 4
Effective school leadership	7: Human Capital	**How effectively principal:** Works with staff to meet curriculum standards, communicates central mission of school, uses evidence to make data-driven decisions, works with community partners, facilitates professional development, encourages parent engagement, communicates improvement goals and strategies with teachers	Teachers only	All four waves
In-school hiring challenges	7: Human Capital	**Affect ability to recruit teachers:** School climate and culture, student academic performance, student discipline	Principals only	All four waves
Out-of-school hiring challenges	7: Human Capital	**Affect ability to recruit teachers:** Student attendance, family background, community socioeconomic status, geographic location	Principals only	All four waves
Human resources hindrances	7: Human Capital	**Extent of hindrance:** Low teacher attendance, low teacher retention, lack of availability of substitute teachers, insufficient supply of certified teachers	Teachers and principals	Waves 3-4

TABLE 2.3. Summary of Constructs (continued)				
Construct	**Section**	**Items**	**Population**	**Wave(s)**
Health care and housing challenges	8: Deeper Challenges in First Cohort	**Challenge for students:** Access to healthcare, mental health, access to mental health care, food insecurity, homelessness	Teachers only	Waves 3-4
Improvement goal buy-in	9: Partnership During the COVID-19 Pandemic	**Agree with statements:** Goals are feasible, goals focus on important issues, goals help meet student needs, clear and concrete steps to improve student outcomes, efforts align with goals.	Teachers and principals	All four waves

Note: Bolded text in the third column briefly summarizes the question stem from which the items were drawn. The list following the question stem summarizes the question items included in the factor. The full survey is provided in the online appendix. The factor loadings and Cronbach's alphas for each of these factors are provided in Appendix C.

The factor scores extracted from the constructs in Table 2.3 form the basis for our construct analyses, in which we compare the same groups as the item-level analyses described earlier in addition to examining each relevant construct over all survey years in which we observe it. By construction, the factor scores are standardized variables that fall on a normal distribution with a mean of 0 and a standard deviation of 1 across the full sample. We begin by calculating means over time for Cohort 1, Cohort 2, and non-Partnership schools in Partnership districts, which we display descriptively for each factor. Then, to identify differences across groups (i.e., Cohort 1 vs. Cohort 2, Partnership vs. non-Partnership schools in Partnership districts, TPS vs. charter), we conduct *t*-tests to compare these factor scores by groups. While we examine all comparisons, in this report, we only highlight group differences that are statistically significant.

To illustrate descriptive differences over time and significant group differences, we transform these factor scores based on the cumulative standard normal distribution and generate percentiles that represent a respondent's score on the normal curve. The average respondent would have a factor score of 0, which we would convert to a 50, representing the 50th percentile on the normal distribution. These percentile values are useful in comparing groups but not informative in the aggregate because the average will always be approximately 50. We then take the average of the percentiles within each group we are comparing.

Weighting

In all analyses (both item and construct level), we weight teacher and principal survey 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 within school (for teachers) or district (for principals). We do so based on demographic characteristics (race/ethnicity, gender) for both teachers and principals, certification type (i.e., elementary, secondary) for teachers, and Partnership identification round for principals.

Open Response

The surveys provided a field for teachers and principals to enter open-ended comments. The survey received a total of 592 open-ended responses from teachers. Of these responses from teachers, a total of 512 responses were deemed to be substantial responses and were included in the analysis. Responses that were excluded from the analysis included responses that expressed gratitude for the survey or simply stated "N/A" or "no thank you."

The early stages of analysis began with deductive structural codes that drew from previous Partnership reports and findings and themes, such as codes related to the COVID-19 pandemic, labor shortages, and student behavioral challenges. Codes were applied that generally summarized the meaning of the open-ended response. During initial analysis, other themes began to emerge across respondents in the data, and thus inductive codes were added to the codebook. Prominent inductive codes and categories that emerged in the data related primarily to human capital challenges, with teachers expressing complaints directed towards leadership, diminished morale, the need to increase pay for teachers, and expressing feelings that teachers are generally undervalued.

Codes that shared features were bundled to form categories. For example, student behavior and school safety, perception of safety in school, and motivation and engagement challenges are all categorized under culture and climate.

Challenges related to COVID-19 continued to be a major theme in the data in the 2021-2022 school year. Teachers often cited COVID-19 when speaking to other important issues such as student attendance, academic achievement, and socio-emotional learning needs. Thus, we added a subcode for COVID-19 to many of the codes to account for when the COVID-19 pandemic was cited as a reason for the challenges under discussion.

To ensure trustworthiness in analysis, we employed several strategies. At several points throughout analysis, collaborators met to discuss coding decisions and to justify the decision to bundle codes into categories. In the report, quotes from the survey responses are included to share the data with readers and support broad findings.

COVID-19 DATA

Data Source

We retrieved publicly available COVID-19 confirmed case and death counts from the Michigan Department of Health and Human Services (MDHHS). We convert counts to rates per 100,000 population using the 2019 annual county population estimates from the U.S. Census Bureau. We then calculate seven-day rolling averages for each day in order to account for reporting idiosyncrasies. The state reports cases and deaths beginning March 1, 2020. We therefore construct these seven-day averages beginning March 6, 2020 and going through March 1, 2022, the two-year mark for the case and death data and approximately the end of the Partnership survey window. For each county, we also calculate the cumulative confirmed case and death rates per 100,000 as a measure of the cumulative toll to date. For student-weighted figures, we use enrollment data from the CEPI Student Count Report.[13]

Analysis

Because case and death data are collected 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.[14] As a result, the means can be interpreted as representing the experience of the average student in a Partnership or non-Partnership district. We calculate these weighted means over time using rolling seven-day average cases per 100,000 county population, deaths per 100,000 county population, and positivity rates (i.e., percent of COVID-19 tests in the county that came back positive).

21H FUNDS

Data Source

The OPD shared district-by-item-level data on 21h funds disbursed to Partnership districts for each year from 2017-18 through 2020-21 (N=500). The data include district, funding year, a description of the activity for which the funds were disbursed, and the dollar amount of funds disbursed. In total, the dataset includes 500 entries across four years (77 in 2017-18, 158 in 2018-19, 120 in 2019-20, and 145 in 2020-21), representing funding disbursements for 33 unique districts.

Analysis

To analyze the funding data, we began by classifying disbursements within several categories and subcategories in alignment with theories of change for school and district turnaround. We adjusted these categories and added subcategories after coding a subset of the disbursement data. Ultimately, we developed six overarching categories:

- educator development (e.g., professional development, coaching)
- staffing (e.g., new hires, incentives)
- extended learning time (e.g., summer school, after-school tutoring)
- curriculum (e.g., new curriculum materials)
- data (e.g., benchmark data systems or tools, data training, data staff)
- materials/resources (e.g., computers, books, furniture)

We then calculate three values: a) the number of districts in each year that received funds for each use; b) the dollar amount disbursed each year for each use; and c) the dollar amount for each use per enrolled student. To calculate the dollar amount per enrolled student (c), we draw from the enrollment data described earlier.

Because the level of detail for each item varies (e.g., some disbursements are highly specific while others include a list of items), we code some entries with more than one category. In order to avoid double-counting, we assume in our dollar amount analyses that each category received an equal share of the dollar amount disbursed (e.g., for an entry for $1,000 coded with two different categories, we would assign $500 to each category).

In this report, we do not present the full analysis, but rather provide findings that are relevant to broader themes identified through analyses of other sources of data.

INTERVIEW DATA

In the 2021-22 school year, we interviewed leaders of 12 Partnership districts, including district superintendents, charter school leaders, and administrators identified as working most closely on Partnership planning and implementation efforts. Interviews lasted approximately 35 to 60 minutes and were transcribed verbatim for analysis. Throughout this report, we refer to TPS district leaders as "district leaders," public school academy or charter school leaders as "charter leaders," and collectively the district-level leaders as "Partnership leaders." We keep all Partnership districts anonymous, randomly assigning them pseudonyms based on teams in the National Hockey League. We retained the same names for districts over each year of the study.

Table 2.4 provides district information by Year 4 interview response status, where statuses include respondents (those who participated in an interview), non-contacts (those who did not respond to our outreach), and opt-outs (those who responded to our outreach and explicitly opted out). We conducted four rounds of outreach to all non-contacts.

In total, 12 district leaders (46%) participated in interviews, eight did not respond to outreach (31%), and six (23%) opted out. The districts of participating leaders contain 187 of the 252 schools in current Partnership districts (about 74.2%) and about 78.9% of the students.

TABLE 2.4. Year Four Interview Sample

	Respondents	Non-contacts	Opt-outs	Total
Total districts	12 (46.1%)	8 (30.8%)	6 (23.1%)	26 (100%)
Total schools	187 (74.2%)	29 (11.5%)	36 (14.3%)	252 (100%)
Total student enrollment	72,602 (78.9%)	8,378 (9.1%)	11,012 (12.0%)	91,992 (100%)
Average schools per district	15.6	3.6	6.0	9.7
Average student enrollment per district	6,050.2	1,047.3	1,835.3	3,538.2

Note: In first three rows, Ns are followed by percentages of all Partnership districts (or schools or students) in parentheses, with rows summing to 100%. Last two rows are district-level averages.

We use general terms such as "several," or "many" to represent common patterns that emerged from district leaders' experiences. We report trends this way instead of providing an overall number because we were unable to get everyone to respond to the exact same question in each interview because of condensed interview times, the person's ability to answer the question (e.g., whether they were new to the role or lacked contextual information from prior years), the flow of the interview, etc. We also note that we were able to interview only 12 Partnership leaders this year compared to more than 20 in prior years. Thus, we felt that reporting the numbers of similar responses would make less sense this year since we interviewed fewer than half of all Partnership leaders and because it was a convenience rather than a random sample.

In addition, because many leaders opted not to be interviewed despite repeated outreach, results from the interview data may be skewed if those who opted out had significantly different perspectives and experiences from those who opted in. For example, those who opted to be interviewed could have been disproportionately positive (or negative) about their experience with the Partnership reform. Thus, we caveat our results from the interview data noting that it may not encompass the variety of experiences and perspectives of Partnership leaders.

Our 2021-22 interviews necessarily focused on how leaders were navigating the challenges of COVID-19—how, in the context of the pandemic, they continued to work on Partnership and how their goals and understanding of Partnership did or did not factor into their plans, decisions, etc. We continued to probe to follow up on themes that emerged from the interviews in prior years of the study. For example, we asked questions about issues of teacher recruitment and turnover and perceptions of the reform and associated supports.

We coded interview transcripts using Dedoose software (Version 8.3.35) with a deductive coding scheme that applied some themes from the past year (such as "Perceptions of Partnership") and some new categories based on the interview protocols related to navigating the COVID-19 pandemic and the intersections between the two. For instance, we had codes such as "attendance," "enrollment," and "use of funds" since these were all salient issues both in terms of COVID-19 pandemic and because they intersected with the problems and solutions leaders had for meeting their Partnership goals. For example, we coded excerpts "attendance" when leaders discussed specific challenges with and solutions for dealing with student and family absences from school. We were then able to aggregate responses to these codes to inductively identify common patterns, differences, and variations in their responses.

SECTION TWO NOTES

1. Districts exited Partnership for a number of reasons. These included being released from Partnership status by OPD, exiting via a cooperative agreement with MDE, or closing. Individual schools exited when they were closed by their district or local board. Appendix A provides a full list of Partnership schools by district and includes exit status and explanation.

2. Districts report all employees to CEPI along with an assignment code that identifies the type of work they perform for the district. To identify teachers from this larger set of employees, we relied on a set of assignment codes MDE's Office of Educator Excellence considers to indicate that an individual is a teacher. For the portion of the report using the state's administrative data records, this classification may exclude school personnel who teach on a limited basis but whose primary appointment is in another capacity (e.g., librarians or social workers). We excluded long-term substitute teachers from our analyses. We defined "long-term substitutes" as individuals with teaching assignments whose only credential is a substitute teaching permit. Similarly, principals and assistant principals were identified using an indicator MDE developed to identify school leaders in these categories in the Record of Educational Personnel.

3. The state classifies students as economically disadvantaged if they are eligible for free or reduced-price meals via locally gathered and approved family applications under the National School Lunch program, in households receiving food (Supplemental Nutrition Assistance Program) or cash (Temporary Assistance for Needy Families) assistance, are homeless, are migrant, or are in foster care.

4. The state typically defines on-time graduation to be in four years; however, the state also counts five-year completion as "on-time" for students in early-middle college programs who earn both their high school diploma and an advanced credential from the early-middle college program. These students are included in our calculation of on-time graduates. Per the CEPI rules on graduation and dropout rates, "Students submitted in the Michigan Student Data System (MSDS) as participating in an early/middle college program have their cohort year increased by one. [Cohort years are the year a student is expected to complete high school.] They have five years to complete high school with a regular diploma AND an associate degree, or other advanced certificate, and be considered 'On-Track Graduated.' Students who complete only a high school diploma in five years will be considered 'Off-Track Graduated.'" In our measure of on-track graduation, early-middle college students who graduate from high school in their cohort year are counted as a graduate if they have completed with a regular diploma and advanced certificate, and a non-graduate if they do not receive an advanced certificate. They are also counted as a non-graduate if they have not yet graduated in their cohort year.

5. We also run models that control for teaching experience and find similar results (we calculate experience as the number of years since the teacher's earliest hire date observed in any district). We present the results that do not include experience controls because the Partnership Model may affect the experience levels of teachers who are hired or retained in Partnership schools.

6. While students in grades K-2 also participated in benchmark assessments, we exclude these because testing providers identified an "at-home advantage" for early-grade students who participated remotely in the benchmark assessments that would likely bias the results (Kilbride et al., 2021).

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

8. We also estimate a fourth model controlling for the number of months in the 2020-21 school year in which all general education students were learning under fully remote instruction (ranging from 0 to 9). In this model, we also include an indicator that takes a value of 1 if the district was already a virtual district prior to the COVID-19 pandemic because these districts already had the infrastructure in place for remote learning. The estimates from this final model allow us to compare the performance of Partnership districts with demographically similar districts that were similarly achieving prior to the COVID-19 pandemic while controlling for additional learning interruptions associated with remote instruction (Kilbride et al., 2021). The addition of these variables does not substantively affect our estimates, and we provide them in Table B.4 of Appendix B. We also estimate a separate set of models that examine whether Partnership districts with a larger share of Partnership schools or students fared differently than Partnership districts with a smaller share, but find that the relationship between Partnership and benchmark performance did not depend on the concentration of Partnership schools or students in the district. We do not present these results.

9. In all student mobility models, we also include an indicator that takes a value of 1 for structural moves. In the teacher models predicting within- and out-of-district transfers, we include an indicator for exiting the profession, so the reference category becomes staying in the school. In the teacher models predicting leaving teaching, we include an indicator that takes a value of 1 if the teacher is promoted to principal, assistant principal, director, or supervisor in the following year. In all mobility models, we include an indicator for school closures.

10. In addition to fluctuating year-to-year principal response rates, the representation of schools in the principal sample also varied from year to year. Only seven schools (about 10% of the 2021-22 sample) were represented in all four years of the principal survey data, while 25 (36% of this year's sample) were represented in three of four years. For nine schools (13%) in the 2021-22 principal survey sample, we had principal survey responses only this year. 71% of the schools represented in the principal survey sample this year were also represented in 2020-21. Given the varying response group, we are cautious in interpreting year-to-year differences in principal perceptions.

11. We also tried principal factors.

12. We also tried quartimin rotations on all factors.

13. See CEPI's Student Count Report, available at https://www.mischooldata.org/DistrictSchoolProfiles2/StudentInformation/StudentCounts/StudentCount2.aspx.

14. We use analytic weights.

Partnership Turnaround:
Year Four Report

SECTION THREE: THE COVID-19 PANDEMIC IN PARTNERSHIP DISTRICTS

EPIC
Education Policy
Innovation Collaborative

Section Three:
The COVID-19 Pandemic in Partnership Districts

The Year Three Report outlined the ways in which the COVID-19 pandemic disproportionately affected Partnership communities and resonated in Partnership schools and districts. Educators and students in Partnership districts made extraordinary efforts to teach and learn in the face of a virus that was infecting and even killing their neighbors, friends, and family at uniquely high rates and during an economic downturn that fell heavily on their communities. Partly as a result of these disparate challenges, Partnership districts remained shuttered for in-person learning far longer in 2020-21 than other districts in the state. Districts provided students with technology devices and teachers reported that students logged into remote school while babysitting younger siblings whose daycares had closed, from shared spaces without adequate resources to learn, and from homes without parents or guardians present who could assist as needed. Educators, in turn, reported unprecedented rates of student absenteeism, with as many as half of Partnership school students absent each day. Teachers felt that they lacked the resources and capacity needed to educate their students, and that students were struggling to remain motivated to learn.

Although districts returned to in-person instruction in 2021-22, many of the challenges emanating from the COVID-19 pandemic continued to afflict students and educators in Partnership districts. In this section, we begin by examining COVID-19 spread in Partnership communities, first in terms of reported cases and deaths and then from the perspective of teachers in Partnership districts. We describe the ways in which the COVID-19 pandemic's effects pervaded schools in terms of health outcomes and student learning experiences. We then turn to interrupted learning, describing

educators' reports of the extent to which schools and classrooms closed for in-person learning, the reasons for those closures, and the extent to which closures disrupted student learning. Finally, we describe student absenteeism—which emerged as a major challenge in 2020-21 and continued to vex Partnership schools and districts in the 2021-22 school year.

COVID-19 IN PARTNERSHIP COMMUNITIES

In this subsection, we begin by describing the prevalence of COVID-19 in Partnership communities from the beginning of the COVID-19 pandemic through March 2022, the approximate end of the Partnership educator survey period. We then describe how the COVID-19 pandemic has shaped the student experience in Partnership districts.

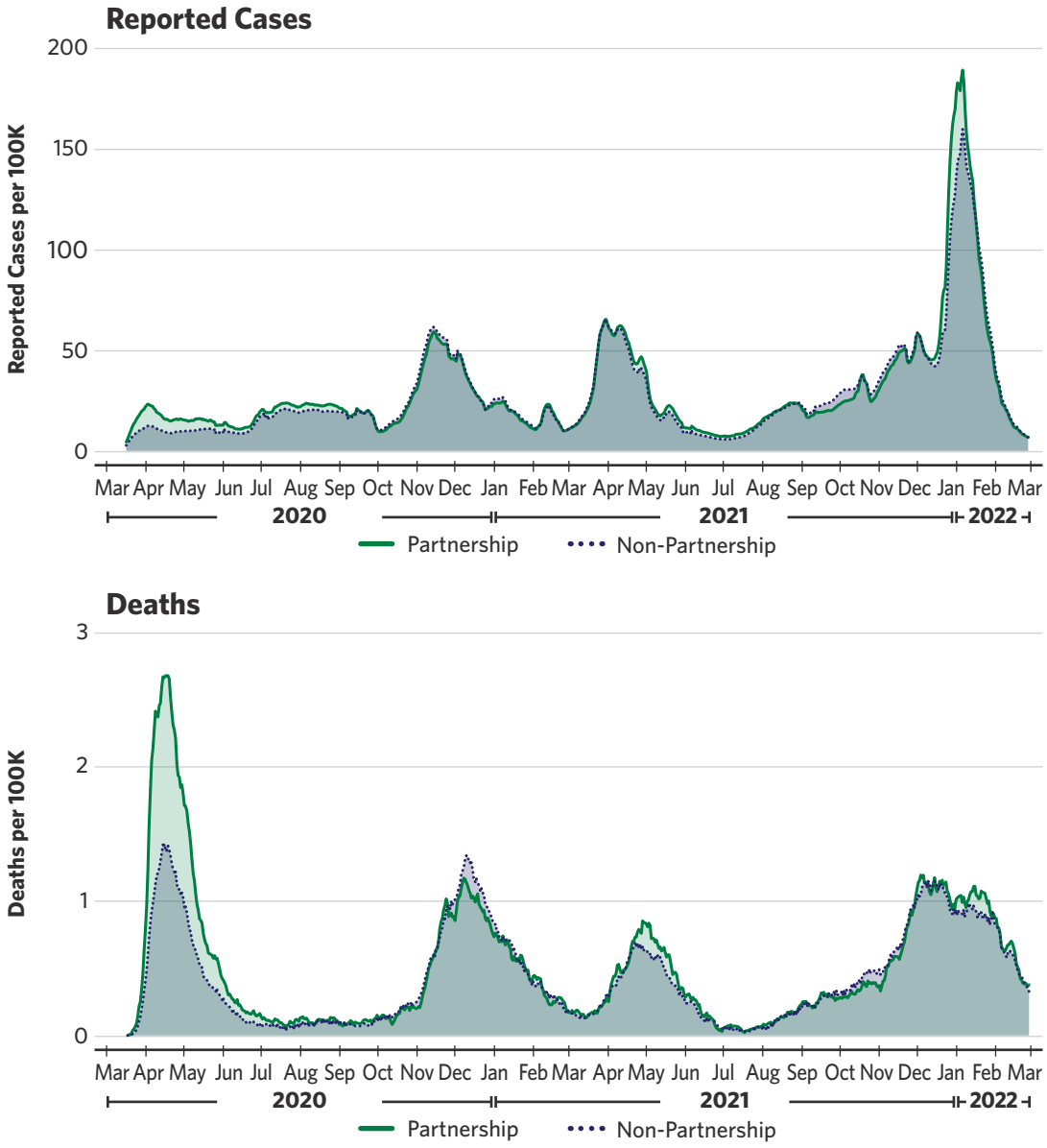
COVID-19 Continued to Permeate the Lives of People in Partnership Communities in 2021-22

The Year Three Report showed that the first wave of COVID-19 disproportionately struck Partnership communities, which experienced more cases and deaths per 100,000 residents when COVID-19 initially emerged before largely leveling out for the remainder of the 2020-21 school year. In this year's report, we continue to track seven-day rolling average reported case and death rates per 100,00 population through March 2022. We clarify in this year's report that these are only *reported* cases, given that at-home rapid COVID-19 tests became more ubiquitous over the course of the COVID-19 pandemic, including free tests provided by the U.S. government. In addition, many families across the country simply assumed that a sickness with COVID-like symptoms was COVID-19 and did not bother to get an official COVID-19 test. As a result, as the COVID-19 pandemic has continued, reported cases are likely increasingly an undercount of the true spread of the virus (Lazer et al., 2022).

Figure 3.1 illustrates these trends for Partnership (green solid lines) and non-Partnership (dashed blue lines) communities. We find that from summer 2021 through the end of 2021, both reported case and death rates continued to look similar in Partnership and non-Partnership communities—and even a little higher in non-Partnership communities during the fall 2021 semester. However, as the Omicron wave took hold in early 2022, both cases and deaths per 100,000 population in Partnership communities exceeded those in non-Partnership communities. The first panel shows that by the Omicron peak in early January 2022, Partnership communities reported a seven-day rolling case rate of about 190 cases per 100,000 population—about 20% higher than non-Partnership communities, which reported case rates of about 157 cases per 100,000 residents. The second panel shows that at death rate peaks in mid-January, Partnership communities were experiencing about 1.1 deaths and non-Partnership communities about 0.99 deaths per 100,000 residents.

While case rates in particular have become less reliable measures of community spread, these differences show that people in Partnership communities have experienced worse health outcomes at pivotal points in the COVID-19 pandemic—at the very beginning before treatments were available and when a greater share of more affluent households were able to quarantine (Chang et al., 2021; Clouston et al., 2021), and the most sweeping wave thus far.

FIGURE 3.1. COVID-19 Case and Death Rates per 100,000 Population by Partnership Status Over Time



Note: Seven-day rolling averages of reported county cases per 100,000 population and deaths applied to school districts, weighted by student enrollment, from March 15, 2020 through March 1, 2022.

Substantially greater spread during the initial and Omicron waves, combined with more deaths during the spring 2021 Alpha wave led to more cumulative cases and deaths in Partnership communities over the first two years of the COVID-19 pandemic. Table 3.1 provides average cumulative reported cases and deaths per 100,000 population through March 1, 2022. On average, Partnership communities experienced 5.8% more reported cases and 17% more deaths than non-Partnership communities.

TABLE 3.1. Average Cumulative COVID-19 Cases and Death Rates Per 100,000 by Partnership Status		
	Partnership Communities	**Non-Partnership Communities**
Cumulative reported cases per 100,000	21,422	20,256
Cumulative deaths per 100,000	372	318

Note: County-level reported case and death rates per 100,000 residents applied to districts and weighted by district size. Totals as of March 1, 2022.

These reported case and death rates are high-level measures that represent the effect of COVID-19 on the counties where students in Partnership districts live, but county-level figures obscure variation stemming from socioeconomic and demographic segregation within counties. There is a great deal of evidence that the COVID-19 pandemic had a disproportionate effect on communities with high rates of poverty and people of color (Adhikari et al., 2020; Béland et al., 2020; Gross et al., 2020; Karpman et al., 2020; Montenovo et al., 2020; Wadhera et al., 2020). County averages therefore provide only coarse estimates of reported cases and deaths experienced by students and educators in Partnership districts; and the smaller neighborhoods within these counties that are home to Partnership schools and districts likely experienced greater loss due to their greater concentrations of poverty.

"It is a formidable act to continue to teach curriculum in the face of death. One student went to 11 funerals in 2020-2021."

Teacher survey responses highlight that COVID-19 was a serious issue in Partnership districts throughout the 2021-22 school year, with 35% of teacher open-ended text responses in 2021-22 raising the COVID-19 pandemic. In one of these responses, a teacher described the somber realities for their students over the past two years:

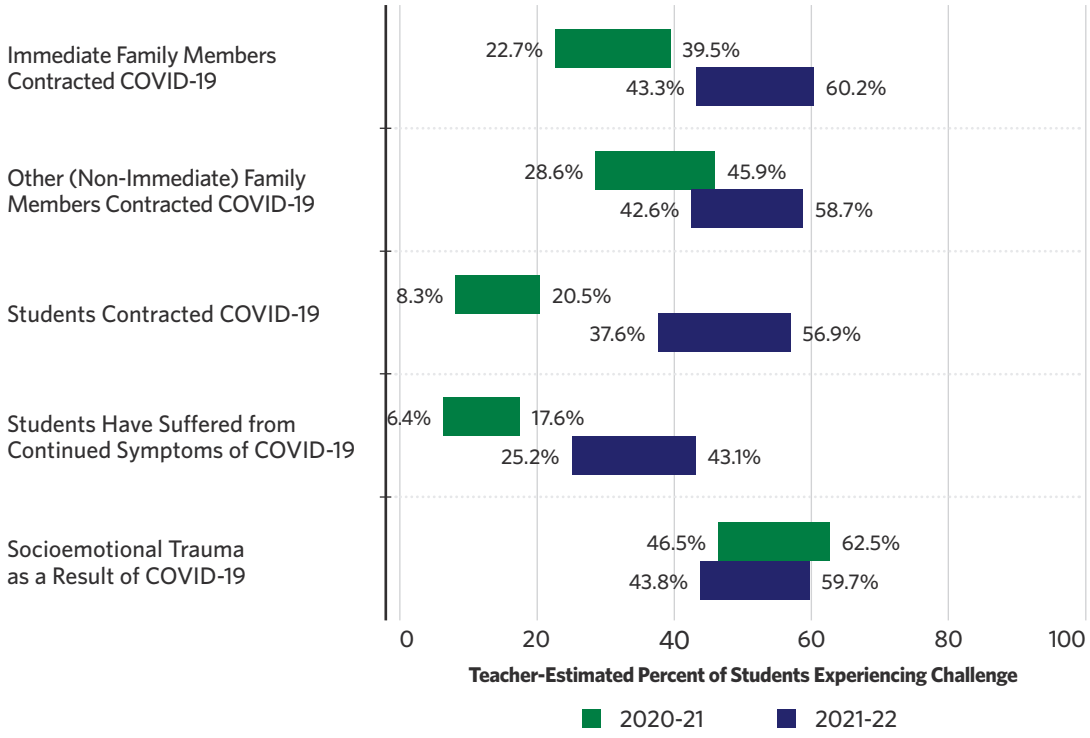
> *[In] Fall 2020 I had to have students practice what to say when someone said a family member had died, "I am sorry for your loss." This is not part of any teacher's curriculum, but a very strong component. Our class lost three students between 2020-2022. This is a component that continues to live with all of us. The loss of loved ones. Death has touched my entire class [in] 20-21 and 21-22. […] We lost staff members. It is a formidable act to continue to teach curriculum in the face of death. One student went to 11 funerals in 2020-2021. […] We comfort, we support families that the son died in his bed after lying down on a Friday evening, we cried with peers and students, and we continue to say "Monday is today and the date is?" We smile and we sob inside. We smile as the school bus arrives with half of our students and continue on our day.*

To better understand the experiences of students with COVID-19 in Partnership districts, we asked teachers to estimate the prevalence of COVID-19 in students' families and homes. Figure 3.2 summarizes the teacher-estimated share of students in Partnership districts who experienced selected challenges related to COVID-19 in each of the past two years, with 2020-21 in green and 2021-22 in blue.

The first two bars show that as of February/March of 2021, teachers believed that 23-40% of their students had immediate family members who had contracted COVID-19. A year later, that figure increased to about 43-60% of students. Similarly, teachers believed that a greater share of students had non-immediate family members who contracted COVID-19 (from 29-46% in 2020-21 to 43-59% in 2021-22).

The most striking difference is in the increased share of students contracting COVID-19 themselves and suffering from symptoms of the virus. While teachers in 2020-21 believed that few of their students had contracted the virus and suffered from symptoms, by 2021-22, they reported that 38-57% of students had contracted COVID-19 and 25-43% suffered from continued symptoms. This finding underscores that the nature of pandemic-related challenges has evolved during the 2021-22 school year. In addition to supporting students caring for family members and losing family and friends to COVID-19, Partnership district educators are now also tasked with supporting and educating students grappling with their own health complications.

FIGURE 3.2. Partnership District Teacher-Estimated Share of Students in Partnership Districts Experiencing Health Effects of COVID-19, Past Two Years



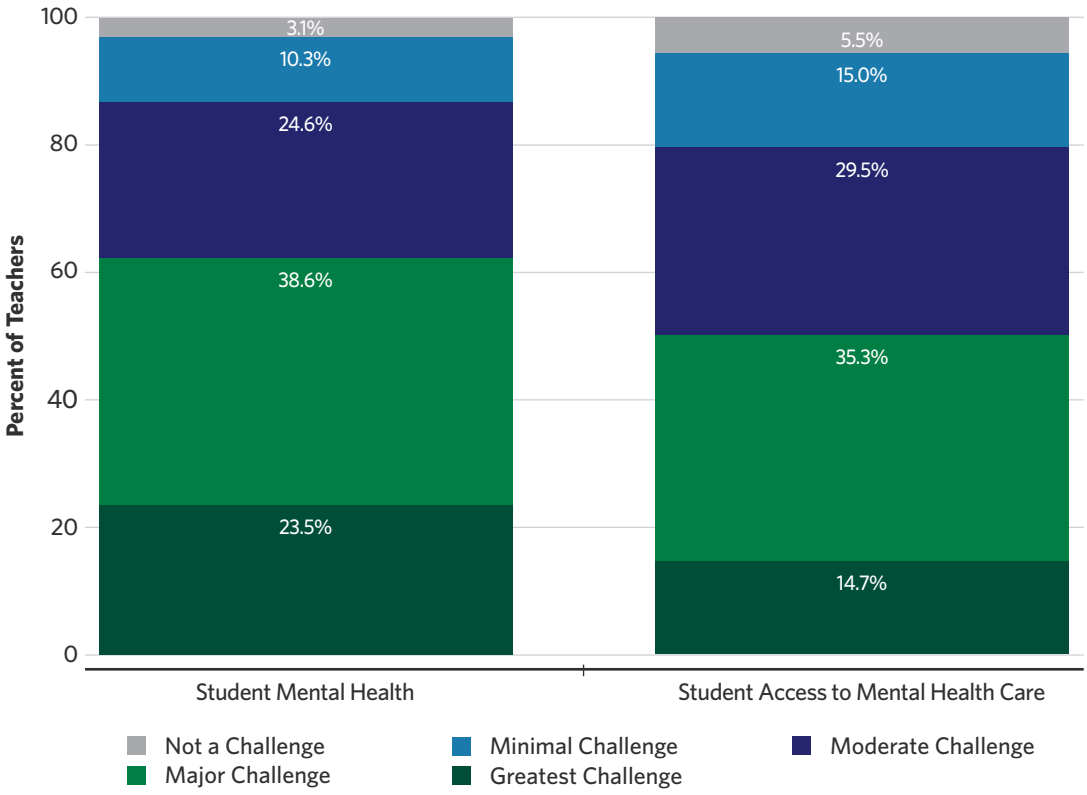
Note: Bars provide teacher-estimated range of students experiencing each health-related challenge based on responses to the question, "In this school year, approximately what proportion of your students have experienced each of the following as a result of COVID-19?" Response options were <10%, 10-25%, 26-50%, 51-75%, 76-90%, and >90%. This question was asked to teachers only. To create estimated ranges, we assign the minimum value of the selected response option as the lower bound and the maximum value as the upper bound. We then take the weighted mean of the lower and upper bounds, respectively. The figure to the left of each bar represents the estimated mean lower bound and the figure to the right of each bar represents the estimated mean upper bound. The first bar can therefore be interpreted as: Teachers in Partnership districts in 2020-21 estimated that 22.7–39.5% of students had an immediate family member contract COVID-19.

The final row of Figure 3.2 emphasizes that the socioemotional challenges that underlaid the 2020-21 school year have not meaningfully subsided. In particular, teachers estimated in 2021-22 that 44-60% of their students were dealing with socioemotional trauma—a very similar share to 2020-21.

Socioemotional Trauma and Mental Health Continue to be Salient Challenges for Students in Partnership Districts

Teachers believed that this socioemotional trauma led to mental health challenges for students and that students did not have sufficient access to mental health care. Figure 3.3 shows that about 6 in 10 teachers believed that mental health was a major or the greatest challenge for their students this school year (left bar) and only 3% believed it was not a challenge at all. The right bar shows that about half of teachers reported that access to mental health care was a major or the greatest challenge, and less than 6% believed it was not a challenge at all. These responses were very similar to responses in 2020-21.

FIGURE 3.3. Partnership District Teacher Perceptions of Student Mental Health and Access to Mental Health Care as a Challenge, 2021-22



Note: Teachers were asked, "To what extent have each of the following been a challenge for your students this school year?"

Student mental health was and continues to be a salient challenge for students in Partnership districts. Responses to the open-response survey question further highlight both the socioemotional challenges students were facing and the efforts educators were making to support them. Specifically,

13% of teachers responding to the open-ended response item discussed socioemotional challenges for students and about 40% of those teachers explicitly cited COVID-19 as a driving contributor. For example, one veteran teacher described student mental health struggles and noted that the school lacked the resources they needed to support those students:

> *We definitely need more mental health support. I have students for the first time in 15 years at 7 and 8 years old saying they want to die. I do not have a social worker at school to support them so I am calling parents and seeking help from my administration to deal with student mental health. I spend my planning time contacting families and my work load at home has grown astronomically. I am more concerned with student mental health this year than I have ever been as an educator.*

Notably, this teacher linked their efforts to support students' mental health with increases in her own workload. This is also reflected by another teacher who responded to our open-ended survey question and highlighted the interplay between student socioemotional needs and the staffing shortages that have emanated at least in part from teachers' own socioemotional needs and burnout (described more in Section Seven):

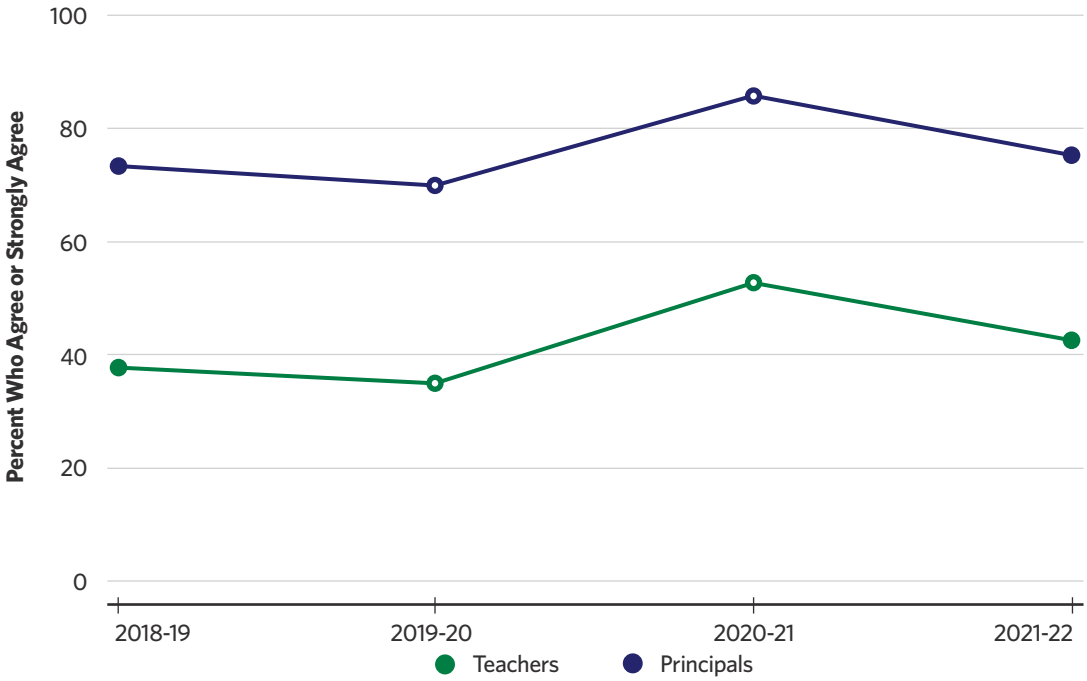
> *My problems lie with the fact that we do not have enough staff in the buildings for the resources we need. We have a high population of students who have experienced trauma, but no one to help them with it because the social worker is in a classroom substituting.*

In Section Six, we show that Partnership district educators were working to support students through challenges by providing social and emotional learning, trauma-informed instruction, social workers, and mental health services. However, teacher survey responses highlight that student need is greater than Partnership district educators have been able to bridge thus far; Figure 3.4 shows that only about 43% of teachers agreed or strongly agreed that the school was doing a great job meeting students socioemotional needs—fewer than in 2020-21, when 53% agreed or strongly agreed.

"I am more concerned with student mental health this year than I have ever been as an educator."

Figure 3.4 also underscores educators' perceptions that difficulties meeting students' socioemotional needs predate the COVID-19 pandemic. Specifically, in each of the pre-pandemic years, just under 40% of teachers and about 70% of principals reported that their school was meeting students' socioemotional needs. That figure increased during the first full COVID-19 pandemic school year before dropping back to near pre-pandemic levels in 2021-22. Though not broken out here, the increase in agreement in 2020-21—the first full COVID-19 pandemic school year—was driven in part by a particularly steep climb in the share of educators who strongly agreed that their school was doing a great job—perhaps reflecting the augmented efforts Partnership schools and districts were making to mitigate socioemotional challenges.

FIGURE 3.4. Partnership District Educator Agreement That School Does a Great Job Meeting Student Socioemotional Needs Over Time



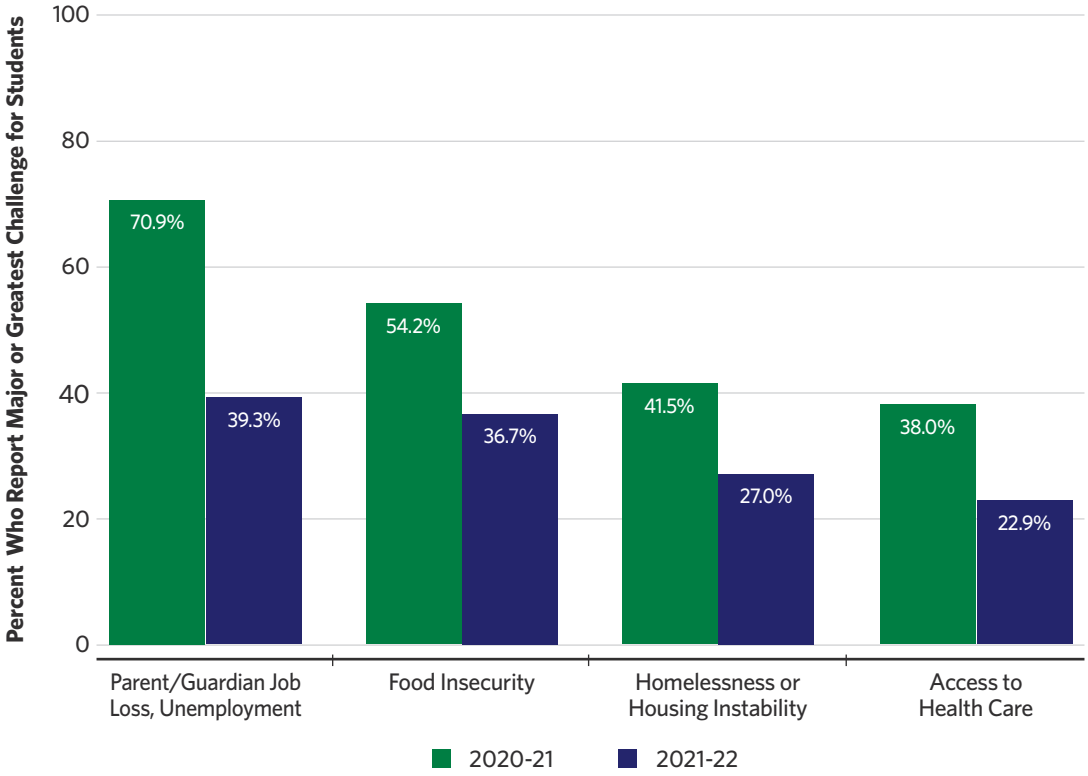
Note: Teachers and principals were asked about the extent to which they agreed or disagreed with the statement, "This school does a great job of advising and supporting students to meet their socioemotional needs." Response options were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree."

COVID-19 Pandemic Exacerbated Economic Conditions in Partnership Communities, Though Less So in 2021-22

In addition to grappling with socioemotional challenges, students in Partnership districts have contended with the economic fallout of the COVID-19 pandemic—especially in the beginning of the COVID-19 pandemic as swaths of the economy shut down and job losses disproportionately struck Black, Hispanic or Latino/a/x, and lower-income workers (Karpman et al., 2020; Montenovo et al., 2020). In each of the past two years, we asked teachers about the extent to which they believed their students contended with a variety of economic challenges. Figure 3.5 summarizes these responses, highlighting two takeaways.

First, as we showed in the Year Three Report, teachers believed that challenges such as job loss, food insecurity, homelessness, and access to health care were prevalent in Partnership communities and they permeated the school lives of students. Second, and more optimistically, reports of these challenges receded in the 2021-22 school year. In particular, the share of teachers reporting that parent or guardian job loss or unemployment was a major or the greatest challenge for students declined by almost half, from 71% in 2020-21 to 39% in 2021-22. This may reflect the tightening job market both in Michigan and across the country (Mutikani, 2022). The share reporting that food insecurity, homelessness or housing instability, and access to health care were a major or the greatest challenge each decreased by at least one third.

FIGURE 3.5. Partnership District Teacher Perceptions That Selected Economic Challenges Were a Major or Greatest Challenge for Their Students, Past Two Years



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."

While these findings point to an ongoing economic recovery in Partnership communities and fewer perceived economic challenges for students in Partnership districts, we note that the 2021-22 survey was administered in February and March of 2022. Since then, inflation has continued to rise, gas prices have exceeded $5 per gallon, and homelessness has worsened as housing prices have soared (Bhattarai & Siegel, 2022; Siegel, 2022; Stein, 2022). The 2020-21 survey data reveal that economic shocks and downturns may be especially damaging in Partnership communities. To the extent that the economy weakens in 2022 and beyond, these economic challenges for students in Partnership districts may yet return to 2020-21 levels.

Educators Did Not Perceive New Student Behavioral Challenges as More Likely to Hinder Improvement Goals

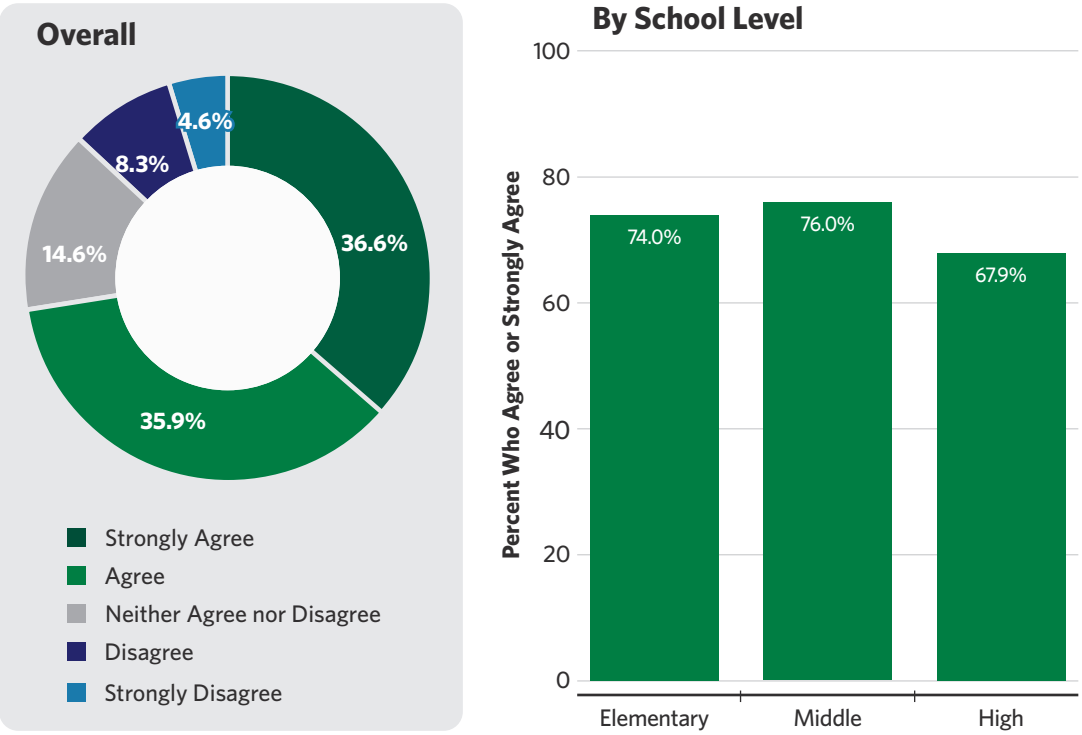
Throughout the 2021-22 school year, reports from across the country have described spikes in disruptive student behavior, fighting, and disciplinary challenges (Chapman, 2021; Lambert, 2022; Vestal, 2021). News reports and preliminary research have suggested links between these behavioral challenges and the disruptive effects of the COVID-19 pandemic, with some pointing

to challenges for young students who missed out on the socioemotional development that comes from interacting in group settings (Belsha, 2021; González et al., 2022; Meckler & Strauss, 2021; Raghunathan et al., 2022; Sun et al., 2022).

Partnership district educators reported that student behavior and discipline were already challenges before the COVID-19 pandemic began. To better understand whether the COVID-19 pandemic may have exacerbated those challenges, we asked teachers about the extent to which students were struggling with behavior due to pandemic-related schooling interruptions. Figure 3.6 summarizes teacher responses, with overall responses in the left panel and a breakdown by school level in the right panel.

We find that about 7 in 10 teachers agreed or strongly agreed that their students were struggling with behavior in 2021-22 due to the COVID-19 pandemic, while only about 13% disagreed or strongly disagreed (the remainder responded neutrally). The right panel shows that elementary and middle school teachers perceived these challenges to be more pronounced than high school teachers, with about three-fourths of elementary and middle school teachers and two-thirds of high school teachers agreeing or strongly agreeing that students were struggling with behavior due to the COVID-19 pandemic.

FIGURE 3.6. Partnership District Teacher Perceptions That Students Were Struggling With Behavior Due to Pandemic-Related Interruptions to Schooling, 2021-22



Note: Teachers were asked about the extent to which they agreed with the statement, "Students in this school are struggling to exhibit appropriate behavior given pandemic-related interruptions to schooling."

The findings in Figure 3.6 are reinforced by open-ended survey responses. Thirteen percent of teachers answering that question raised concerns about student behavior and about one-third of those cited the COVID-19 pandemic as a source of behavioral challenges. For example, one teacher emphasized that the COVID-19 pandemic created lost opportunities to learn—not just about academic subjects but also about how to function in school, classroom, and social settings:

> *Social, emotional, and behavioral issues are the biggest concern this year. Students are behind academically about two years, but it is shown even more in their behaviors and interactions. Those are the foundation of learning and being a part of a community.*

Another noted that the youngest students in particular lost out on formative years of routine activities that have historically helped prepare students to participate in school:

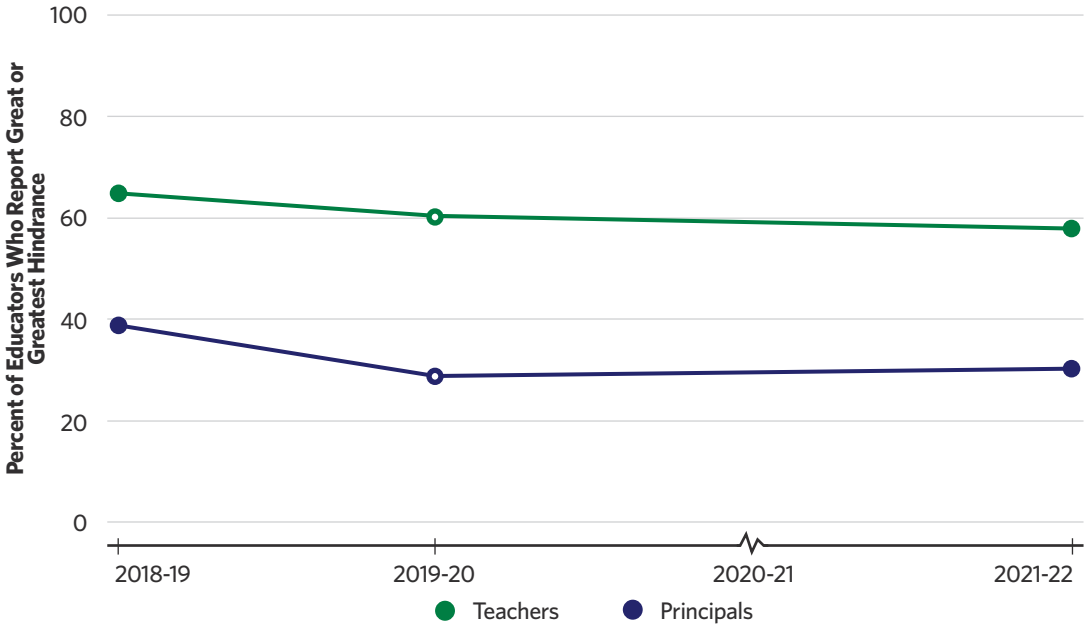
> *I teach young students. It is difficult to get them to interact appropriately with others, respect adults, follow routines, and transition between activities. They have had limited [exposure] to waiting in line at stores, socializing with people outside of their family, and dining out. These limited exposures make it difficult to successfully transition into a classroom setting.*

Another teacher raised that the COVID-19 pandemic exacerbated preexisting behavioral challenges and highlighted that teachers were struggling to support their students given changes in students' communities outside of the schoolhouse:

> *With the shut-down and duration of virtual learning over the past two years, a very obvious uptick in gang involvement and violence is running rampant through the community and our school. The trauma students have endured and continue to deal with falls on the teachers in no discrete manner. We are told and expected to be the socioemotional healers for our students while still providing academic instruction. We love our students and will never hesitate to be their place of refuge and security; the problem falls with lack of knowledge on the teachers' part as well as our own trauma that we are bearing from the pandemic.*

While teachers perceived students were struggling with appropriate behavior as a result of the COVID-19 pandemic, educators did not perceive that student behavior was increasingly hindering their ability to meet improvement goals. Figure 3.7 summarizes teacher and principal perceptions of student behavior as a hindrance to school improvement over time. When Partnership began, more than 60% of teachers and about 40% of principals reported that student behavior was a great or the greatest hindrance to reaching improvement goals. The share of both teachers and principals perceiving that student behavior was a great or the greatest hindrance to improvement dipped in the next year, pointing to potential improvements after the Partnership Model was first implemented. While we did not ask this question in 2020-21, in 2021-22, perceptions remained relatively similar to pre-pandemic levels despite the COVID-19 pandemic disruptions teachers described. We further explore this dynamic in Section Six, where we show that educator perceptions of school safety and student behavior more broadly became more positive over the course of the intervention.

FIGURE 3.7. Partnership District Educator Perceptions of Student Behavior as a Hindrance to Reaching Improvement Goals Over Time



Note: Teachers and principals were asked about the extent to which they believed student behavior was a hindrance to achieving their improvement goals. Response options were "not a hindrance," "a slight hindrance," "a moderate hindrance," "a great hindrance," and "the greatest hindrance." Question was not asked in 2020-21.

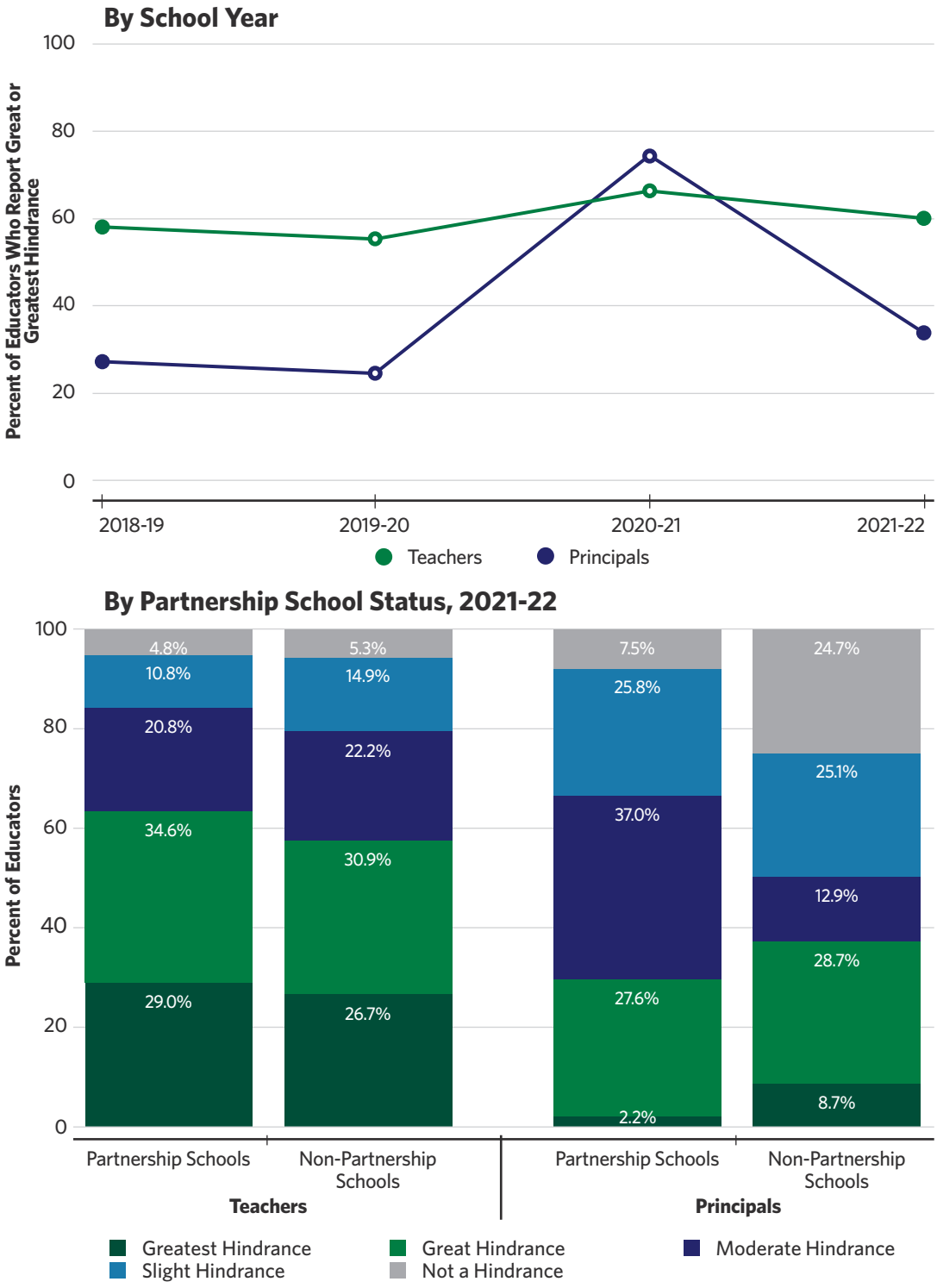
Educators Perceived Continued Low Student Motivation that Lessened With Return to In-Person Learning

In 2020-21, both teachers and principals believed that students were less enthusiastic to learn than in prior years and that a lack of student motivation was a hindrance to meeting school improvement goals. In 2021-22, educators believed these challenges remained but were less substantial than in the year prior. The first panel in Figure 3.8 displays the share of teachers and principals, respectively, who reported that a lack of student motivation to learn was a great or the greatest hindrance to improvement in each of the four survey years. The second panel breaks down responses by Partnership school status.

The first panel shows that, after spiking in 2020-21, the share of teachers reporting that a lack of student motivation to learn was a great or the greatest hindrance to meeting improvement goals decreased from 66% to 60%, while the share of principals who report a great or the greatest hindrance decreased from 75% to 34%. While these patterns point to signs of progress as students returned to in-person learning, the share of educators who believed student motivation was a hindrance remained higher than in pre-pandemic years.[1]

Educators in Partnership schools perceived that low student motivation was an even greater hindrance than did their peers in non-Partnership schools. Specifically, about 64% of Partnership school teachers compared with 58% of non-Partnership school teachers reported that low student motivation was a great or the greatest hindrance to school improvement in 2021-22. While a lesser share of Partnership school principals than non-Partnership school principals reported that student motivation was a great or the greatest hindrance to improvement, Partnership school principals were more likely to report that motivation was a moderate hindrance or greater.

FIGURE 3.8. Partnership District Educator Perceptions of Student Motivation to Learn as a Hindrance to Reaching Improvement Goals, by School Year and Partnership School Status Over Time



Note: Teachers and principals were asked about the extent to which they believed lack of student motivation was a hindrance to achieving their improvement goals.

Though not shown here, Partnership district educator perceptions that students were enthusiastic to learn bounced back to pre-pandemic levels—with the share of teachers who agreed increasing from 35% in 2020-21 to 43% in 2021-22 and the share of principals who agreed increasing from 47% to 62%.

Open-ended survey responses also emphasized challenges related to student motivation, with about 8% of open-ended responses raising this issue. Moreover, teachers directly connected student motivation to pandemic-related disruptions, with 57% of those who described student engagement challenges citing the COVID-19 pandemic as a contributing factor. One teacher wrote:

> *This year my biggest issue is getting the kids motivated to work. They have been out for a long time so I feel like it has taken most of the kids until now [February/March 2022] to get acclimated to actually work. Also, being a 6th grade teacher, my kids are new to this middle school environment and they were not ready for this big jump after not being in school for so long. The freedom and acclimating to six or seven teachers has been a journey for them. It has been exhausting this year to teach but I think in part it was due to getting them adjusted to attending school each day and working. This is different [than] rolling over in your bed to turn on a Chromebook.*

Together, these findings highlight that COVID-19 pandemic challenges related to health outcomes, economic conditions, student mental health, and student motivation continued to afflict Partnership communities and districts but that many challenges subsided somewhat from 2020-21 to 2021-22.

SCHOOLS AND STUDENTS STILL GRAPPLED WITH MAJOR DISRUPTIONS AS A RESULT OF THE COVID-19 PANDEMIC IN 2021-22

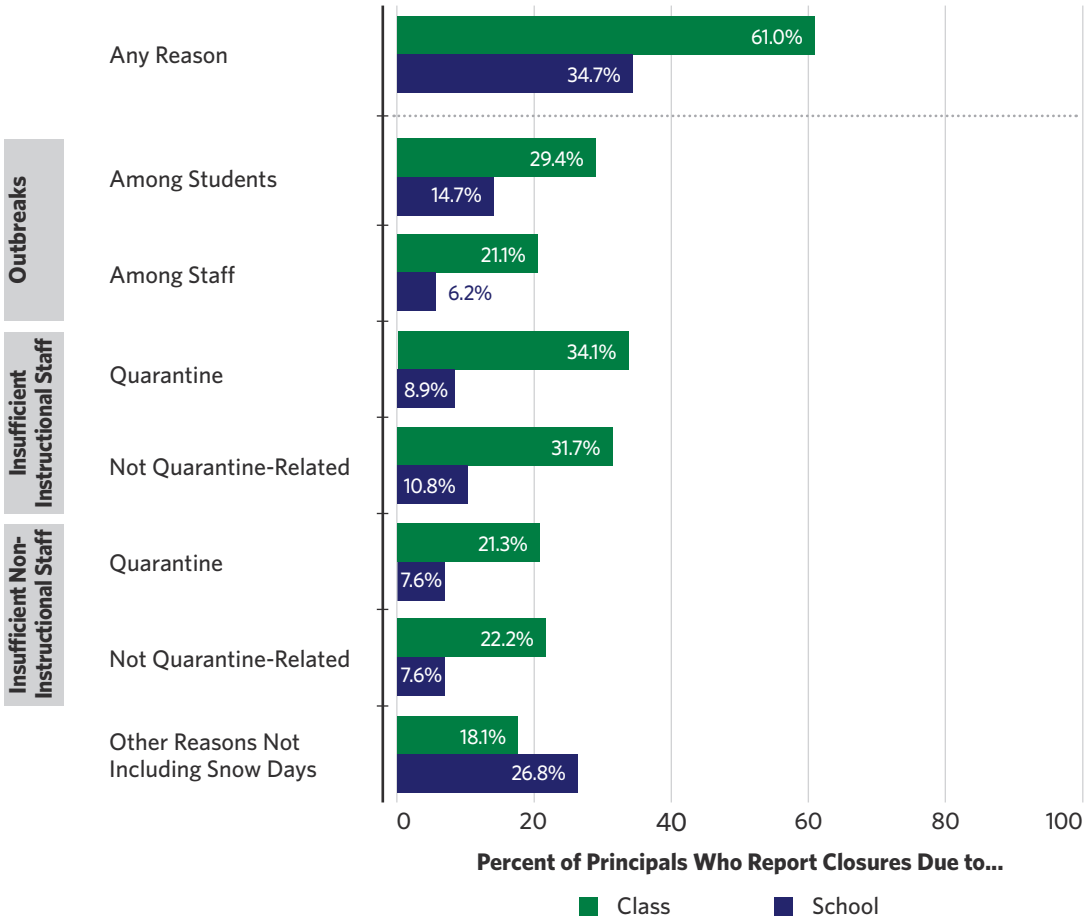
While some challenges receded in 2021-22, others emerged as districts returned to in-person instruction and endeavored to balance health and learning. These new—or more pronounced—challenges included school and classroom closures requiring sudden unplanned shifts in instructional modality and interrupted learning as students and teachers adapted to changing learning conditions.

Schools and Classrooms Frequently Had to Shutter for In-Person Instruction During the 2021-22 School Year

One such challenge stemmed from school and classroom closures. In the 2021-22 school year, schools and classes closed nationwide for a variety of reasons, including COVID-19 outbreaks, insufficient instructional staff due to staffing shortages or COVID-19 exposures, insufficient non-instructional staff (e.g., cafeteria staff, bus drivers), and a hodgepodge of other reasons such as vaccine clinics, mental health days, and school shooter threats[2] (Bauerlein, 2021; French, 2021a, 2021b; Kamenetz, 2021).

Figure 3.9 summarizes the share of Partnership district principals reporting school and classroom closures for selected reasons. The first set of bars show that 61% of principals reported classroom closures and 35% reported school closures by the February/March survey period. While COVID-19 outbreaks and quarantines among both students and staff elicited class and school closures, the most common reason for class closures was insufficient instructional staff, while the most common reason for school closures was "other reasons [other than COVID-19 outbreaks, quarantine, and staff shortages] not including snow days."

FIGURE 3.9. Percent of Partnership District Principals Who Report School and Classroom Closures for Selected Reasons, 2021-22



Note: Principals were asked, "In the 2021-22 school year, has your school or at least one classroom in your school closed for in-person instruction (i.e., provided no instruction or only remote instruction) due to any of the following?" Principals were then asked to select all that apply. Percentages reflect the share of principals selecting each option.

The duration of reported school closures varied widely and in some cases spanned a large number of school days. For example, of those who report closures due to student outbreaks, the number of closure days ranged from one to 20. Closures due to insufficient instructional staff ranged from one to 15 days for quarantines and one to 10 days for non-quarantine reasons. Closures for "other" reasons ranged from one to 35 days.[3]

These responses underscore that school and full class closures were commonplace during the 2021-22 school year, requiring students and teachers to adapt to both anticipated and unanticipated changes. Interview data highlight some of the ways these modality shifts disrupted education in Partnership districts. The Flyers charter leader described how, despite having a preference for in-person instruction, some of the above factors led to unavoidable transitions to virtual learning:

> *We think our kids deserve the opportunity to come back in person as much as possible, but we've had some issues. We set a criteria for our school where, if we meet a certain threshold of staff outages or having attendance concerns, if our average daily attendance drops less than 75%, our school day can't count, so we'll switch to virtual in that instance. Then, your typical, if you have inclement weather or a building issue, we go virtual.*

This leader also noted that the unplanned modality shifts created new challenges in the 2021-22 school year, as students and educators scrambled to adapt to unexpected changes, noting *this school year was harder than last mostly because we had a plan last year, in the 20-21 year, and we stuck to it.* In contrast, the 2021-22 school year brought more transitions between in-person and virtual learning, whether for outbreaks, illness, weather, or teacher or student attendance. These transitions led to increased student and teacher absenteeism and hindered educators' abilities to focus on student achievement.

Some Partnership leaders noted that classroom closures were more prevalent than school closures because of quarantine policies. The charter leader of Predators, who was interviewed in January 2022, explained:

> *At the most, we've had one, maybe two classes that have quarantined at a time. They have quarantined for the 10 days and then returned back to in-person learning. It's been pretty seamless. I think the biggest issues we have is just parents who are like, "Well, Billy's class has to quarantine, but Johnny is Billy's brother, so does Johnny have to quarantine too?" and technically no because the brother is the contact of a contact, and so lots of conversations around that. We've been happy to be back in person. We've had no snow days, no COVID days this year, no anything, so there has not been any interruption in our instruction from the beginning of the school year until now.*

As evidenced by this example, whether leaders decided to close a classroom or the whole school could depend on the school's context and policy and came with its own challenges, such as justifying decisions about who should quarantine and who should not. Further, these policies may have felt less seamless to teachers, students, and families, who had to adapt to modality shifts. Indeed, a handful of teachers (2%) who provided open-ended responses in the survey raised issues related to challenges stemming from these modality shifts. One noted:

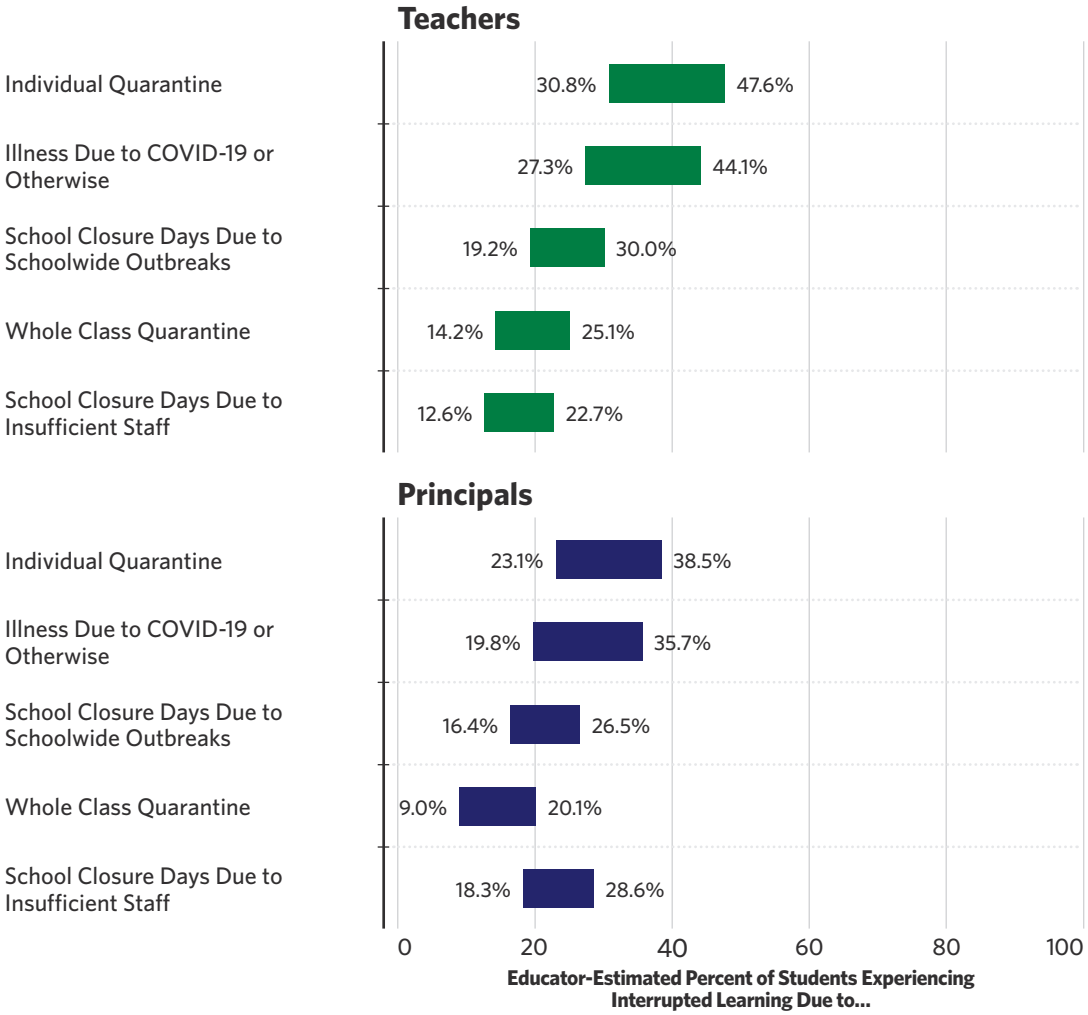
> *It has been a very challenging time for teachers as many have taught online, in person, and online again. Students and teachers, I believe, are doing our very best but there are many challenges with teaching online as one of my biggest frustrations is a small percentage of students are turning in assignments—if any. Overall, I believe students and teachers are all doing our very best under very tough conditions.*

As we describe later in Section Five, Partnership district educators believed that maintaining instructional continuity in the face of these shifts was a formidable challenge in the classroom and that challenges were especially salient in Partnership schools.

A Large Share of Partnership District Students Experienced Interrupted Learning Due to Illness, Quarantine, and School Closures

School-based educators perceived that the conditions the teacher above described led to widespread learning disruptions for their students. Figure 3.10 shows that teachers estimated that 31-48% of their students experienced interrupted learning due to individual quarantine, 27–44% due to illness, 19-30% due to school closures because of COVID-19 outbreaks, 14-25% due to class quarantines, and 13-23% due to school closure days because of insufficient staff. Principal responses, shown in the second panel, followed a similar pattern, though principals estimated a slightly lesser share of students experiencing interrupted learning for all reasons other than school closure days due to insufficient staff.

FIGURE 3.10. Partnership District Educator-Estimated Share of Students Experiencing Interrupted Learning for Selected Reasons, 2021-22

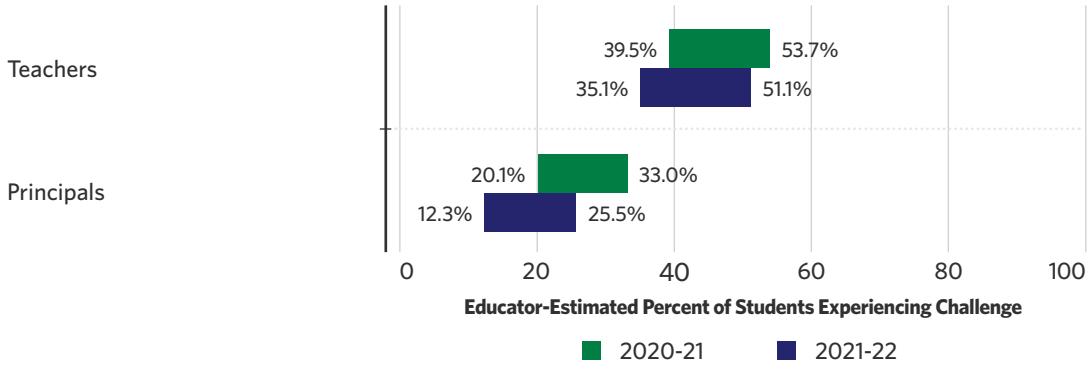


Note: Bars provide teacher- (first panel) and principal- (second panel) estimated range of students experiencing interrupted learning due to each reason based on responses to the question, "In the 2021-22 school year, approximately what proportion of your students have experienced interrupted learning due to each of the following?" Response options were <10%, 10-25%, 26-50%, 51-75%, 76-90%, and >90%. To create estimated ranges, we assign the minimum value of the selected response option as the lower bound and the maximum value as the upper bound. We then take the weighted mean of the lower and upper bounds, respectively. The figure to the left of each bar represents the estimated mean lower bound and the figure to the right of each bar represents the estimated mean upper bound.

Educators Reported That Schools Struggled to Educate Students with Disabilities for a Second Straight Year, Though There Were Signs of Progress

For a second straight year, concerns about interrupted learning were particularly troubling with respect to students with disabilities. Figure 3.11 displays the teacher- and principal-estimated share of students with special needs who did not receive the full services laid out in their Individualized Education Programs (IEPs), highlighting two takeaways. First, in each of the past two years, teachers estimated a third to a half of students with disabilities did not receive the services they required. Second, the share of teachers and principals reporting that students did not receive full services declined from 2020-21 to 2021-22, although only very minimally. This slight improvement was driven by a decreased share of teachers reporting that more than 90% of their students with special needs were not receiving necessary services.

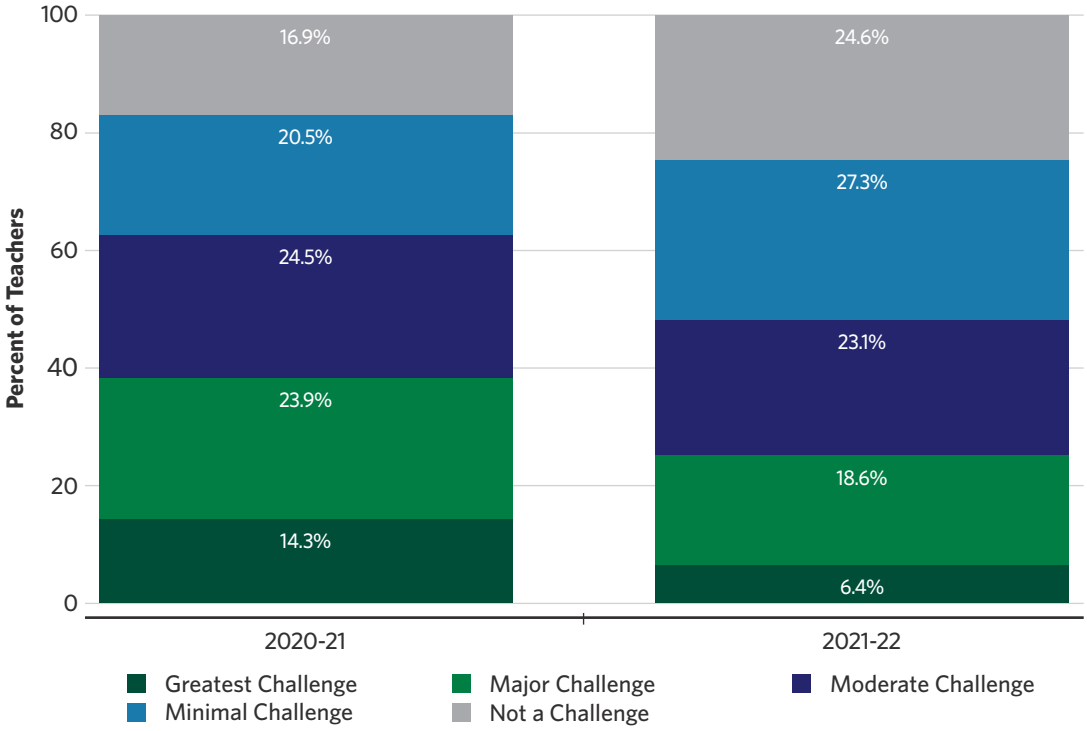
FIGURE 3.11. Partnership District Educator-Estimated Share of Students With Disabilities Not Receiving Full Services, Past Two Years



Note: Bars provide teacher- and principal-estimated range of students with special needs not receiving full services laid out in their IEP due to COVID-19 in 2020-21 and 2021-22. Response options were <10%, 10-25%, 26-50%, 51-75%, 76-90%, and >90%. To create estimated ranges, we assign the minimum value of the selected response option as the lower bound and the maximum value as the upper bound. We then take the weighted mean of the lower and upper bounds, respectively. The figure to the left of each bar represents the estimated mean lower bound and the figure to the right of each bar represents the estimated mean upper bound.

Similarly, teachers reported that providing appropriate instruction to students with disabilities was a daunting—though diminishing—challenge for them in the classroom. The share of teachers reporting that providing appropriate education to students with disabilities was a major or the greatest challenge in the classroom decreased from 38% in 2020-21 to 25% in 2021-22 and the share reporting that it was not a challenge increased from 17% to 25%. Again, this finding points to perceived progress in educating students with disabilities, though three in four teachers continued to report some degree of challenge.

FIGURE 3.12. Partnership District Educator Perceptions of Providing Appropriate Instruction to Students with Disabilities, Past Two Years



Note: Teachers were asked the extent to which "providing students with disabilities with appropriate instruction that meets their Individualized Education Plan (IEP) goals" was a challenge for them in the classroom this school year.

Together, these findings underscore the striking challenges that emerged for Partnership district students and educators during the COVID-19 pandemic. Schools and classrooms often shuttered for in-person learning, requiring students and teachers to quickly pivot and adapt. After more than a year of challenges related to virtual learning, students experienced more learning disruptions due to quarantine, illness, and staffing shortages. Educators perceived students with disabilities did not receive the full services they needed, though there were signs of progress. In sum, the return to in-person learning reduced learning disruptions associated with virtual learning while prompting new challenges.

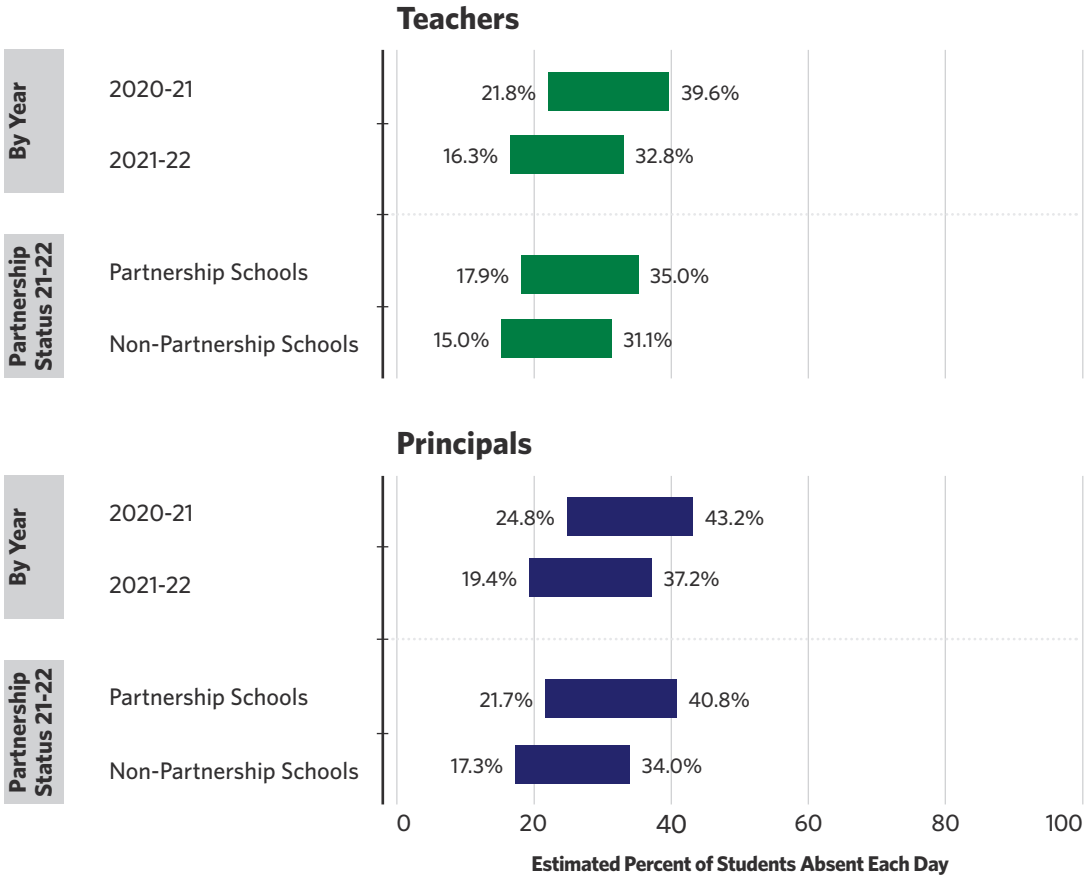
STUDENT ABSENTEEISM CONTINUED TO PRESENT SUBSTANTIAL CHALLENGES IN 2021-22

Educators reported that student absenteeism was one of the greatest challenges of the 2020-21 school year, as they struggled to support students who did not attend virtual instruction and with whom they were unable to connect to monitor student wellbeing and learning. In 2021-22, attendance challenges continued to trouble Partnership schools and districts. Although like many of the pandemic-amplified disruptions, perceptions of student absenteeism as a challenge waned somewhat from the first full COVID-19 pandemic school year.

Daily Student Absenteeism Declined Slightly but Remained High in Partnership Districts and Especially in Partnership Schools

Figure 3.13 displays the educator-estimated share of daily student absenteeism in each of the past two school years and by Partnership school status in the most recent school year. The first panel shows that teachers estimated 16-33% of students were absent each day in 2021-22. This represents a decrease from the 2020-21 estimate of 22-40% but is still high, as the State School Aid Act requires minimum daily school attendance of 75% for enrolled students.[4] The second panel shows similar responses from principals.

FIGURE 3.13. Partnership District Educator-Estimated Share of Students Absent Each Day, by School Year and Partnership School Status



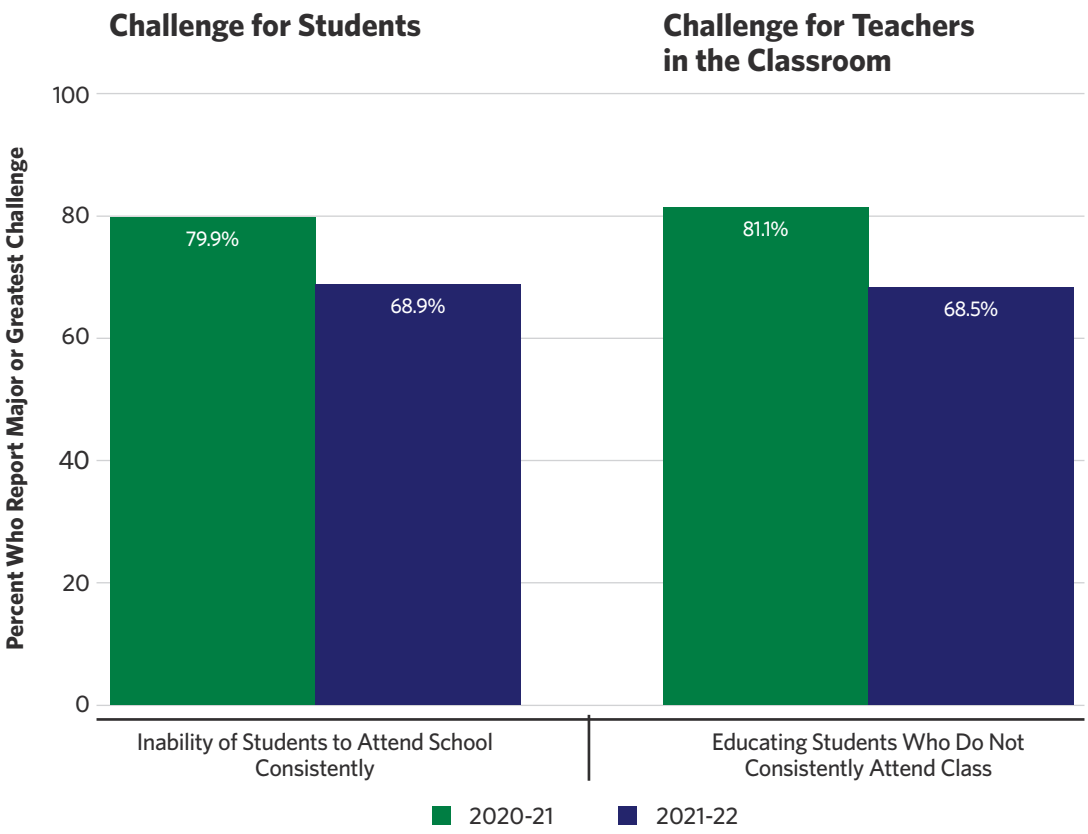
Note: Teachers and principals were asked, "Think about student absences over the last month. Approximately what percentage of your students were absent from school (for all or part of the day) each day?" Response options were <10%, 10-25%, 26-50%, 51-75%, 76-90%, and >90%. To create estimated ranges, we assign the minimum value of the selected response option as the lower bound and the maximum value as the upper bound. We then take the weighted mean of the lower and upper bounds, respectively. The figure to the left of each bar represents the estimated mean lower bound and the figure to the right of each bar represents the estimated mean upper bound.

In the 2021-22 school year, estimated absenteeism was higher in Partnership than non-Partnership schools, with teacher-estimated daily student absenteeism rates of 18-35% in Partnership schools relative to 15-31% in non-Partnership schools, and principal-estimated daily student absenteeism of 22-41% in Partnership and 17-34% in non-Partnership schools.

Student Absenteeism Was a Salient Challenge for Students and Teachers, Especially in Partnership Schools

Perhaps unsurprisingly, teachers believed that absenteeism was a marked challenge in Partnership districts. Specifically, we asked teachers about the extent to which the inability to attend school consistently was a challenge for their students and the extent to which educating students who do not consistently attend was a challenge for teachers in the classroom. Figure 3.14 provides the percent of teachers reporting that each is a major or the greatest challenge in each of the past two years. There are three main takeaways. First, in both years, teachers perceived that student absenteeism was a salient challenge for both students and teachers. Second, the share of teachers reporting a major or the greatest challenge declined from 2020-21 to 2021-22, though still remained high. Third, responses to the two questions parallel one another, underscoring that teachers understood that student absenteeism was a challenge for students and teachers alike; students were struggling to learn due to missed class time and teachers were grappling with challenges of educating students who could not attend.

FIGURE 3.14. Partnership District Teacher Perceptions of Student Absenteeism as a Challenge, Past Two Years



Note: Teachers were asked "To what extent have each of the following been a challenge for your students this school year?" (first two bars) and "To what extent have each of the following been a challenge for you in the classroom this school year?" (second two bars). Response options were "not a challenge," "a minimal challenge," "a moderate challenge," "a major challenge," and "the greatest challenge."

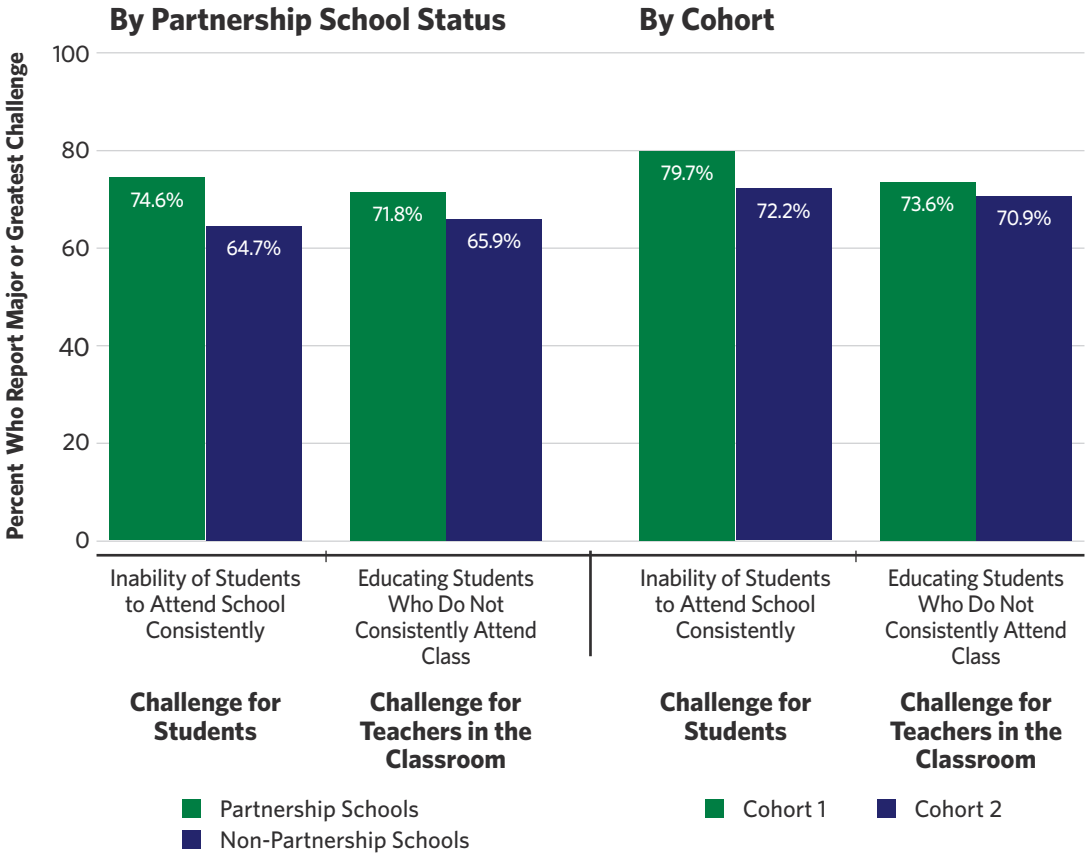
One teacher made the connection between absenteeism and learning outcomes, writing in an open-ended survey response:

> *More has to be done for learners who consistently miss school. Attendance during the pandemic grossly affected the learning outcomes and hindered them from approaching grade level and/or [being] ready for the next grade.*

Figure 3.15 further summarizes teacher responses to these questions in 2021-22 by Partnership school status (first panel) and Partnership school cohort (second panel), highlighting that student absenteeism challenges were greater in Partnership schools than non-Partnership schools in Partnership districts, and in Cohort 1 Partnership schools in particular. We examine cohort differences more deeply in Section Eight, but note that Cohort 1 contains the state's persistently lowest performing schools and, as a result, appeared to experience greater pandemic-related challenges.

Together with Figure 3.13 and Figure 3.14, Figure 3.15 underscores that although student absenteeism dipped slightly in 2021-22, it remained a salient challenge, especially in Partnership schools.

FIGURE 3.15. Partnership District Teacher Perceptions of Student Absenteeism as a Challenge, by Partnership School Status and Cohort, 2021-22



Note: Teachers were asked, "To what extent have each of the following been a challenge for your students this school year?" (first two bars on each panel) and "To what extent have each of the following been a challenge for you in the classroom this school year?" (second two bars). Response options were "not a challenge,","a minimal challenge," "a moderate challenge," "a major challenge," and "the greatest challenge."

Partnership district leaders shared similar perceptions to teachers and principals, as several identified chronic absenteeism in particular as a major challenge. The Flyers charter leader noted that absenteeism was a challenge and that it was exacerbated by shifts in instructional modality, saying:

> *Hands down, chronic absenteeism or just absenteeism in general has been an issue. We follow the multi-tiered system where we have systems in place for the whole school, those kids who have initial red flags, and the kids who are chronically absent. The problem that we're having is that, when we are transitioning from in person to virtual and in person to virtual, there's a couple days in between where there's lag time because the communication systems weren't reaching all families the way they needed to. Despite phone calls and stuff, there were days of school—and plenty of them—where we were sitting at 50 percent attendance because people didn't know to come in school in person. People didn't know that we were going virtual, despite multiple, multiple forms of communication about the shifts. It just takes a whole lot of resources to literally, quite frankly, call 500 students and say, "Where are you? We're online today. Please log in." Even then, we're barely scraping that 75 percent attendance requirement daily that the legislation still asks for.*

This statement draws into sharp focus the intersection between student attendance and learning disruptions stemming from shifts in instructional modality. Modality changes may have disrupted student learning as teachers scrambled to adapt lesson plans and students adapted to changing lessons, but they also disrupted student learning simply by increasing absenteeism.

Educators Perceived That Student Absenteeism Impeded Their Ability to Meet Improvement Goals and Worked to Tackle Absenteeism

It is clear from these findings that teachers believed attendance challenges adversely affected their ability to educate students and undermined student opportunities to learn. Combined with the high rates of absenteeism shown above in Figure 3.13, it is therefore unsurprising that educators perceived low student attendance to be a major hindrance to achieving improvement goals this year. In 2021-22, 69% of teachers and 65% of principals in Partnership districts reported that low student attendance was a great or the greatest hindrance to meeting improvement goals.

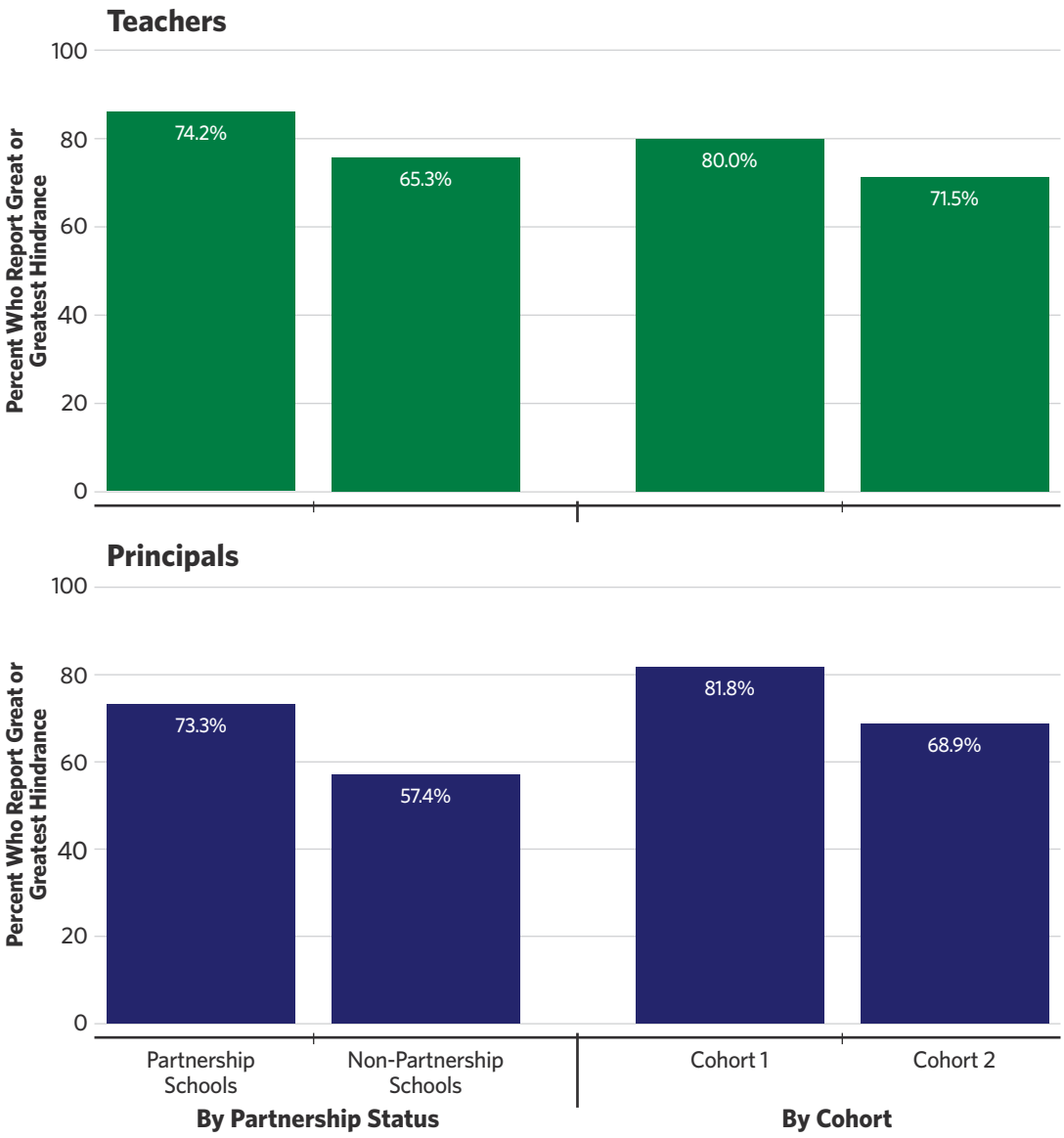
The Canadiens district leader described the ramifications of absenteeism, noting, *"[…] if you're chronically absent, you're obviously not engaged as much. You're not connected. You get behind. You get frustrated. You just slowly start to disengage with the learning process."*

Open-ended responses in the teacher survey reinforce these findings that student absenteeism was a salient challenge for educators and students alike, with 8% of these responses raising issues related to student attendance or absenteeism, and nearly half of those making connections between absenteeism and the COVID-19 pandemic. One teacher connected high absenteeism with an inability to narrow learning gaps that have been exacerbated by COVID-19 pandemic disruptions, writing:

> *The largest challenge this school year has been student attendance. Whether COVID-19 related or not, students that don't come to school aren't getting adequate instruction time which makes it impossible to close the gaps we're seeing.*

Figure 3.16 breaks down teacher and principal responses by Partnership school status and cohort, showing educators in Partnership schools perceived low student attendance to be an even greater hindrance to school improvement than their district peers in non-Partnership schools. The perceived hindrance again is greatest in Cohort 1 Partnership schools. About three-fourths of both teachers and principals in Partnership schools reported that low student attendance is a great or the greatest hindrance to meeting improvement goals, compared with 65% of teachers and 57% of principals in non-Partnership schools. Even more—about 8 in 10—teachers and principals in Cohort 1 schools reported low student attendance as a great or the greatest hindrance.

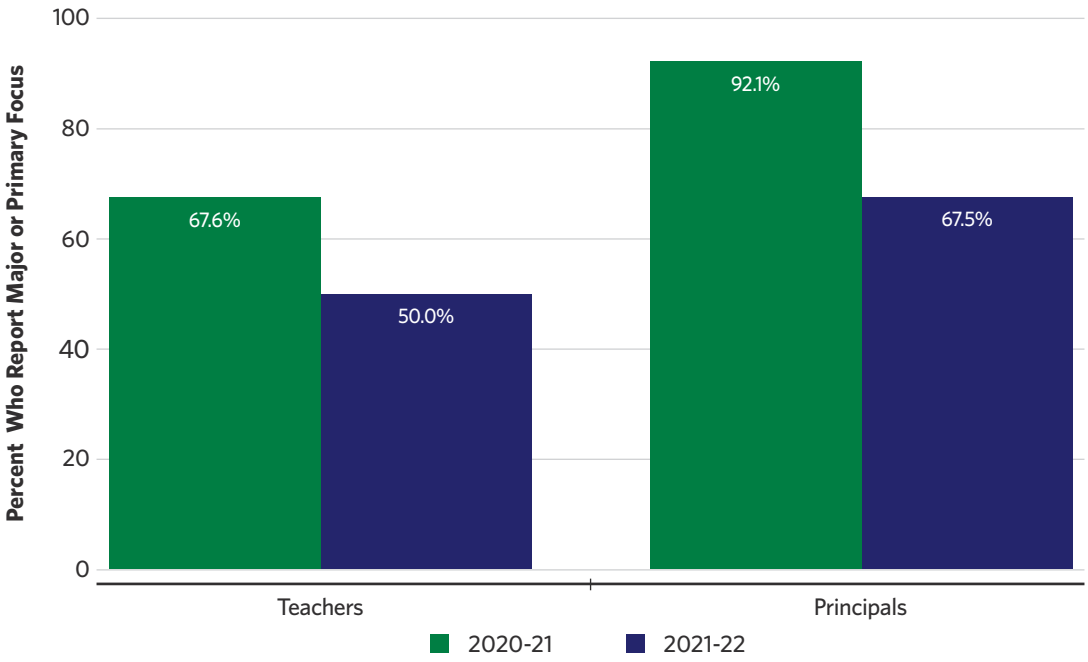
FIGURE 3.16. Educator Perceptions of Low Student Attendance as a Hindrance to Reaching Improvement Goals, by Partnership School Status and Cohort, 2021-22



Note: Teachers and principals were asked about the extent to which they believed student attendance was a hindrance to achieving their improvement goals. Response options were "not a hindrance," "a slight hindrance," "a moderate hindrance," "a great hindrance," and "the greatest hindrance."

Partnership schools and districts responded to increased absenteeism during the COVID-19 pandemic with a robust focus on student attendance interventions. Figure 3.17 displays the share of teachers and principals, respectively, reporting that student attendance interventions were a major or primary focus of their school in each of the past two years. In 2020-21, when absenteeism was at its peak, two-thirds of teachers and 92% of principals reported that student attendance interventions were a major or the primary focus in their school that year. As absenteeism subsided slightly in 2021-22, those figures declined but remained high. Half of teachers and two-thirds of principals reported a major or primary focus on student attendance interventions to facilitate academics, as we describe more in Section Six.

FIGURE 3.17. Partnership District Educator Reports of Student Attendance Interventions as a Major or Primary School Focus, Past Two Years



Note: Teachers and principals were asked, "To what extent are student attendance interventions a focus in your school?" Response options were "not a focus," "a minor focus," "a moderate focus," "a major focus," or "a primary focus."

Together, these findings highlight that student absenteeism has consistently presented a major challenge in Partnership schools and districts, and that the COVID-19 pandemic exacerbated these challenges. Absenteeism declined from the 2020-21 school year as schools returned to in-person instruction but still remained high. As a result, teachers and principals continued to report that low student attendance was the greatest hindrance to meeting improvement goals, and Partnership district leaders highlighted their efforts to address absenteeism.

SUMMARY

When the COVID-19 pandemic struck, Partnership schools, districts, and the communities they serve grappled with considerable challenges. At the beginning of the COVID-19 pandemic, reported cases and deaths were higher in Partnership communities, and subsequent waves of the

virus have struck Partnership communities more severely than non-Partnership communities. This has led to more cumulative reported cases and deaths over time. As a result, educators in Partnership schools and districts perceived that their students were contending with substantial socioemotional trauma and that Partnership districts have not yet been able to bridge the gap to meet student needs. Teachers perceived that after more than a year of remote learning, many students struggled to exhibit appropriate behavior—especially in younger grades where students lost formative socioemotional learning opportunities.

However, this year's survey did highlight some bright spots. For the most part, teachers and principals reported that many of the challenges they and their students faced and that impeded learning in 2020-21 diminished—at least slightly—in 2021-22.

Even as Partnership schools and districts made some headway, though, new challenges emerged with the return to in-person learning and the inevitable quarantines that came with it. Schools and classrooms frequently shuttered for in-person learning and educators reported that students experienced disrupted learning due to school and classroom closures, student quarantine, and insufficient staff.

In sum, for a second full school year, COVID-19 continued to permeate the educational experiences of educators and students. We cannot discuss the Partnership Model in the years since 2018-19 without addressing challenges arising from the COVID-19 pandemic. Last year's report highlighted that the COVID-19 pandemic had an outsized effect on Partnership schools, districts, and communities, and in this section we described the ways in which COVID-19 continued to resonate. Throughout this report, we return to the theme of the COVID-19 pandemic in making sense of our findings with respect to Partnership students, teachers, and schools.

SECTION THREE NOTES

1. The difference between 2018-19 and 2020-21 was statistically significant for teachers ($p<0.01$).
2. Many such closures came on the heels of the November 2021 shooting at Oxford High School in Michigan in which a 15-year-old student with a semiautomatic handgun killed four students and injured another six students and a teacher. The following week, many schools across the state closed due to copycat threats (Bella, 2021; Marini, 2021).
3. These reported figures come from responses to the question, "If your school has closed, please estimate the total number of days it has closed due to each of the following (please add up all days over the course of the school year)." The number of responses for each of the other reasons was too low to report due to a small number of principals reporting closures for these purposes.
4. The Return to Learn legislation allowed for flexibility on the State School Aid Act's requirement of minimum daily school attendance of 75% for enrolled students for the 2020-21 school year, but there's no longer such flexibility for the 2021-22 school year.

4

Partnership Turnaround:
Year Four Report

SECTION FOUR: STUDENT MOBILITY AND ENROLLMENT

EPIC
Education Policy
Innovation Collaborative

Section Four: Student Mobility and Enrollment

Nationally and in Michigan in particular, public school enrollment has declined during the COVID-19 pandemic (Belsha et al., 2020; Dee & Murphy, 2021; Musaddiq et al., 2021; Strunk et al., 2021). There are three reasons we might be concerned about students leaving their school. First, state and federal funding is tied to student enrollment, so when students leave a school, their school and district lose student-level funding allocations. Second, student mobility can hinder learning both for the students transferring out and in some cases for their peers (e.g., Hanushek et al., 2004a). Third, student exits can be viewed as an expression of student and family voices; those who exit may do so because they are unhappy with their experiences at their current school. In the Year Three Report, we showed that 2020-21 enrollment declines in Partnership schools and districts appeared to be driven by a smaller kindergarten cohort and an uptick in students leaving Michigan public schools. In this section, we again examine student mobility out of Partnership schools, districts, and Michigan public education, as well as school enrollment trends through fall 2021.

STUDENT MOBILITY

Student mobility has historically been a concern for turnaround schools and districts because students leave low-performing schools at higher rates than other schools (Harbatkin & Henry, 2019; Maroulis et al., 2019). Mobility that occurs outside the school's typical feeder patterns in particular presents challenges both for the schools that students are transferring out of and the schools they are entering. We refer to this type of mobility as nonstructural mobility. Unlike structural mobility, which involves student transfers based on expected feeder patterns (e.g., moving to a middle school after fifth grade), *nonstructural mobility* from a school may reflect family

preferences or other factors related to school quality. Students may make nonstructural transfers for reasons both related and unrelated to school context. Reasons unrelated to school context include homelessness or housing instability, parents or guardians needing to move for a new job, or moving from one parent or guardian's home to another. These motivations for transfer are not in the school's control. However, other reasons for transfer, such as students' and families' perceptions that schools are not addressing students' needs, do relate to the school itself and may be prevented through Partnership schools' and districts' improvement efforts.

Because Partnership is intended as a district-level intervention, we are also interested in the extent to which students leave their district. In TPS districts in particular, districts may be able to retain students even if the individual school is a poor fit. On the other hand, a student transferring out of the district entirely would result in lost funding for the district and require the student to readapt to a new context in their new learning environment.

After a Year of Fewer Transfers, Fall 2021 Student Transfer Rates in Partnership Schools and Districts Approached But Did Not Reach Pre-Pandemic Levels

Before moving to our econometric models that predict leaving the school, the district, and Michigan public education, we examine descriptive patterns for nonstructural student transfers. Specifically, to better understand student mobility decisions, we examine the share of students who transferred to another school within the district (within-district transfers) and the share who transferred to another district entirely (out-of-district transfers).

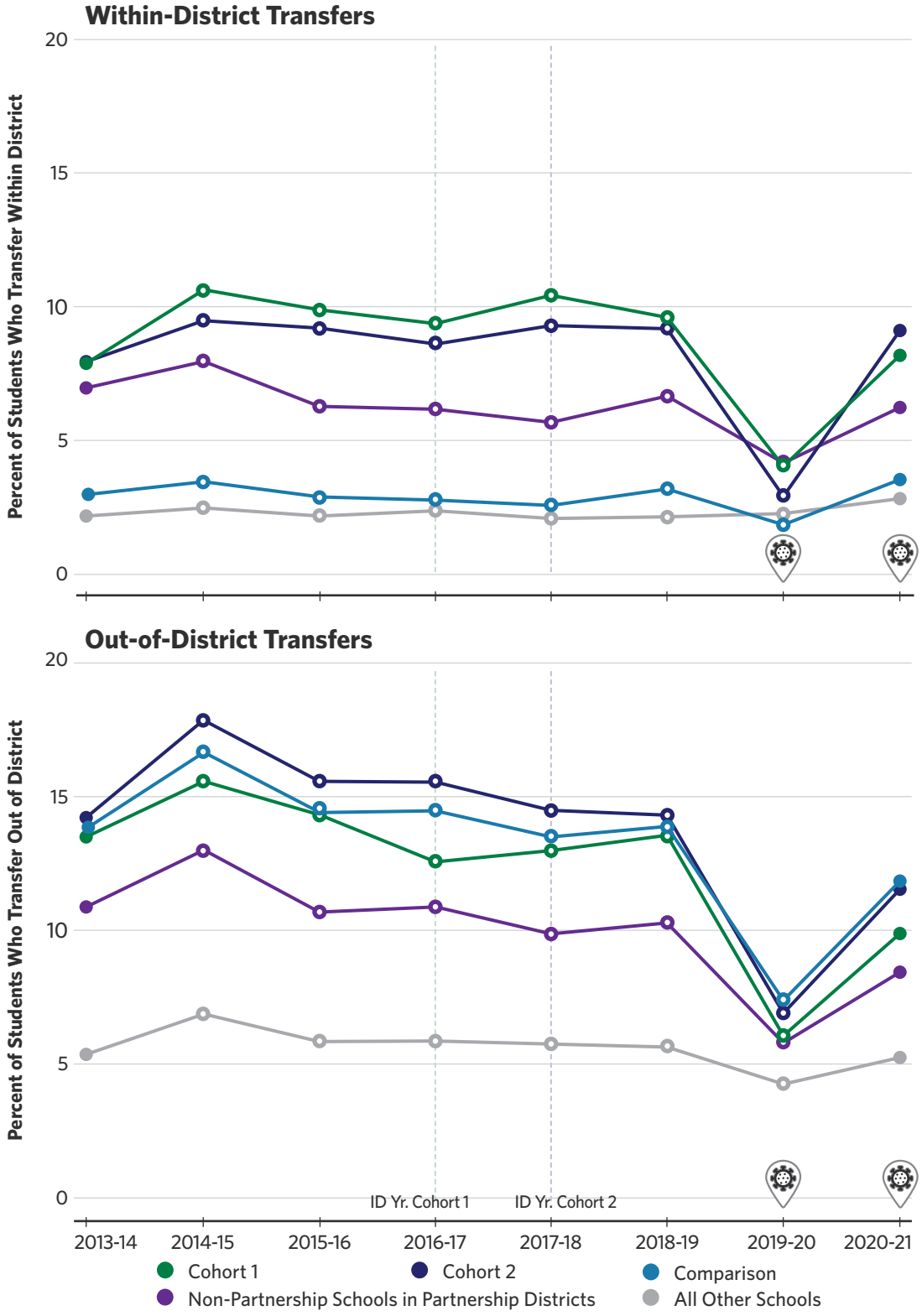
Figure 4.1 displays student transfer rates over time for Cohort 1, Cohort 2, comparison, non-Partnership schools in Partnership districts, and all other schools. Within-district transfers are shown in the first panel and out-of-district transfers in the second.

Students in Partnership schools and districts have consistently had higher rates of within-district transfer than students elsewhere in the state. Transfer rates did not appear to change after Partnership implementation—beginning in 2017-18 for Cohort 1 and 2018-19 in Cohort 2. Then, at the end of the 2019-20—the first school year affected by the COVID-19 pandemic—transfers decreased substantially in both cohorts of Partnership schools, approaching similar levels to non-Partnership schools. Within-district transfers for students in Partnership schools and districts then increased at the end of 2020-21. The increase was especially steep in Cohort 2 schools, where within-district transfers declined more in 2019-20 and then bounced back to pre-pandemic levels in 2020-21.

The second panel shows similar patterns for out-of-district transfers, though in this case comparison schools have transfer rates that are similar to those in Partnership schools and districts. Again, out-of-district transfers decreased at the end of 2019-20 before approaching—but not reaching—pre-pandemic levels at the end of 2020-21.

Importantly, as we move to the difference-in-differences estimates, the teal lines represent the counterfactual for Partnership schools—the expected outcome for Partnership schools in the absence of the intervention. Here, we see that comparison schools in 2019-20 experienced a smaller decrease in within-district transfers but a similar decrease in out-of-district transfers to Cohort 1 and Cohort 2 schools.

FIGURE 4.1. Student Transfer Rates in Partnership Schools, Districts, and Comparisons Over Time



Note: The figure panels depict descriptive trends in within- and out-of-district transfers over time. Figures include nonstructural transfers only. Transfers were measured at the end of the listed school year and assigned to the school that the student transferred from. For example, a student who was enrolled in a Cohort 1 school in 2018-19 and then transferred to a new school in a different district in 2019-20 would be counted as a Cohort 1 out-of-district transfer in 2018-19. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic.

These findings highlight that one source of disruption to student learning that is typically prevalent in low-performing schools and districts—student mobility—became less salient during the COVID-19 pandemic. However, current trends suggest that shifts in mobility rates were not sustained, and Partnership schools and districts once again must grapple with high rates of student transfers.

Partnership School Students Were Less Likely to Leave Their Schools During the COVID-19 Pandemic

We turn next to difference-in-differences models to examine the extent to which students in Partnership schools were more or less likely to leave their schools after Partnership was implemented and during the COVID-19 pandemic. As described in Section Two, leaving the school includes all types of nonstructural moves out of the school, including within-district transfers, out-of-district transfers, and leaving Michigan public education. This outcome is relevant because regardless of where students go after they leave Partnership schools, students who leave experience some level of educational disruption, schools lose public per-pupil funding, and there can be negative consequences for students who remain in the school due to peer effects or lost school funding.

Figure 4.2 provides difference-in-differences estimates from models predicting that a student will leave their school. We show estimates first by implementation cohort and then separately for the two identification rounds in Cohort 2 because we observe somewhat different patterns in the two different identification rounds.

INTERPRETING COEFFICIENT PLOTS OF DIFFERENCE-IN-DIFFERENCES ESTIMATES

Throughout this report, we provide graphics representing the coefficient estimates from the difference-in-differences model described in Equation 4 of Section Two. In these graphs, the vertical axis represents the coefficient estimate and the horizontal axis represents the implementation year, where Year 1 is 2017-18 for Cohort 1 and 2018-19 for Cohort 2, Year 2 is 2018-19 for Cohort 1 and 2019-20 for Cohort 2, and so on. As of the 2020-21 school year (the final year for which we have state administrative data at the time of writing), we observe four implementation years for Cohort 1 and three for Cohort 2. The school year is included in the relevant cohort's color (green for Cohort 1 and blue for Cohort 2) beneath the implementation year.

The placemarkers just above the horizontal axis denote school years affected by the COVID-19 pandemic for each cohort, again in each cohort's color. When examining mobility between school years, as in Figure 4.2, the first pandemic-affected school year occurs when students or educators move between spring 2020 and fall 2021. When we examine other outcomes such as achievement, 2020-21 is the first full COVID-19-affected school year.

The post-implementation pre-pandemic estimates (years 1 and 2 for Cohort 1 and year 1 for Cohort 2) can be attributed to Partnership. Because we cannot parse the effects of Partnership from the effects of COVID-19, the COVID-19 pandemic era estimates (years 3 and 4 for Cohort 1 and years 2 and 3 for Cohort 2) represent the joint effect of Partnership and the COVID-19 pandemic and are denoted with a COVID-19 indicator in the graph. While the COVID-19 pandemic undoubtedly affected all schools and districts in Michigan, Partnership schools and districts and the communities they serve were most adversely affected (Hatch & Harbatkin, 2021). Any differential effects of the Partnership Model on student, teacher, and school outcomes will therefore necessarily be confounded with differential effects of the COVID-19 pandemic.

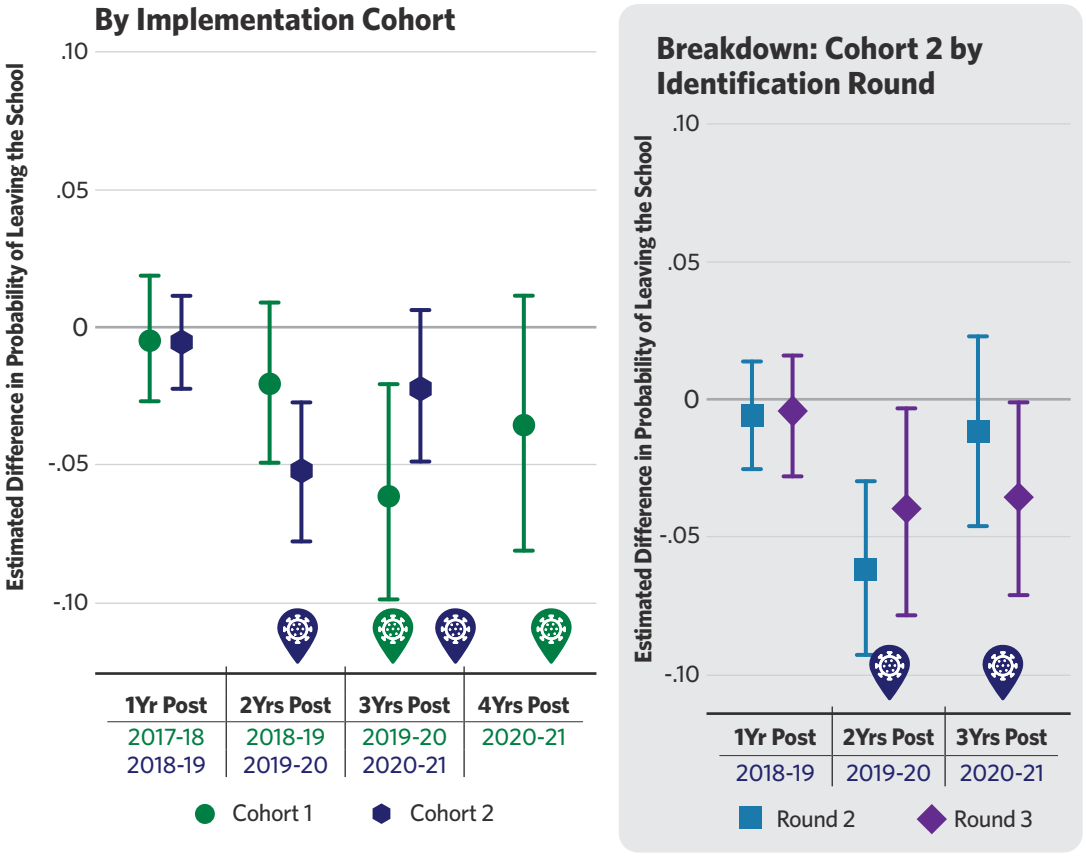
The markers denote the coefficient estimate and the spikes show the upper and lower bounds of the 95% confidence interval. When the spikes intersect with the horizontal zero line, we cannot say with 95% confidence that the estimate is statistically different from zero. When both the upper and lower bounds are above the zero line, the estimate is statistically significant and positive. When both the upper and lower bounds are below the zero line, the estimate is statistically significant and negative.

In the student and teacher mobility models (Section Seven) that use this method, the outcome is always a dichotomous indicator that takes a value of one when the student or teacher moves out of their school (or district, or Michigan public schools) at the end of the school year. The markers therefore represent the difference in probability of leaving the school for students or teachers in Partnership schools relative to comparison schools, where estimates **above** zero indicate that Partnership school students or teachers were **more** likely to leave their school than comparison school students or teachers, and estimates **below** zero indicate that Partnership school students or teachers were **less** likely to leave. In the text, we characterize these as percentage point changes. For example, we would interpret a coefficient estimate of 0.10 as a 10 percentage point change.

These estimates rely on a key underlying assumption that in the absence of Partnership, each implementation cohort or identification round would continue to follow the linear trend it was following prior to Partnership identification. The estimates represent the deviation from that continued trend. To that end, if, for example, the rate of students leaving their schools was increasing prior to Partnership identification, the model assumes it would continue to increase in the absence of Partnership. In cases when different cohorts (or rounds) have different pre-implementation trends, we highlight those in the text.

We find that prior to the COVID-19 pandemic (years 1 and 2 for Cohort 1 and year 1 for Cohort 2), Partnership school students were no more or less likely to leave their schools than comparison school students. However, after the COVID-19 pandemic began in spring 2020 students in both cohorts of Partnership schools were less likely to leave their schools (about 6 percentage points in Cohort 1 and about 5 percentage points in Cohort 2).[1] Students in Partnership schools continued to leave their schools at lower rates after 2020-21, though the estimates here were smaller and not statistically significant. The second panel shows some minor differences across Cohort 2 identification rounds, as students in Round 3 schools continued to leave their schools at a significantly lower rate than students in comparison schools after the 2020-21 year while Round 2 school departures returned to their pre-Partnership trend (though the difference between Rounds 2 and 3 is not statistically significant).

FIGURE 4.2. Difference-in-Differences Estimates of the Effect of Partnership on Students Leaving School



Note: Markers denote coefficient estimates on interaction between Partnership cohort (first panel) or round (second panel) and implementation years in difference-in-differences model. Spikes represent 95% confidence intervals. Each panel provides estimates from a single model, where the first panel shows estimates from a model estimating separate effects for each of the two implementation cohorts and the second depicts a model estimating separate effects for each of the three identification rounds. (Round 1 is not shown in the second panel because Round 1 is interchangeable with Cohort 1 and estimates are therefore identical to those shown in the first panel.) Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic for each cohort (Cohort 1 in green and Cohort 2 in blue).

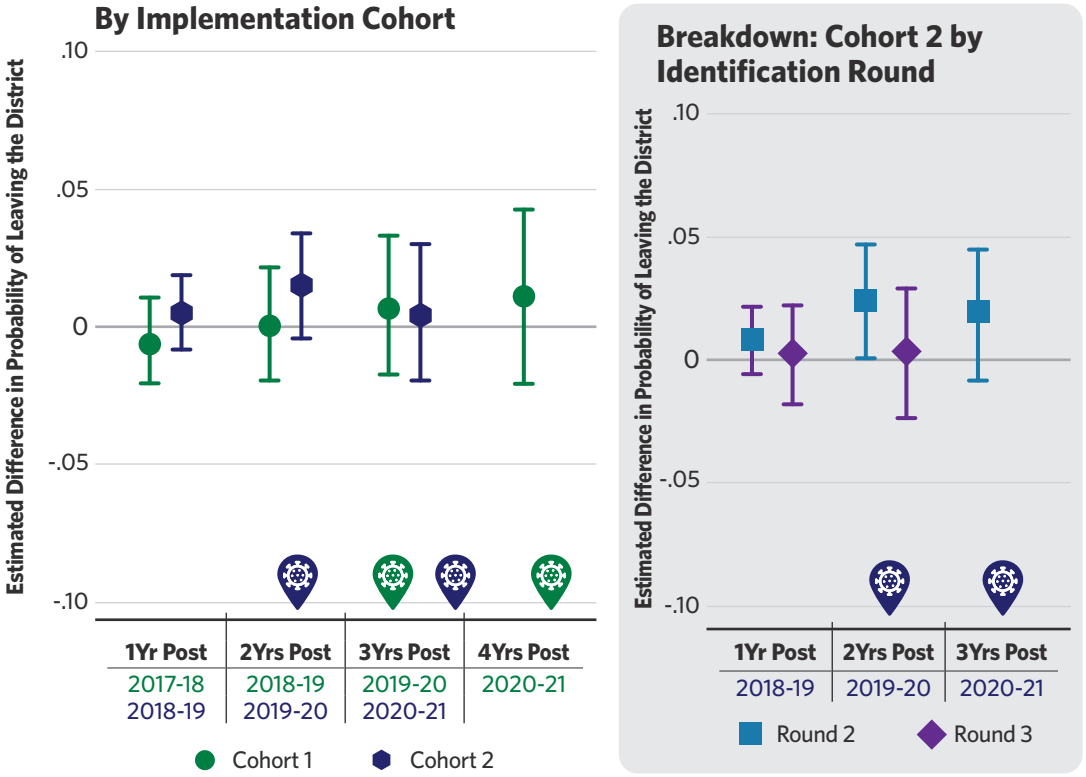
Though Cohort 2 Students Were Less Likely to Leave Their Schools During the COVID-19 Pandemic, Some Were More Likely to Leave Their Districts

We also examine the extent to which Partnership school students left their districts. Leaving the district is nested in the leaving-the-school outcome because a student who leaves their district necessarily leaves their school. However, it represents an important subdimension of student mobility for the Partnership Model, which aims to improve district-level systems.

Figure 4.3 provides estimates for leaving the district. The first panel shows that overall, neither Partnership nor the COVID-19 pandemic affected the probability that students in either cohort left their districts relative to comparison schools. The second panel highlights that during the COVID-19 pandemic, students in Round 2 schools were more likely to leave their districts than their peers in comparison schools (though again the difference between the two Cohort 2 rounds is not statistically

significant). After the 2019-20 school year, students in Round 2 schools were about 2.4 percentage points more likely to leave their districts. In the following year, they were also more likely to leave though the estimate was smaller and only marginally significant.

FIGURE 4.3. Difference-in-Differences Estimates of the Effect of Partnership on Students Leaving District



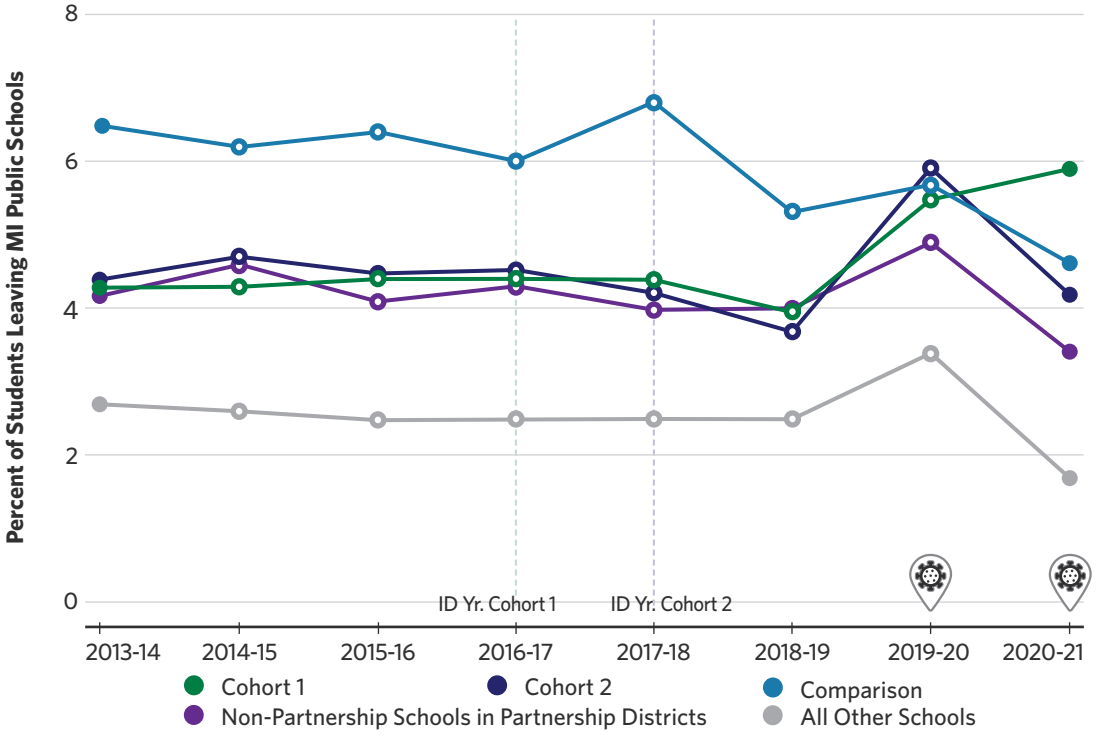
Note: Markers denote coefficient estimates on interaction between Partnership cohort (first panel) or round (second panel) and implementation years in difference-in-differences model. Spikes represent 95% confidence intervals. Each panel provides estimates from a single model, where the first panel shows estimates from a model estimating separate effects for each of the two implementation cohorts and the second depicts a model estimating separate effects for each of the three identification rounds. (Round 1 is not shown in the second panel because Round 1 is interchangeable with Cohort 1 and estimates are therefore identical to those shown in the first panel.) Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic for each cohort (Cohort 1 in green and Cohort 2 in blue).

Notably, the left panel of Figure 4.3 shows minimal differences in *district* exit between Partnership and comparison schools in the two implementation cohorts while the parallel panel of Figure 4.2 above shows meaningful differences in *school* exit, with students leaving Partnership schools at lower rates than comparison schools in 2019-20 school year in particular. The descriptive trends in Figure 4.1 help to clarify these differences between intra- and inter-district mobility. In particular, we observe a sizable dip in within-district *and* out-of-district transfers in both cohorts of Partnership schools in 2019-20. However, comparison schools (shown in teal in the descriptive graph) experience a milder decline in within-district transfers while experiencing a similarly steep decrease in out-of-district transfers. Because the difference-in-differences estimates are relative to comparison schools, the different findings with respect to within- and out-of-district transfers stem from differences in the counterfactual. In other words, students in Cohort 1 and Cohort 2 Partnership schools left both their schools and districts at lower rates in 2019-20 than they did in other years, but those declines were only steeper than comparison school declines for within-district transfers.

Students Left Michigan Public Schools at Higher Rates in 2019-20, and Cohort 1 Students Continued to Leave at Higher Rates in 2020-21

We turn next to the share of students who left Michigan public schools entirely. This includes students who left for private schools, homeschool, dropped out, moved out of state, or did not return to school for unknown reasons. Figure 4.4 displays the share of students leaving Michigan public schools over time in Cohort 1, Cohort 2, comparison schools, non-Partnership schools in Partnership districts, and all other schools in the state. Three patterns emerge. First, in each year, exits are more prevalent in Partnership schools, other low-performing comparison schools, and non-Partnership schools in Partnership districts than elsewhere in the state. Second, exits increased from all types of schools at the end of the 2019-20 school year, and this was most pronounced in the two cohorts of Partnership schools. Third, while exits retreated back to pre-pandemic levels in most schools at the end of 2020-21, they continued to increase among Cohort 1 schools, underscoring the immense challenges faced by students in Cohort 1 schools in particular, as described in Section Three.

FIGURE 4.4. Students Leaving Michigan Public Education in Partnership Schools, Districts, and Comparisons Over Time



Note: Descriptive trends in leaving Michigan public education over time. Figures include non-structural leavers only (i.e., they exclude students who graduated). Leaving measured at end of listed school year and assigned to school that student left from. For example, a student who was enrolled in a Cohort 1 school in 2018-19 and then did not enroll in a Michigan public school in 2019-20 would be counted as an exit from Cohort 1 in 2018-19. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic.

In some cases, districts provide data on where students go when they exit. Analyses of these data suggest that while the share of students exiting to private schools or homeschool increased substantially statewide during the COVID-19 pandemic:

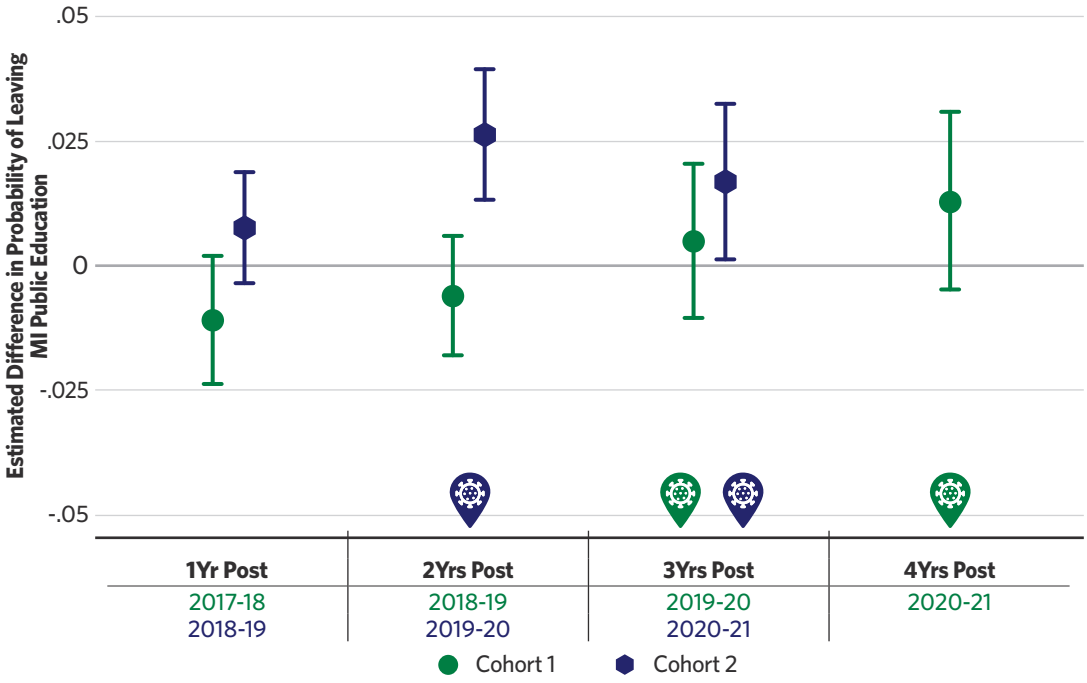
- Students in **Partnership districts** were about 12% less likely than students in non-Partnership districts to leave for **private school,**
- Students in **Partnership schools** were about 8% less likely than students in non-Partnership schools to leave for **private school,**
- Students in **Partnership districts** were about 15% less likely than students in non-Partnership districts to leave for **homeschool**, and
- Students in **Partnership schools** were about 9% less likely than students in non-Partnership schools to leave for **homeschool**.

Instead, students in Partnership schools and districts were more likely to have unknown statuses, suggesting that Partnership schools and districts struggled with capacity to record reasons for exit or lost track of students who did not return to school during the COVID-19 pandemic.[2]

Cohort 2 Students Were More Likely to Leave Michigan Public Education

Our difference-in-difference models, with coefficient estimates represented in Figure 4.5, show that after controlling for pre-Partnership trends and covariates, students in Cohort 1 schools were more likely than their comparison school peers to leave Michigan public education during the COVID-19 pandemic, but the difference between students in Cohort 1 and comparison schools was not statistically significant. Meanwhile, students in Cohort 2 schools were significantly more likely to exit Michigan public schools after both the 2019-20 school year (2.7 percentage points) and after the 2020-21 school year (1.7 percentage points).

FIGURE 4.5. Difference-in-Differences Estimates of the Effect of Partnership on Students Leaving Michigan Public Education



Note: Markers denote coefficient estimates on interaction between Partnership cohort and implementation years in difference-in-differences model. Spikes represent 95% confidence intervals. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic for each cohort (Cohort 1 in green and Cohort 2 in blue).

Figure 4.4 above helps to contextualize these estimates. While the estimates may seem substantively small, pre-pandemic exit rates hovered just above 4%. Effect sizes of 2 or 3 percentage points therefore translate to a 50% to nearly 75% surge in exiting. Here, in Figure 4.5, we show the estimates by implementation cohort only because estimates are very similar for the two Cohort 2 identification rounds.

ENROLLMENT

We showed in the Year Three Report that overall statewide enrollment declines were less stark in Partnership than other districts in 2020-21 (while Partnership schools and districts experience greater mobility *out* as shown above, they also experience greater mobility *in*). However, kindergarten enrollment declines were steeper in Partnership schools than elsewhere in the state, raising concerns about future enrollment and public funding. Broadly, there are three possibilities with respect to the smaller fall 2020 kindergarten cohorts. First, families may have delayed kindergarten entry. If this occurred, we would expect to see fall 2021 kindergarten enrollment increase over and above pre-pandemic levels by approximately the same rate that it decreased in fall 2020. Second, because Michigan students are not required to attend kindergarten, families could have elected to skip their children directly to first grade or they might have enrolled them in first grade in public school after a year of private kindergarten. If this occurred, we would expect to see a proportional increase in first-grade enrollment in fall 2021. Third, it is possible that students have not returned to the public school system, or at least not yet. If they did not return, kindergarten enrollment may rebound to pre-pandemic levels in fall 2021 but first-grade enrollment would decline. Of course, it could be some mixture of all three influences, resulting in some rebounding of enrollment in both the kindergarten and first-grade cohorts.

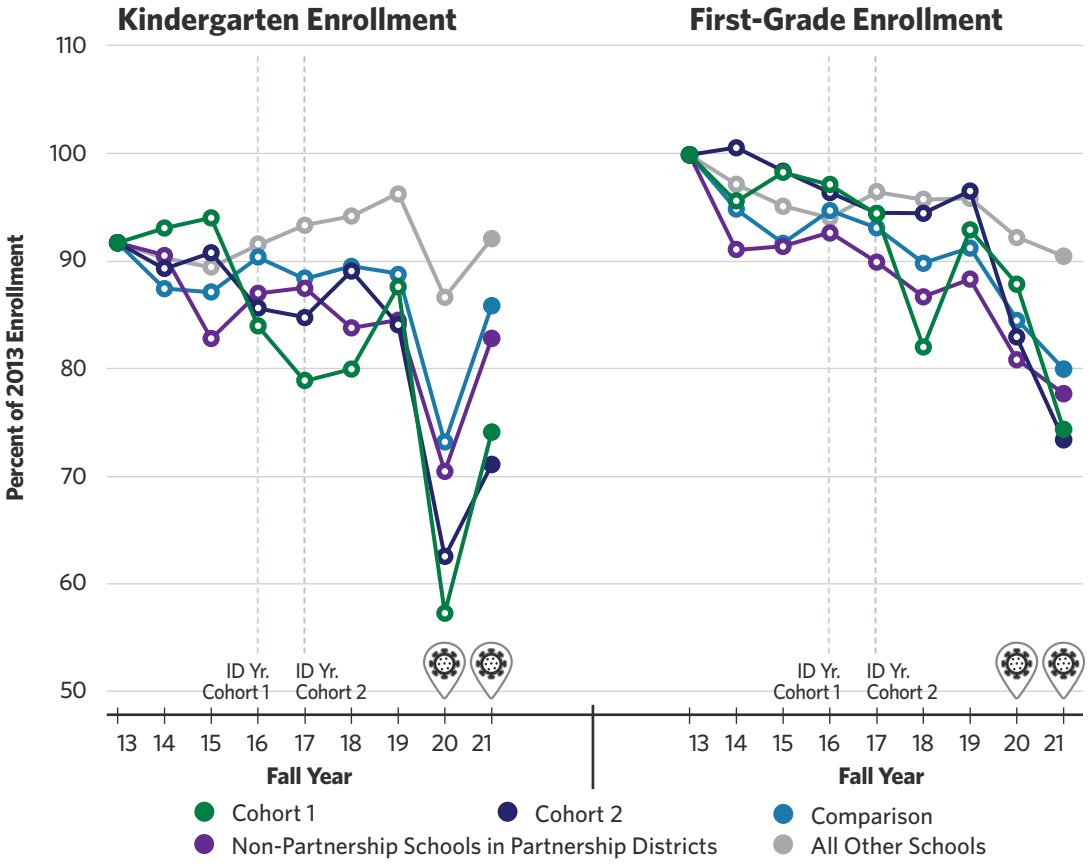
Figure 4.6 and Figure 4.7 display enrollment trends over time in Cohort 1, Cohort 2, comparison, non-Partnership schools in Partnership districts, and all other schools in the state from fall 2013 through fall 2021. We show changes in enrollment as a share of total enrollment in the 2013-14 school year to enable a clear comparison over time. These are unadjusted trends, meaning that we do not net out effects that student, school, or district characteristics might have on these longitudinal shifts in enrollment.

Missing Fall 2020 Kindergarteners Largely Did Not Return to Public Schools in Fall 2021

The first panel of Figure 4.6 shows that while kindergarten enrollment increased from fall 2020 to fall 2021, it did not climb back to pre-pandemic levels in Partnership and other low-performing schools. Kindergarten enrollment also did not surpass pre-pandemic levels in any of these groups of schools—providing evidence that the families who did not enroll their kindergarten-age students in Michigan public schools in fall 2020 did not simply delay kindergarten entry until fall 2021.

The second panel shows that first-grade enrollment, which began to decline in fall 2020, continued to shrink in fall 2021. The decrease was especially steep in Partnership and other low-performing schools. This provides evidence that families did not skip their children directly to first grade or enroll them in public school first grade after a year of private kindergarten.

FIGURE 4.6. Kindergarten and First Grade Enrollment in Partnership Schools, Districts, and Comparisons Over Time



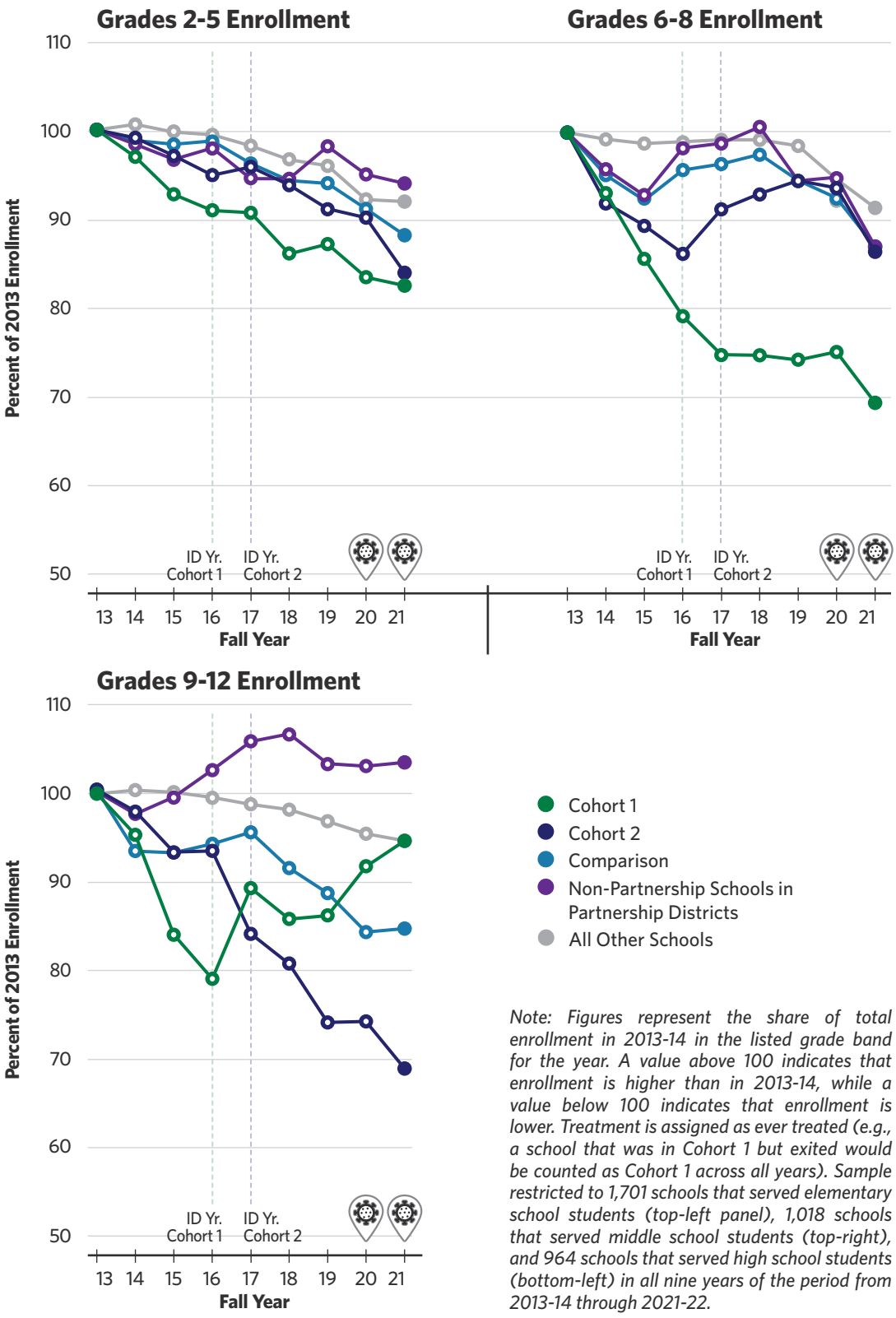
Note: Figures represent the share of total 2013-14 enrollment in the listed grade level for the year. A value above 100 indicates that enrollment is higher than in 2013-14, while a value below 100 indicates that enrollment is lower. Treatment is assigned as ever treated (e.g., a school that was in Cohort 1 but exited would be counted as Cohort 1 across all years). Sample restricted to 1,407 schools that served kindergarteners (left panel) and 1,431 schools that served first-graders (right panel) in all nine years of the period from 2013-14 through 2021-22. Placemarkers on the horizontal axis denote years affected by COVID-19.

Rather, these findings paint a bleak picture for future enrollment in Partnership and low-performing schools. Enrollment effects that many thought might be temporary as a result of health fears or avoidance of remote schooling may be longer-term, leading to more permanent declines in enrollment, especially for Partnership and other low-performing schools where the rebound in kindergarten enrollment was less complete and first-grade enrollment fell more precipitously than elsewhere in the state.

Cohort 2 Enrollment Continued to Decline in Upper Elementary, Middle, and High School Grades, While Cohort 1 High Schools Gained Enrollment During the COVID-19 Pandemic

Figure 4.7 shows that enrollment in other elementary grades, middle grades, and high schools followed less consistent patterns. Upper-elementary grade enrollment, shown in the first panel, was decreasing prior to the COVID-19 pandemic, particularly for Cohort 2 and comparison schools.

FIGURE 4.7. Grades 2-12 Student Enrollment in Partnership Schools, Districts, and Comparisons Over Time



Note: Figures represent the share of total enrollment in 2013-14 in the listed grade band for the year. A value above 100 indicates that enrollment is higher than in 2013-14, while a value below 100 indicates that enrollment is lower. Treatment is assigned as ever treated (e.g., a school that was in Cohort 1 but exited would be counted as Cohort 1 across all years). Sample restricted to 1,701 schools that served elementary school students (top-left panel), 1,018 schools that served middle school students (top-right), and 964 schools that served high school students (bottom-left) in all nine years of the period from 2013-14 through 2021-22.

This decrease continued for both sets of schools in the first full COVID-19 pandemic school year, and Cohort 2 enrollment maintained a steep decline in the second full COVID-19 pandemic school year. Cohort 1 and comparison schools, by contrast, experienced slower enrollment declines prior to the COVID-19 pandemic, and while enrollment dropped slightly in the fall of 2020, it rebounded for both sets of schools in fall 2021. This suggests that Cohort 2 schools experienced the brunt of upper-elementary enrollment decline during the COVID-19 pandemic. Other low-performing schools also continued a decline that began prior to the COVID-19 pandemic, leveling out a bit in the second school year of the COVID-19 pandemic. Upper-elementary enrollment in other schools statewide leveled off after a slight decrease in fall 2020.

The enrollment decrease from fall 2020 to fall 2021 was steeper in Partnership and other low-performing schools.

The second panel highlights that middle school enrollment decreased slightly in each group of schools in fall 2021. The decrease from fall 2020 to fall 2021 was steeper in Partnership and other low-performing schools than elsewhere in the state (about 6-7% vs. about 3% in all other schools). Cohort 1's declining enrollment in fall 2021 came after three years of relatively stable enrollment, while Cohort 2 enrollment began declining in fall 2018.

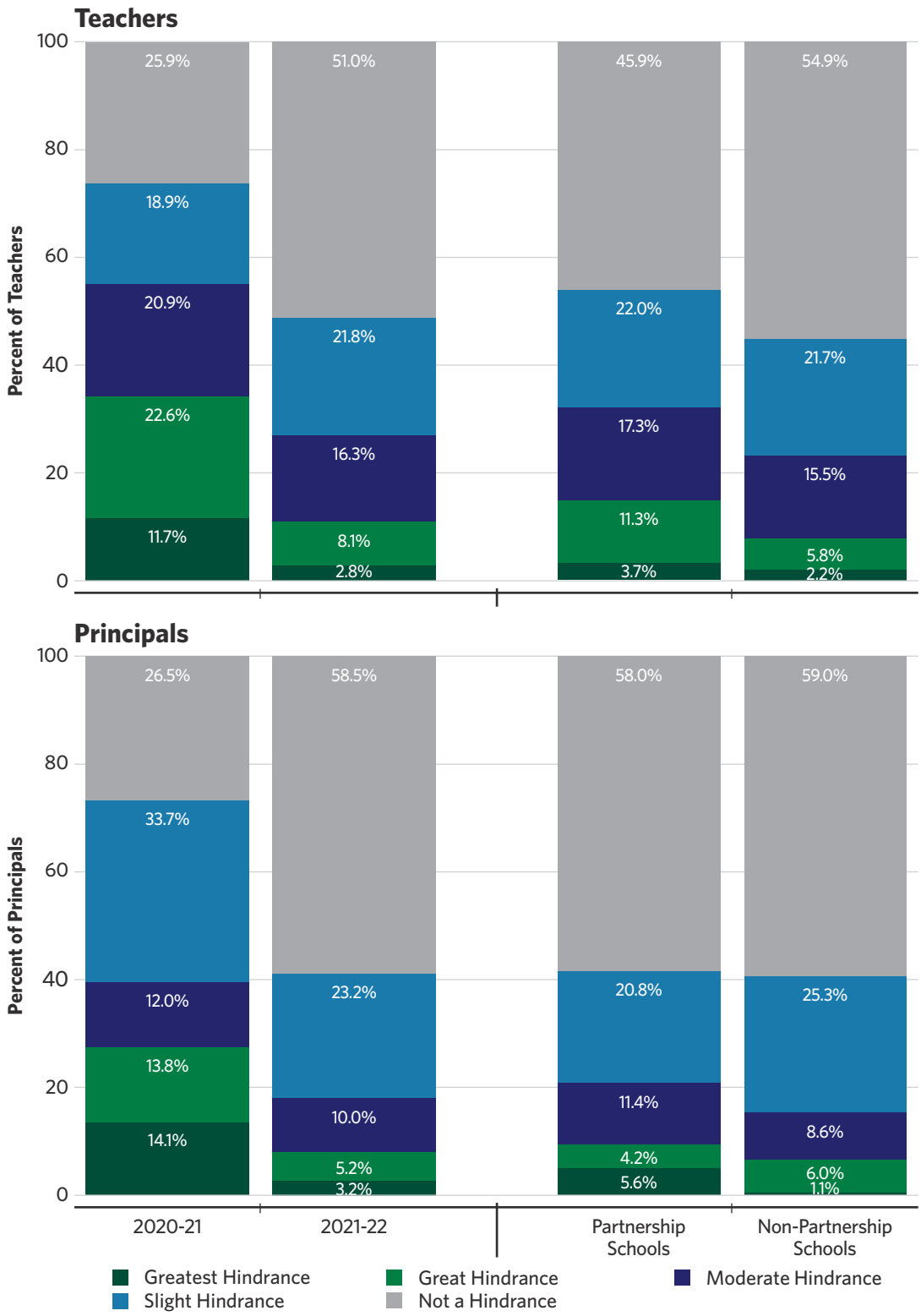
Finally, the third panel shows that high-school enrollment increased slightly in Cohort 1 after the COVID-19 pandemic hit—by about 6% from fall 2019 to fall 2020 and by about 3% from fall 2020 to fall 2021. By contrast, Cohort 2 enrollment remained flat from fall 2019 to 2020 before falling by about 5% in fall 2021. High school enrollment in comparison schools has been decreasing since fall 2017 and continued to decrease in fall 2021. In other schools in the state, high school enrollment leveled off in fall 2021 after a slight decline beginning in fall 2017.

Together, these findings underscore that COVID-19 drove enrollment declines throughout the state, and that these declines were especially problematic for Partnership schools and districts and other low-performing schools, which were already grappling with shrinking enrollment prior to the COVID-19 pandemic. Plunging kindergarten and first-grade enrollment in Partnership schools, districts, and other low-performing schools are likely to extend into older grades as the first pandemic cohort of kindergarteners age. Partnership schools and districts may continue to lose enrollment and funding along with it, and questions remain about where students who did not enroll in these schools are being educated.

Partnership District Educators Perceived Low Enrollment as Less of a Hindrance to Improvement in 2021-22 Than in 2020-21

Figure 4.8 illustrates the extent to which teachers and principals believe that low student enrollment is a hindrance to school improvement in each of the past two years. Though enrollment declines largely continued into the second COVID-19 pandemic year, the first two bars in each panel show that both teachers and principals believe low student enrollment is less of a hindrance to improvement in 2021-22 than in 2020-21. Specifically, 51% of teachers and 59% of principals report that low student enrollment is not a hindrance to improvement at all in 2021-22 compared with about one-fourth of both teachers and principals reporting that it is not a hindrance in 2020-21.

FIGURE 4.8. Partnership District Educator Perceptions of Low Enrollment as a Hindrance to Improvement Goals, by School Year and Partnership School Status



Note: Teachers and principals were asked, "To what extent is low student enrollment a hindrance to achieving your improvement goals?"

The second two bars compare perceptions in Partnership schools to those in non-Partnership schools in Partnership districts during the 2021-22 school year, highlighting that teachers in Partnership schools are more likely to report that low student enrollment is at least a moderate hindrance to improvement than are educators in non-Partnership schools (about one-third in Partnership schools vs. one-fourth in non-Partnership schools), and are less likely to report that it is not a hindrance (45% vs. 55%). While the share of principals reporting that low enrollment is not a hindrance is similar in Partnership and non-Partnership schools, a greater share of principals in Partnership schools report that low enrollment is at least a moderate hindrance (21.2%) than principals in non-Partnership schools (15.6%).

SUMMARY

This section describes student mobility and enrollment in Michigan's low-performing schools over time. We show that students in Partnership schools were less likely than students in comparison schools to transfer from their schools during the COVID-19 pandemic but more likely to leave Michigan public schools entirely. We also show that enrollment in Michigan public schools has declined over time, with steeper declines in Partnership and other low-performing schools. Declining kindergarten enrollment in Partnership schools and districts during the COVID-19 pandemic is a particular concern, as fall 2021 enrollment shows that the missing members of the fall 2020 kindergarten cohort did not enter public school in fall 2021. Despite enrollment declines largely continuing into fall 2021, Partnership district educators expressed less concern that declining enrollment would hinder school improvement in 2021-22 than in the previous school year, even though concerns were greater among Partnership school educators than their district peers in non-Partnership schools.

SECTION FOUR NOTES

1. School exits were increasing in each cohort prior to Partnership. As a result, these negative estimates represent a negative deviation from a positive trend and are driven in part by the assumption that in the absence of Partnership, exits would have continued increasing at a constant pace. Table B.1 of Appendix B provides all coefficient estimates, including the estimates on the linear trend.

2 The lost or missing student during the COVID-19 pandemic was not unique to Michigan's Partnership schools and districts, but data suggest that it was instead a national phenomenon that especially affected marginalized students (e.g., Korman et al., 2020; Litvinov, 2021; O'Keefe et al., 2021)

5

Partnership Turnaround:
Year Four Report

SECTION FIVE: STUDENT ACHIEVEMENT AND ATTAINMENT

EPIC
Education Policy
Innovation Collaborative

Section Five: Student Achievement and Attainment

As shown in the Theory of Change in Section One, the long-term goal of Michigan's Partnership Model of School and District Turnaround is to improve student outcomes. In this section, we draw on multiple sources of available data to better understand the effects of Partnership on student outcomes, including survey-based measures of educators' perceptions of student achievement, educational attainment, and student performance on standardized assessments. Whereas in previous years we examined the effect of the Partnership Model on student performance on Michigan's end-of-year standardized achievement tests, M-STEP, two interrelated factors prohibit us from doing so in this year's report. First, the federal government waived requirements for states to administer accountability testing in spring 2020 due to the COVID-19 pandemic. The U.S. Department of Education also suspended minimum participation requirements in spring 2021, resulting in low M-STEP participation rates, particularly in Partnership districts. As a result, we have no M-STEP or SAT data in 2020 and we are unable to use the data from 2021. Second, the COVID-19 pandemic gravely affected K-12 education across the country and had an outsized effect on Partnership schools and districts (see the Year Three Report and our policy brief on this topic [Hatch & Harbatkin, 2021]). We are therefore unable to parse the effects of Partnership on student outcomes from those of the COVID-19 pandemic.

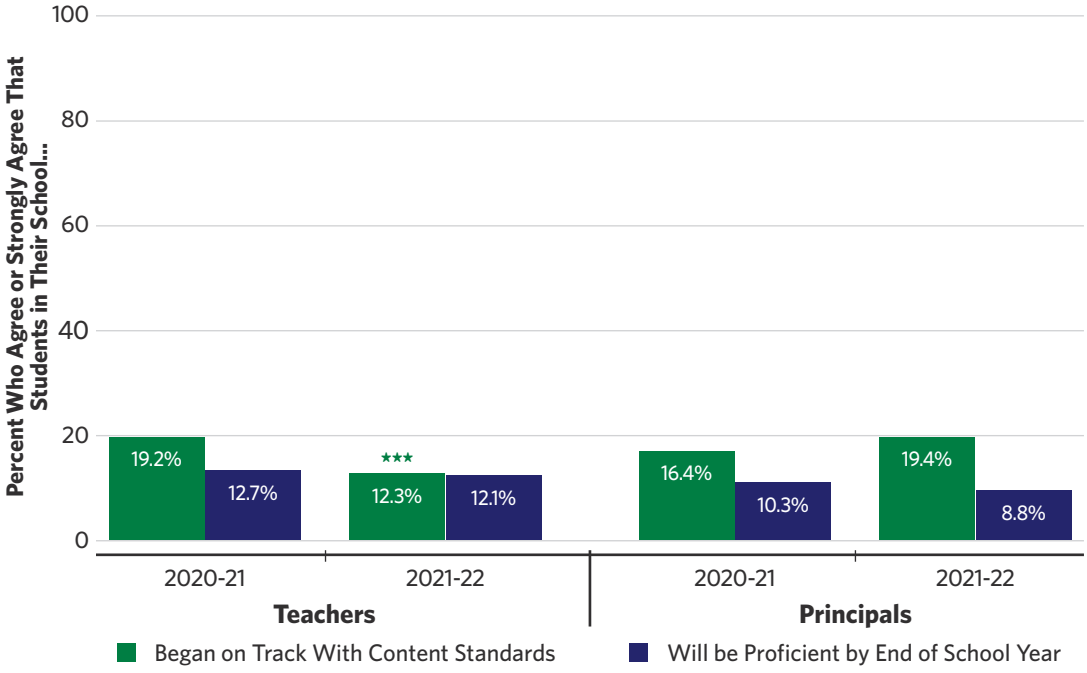
In what follows, we begin with a review of educator perceptions of student learning and the learning challenges students faced during the COVID-19 pandemic. We then draw from benchmark testing data from the 2020-21 school year to better understand student learning in Partnership districts during the largely remote 2020-21 school year. Benchmark data are a new data source this year as they only became widely available as a result of Michigan's Return to Learn legislation (2020 PA 149, 2021 PA 48) and we are not able to use M-STEP data for the reasons outlined above. Finally, we examine educational attainment in Partnership high schools, including four-year graduation rate, five-year graduation rate (new this year), and dropout rates. For each of the past two years, we interpret our results as representative of the joint effects of Partnership and COVID-19 as we work to build a better understanding of how students fared during more than two years of COVID-19 pandemic learning.

EDUCATORS WERE CONCERNED THAT STUDENTS WERE NOT ON TRACK ACADEMICALLY

To better understand educator perceptions of student preparedness and learning in each of the past two school years, we asked teachers and principals whether they believed their students began the school year on track with academic content standards and whether they expected that their students would be proficient by the end of the school year. Figure 5.1 summarizes their responses, highlighting two takeaways. First, in each of the past two years, few teachers and principals believed

that their students began the school year on track with content standards and would end the year proficient (statistically significant for teachers). Second, fewer educators believed in 2021-22 than in 2020-21 that their students would be proficient by the end of the school year.

FIGURE 5.1. Partnership District Educator Agreement That Students Began on Track and Would Be Proficient by the End of the School Year, Past Two Years

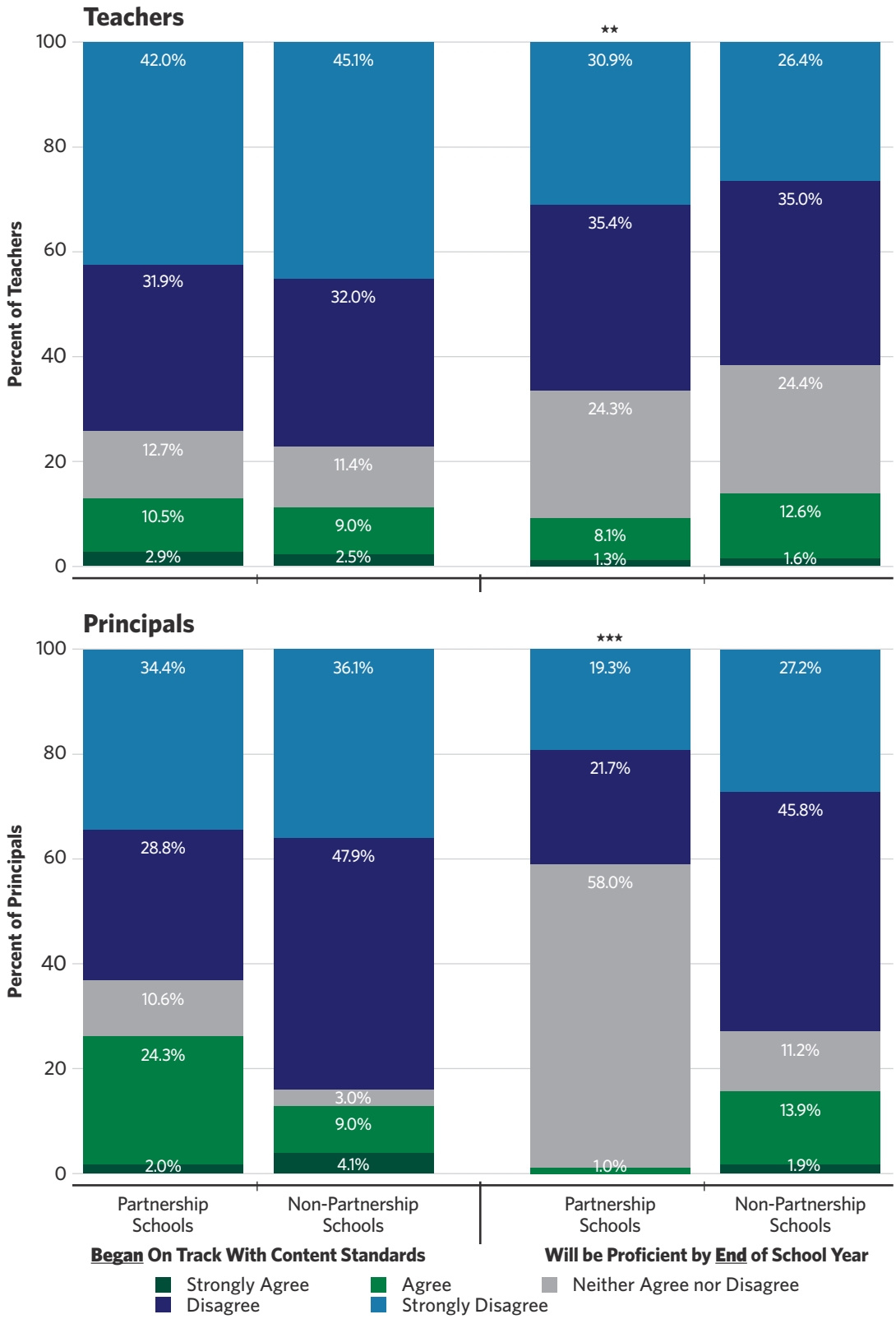


*Note: Teachers and principals were asked, "To what extent do you agree with each of the following statements?" Statements included: "Students in this school began this school year on track with content standards" and "By the end of the school year, students in this school will be proficient in content standards." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree." Significance stars denote statistical significance of corrected F-tests comparing probability of agreeing or strongly agreeing in 2020-21 relative to 2021-22 for each of the two items. *** p<0.001, **p<0.01, *p<0.05, +p<0.10*

Teachers and principals in Partnership schools were even less likely than their district peers in non-Partnership schools to report that their students would end the year proficient. Figure 5.2 shows that while educators (both teachers and principals) in Partnership schools shared similar perspectives on whether their students began the school year on track, only 9% of Partnership school teachers and 1% of Partnership school principals agreed or strongly agreed that their students would be proficient by the end of the school year. By comparison, 14% of both teachers and principals in non-Partnership schools in Partnership districts believed their students would be proficient by the end of the school year.

While we cannot tell from our data whether these perceptions are related to COVID-19 pandemic or other factors (a lesser share of students in Partnership schools than non-Partnership schools in Partnership districts were proficient prior to the COVID-19 pandemic), the fact that significant differences emerge for end-of-year proficiency but not beginning-of-year on-track status points to greater concern among Partnership school educators about unmet learning needs. Additionally, the large share of Partnership school principals responding with "neither agree nor disagree" may underscore a level of uncertainty that was especially pronounced in Partnership schools.

FIGURE 5.2. Partnership District Educator Agreement That Students Began on Track and Would Be Proficient by the End of the School Year, by Partnership School Status, 2021-22

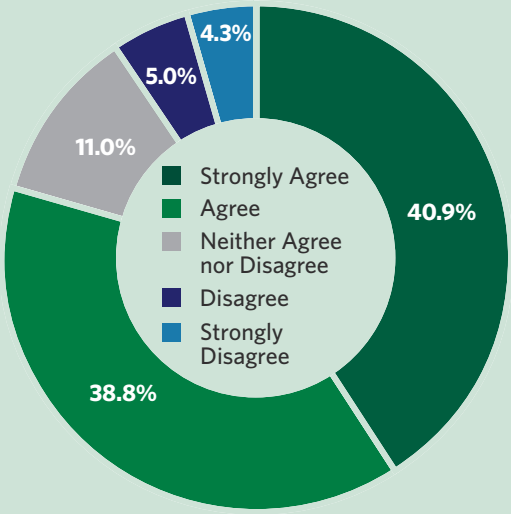


*Note: Teachers and principals were asked, "To what extent do you agree with each of the following statements?" Statements included: "Students in this school began this school year on track with content standards" and "By the end of the school year, students in this school will be proficient in content standards." Significance stars denote statistical significance based on corrected F-test on distribution of responses comparing educators in Partnership and non-Partnership schools. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10*

Teachers in both Partnership and non-Partnership schools in Partnership districts attributed at least some of their students' challenges to the COVID-19 pandemic. In particular, Figure 5.3 shows that across Partnership districts, 80% of teachers agreed or strongly agreed and fewer than 10% disagreed that their students were struggling academically this year due to pandemic-related interruptions to learning.

Together, these findings show that educators across Partnership districts believed their students' learning was disrupted due to the COVID-19 pandemic, not only during the 2020-21 school year, but also in 2021-22, and that educators struggled to fully overcome pandemic-induced interruptions to learning during the 2021-22 school year. As we show in Section Three, these challenges came against a backdrop of school building closures, high student absenteeism, extensive COVID-19 spread, shifts between learning modalities, and many out-of-school factors that may permeate the school building. Challenges were evident across Partnership districts but even more pronounced in Partnership schools.

FIGURE 5.3. Partnership District Teachers Agree that Students in Their School Are Struggling with Academic Content Due to Pandemic-Related Interruptions to Learning, 2021-22



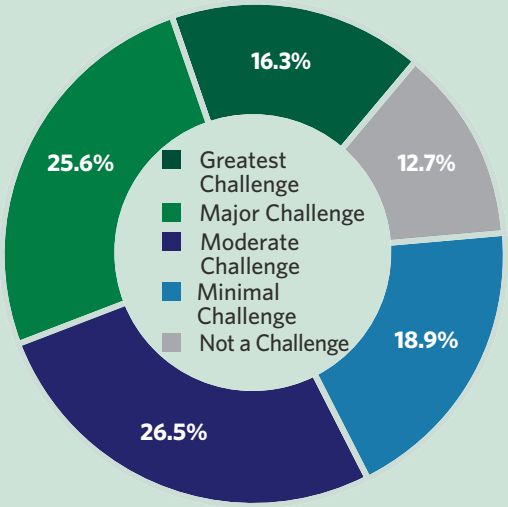
Note: Teachers were asked, "To what extent do you agree with each of the following statements?" The segments show the percent of teachers who chose each response option to the statement "Students in this school are struggling with academic content given pandemic-related interruptions to learning." This question was asked to teachers only in 2021-22.

In addition to pandemic-related interruptions during the 2021-22 school year, students entered the school year with disparate levels of preparation resulting from inequitable access to and take-up of in-person instruction during the 2020-21 school year, as well as differences in resources that may have enabled some more affluent families to supplement instruction (Belsha, 2022; Chalkbeat Staff, 2022; Hopkins et al., 2021; Strunk et al., 2021). These disparities created new challenges for teachers working to accelerate learning and support all students in meeting grade-level content standards (Belsha, 2022).

Educators across Partnership districts struggled to overcome pandemic-induced interruptions during the 2021-22 school year.

In particular, Figure 5.4 shows that teachers felt it was acutely difficult to differentiate instruction for students with disparate academic needs during the 2021-22 school year. Fewer than 13% of teachers reported that differentiating instruction was *not* a challenge in the

FIGURE 5.4. Partnership District Teacher Reports That Differentiating Instruction Was a Challenge in the Classroom, 2021-22

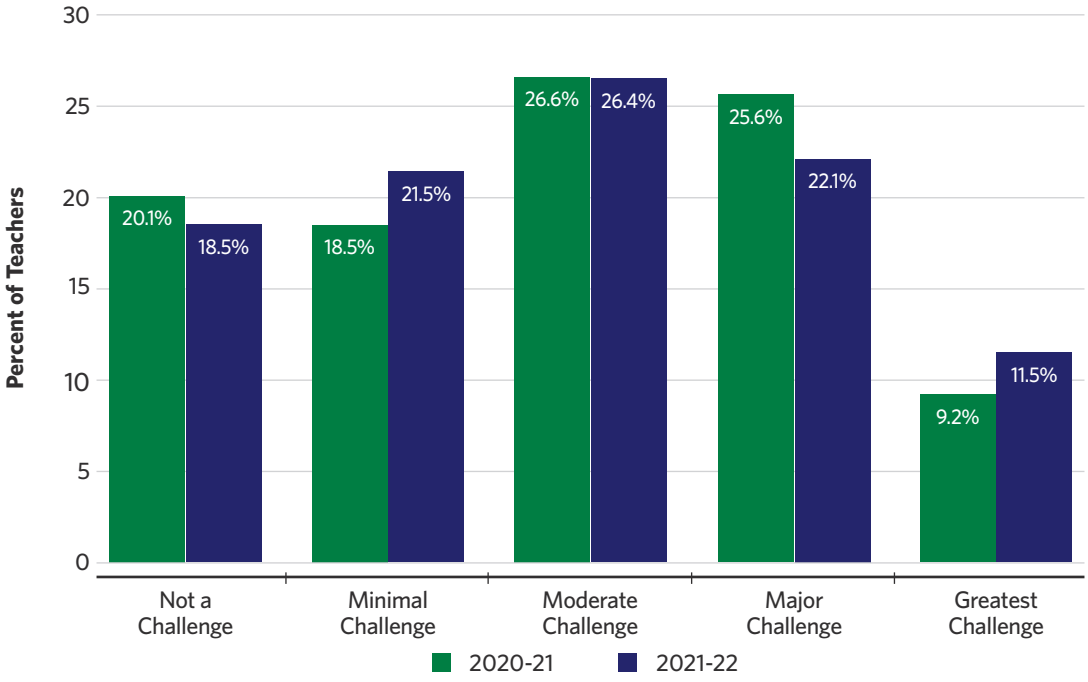


Note: Teachers were asked, "To what extent have each of the following been challenges for you in the classroom this school year?" The segments show the percent of teachers who chose each response option to the statement, "Differentiating instruction for students with disparate academic needs stemming from the COVID-19 pandemic."

2021-22 school year whereas more than 4 in 10 teachers reported differentiating instruction was a major or the greatest challenge in the classroom this year, second only to educating students who did not consistently attend class (as described in Section Three).

Teachers believed maintaining instructional continuity across modalities was the next greatest classroom challenge after differentiating instruction. Figure 5.5 summarizes Partnership district teacher perceptions of maintaining instructional continuity as a challenge in each of the past two years. In each year, most teachers reported that maintaining instructional continuity was at least a minimal challenge and about one-third reported that it was a major or the greatest challenge in the classroom. Here, the bars on either end of the graph also underscore differences between the two school years. In particular, the share reporting that maintaining instructional continuity was *not* a challenge decreased from 20% to 18.5% while the share reporting that it was the *greatest* challenge increased from 9% to 11.5%. These changes highlight new difficulties that emerged in 2021-22 related to individual, class, and school quarantines as described in Section Three.

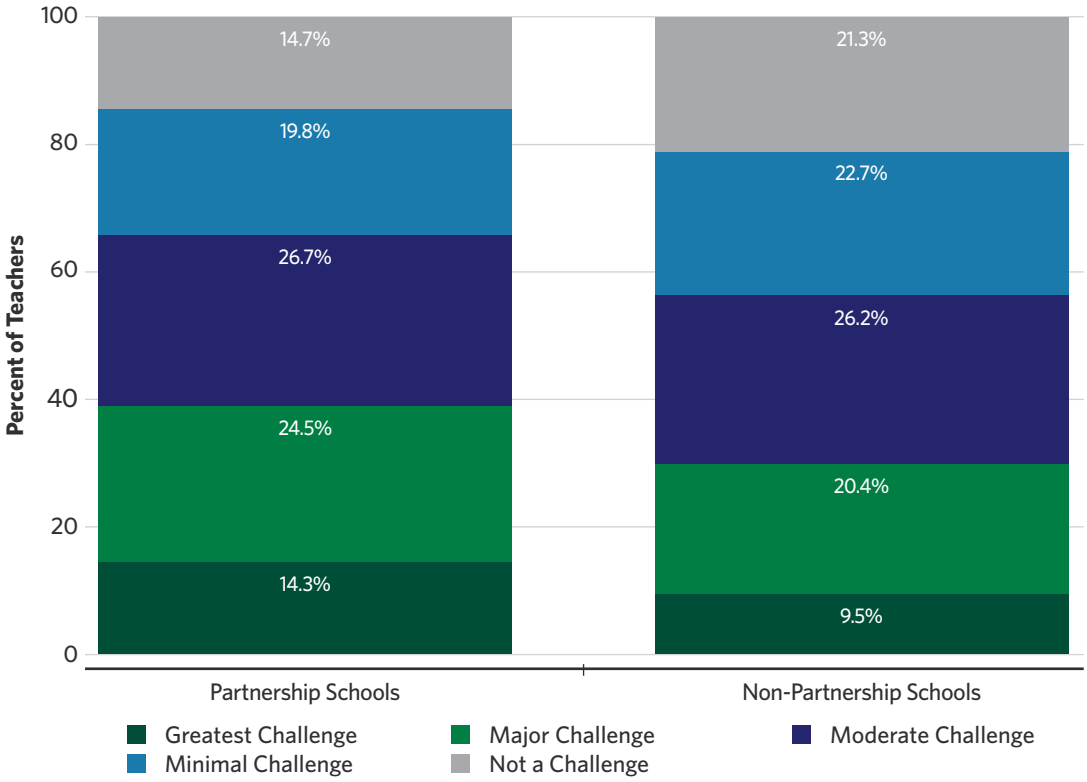
FIGURE 5.5. Partnership District Teacher Perceptions of Maintaining Instructional Continuity Across Shifting Modalities as a Challenge, Past Two Years



Note: Teachers were asked, "To what extent have each of the following been challenges for you in the classroom this school year?" Bar heights represent the percent of teachers who chose each response option to the statement, "Maintaining instructional continuity (e.g., with planned and unplanned shifts between in-person and online, with some students virtual and others in person, with hybrid instruction)." This question was asked to teachers only. Survey-corrected F-test finds that differences in the distributions between the two years are statistically significant (p<0.05).

Teachers in Partnership schools reported more pronounced challenges than their non-Partnership school counterparts. Figure 5.6 shows that Partnership school teachers were about 30% (9 percentage points) *more* likely than non-Partnership school teachers to report that maintaining instructional continuity across modalities was a major challenge or the greatest challenge in the classroom this school year and about 30% (7 percentage points) *less* likely to report that it was not a challenge. These differences underscore the likelihood that pandemic-related challenges were even greater in Partnership schools than non-Partnership schools in their same districts.

FIGURE 5.6.Partnership District Teacher Reports of Maintaining Instructional Continuity Across Shifting Modalities as a Challenge, by Partnership School Status, 2021-22



Note: Teachers were asked, "To what extent have each of the following been challenges for you in the classroom this school year?" Bar heights represent the percent of teachers in Partnership and non-Partnership schools in Partnership districts, respectively, who chose each response option in the 2021-22 school year to "Maintaining instructional continuity (e.g., with planned and unplanned shifts between in-person and online, with some students virtual and others in person, with hybrid instruction)." This question was asked to teachers only. Corrected F-tests find that the distributions are significantly different and the difference in probability of reporting a major or the greatest challenge is statistically significant (p<0.01).

BENCHMARK GROWTH WAS SLOW, BUT SLIGHTLY BETTER IN PARTNERSHIP DISTRICTS THAN IN SIMILAR DISTRICTS

In the absence of M-STEP data from the 2019-20 and 2020-21 school years, we examine performance on benchmark exams administered at the beginning and end of the 2020-21 school year. As described in Section Two, we are only able to compare Partnership and non-Partnership districts using district-level data as we do not have access to student-level data for these analyses. Figure 5.7 provides regression results separately for both Curriculum Associates' i-Ready assessment and NWEA's MAP Growth assessment—the only two benchmark assessments administered in Partnership districts.

On average, unadjusted means show that Partnership districts made smaller fall-to-spring gains in both math and reading than non-Partnership districts, bearing out the interrupted learning that characterized the 2020-21 school year—especially in Partnership districts. However, regression estimates that control for district demographics and prior achievement suggest that Partnership districts fared similarly to, and in some cases better than, districts that were demographically and academically similar. This is particularly the case in reading, which may reflect Partnership districts' explicit focus on literacy (see Section Six).[1]

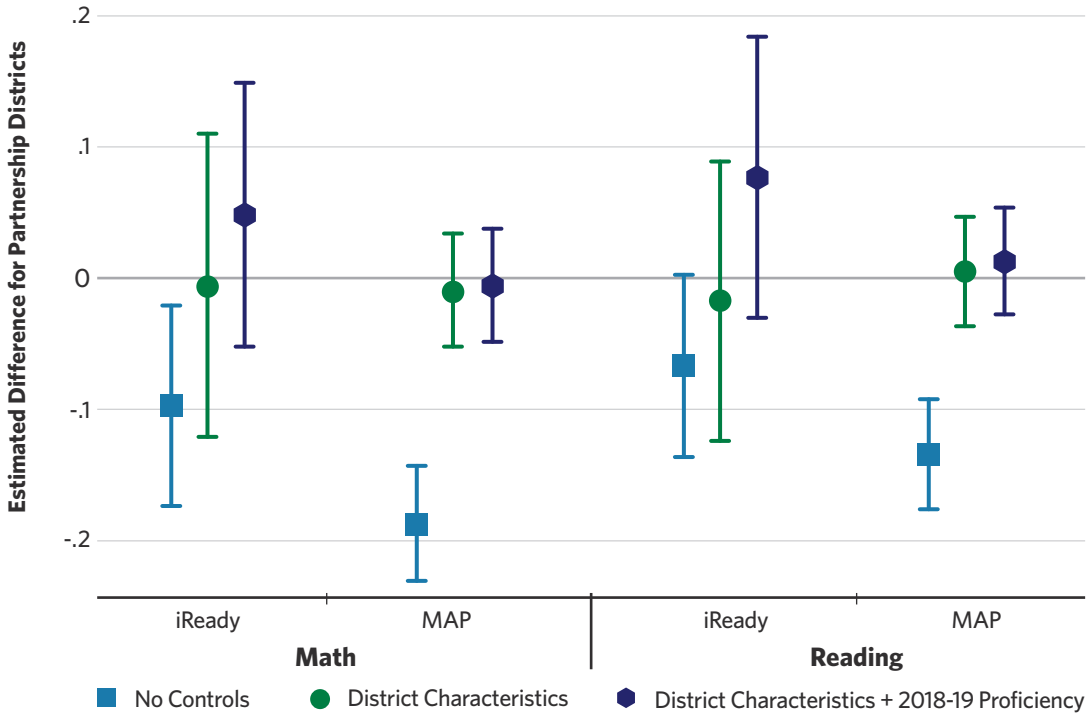
HOW TO INTERPRET FIGURE 5.7

Figure 5.7 displays the descriptive regression estimates from equations 1–4 shown in Section Two. Markers represent coefficient estimates and spikes denote 95% confidence intervals. As in the case of the difference-in-differences plots described in Section Four, when the 95% confidence intervals overlap with the zero line on the vertical axis, the estimate is not statistically significant at conventional levels (i.e., $p>0.05$). When both the upper and lower bound are above or below the zero line, the estimate is statistically significant ($p<0.05$). In each panel, the first marker provides the estimated difference between Partnership and non-Partnership districts without controlling for district demographics or prior achievement, the second provides the estimated difference when controlling for district demographics, and the third provides the estimated difference after controlling for district demographics and prior district proficiency.

In interpreting these estimates, it is important to note three caveats. First, the estimates are based on district-level data and therefore apply the Partnership designation to the entire district—regardless of the number of Partnership schools or students in that district. Second, districts selected their own benchmark exams and the sample for each estimate necessarily draws on just those districts using the i-Ready and MAP exams, respectively. Finally, there are a limited number of Partnership districts and the estimates therefore rely on a limited treatment group as described in Section Two. This is particularly true for i-Ready, as only four Partnership districts used the i-Ready assessment. As a result, the i-Ready estimates are based only on these four Partnership districts and a comparison group made up of non-Partnership districts using i-Ready.

Together, these findings highlight two important takeaways. First, students in Partnership districts suffered substantial learning disruption, as districts struggled with high COVID-19 spread, disparate health and economic consequences of the COVID-19 pandemic, and instructional challenges (Strunk et al., 2021). Second, however, students and educators in Partnership districts made extraordinary efforts to contend with these challenges and ultimately made similar and, in some cases, greater gains than demographically and academically similar non-Partnership districts during the 2020-21 school year.

FIGURE 5.7. Partnership District Benchmark Performance, 2020-21

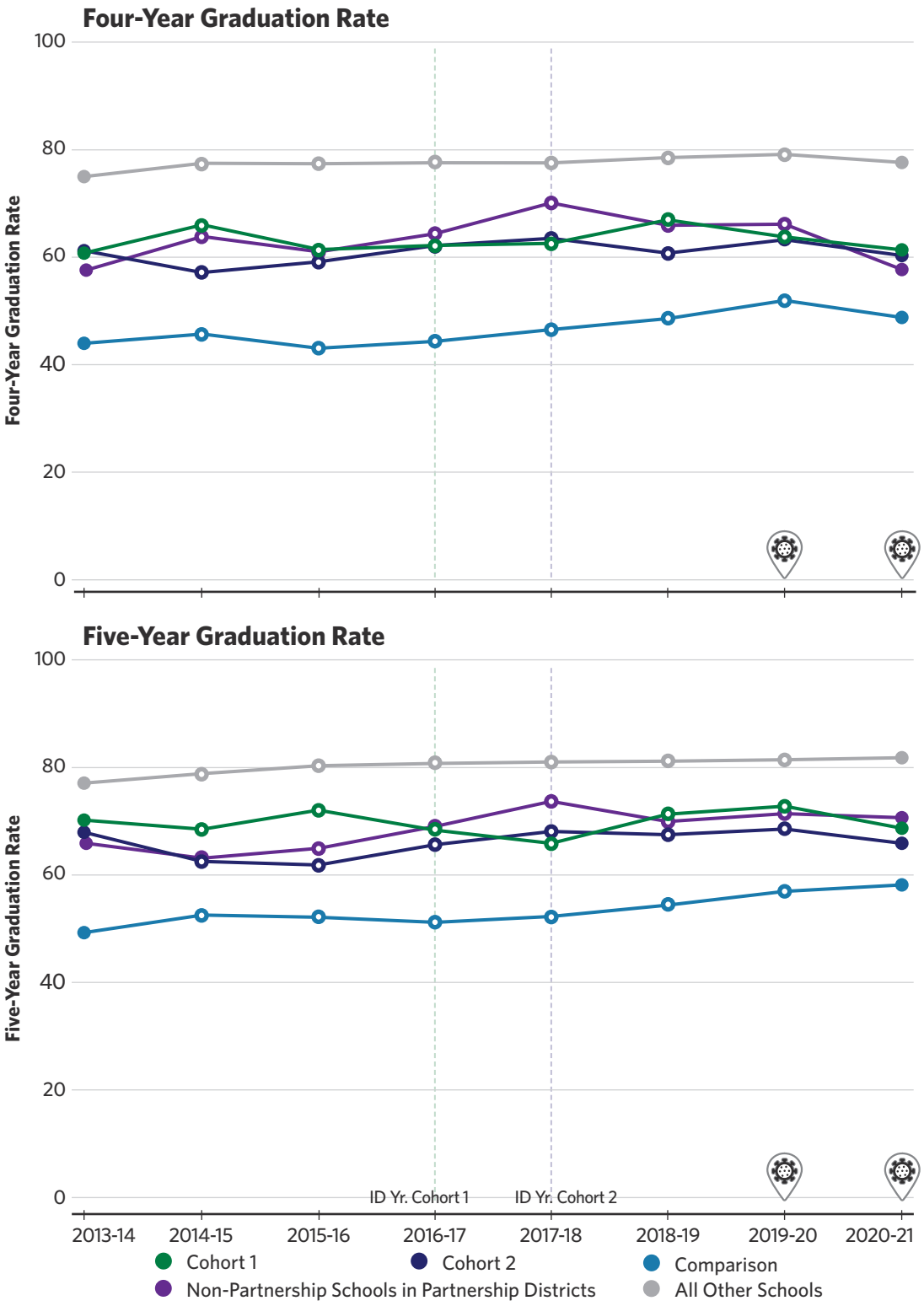


Note: Markers represent coefficient estimates from regressions of district average spring benchmark scores on fall benchmark scores for the i-Ready and MAP exams. All models include grade fixed effects. District characteristics include the 2020-21 district share of students who were economically disadvantaged, special education, English learners, Black, Hispanic or Latino/a/x, and other race or ethnicity, as well as a quadratic function of enrollment. 2018-19 proficiency is share of students in the district who scored proficient or above in math (math models) or ELA (reading models) on the M-STEP in 2018-19.

EARLY PROGRESS ON GRADUATION RATES STALLED DURING THE COVID-19 PANDEMIC

While we do not have benchmark data for high school grades and SAT participation rates were especially low in Partnership schools in 2020-21, we are able to observe educational attainment in each school year from 2013-14 through 2020-21. Figure 5.8 details the school-level average four-year (top panel) and five-year (bottom panel) graduation rates for Cohort 1 and Cohort 2 Partnership schools, near-selected comparison schools, non-Partnership schools in Partnership districts, and all other schools in Michigan.

FIGURE 5.8. Average School-Level Four- and Five-Year Graduation Rates in Partnership Schools, Districts, and Comparisons Over Time



Note: Data are calculated with the average school-level graduation rate for each group using the state's definition of four- and five-year graduation rate. Schools with graduation cohorts of fewer than 30 students are excluded from the sample. Placemarkers on the horizontal axis denote school years affected by the COVID-19 pandemic.

The first panel highlights three main findings. First, both prior to and during the intervention, both cohorts of Partnership schools, non-Partnership schools in Partnership districts, and near-selected comparison schools have had substantially lower graduation rates than other schools in the state. Second, Cohort 1 four-year graduation rates appeared to be increasing in each of the first two years of Partnership before declining at the end of the 2019-20 school year, the first COVID-19 pandemic year. This is not unique to Michigan; reports from elsewhere in the country show declining four-year graduation rates in other states (Barnum et al., 2022; Harris & Chen, 2022). Cohort 2 schools did not show the same early progress, and graduation rates rebounded slightly in 2019-20 after a slight dip in 2018-19. Third, graduation rates declined in 2020-21 across all schools, but most prominently in Partnership schools, districts, and comparison schools; in other words, the COVID-19 pandemic appeared to diminish graduation rates most starkly in the schools and districts that were already lowest performing.

The second panel shows that five-year graduation rates followed mostly similar patterns, though Cohort 1 five-year graduation rates did not begin to increase until the second year of Partnership implementation. Declines in 2020-21 were most pronounced among Partnership schools, with Cohort 1 five-year graduation rates decreasing by nearly 6% from the first COVID-19 pandemic year and 4% from 2018-19, and Cohort 2 five-year graduation rates decreasing by about 4% from the first COVID-19 pandemic year and 2% from 2018-19.

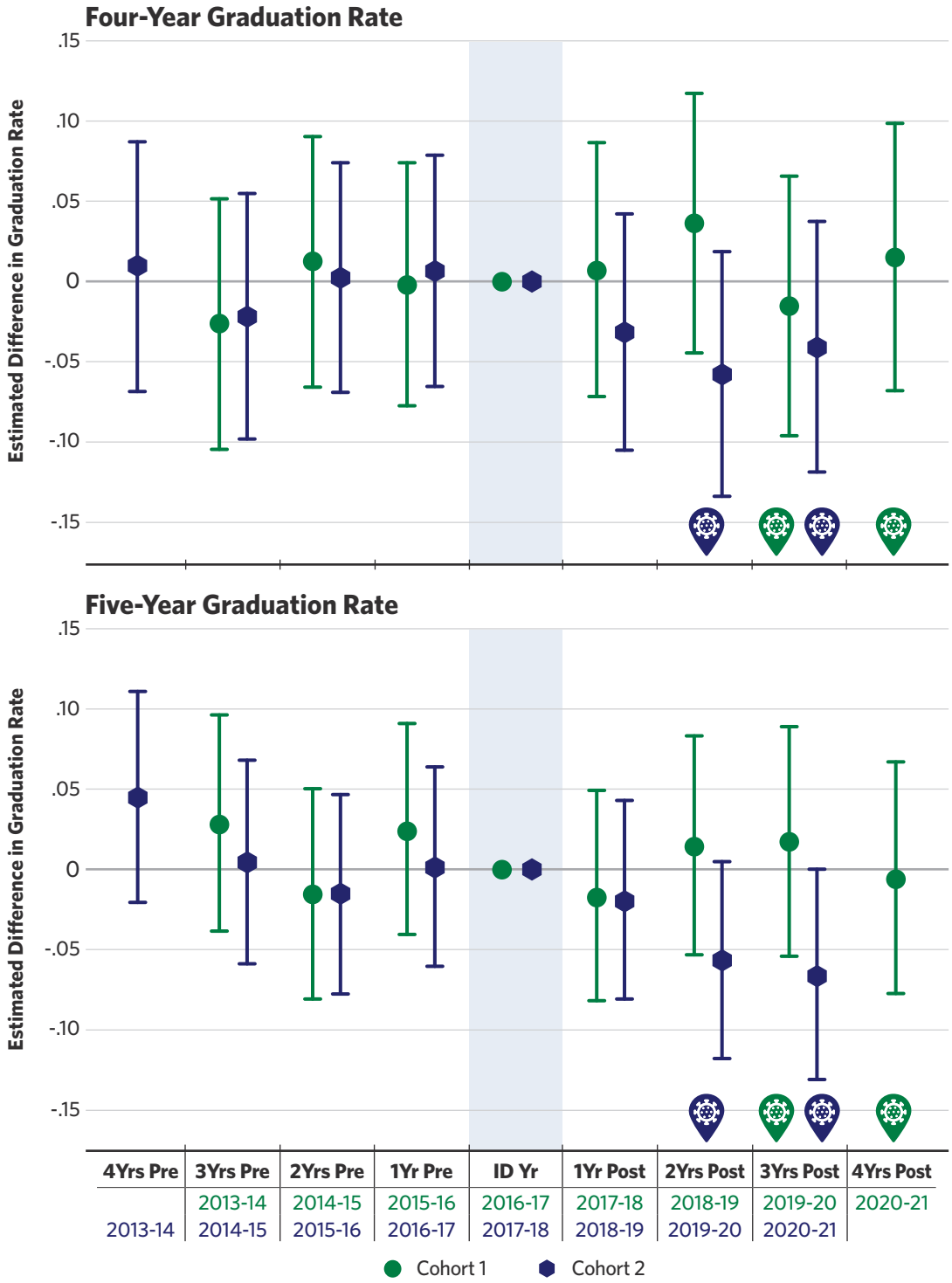
We move next to findings from event study models, which provide causal effects of the Partnership Model on school-level graduation rates. Figure 5.9 illustrates these event study findings, again with four-year graduation rate at the top panel and five-year graduation rate at the bottom.

HOW TO INTERPRET FIGURE 5.9

Figure 5.9 displays the descriptive regression estimates from Equation 5 described in Section Two. Markers represent coefficient estimates and spikes denote 95% confidence intervals. The horizontal axis shows the number of years before or after the cohort's identification year, with the identification year shaded gray. Because the two cohorts implemented on a different timeline, each relative year for Cohort 1 reflects a different calendar year than the same relative year for Cohort 2. To ease in interpretation, we therefore include the calendar year associated with each relative year in green for Cohort 1 and blue for Cohort 2. The COVID-19 markers denote school years that were affected by COVID-19, again in green for Cohort 1 and blue for Cohort 2.

These estimates represent the difference in deviation from the Partnership identification year (2016-17 for Cohort 1 and 2017-18 for Cohort 2) for Partnership schools relative to a set of similar comparison schools (see Section Two for more detail). The estimates to the left of the zero line on the horizontal axis represent pre-Partnership differences. Here, estimates close to zero provide evidence that comparison schools followed similar pre-identification trends to Partnership schools and therefore provide a reasonable counterfactual in the model. The estimates to the right of the zero line provide the estimated effects of the Partnership Model—and in later years, the Partnership Model and COVID-19—on school-level graduation rates.

FIGURE 5.9. Event Study Estimates of the Effect of Partnership on Four- and Five-Year Graduation Rates



Note: Markers denote coefficient estimates on interaction between Partnership cohort and year indicator in the event study model. Spikes represent 95% confidence intervals. Schools with high school cohorts of fewer than 30 students are excluded from the sample. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic for each cohort (Cohort 1 in green and Cohort 2 in blue).

The first panel shows that Cohort 1 graduation rates increased slightly in the first two years before declining during the COVID-19 years, mirroring the descriptive patterns in Figure 5.8, though these estimates are not statistically significant. Cohort 2 graduation rates were lower in each treated year than the identification year, though again the estimates are not statistically significant.

The second panel shows evidence of a stronger negative effect on five-year graduation rates in Cohort 2 schools relative to comparison schools during the COVID-19 pandemic. Specifically, school-level five-year graduation rates declined by 5.6 percentage points (marginally significant at $p<0.10$) in 2019-20 and 6.5 percentage points (again marginally significant at $p<0.10$) in 2020-21 in Cohort 2 schools relative to comparison schools. These estimated effects appear to be driven in part by increasing five-year graduation rates among comparison schools paired with stagnating-to-decreasing graduation rates in Cohort 2 schools (apparent in Figure 5.8). We do not observe effects on five-year graduation rates in Cohort 1 schools.

The COVID-19 pandemic appeared to diminish graduation rates most starkly in the schools and districts that were already lowest performing.

While not shown here, we also estimated the effects of Partnership and the COVID-19 pandemic on dropout rates. Findings mirrored the four-year graduation rate findings. Specifically, the Cohort 1 dropout rate decreased slightly in the first two years of implementation and then changed very little during the COVID-19 pandemic. The Cohort 2 dropout rate remained relatively flat through the intervention.

SUMMARY

This section describes student outcomes and educator perceptions of student progress as of the 2021-22 school year and the joint effect of Partnership and the COVID-19 pandemic. We find that in both 2020-21 and 2021-22, very few educators believed that their students began the year on track with academic content standards and would end the year proficient. Educators believed that their efforts were inhibited by a variety of instructional challenges, especially challenges maintaining instructional continuity across modality shifts and differentiating instruction. Benchmark assessment data from the 2020-21 school year shows that students in Partnership districts made fewer gains than their peers in non-Partnership districts but made similar and in some cases slightly greater gains than students in districts that were similar on demographics and prior achievement. Finally, after two years of small increases in Cohort 1 graduation rates prior to the COVID-19 pandemic, graduation rates declined in each year affected by the COVID-19 pandemic. Cohort 2 graduation rates remained largely flat throughout Partnership implementation and five-year graduation rates showed a marginally significant decline relative to comparison schools.

SECTION FIVE NOTES

1. We also run a model that controls for the number of months during the 2020-21 school year in which districts operated fully remotely, as well as an indicator for whether a Partnership school was fully virtual before the COVID-19 pandemic. We do not observe meaningful differences after controlling for the number of fully remote months, though the coefficient estimate on the remote variable is negative and statistically significant as in other analyses of these benchmark data (Kilbride et al., 2021). Specifically, we find that each additional remote month is associated with a decrease of approximately 0.02–0.03 standard deviations in math and 0.01–0.02 standard deviations in reading. Multiplied over nine months of school, this translates into substantively large losses—with declines as great as 0.27 standard deviations in math and 0.18 standard deviations in reading for districts that were remote for the entire school year. Reliance on remote learning, however, did not appear to affect learning in Partnership districts over and above the controls already in the model. Tables of regression coefficients include from models that incorporate months remote are in Appendix B.

Partnership Turnaround:
Year Four Report

SECTION SIX: A FOCUS ON ACADEMICS, CULTURE, AND CLIMATE

EPIC
Education Policy
Innovation Collaborative

Section Six:
A Focus on Academics, Culture, and Climate

Prior to the COVID-19 pandemic, as shown in our first two years of study, Partnership districts were working to strengthen both academics and their schools' and districts' culture and climate. These are both key elements to school and district success and are important predictors of effective turnaround. Our Year Three Report highlights pandemic-related challenges that affected Partnership improvement efforts and stymied progress made towards improving academic outcomes. However, educators in Partnership districts acknowledged that school and district leaders were working to improve culture and climate, even during the difficult 2020-21 school year. In this section, we examine the extent to which Partnership schools and districts maintained focus on academics, culture, and climate, noting where educators highlighted sustained or increased focus on these areas of improvement, and where they reported providing services beyond those related to academics, climate, and culture.

In each year of EPIC's evaluation thus far, we have asked Partnership district teachers and principals about the areas on which they perceive their schools and districts have placed the greatest focus. Possibilities presented to them ranged from teacher and student attendance and behavioral interventions to student and staff mental health, covering many areas shown in the literature to be important for school and district improvement. In each year, principals and teachers reported that they consistently have prioritized academics, climate, and culture.

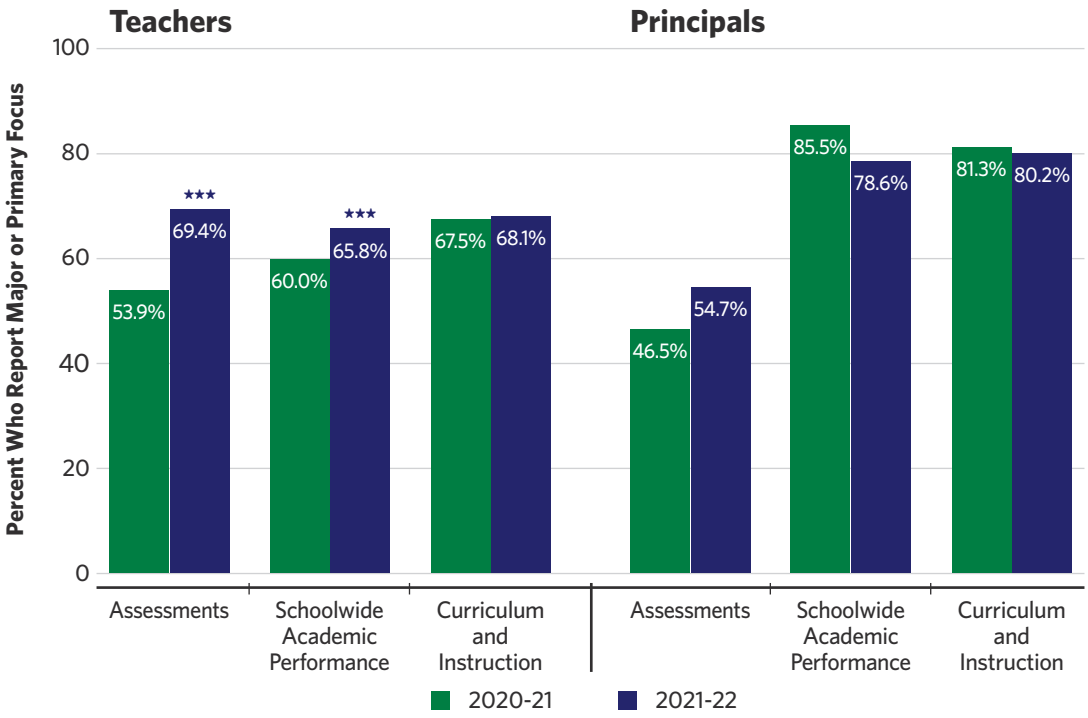
PARTNERSHIP SCHOOLS MAINTAINED THEIR FOCUS ON ACADEMICS DURING THE 2021-22 SCHOOL YEAR

Figure 6.1 shows principals' and teachers' responses to just those survey items related to academic performance in both full COVID-19 pandemic-affected school years (2020-21 and 2021-22). The sets of bars in each panel highlight three key areas of academic focus: assessments, schoolwide academic performance, and curriculum and instruction. Approximately two-thirds of teachers and over 80% of principals believed that their schools placed a major or primary focus on curriculum and instruction and schoolwide academic performance in both of the pandemic-affected school years. As in years past, principals are more likely to report attention to these areas of focus.

With Return to "Normal" Standardized Testing, Schools Have Resumed Strong Focus on Assessments in 2021-22 School Year

Whereas, in Figure 6.1, we see little change in attention to academic performance and curriculum and instruction across the two years, we see a marked increase in attention paid to assessments during the 2021-22 school year, relative to the year prior. Notably, 69% of teachers and 55% of principals reported that assessments were a major or primary focus during the 2021-22 school year, up from 54% and 47%, respectively, from 2020-21.

FIGURE 6.1. Partnership District Educator-Reported School Focus on Items Related to Academics, Past Two Years



*Note: Teachers and principals were asked, "To what extent are each of the following areas a focus in your school?" Response options were "not a focus," "a minor focus," "a moderate focus," "a major focus," or "a primary focus." *** p<0.001, ** p<0.01, * p<0.05, + p<0.10*

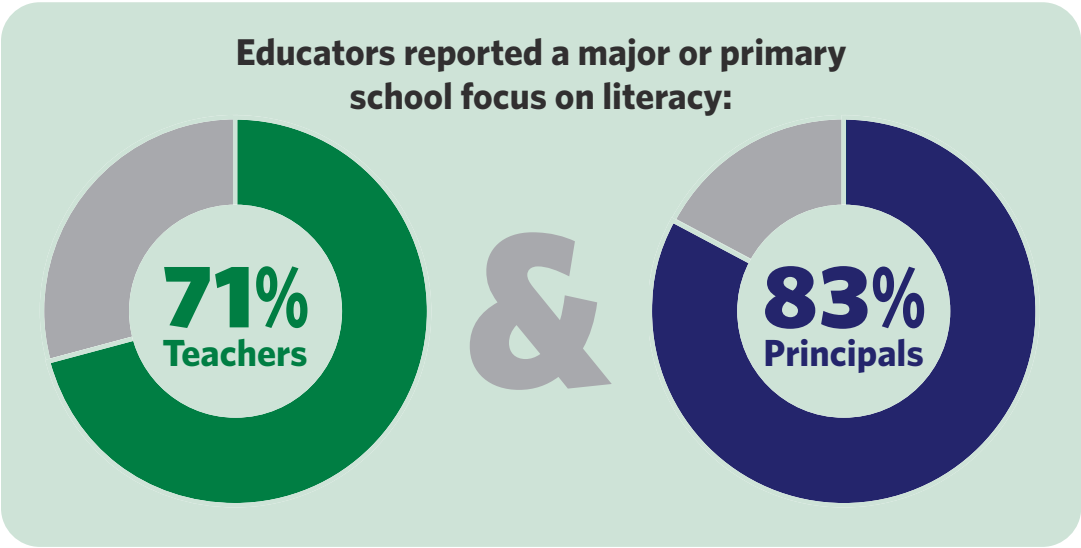
This increased attention to assessments is likely attributable to the resumption of M-STEP standardized testing in the 2021-22 school year after such assessments had been paused early in in spring 2020 and when schools and districts were not held accountable for M-STEP participation in spring 2021 (resulting in quite varied and low participation rates, with only 23% of students in Partnership districts taking the M-STEP in that year). With the return of "normal" end-of-year standardized testing, Michigan also resumed its attention to accountability initiatives that rely on M-STEPs, including individual student-level accountability (e.g., through the Read by Grade Three Law that identifies third-grade students for retention if they score below a specified cut-point on the third-grade ELA M-STEP), teacher-level accountability (e.g., through the state's teacher evaluation law), and school- and district-level accountability (e.g., the A-F Accountability System, the resumption of federal accountability under the ESSA). Even though the state legislature

entertained proposals to continue to pause at least state-initiated accountability systems during the 2021-22 school year, at the time of writing no action has been taken to do so. Thus, the resumption of test-based accountability during the 2021-22 school year may have contributed to the reported increase in attention to assessments.

Educators Report a Strong Focus on Literacy but Underscore Room for Improvement

Partnership educators perceive that their schools prioritize academic performance and instruction. As in other states (Cummings et al., 2021; Cummings & Turner, 2020; Lovejoy et al., 2013), Michigan emphasizes the need for strong literacy instruction in all schools and, in particular, in schools and districts that have historically struggled the most with student literacy. It is unsurprising then that 71% of Partnership district teachers and 83% of Partnership district principals believed that literacy instruction was a major or primary focus for their schools during the 2021-22 school year, shown in Figure 6.2.

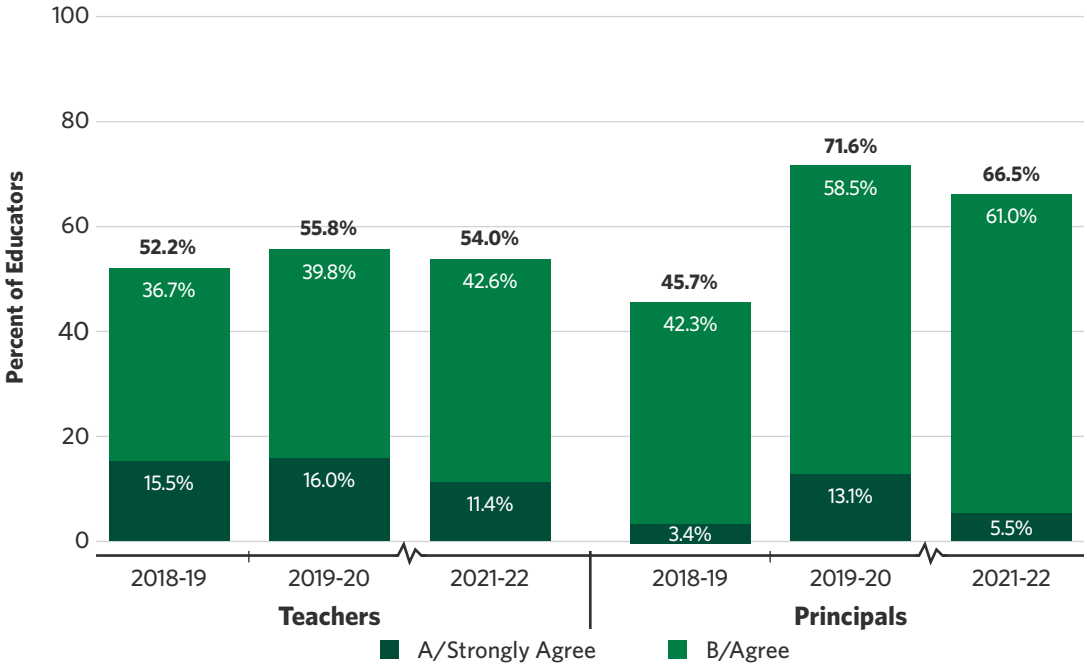
FIGURE 6.2 Partnership District Educator Reports of School Focus on Literacy, 2021-22



Note: Teachers and principals were asked about the extent to which literacy was a focus in their school in the 2021-22 school year. Response options were "not a focus," "a minor focus," "a moderate focus," "a major focus," or "a primary focus."

However, as shown in Figure 6.3, just over half of teachers reported that their school was doing a great job with literacy practice and instruction, changing little over time. (Note: we did not ask educators this question during the 2020-21 school year.) By contrast, two-thirds of Partnership district principals believe that their schools are doing a great job with literacy practice and instruction, up substantially since the 2018-19 school year, but down slightly since 2019-20. Notably, relatively few teachers and principals *strongly* agreed that their schools are doing a great job; the dark green bars in Figure 6.3 show that in 2021-22, only 11% of teachers and 6% of principals gave their schools the highest rating in this area. Together, these data suggest that while Partnership schools are emphasizing literacy, there is still work to do to improve literacy practice and instruction.

FIGURE 6.3. Partnership District Educators' Beliefs That Their Schools Are Doing a Great Job With Literacy Instruction and Practice Over Time



Note: Teachers and principals were asked about their school's effectiveness in literacy practice and instruction. In 2018-19 and 2019-20, they were asked to grade their school from A (high) to F (low). In 2021-22, they were asked the extent to which they agreed that their school was doing "a great job with literacy practice and instruction." Response options in the most recent year were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree."

PARTNERSHIP SCHOOLS AND DISTRICTS PROVIDED SERVICES AND STRATEGIES INTENDED TO ADDRESS PANDEMIC-INDUCED INTERRUPTIONS TO LEARNING

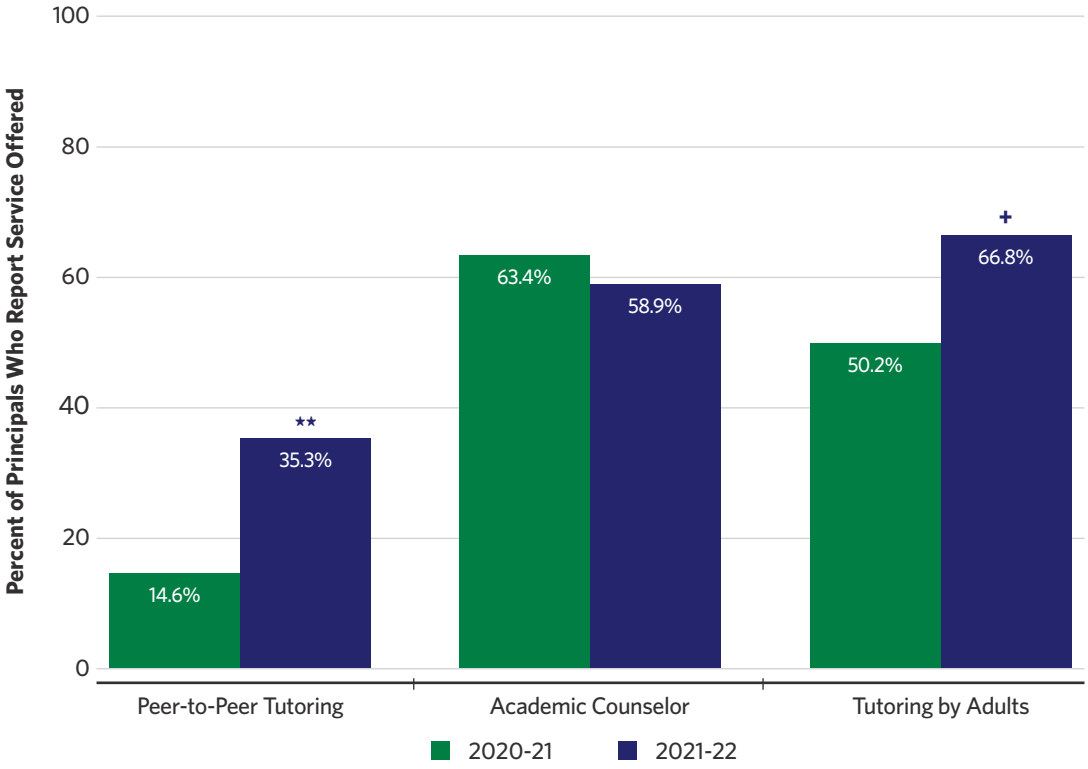
There has been a great deal of conversation about the need to accelerate student learning and help students address the missed opportunities for learning suffered as a result of the COVID-19 pandemic during the 2020-21 and 2021-22 school years. However, findings discussed above suggest that while Partnership educators believe that their schools are focusing on academics, they do not believe they are doing so to a greater degree than they were prior to the COVID-19 pandemic. A natural question, then, asks what Partnership schools and districts are doing to improve academic achievement and accelerate learning during the 2021-22 school year.

As discussed earlier, even prior to the COVID-19 pandemic, Partnership schools and districts were working to improve student achievement and dramatically accelerate student learning (see earlier year reports for additional evidence). Partnership leaders and educators maintained their focus on academic improvement during the 2021-22 school year, and in many cases provided additional services to support student learning.

While More Partnership Schools and Districts Provided Tutoring to Students, Tutoring was Not the Most Prevalent Strategy to Accelerate Learning

Partnership districts implemented several strategies to support and accelerate student learning during the 2021-22 school year. Figure 6.4 shows that two-thirds of principals reported providing tutoring by adults to their students, an increase of almost 17 percentage points over the year prior. Similarly, just over a third of principals affirmed that they were providing peer tutoring for students, more than double the prior year. Approximately 60% of principals said their schools and districts provided academic counselors to students in 2020-21 and 2021-22 school years, both full pandemic-affected school years.

FIGURE 6.4. Partnership District Principal Reports of Academic Supports Provided to Students, Past Two Years

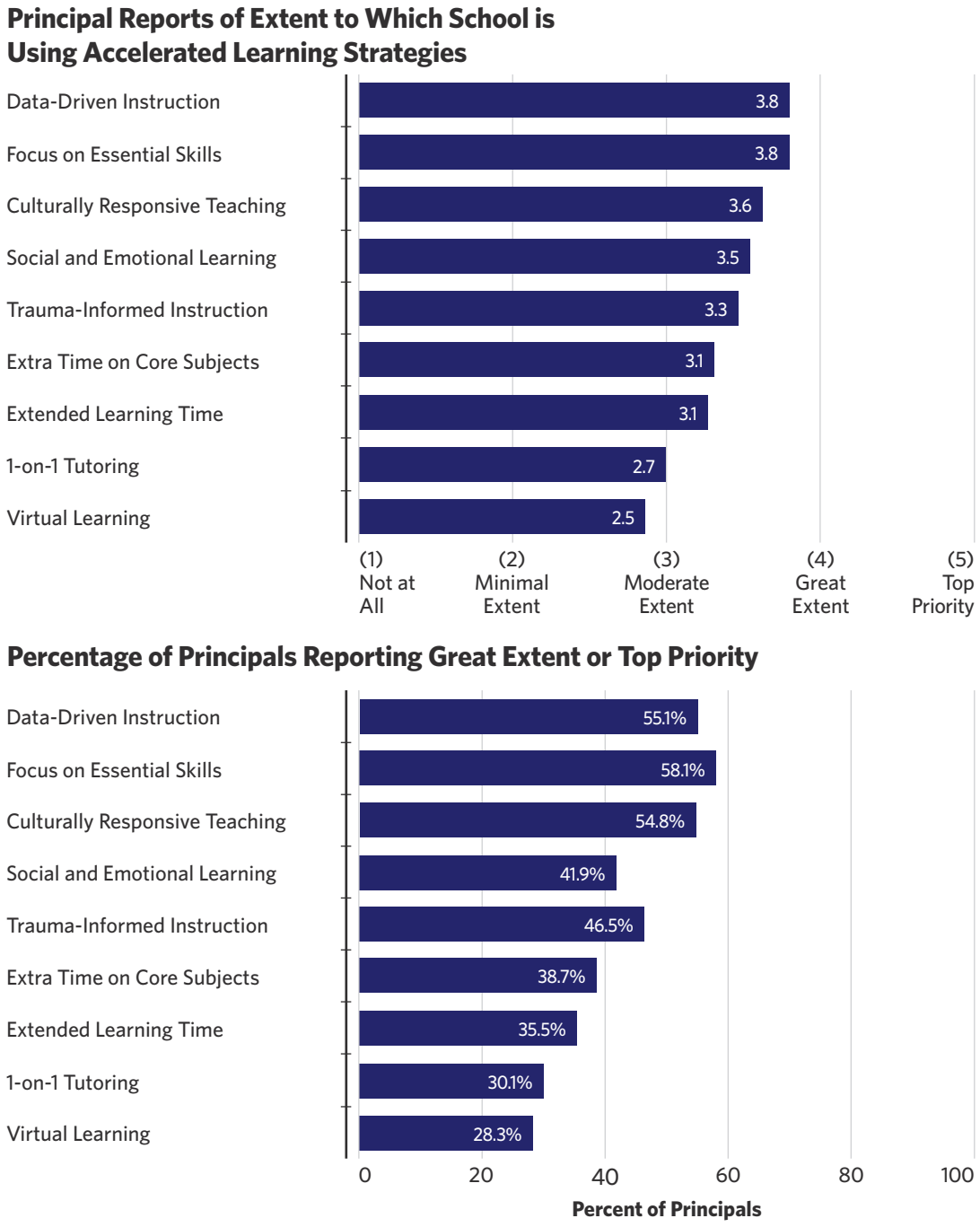


*Note: Principals were asked, "From the following list, please identify the services that are made available to your students by your school/district." Bar heights reflect the share of principal respondents selecting each of these three items in 2020-21 and 2021-22, respectively. *** p<0.001, **p<0.01, *p<0.05, +p<0.10*

However, tutoring—or at least one-on-one tutoring of the sort that has been heralded as an important strategy to facilitate accelerated learning as schools work to recover from the negative effects of the COVID-19 pandemic (e.g., Dorn et al., 2020; Darling-Hammond et al., 2020; Kraft et al., 2022; Nickow et al., 2020a, 2020b)—was not a particular priority for Partnership principals during the 2021-22 school year. Figure 6.5 summarizes principal responses to a question asking principals about the extent to which their school was using selected strategies to accelerate

learning in the 2021-22 school year. The first panel shows that, on average, principals reported using one-on-one tutoring to a less than moderate extent—a lesser degree than nearly any other accelerated learning strategy. The second panel shows that just 30% of principals reported using one-on-one tutoring to a great extent or as a top priority in their efforts to accelerate learning.

FIGURE 6.5. Partnership District Principal-Reported Accelerated Learning Strategies, 2021-22



Note: Principals were asked, "To what extent is your school using each of the following strategies to accelerate learning and/or address student needs?"

There are many reasons why Partnership schools and districts may not have prioritized one-on-one tutoring in their recovery efforts. Not only is tutoring a costly endeavor (e.g., Guryan et al., 2021), but tutoring often occurs outside of typical school hours, which poses substantial implementation challenges for both schools and students (Kraft & Falken, 2021). Moreover, during persistent staffing shortages of the kind experienced during the COVID-19 pandemic, it can be difficult to find and retain sufficient quantities of high-quality tutors (e.g., Belsha, 2021). Nonetheless, given the proven efficacy of high-dosage tutoring to accelerate learning, it is noteworthy that Partnership districts increased their efforts to provide tutoring even as—for whatever reasons—they did not prioritize these programs to the extent they did other strategies.

Principals Report Using Learning Strategies That Were Popular Prior to the COVID-19 Pandemic

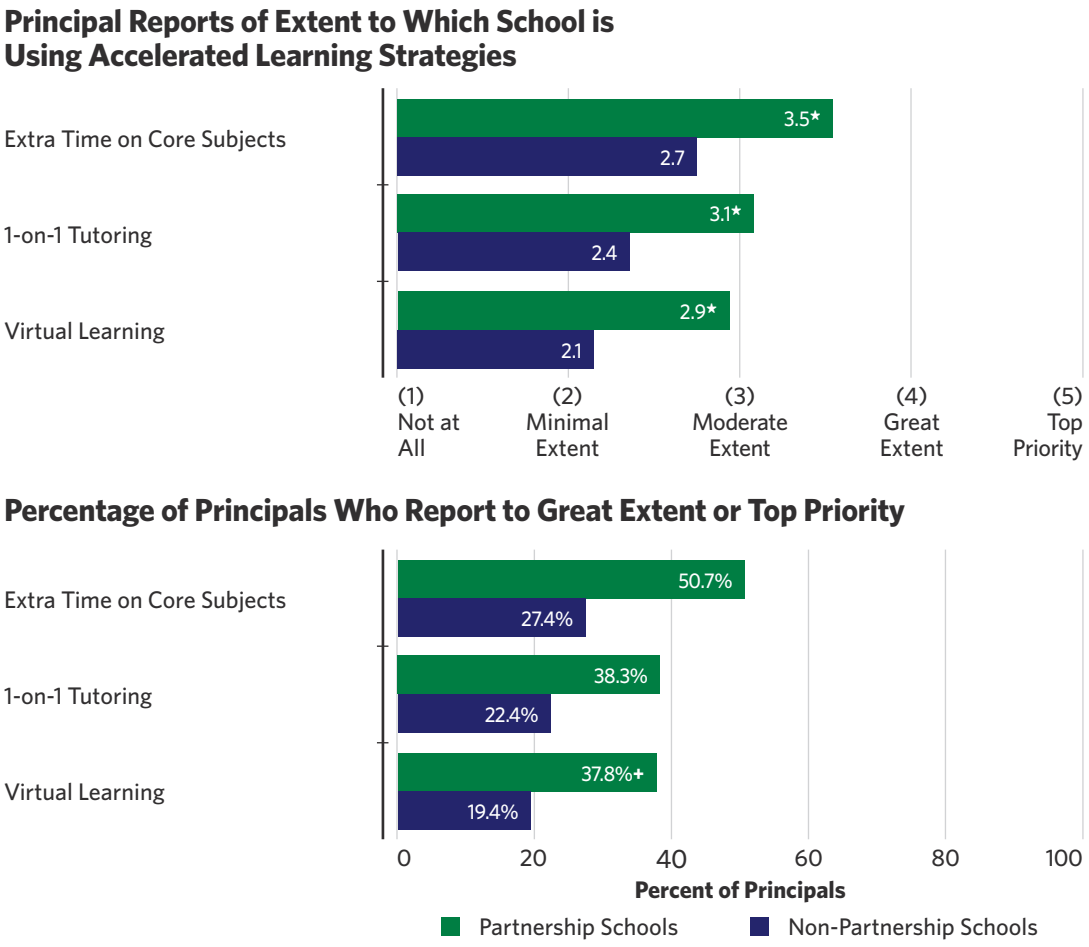
If not tutoring, what other strategies and services were Partnership schools and districts using to address pandemic-induced interruptions to learning? The top panel of Figure 6.5 shows that, on average, principals did not report employing any of the strategies to a great extent or making it a top priority (an average score of 4 or 5 on the 5-point Likert scale). The two strategies with the highest average ratings are data-driven instruction and focusing on Essential Skills, with culturally responsive teaching and social and emotional learning close behind. At the bottom of the list are strategies that have been more widely discussed and debated as necessary to accelerate learning in the wake of pandemic-induced interruptions to learning: virtual learning, one-on-one tutoring (discussed earlier), extended learning time, and spending extra time on core subjects.

The bottom panel again makes clear that Partnership district principals employed more "tried-and-true" strategies for improving student achievement rather than prioritizing strategies that have been shown in the wake of the COVID-19 pandemic to be important for accelerating learning. In particular, fewer than 40% of principals reported spending extra time on core subjects, extended learning time, one-on-one tutoring, and virtual learning to a great extent or it being a top priority. Rather, the majority of principals reported using strategies like data-driven instruction and a focus on Essential Skills that were popular before the COVID-19 pandemic caused substantial interruptions to student learning.

There are many reasons that Partnership principals may have reported using certain strategies more than others. For one thing, national and state reports have shown that one-on-one tutoring and extended learning time are logistically challenging, especially in districts with tight labor supply (as in Partnership districts, discussed in prior year reports and in Section Seven following) and that must take into account transportation for students who might need to meet outside of traditional school hours (Belsha, 2021, 2022; Levin & Lohman, 2022). Moreover, Partnership districts report substantial challenges related to attendance (see Section Three), which may make it particularly difficult to engage students in tutoring and extended learning time.

That said, Figure 6.6 shows that principals in Partnership schools were more likely than their counterparts in non-Partnership schools in Partnership districts to prioritize one-on-one tutoring, virtual learning, and spending extra time on core subjects. There were no significant differences in other reported strategies. This suggests that schools' and districts' leadership may have been prioritizing potentially resource-intensive accelerated learning strategies in the most persistently low-performing schools.

FIGURE 6.6. Partnership District Principal-Reported Use of Accelerated Learning Strategies by Partnership School Status, 2021-22



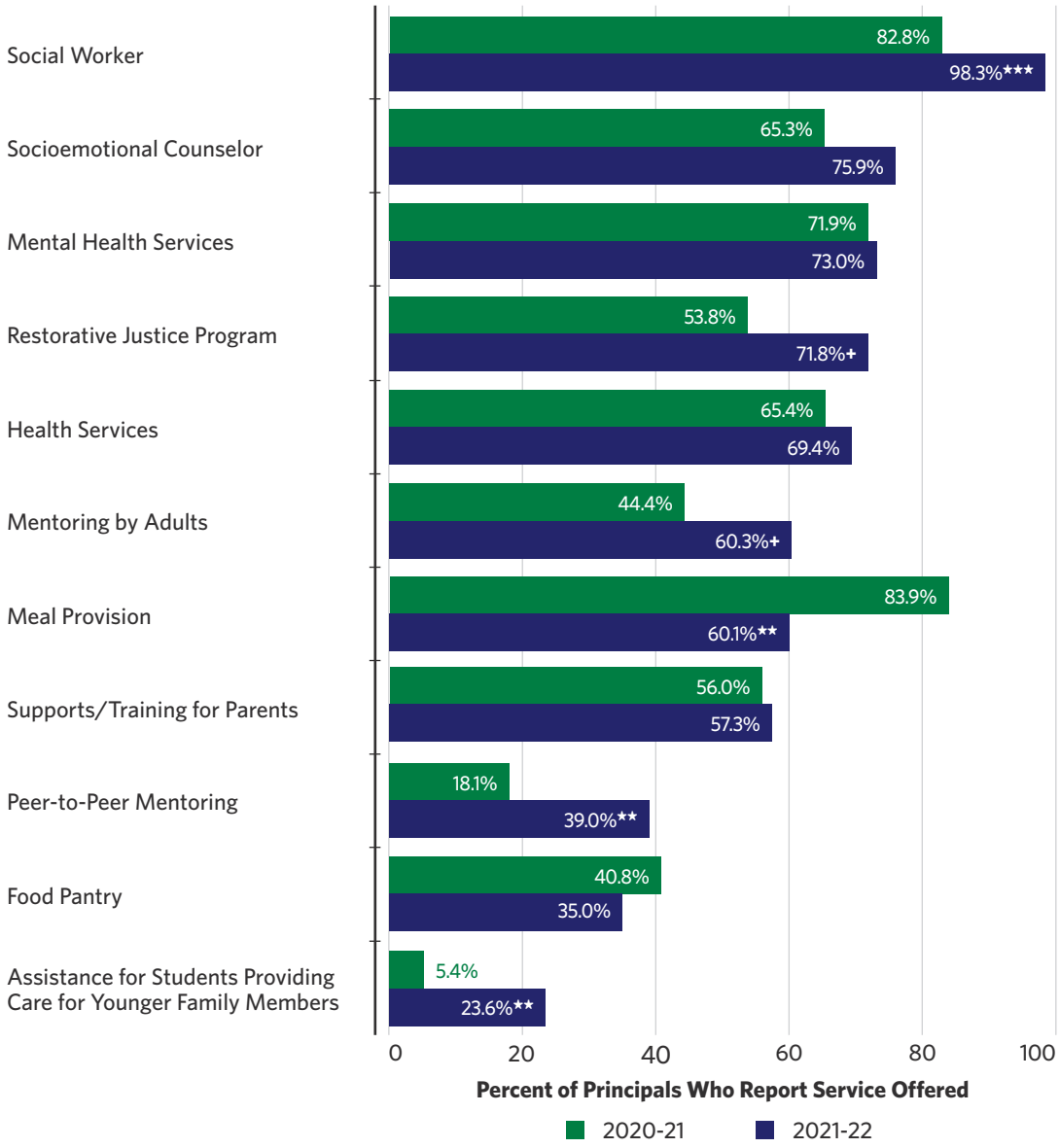
*Note: Principals were asked, "To what extent is your school using each of the following strategies to accelerate learning and/or address student needs in the 2021-22 school year?" The significance stars in top panel reflect differences in the distribution of responses and significance stars in the bottom panel reflect differences in the probability of selecting either of the top two response options (both use survey-corrected F-tests). ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

A FOCUS ON ACADEMICS, CLIMATE AND CULTURE, AND STUDENT SOCIOEMOTIONAL NEEDS

Of course, schools may have been and were likely to be prioritizing other areas of student need beyond academics. As discussed earlier in Section Three and in greater detail in our Year Three Report and an earlier policy brief (Hatch & Harbatkin, 2021), students and families living in Partnership communities grappled with especially difficult pandemic-related challenges, resulting in increased needs for assistance and services beyond just academics. Accordingly, principals reported maintaining or increasing many types of services for their students this year that went well beyond the "traditional" purview of schools. For instance, Figure 6.7 shows that nearly every principal responding to the 2021-22 survey reported that their school or district provided social workers, an increase of 15.5 percentage points over the year prior. Similarly, approximately three-quarters of principals reported that they provided socioemotional counselors and mental health

services during the 2021-22 school year. More principals reported offering mentoring services to students, both from adults and peers. In addition, nearly three-quarters of principals reported providing a restorative justice program for students, a substantial increase over the year prior.

FIGURE 6.7. Partnership District Principal Reports of Services and Resources Made Available to Students, Past Two Years



*Note: Principals were asked, "From the following list, please identify the services that are made available to your students by your school/district." Percentages reflect the share of principals who report that the school or district offers each service or resource to students. ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

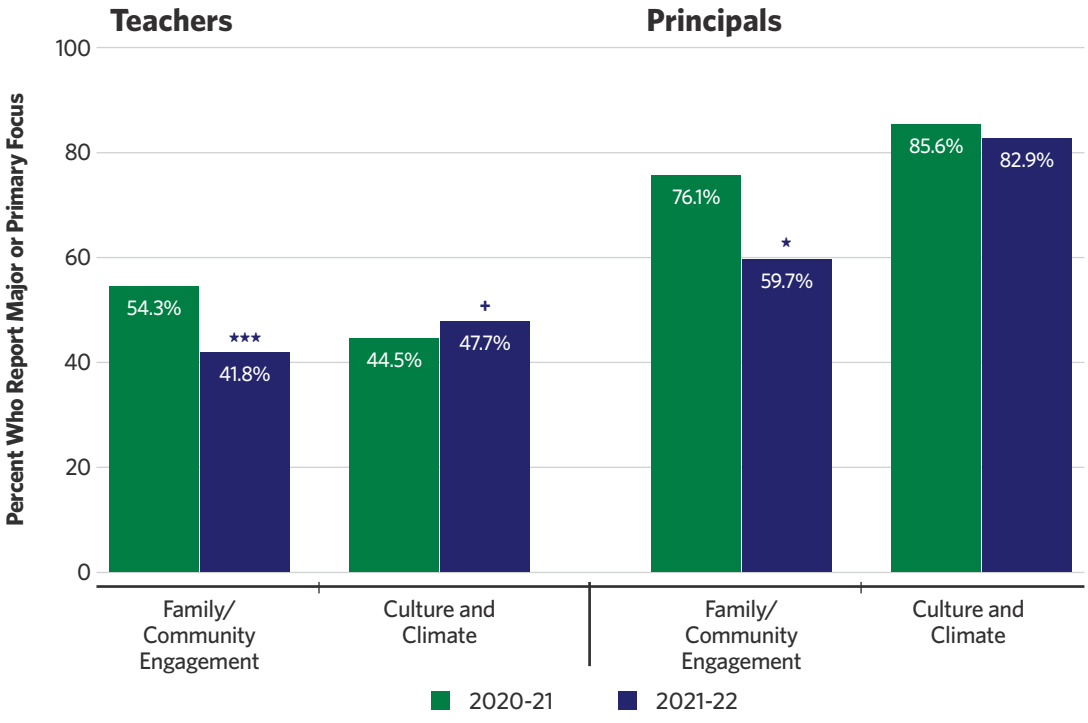
Districts were less likely to provide students with services that addressed the need for nutrition and food than in 2020-21. Whereas 84% and 41% of principals stated that their schools or districts provided students with meals and a food pantry, respectively, in 2020-21, these figures decreased to 60% and 35% in 2021-22. In contrast, nearly a quarter of principals said they provided assistance to students who were providing care to younger family members in 2021-22, up nearly five-fold over the prior year.

EDUCATORS REPORT LARGELY POSITIVE CLIMATE AND CULTURE IN THEIR SCHOOLS

As Partnership schools and districts worked to accelerate student learning and address concerns about student achievement that existed before and were exacerbated by the COVID-19 pandemic, they also maintained a focus on the climate and culture of their schools. This continued prioritization of school climate and culture is unsurprising given that in previous years, Partnership educators have expressed a strong belief that positive school climate and culture is critical to improvement efforts. This assertion is supported by an extensive evidence base, which suggests that coherent and positive school culture and climate are important factors in successful school improvement and turnaround, and are critical for efforts to recruit, retain, and support effective teachers (Bulach & Malone, 1994; Dellar, 1998; Johnson et al., 2005; Peurach & Glazer, 2012; Thapa et al., 2013; Viano et al., 2021).

Figure 6.8 shows that Partnership district educators reported a decreased focus on family and community engagement but a slightly increased focus on school culture and climate from 2020-21 to 2021-22. The substantial focus on family and community engagement in 2020-21 came as educators were working to connect with students and their families during a year of mostly remote instruction (see Section Nine of the Year Three Report for more detail) and the decreased focus this year may have come as a natural reversion as schools returned to in-person learning and focused limited resources toward academic outcomes as described earlier.

FIGURE 6.8. Partnership District Educator-Reported School Focus on Items Related to School Culture and Climate, Past Two Years

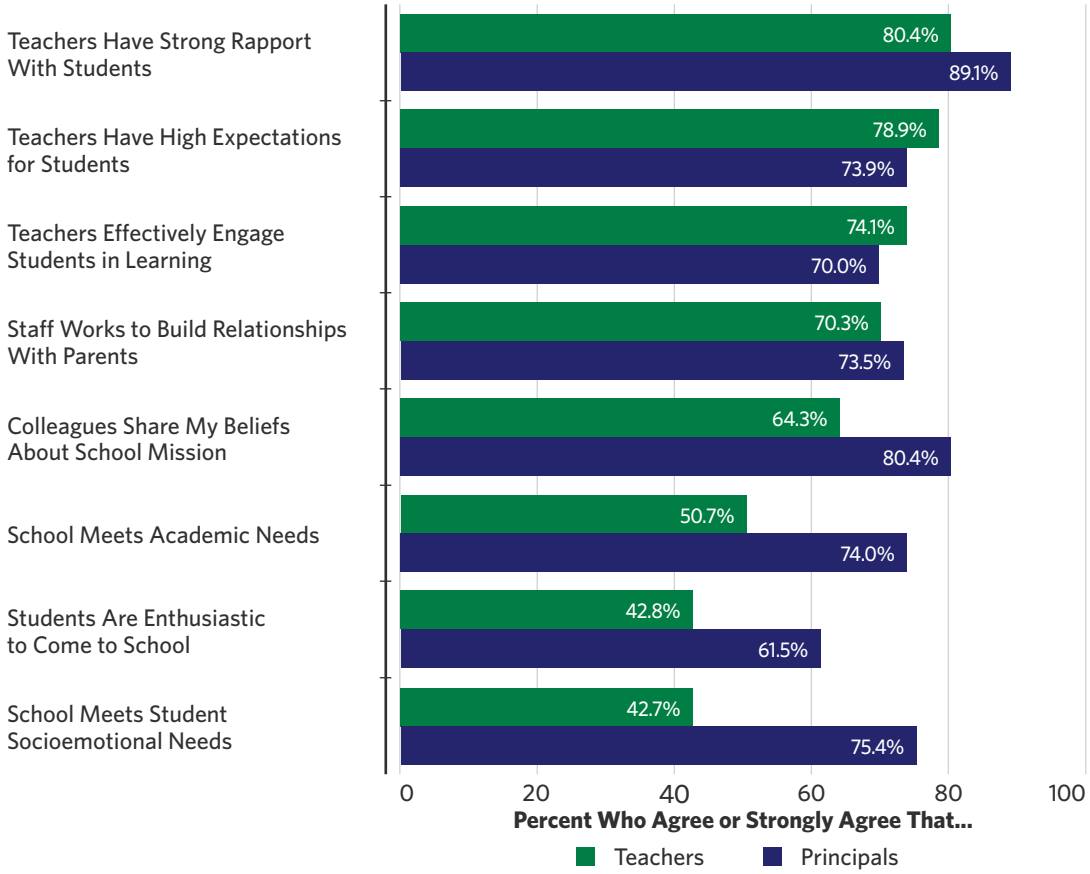


*Note: Teachers and principals were asked, "To what extent are each of the following areas a focus in your school?" Response options were "not a focus," "a minor focus," "a moderate focus," "a major focus," or "a primary focus."***p<0.001, **p<0.01, *p<0.05, +p<0.10*

Indeed, other survey responses suggest that this focus on school climate and culture appears to have translated into positive perceptions of climate and culture, including efforts toward family engagement. Figure 6.9 shows teachers' and principals' responses when asked about their perceptions of various elements relevant to school climate and culture. About 80% of teachers reported that teachers in their school have a strong rapport with and high expectations for their students. More than 7 in 10 teachers reported that teachers in their school are effective in engaging their students in learning and work to build relationships with parents. Principals feel approximately the same, though even more reported that teachers have a strong rapport with students.

However, principals are far more likely than teachers to believe that their colleagues share their beliefs about their school's mission, that the school meets the academic and socioemotional needs of students, and that students are enthusiastic about coming to school. Indeed, just over half of teachers agree that their school meets students' academic needs, and fewer than half agree that their school meets students' socioemotional needs or are enthusiastic about school.

FIGURE 6.9. Partnership District Educator Perceptions of School Climate and Culture, 2021-22



Note: Teachers and principals were asked, "Please indicate the extent to which you agree or disagree with the following statements about your school." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree."

HOW TO INTERPRET GRAPHICS SIMILAR TO FIGURE 6.11

Throughout this report, we provide figures representing differences across groups and over time on the constructs described in Section Two. As we described in Section Two, we create the constructs using factor analysis and then generate factor scores for each teacher and principal respondent. These factor scores are standardized with a mean of 0 and a standard deviation of 1 across the full sample of educators responding to the question items. For ease of interpretation, we convert each teacher or principal's factor score to a percentile representing where their response falls on the normal curve. For example, the average respondent would have a factor score of 0, which we would convert to a 50, representing the 50th percentile on the normal distribution. We then calculate the mean of the percentile variable for a given group of educators to denote the group average on a particular construct.

Because the constructs have a mean of 50 across all respondents, a value above 50 suggests that a given group is higher than the average respondent, while a value below 50 suggests that a given group is lower than the average respondent. To facilitate interpretation of graphics summarizing findings from construct analyses, we include arrows that clarify how to understand higher or lower values of the specific construct represented in the figure. For example, the construct described in Figure 6.10 with findings illustrated in Figure 6.11 represents educators' perceptions that their school has a positive climate and culture. Groups with higher average values perceive more positive school climate and culture, while groups with lower average values perceive less positive school climate and culture.

In the figure, green markers denote the average construct values in each year for Cohort 1, dark blue markers denote the average construct values for Cohort 2, and the purple markers denote the average values for non-Partnership schools in Partnership districts. When the markers are above the 50th percentile line, we can say that a group of teachers or principals reported more positive climate and culture than the average respondent on these question items.

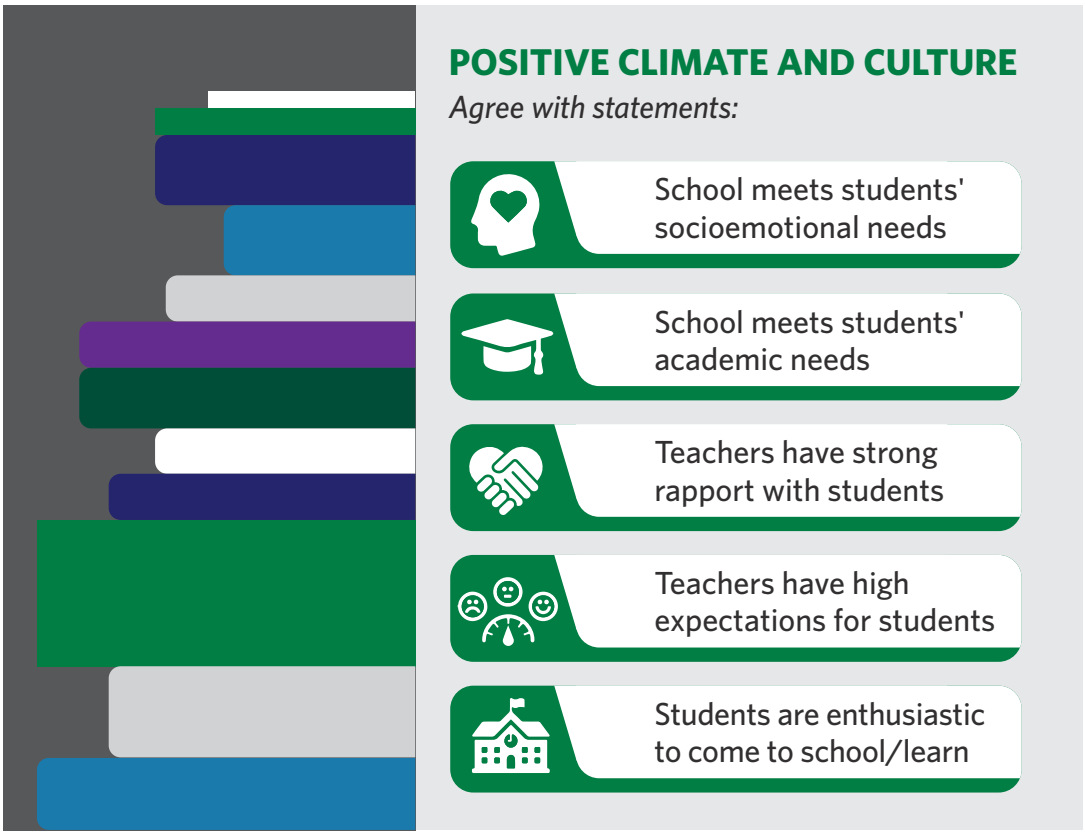
In Figure 6.11, the average respondent is the average educator (teachers and principals) across all four survey years. In other cases, the average represents teachers or principals only for a subset of survey years. We describe the relative sample in each graphic note.

Partnership School Educators' Perceptions of Climate and Culture Diminished Slightly in the 2021-22 School Year Relative to 2020-21

We use individual items to create a construct that captures positive school climate and culture. Because we have asked all of these items over the four years of the study, we compare values of the construct over time for teachers and principals in Cohort 1 and Cohort 2 and in non-Partnership schools.

Figure 6.10 summarizes the items included in the construct representing positive climate and culture and Figure 6.11 shows the change over time on the measure for each of these groups.

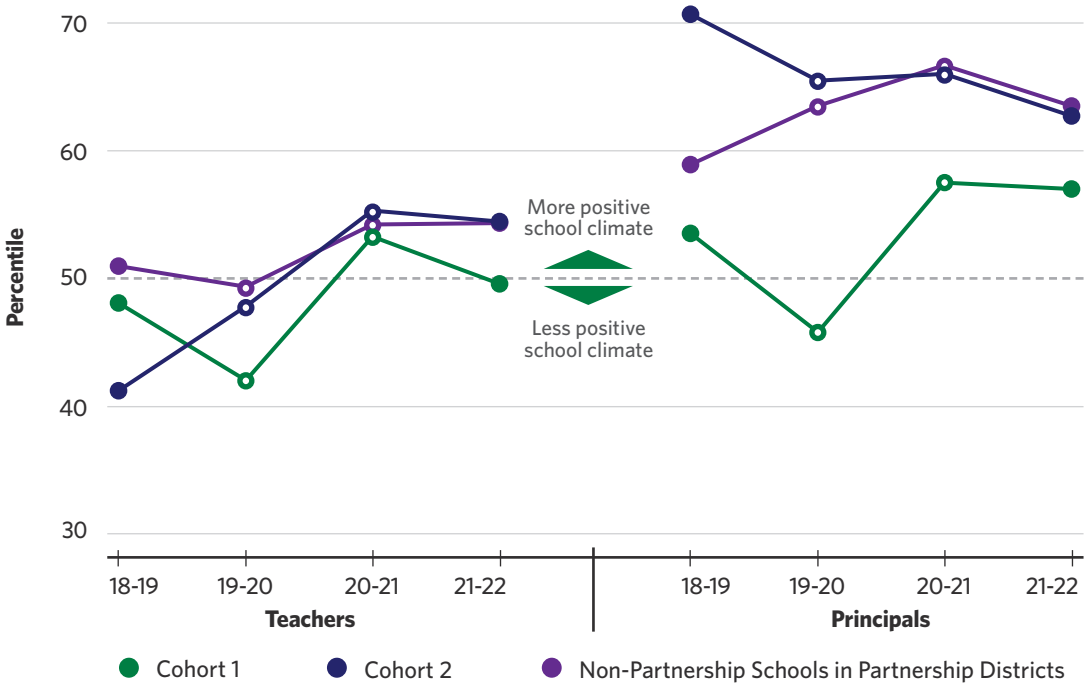
FIGURE 6.10. Positive Climate and Culture Construct



We find that, in 2018-19, teachers in non-Partnership schools in Partnership districts rated the culture and climate of their schools higher than either Cohort 1 or Cohort 2 teachers. During the 2020-21 COVID-19 pandemic school year, the three groups were at about the same, substantially higher, level. However, while teachers in non-Partnership schools' reports of positive culture and climate remained high and even increased a small amount in the 2021-22 school year, Cohort 2 teachers' perceptions of positive culture and climate dipped a slight amount and Cohort 1 teachers' perceptions dropped back down to just above pre-pandemic levels. Principals' reports of positive school culture and climate also decreased from their highs in the 2020-21 school year, Notably, for both teachers and principals, Cohort 1 respondents viewed the culture and climate

in their schools to be less positive than educators in Cohort 2 or non-Partnership schools (see Section Eight for more detail on the disproportionate challenges in Cohort 1 schools). And as with the individual items discussed above, principals perceive the climate and culture of their schools to be more positive than do teachers.

FIGURE 6.11. Partnership District Educator Perceptions of School Climate Over Time



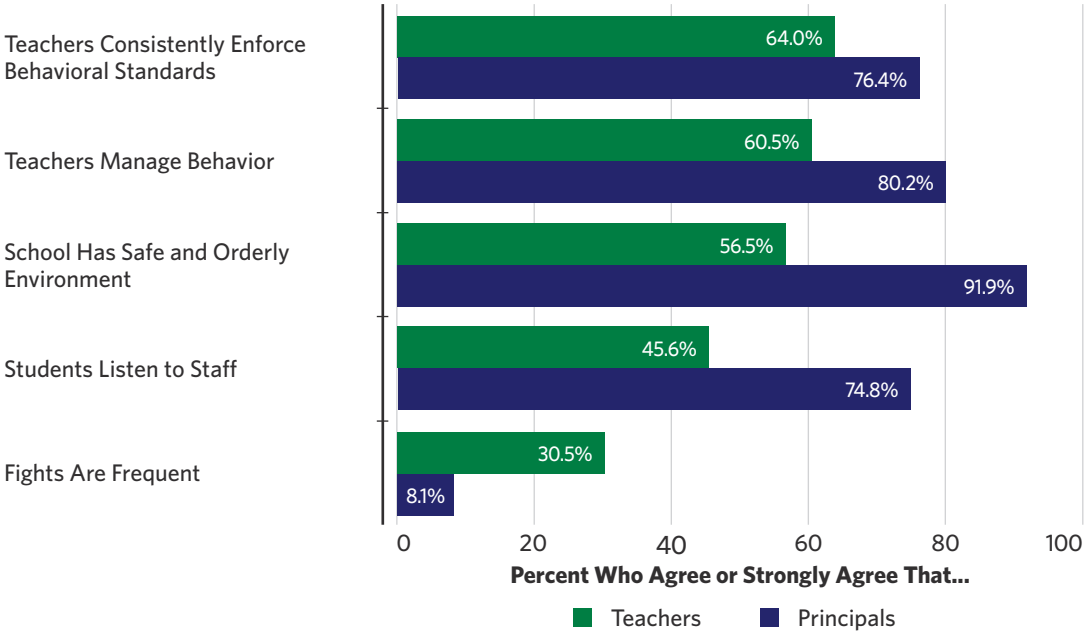
Note: Marker heights represent mean percentiles of Cohort 1, Cohort 2, and non-Partnership school educators in response to items related to school climate and culture asked in all four survey waves. The 50th percentile line denotes the average response across teachers and principals in all four years. A mean response above this line indicates that a given group reported more positive school climate and culture than the average respondent across teachers and principals in the four survey waves. A mean response below this line indicates that a given group reported a more negative climate and culture.

Principals More Optimistic About School Climate, Though All School Educators Report Improvement

In addition to the climate and culture items discussed earlier, we also asked Partnership district educators questions about school safety and student behavior. These individual items are shown for this year in Figure 6.12, while Figure 6.14 shows how the construct consisting of these items (described in Figure 6.13) changes over time.

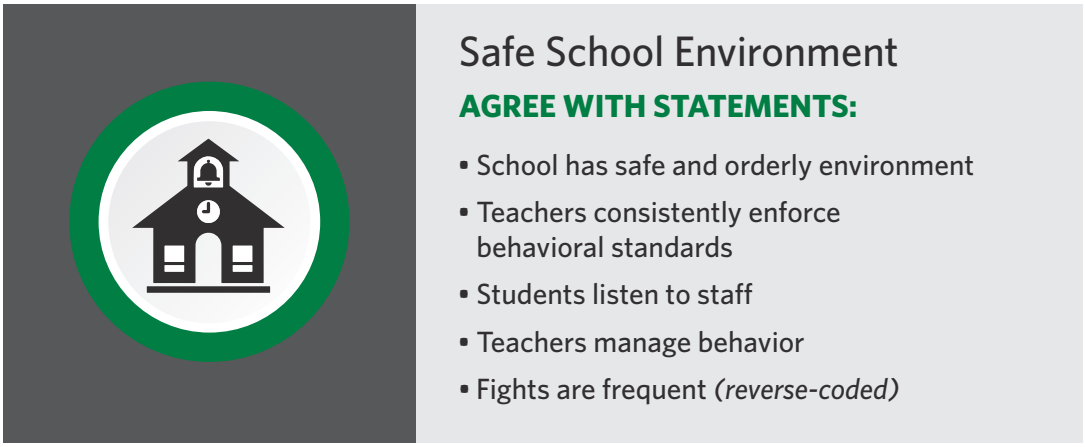
We find again that far more Partnership principals than teachers reported positive perceptions of school safety and student behavior. Just over half of teachers believe that their school has a safe and orderly environment (relatively to 92% of principals), and only 46% believe that students listen to staff (75% of principals).

FIGURE 6.12. Partnership District Educator Perceptions of School Safety and Student Behavior, 2021-22



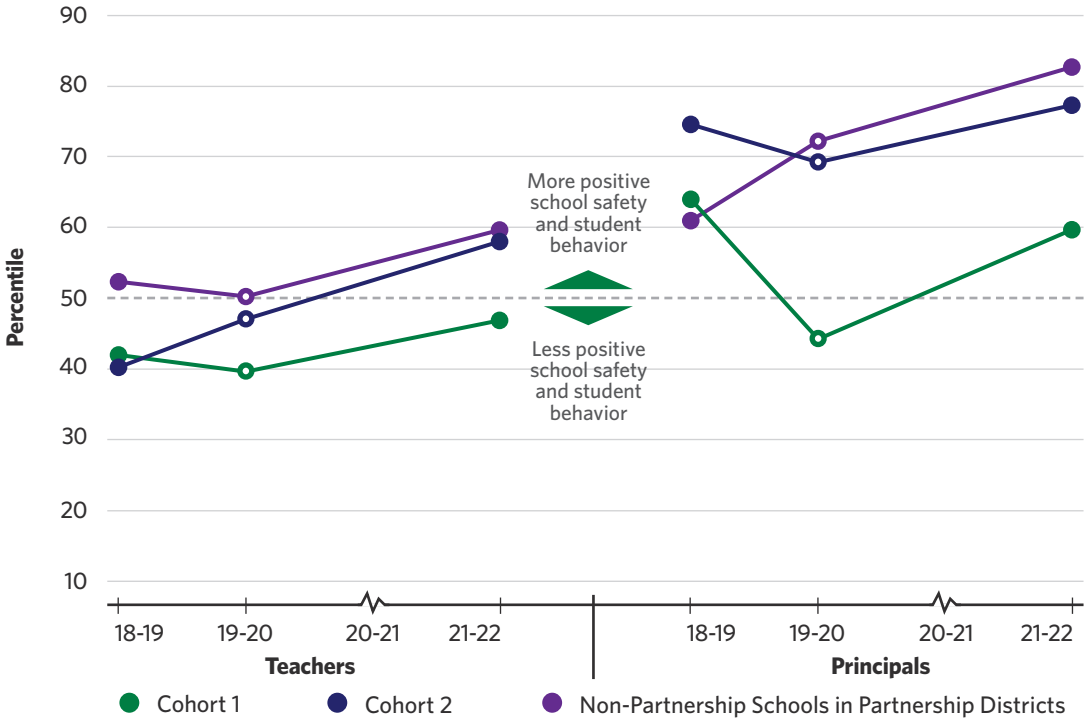
Note: Teachers and principals were asked, "Please indicate the extent to which you agree or disagree with the following statements about your school." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree."

FIGURE 6.13. Positive School Safety and Student Behavior Construct



There is clear evidence, however, that both teachers and principals in Partnership and non-Partnership schools in Partnership districts believe that school safety and student behavior has improved since before the COVID-19 pandemic. (We did not ask this set of questions in the 2020-21 school year given that most Partnership districts were operating virtually during the time the survey was administered.) Moreover, Figure 6.14 shows that, as is the case with educators' perceptions of school climate more generally, Cohort 1 educators consistently perceived their schools' safety and student behavior less positively than their colleagues in Cohort 2 and non-Partnership schools.

FIGURE 6.14. Partnership District Educator Perceptions of School Safety and Student Behavior, by Partnership Status Over Time



Note: Marker heights represent mean percentiles of Cohort 1, Cohort 2, and non-Partnership school educators in response to items related to school safety and student behavior asked in 2018-19, 2019-20, and 2021-22 (note these questions were not asked in 2020-21 due to prevalence of remote schooling). The 50th percentile line denotes the average response across teachers and principals in all three years. A mean response above this line indicates that a given group reported more positive school safety and student behavior than the average respondent across teachers and principals in three survey waves. A mean response below this line indicates that a given group reported more negative school safety and student behavior.

SUMMARY

Schools and districts were identified for Partnership due to their low student achievement, a condition that was exacerbated by the COVID-19 pandemic. As Partnership schools and districts work to support their students and educators as they recover from the COVID-19 pandemic, they have continued to focus on academics in their efforts to improve student achievement. In particular, they have prioritized literacy practice and instruction. However, educators reported using approaches such as data-driven instruction and focusing on Essential Skills—strategies that were commonplace before the COVID-19 pandemic—more than tactics such as extended learning time and one-on-one tutoring that have been touted as high-impact strategies to accelerate learning in the wake of the COVID-19 pandemic.

At the same time as educators worked to address the historical academic underperformance that led their schools and districts to be identified for Partnership, they also focused on school climate and culture. Educators reported perceptions that school climate and culture has improved since the beginning of the Partnership intervention, as schools and districts continue to report strong rapport and relationships with their students and their families, high expectations for students, and effectively engaging students in learning.

Partnership Turnaround:
Year Four Report

SECTION SEVEN: HUMAN CAPITAL REMAINS A PERSISTENT CHALLENGE FOR PARTNERSHIP SCHOOLS AND DISTRICTS

EPIC
Education Policy
Innovation Collaborative

Section Seven: Human Capital Remains a Persistent Challenge for Partnership Schools and Districts

Human resources are among the most critical resources for successful school improvement (Cucchiara et al., 2015; Malen & Rice, 2009; Strunk et al., 2016). In particular, recruiting, developing, and retaining highly effective educators plays a vital role in the success of turnaround interventions—and barriers to doing so can undercut improvement efforts (Harbatkin & Henry, 2019; Henry et al., 2020). The Partnership Model is no different; over the last three reports, we have highlighted human capital as a salient challenge for Partnership districts, a primary focus of their improvement efforts, and an important mechanism contributing to the Partnership Model's positive effects.

After two full COVID-19 school years, human capital is more central than ever before. Research from throughout the country points to high rates of teacher burnout, intentions to retire or leave the profession, and concerns about the pipeline fueling future teacher labor markets (Carver-Thomas et al., 2021; Choate et al., 2021; Madigan & Kim, 2021; Pressley, 2021; Zamarro et al., 2021).

In this section, we begin by describing human resources-related hindrances to school improvement, drawing on survey and interview data. We turn next to an examination of teacher turnover over time using statewide administrative data. We then examine teachers' reported plans to leave or remain in their schools, districts, and the profession as well as factors contributing to those plans. We move next to a description of challenges related to teacher pay, and some of the efforts Partnership districts made to address pay and other human capital challenges during the COVID-19 pandemic. Finally, we conclude with a snapshot of school leadership in Partnership districts—another critical component of successful turnaround.

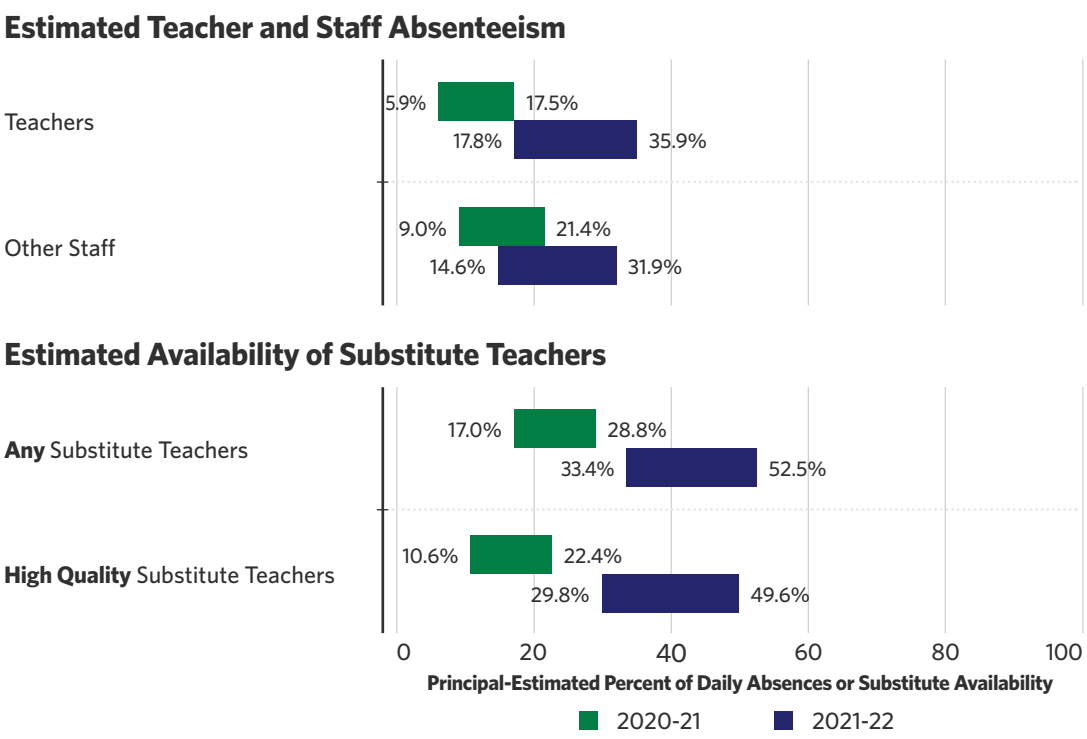
HUMAN RESOURCE CHALLENGES

In each year of study thus far, Partnership leaders and educators have highlighted the ways in which issues related to an insufficient supply of qualified educators and impediments to addressing these shortages have made improvement efforts challenging. These concerns loomed large prior to the COVID-19 pandemic and have evolved throughout the past two school years as Partnership districts continue to meet the needs of their students and staff.

Teacher Absenteeism Increased in 2021-22 and Substitute Teachers Often Were Not Available When Needed

Two areas of human resources have become particularly salient during the COVID-19 pandemic: teacher absenteeism and the availability of substitutes to fill in for teachers when they cannot be in their classrooms. To that end, Figure 7.1 shows that Partnership principals reported that substantially more teachers were absent each day in 2021-22 (18-36%) than in 2020-21 (6-18%), although we note that Partnership districts were largely providing remote instruction in 2020-21, making teacher absenteeism a somewhat nebulous construct in that year.[1] Though not shown here, Cohort 1 principals this year reported more prevalent teacher absenteeism than Cohort 2 principals—with Cohort 1 principals estimating that 21-41% and Cohort 2 principals estimating that 11-27% were absent each day. Principals also reported more frequent absenteeism by other school staff.

FIGURE 7.1. Partnership District Principal Reports of Teacher Absenteeism and Availability of Substitutes, Past Two Years



Note: The first panel of bars provides the estimated range of daily teacher absenteeism in February 2021 and February–March of 2022, respectively, based on responses to the question, "Think about teacher and staff absences over the last month. Approximately what proportion of teachers and other staff were absent from school (for all or part of the day) each day?" The second panel provides the estimated range of the percent of time (high quality) substitute teachers were available to fill in for teachers who were absent based on responses to the question, "When teachers are absent, approximately what proportion of the time are…" (1) "substitute teachers available to teach their classes," and (2) "high quality substitute teachers available to teach their classes." Response options for both were <10%, 10-25%, 26-50%, 51-75%, 76-90%, and >90%. To create estimated ranges, we assign the minimum value of the selected response option as the lower bound and the maximum value as the upper bound. We then take the weighted mean of the lower and upper bounds, respectively, across all respondents. The figure to the left of each bar represents the estimated mean lower bound and the figure to the right of each bar represents the estimated mean upper bound. The first bar can therefore be interpreted as: in 2020-21, principals in Partnership districts estimated that 5.9 to 17.5% of teachers were absent each day.

In both years, principals reported that substitutes were often not available to fill in when teachers were absent. While principals reported greater substitute availability in 2021-22 than 2020-21, the most generous estimate of these responses still points to substitutes being available for only half of teacher absences.

Teacher and staff absences may stem from a variety of factors, though this year's high absenteeism is driven at least in part by COVID-19 illness, exposure, and quarantines. As we showed in Figure 3.9, about one-third of principals reported classroom closures due to quarantining instructional staff. When school leaders cannot identify substitutes, other teachers may need to fill in during their planning periods, classes may need to double up, or the entire classroom may need to move to remote instruction. To that end, high teacher absenteeism can lead to interrupted learning for students, and lost planning time and burnout for the teachers in the building.

Lost planning time may be a particularly salient challenge for teachers in Partnership districts, as more than one-third of teachers reported that insufficient time to plan was a major or the greatest hindrance to meeting improvement goals and only 18% reported it was not a hindrance at all. Meanwhile, only about 57% of teachers reported that they received planning and preparation time.

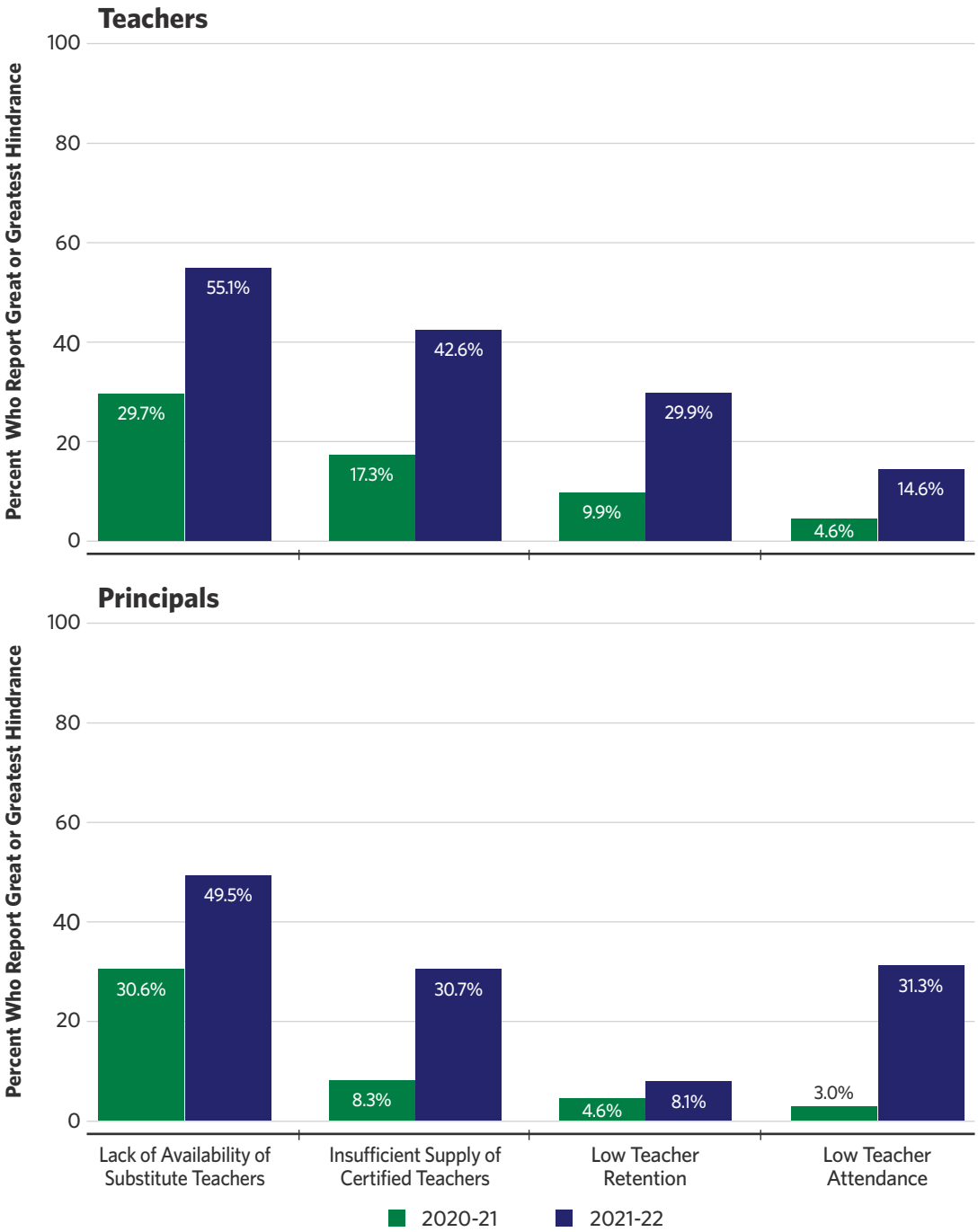
Insufficient Human Resources Remain a Hindrance to Improvement in Partnership Districts

Of course, human resource challenges were hindering improvement efforts in Partnership schools and districts even prior to COVID-19 (see EPIC's Year One and Year Two reports). Perceptions of these factors as hindrances waned in 2020-21 as educators grappled with new challenges related to remote schooling, health concerns, and other pandemic-induced factors. As the COVID-19 pandemic continued to affect schools throughout the 2021-22 school year, human resource hindrances have again emerged among Partnership districts' primary concerns.

Both principals and teachers in Partnership districts believe that human capital-related challenges hinder their abilities to meet improvement goals. Figure 7.2 shows the share of educators reporting that four specific human resources concerns—including teacher absenteeism and substitute availability, discussed above—were a great or the greatest hindrance to improvement in each of the past two years. We highlight three main takeaways. First, educators perceive human resources concerns to be greater hindrances in 2021-22 than they did in 2020-21. Second, both teachers and principals ranked the lack of availability of substitutes as the greatest human resource-related hindrance in 2021-22—with 55% of teachers and half of principals reporting that it was the great or greatest hindrance, up from about 30% the year prior. Third, while for the most part more teachers than principals perceive these factors as substantial hindrances, the one exception is low teacher attendance; more than twice as many principals than teachers believe that low teacher attendance is a great or the greatest hindrance to improvement.

While we did not ask educators to report on the extent to which these factors were hindrances to improvement in the first two study years, responses to similar questions suggest that these challenges are not solely a result of the COVID-19 pandemic. Prior to the COVID-19 pandemic, educators perceived substantial challenges with substitute availability in particular, and to a lesser extent with teacher retention.

FIGURE 7.2. Partnership District Educator Perceptions of Human Resources Hindrances, Past Two Years



Note: Teachers and principals were asked, "To what extent is each of the following a hindrance to achieving your improvement goals?" Response options were "not a hindrance," "a slight hindrance," "a moderate hindrance," "a great hindrance," and "the greatest hindrance."

Nonetheless, it is clear that human resource challenges have increased over the course of the COVID-19 pandemic. We draw from a construct representing the human resources hindrances in Figure 7.2 (outlined in Figure 7.3) to examine year-to-year changes in Cohort 1, Cohort 2, and

non-Partnership schools. Figure 7.4 illustrates the two-year trend for each of these groups, with teachers in the left panel and principals in the right. The increased salience of human resources as a hindrance to improvement is evident in the upward-sloping lines across each group. The crossing green and blue lines suggest that educators in Cohort 1 schools perceived a greater increase in human resources hindrances from 2020-21 to 2021-22. As we showed in the Year Three Report and describe in Section Eight of this year's report, Cohort 1 schools serve some of the most disadvantaged students in the state and experienced some of the greatest challenges during the ongoing COVID-19 pandemic. This finding shows that these contextual challenges may have translated into even more substantial human resource challenges for Cohort 1 schools.

FIGURE 7.3. Human Resources Hindrances Construct

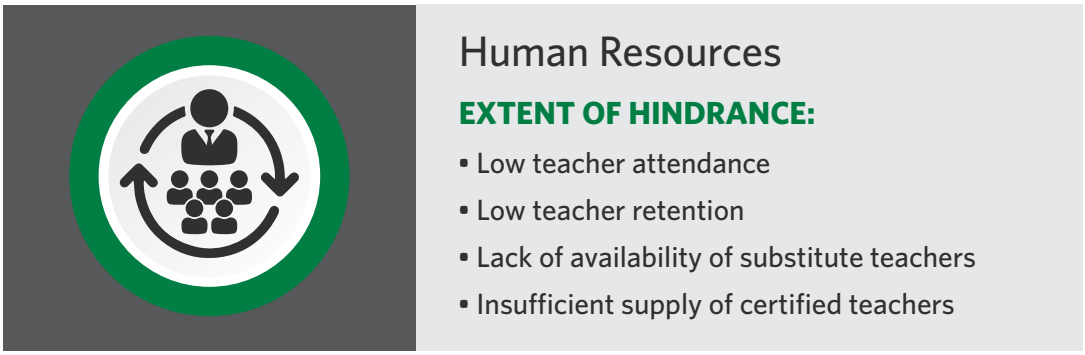
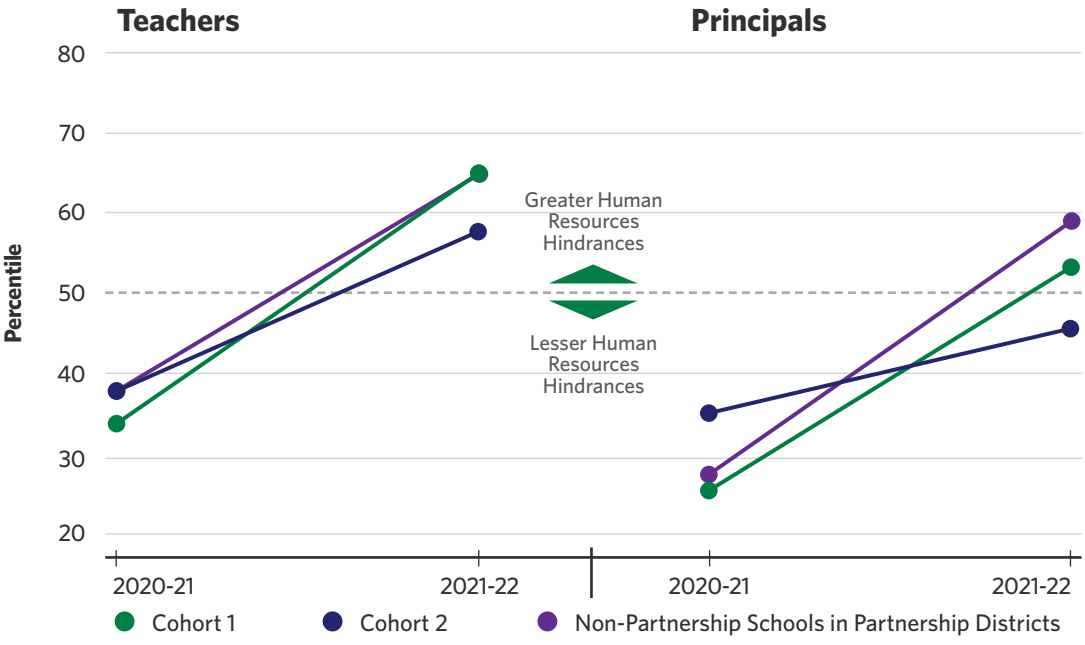


FIGURE 7.4. Human Resources Hindrances by Partnership Status, Past Two Years

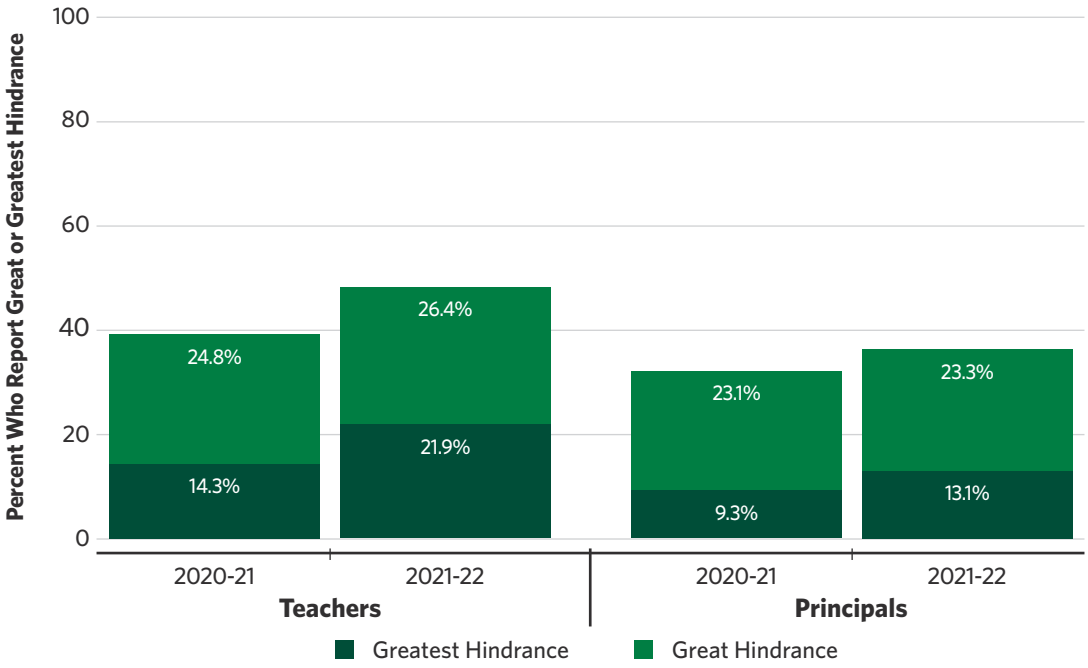


Note: Marker heights represent mean percentiles of Cohort 1, Cohort 2, and non-Partnership school educators in response to items related to human resources hindrances in each of the past two survey waves. The 50th percentile line denotes the average response across all teachers and principals in the two survey waves. A mean response above the line indicates that a given group reported greater human resource hindrances to improvement than the average respondent across all teachers and principals in each of the two survey waves. A mean response below the line indicates that a given group reported lesser hindrances. The questions for this construct were not asked in the first two survey waves.

Teacher Morale and Job Satisfaction Have Decreased Over the Course of the COVID-19 Pandemic

The human resource challenges discussed earlier reflect the extent of the difficulties Partnership districts face in trying to staff their classrooms overall and on a day-to-day basis. These challenges may both reflect and lead to diminished teacher morale and job satisfaction, which have become increasing challenges across the country (Pressley, 2021; Zamarro et al., 2021). Figure 7.5 shows that teacher demoralization is a mounting concern in Partnership districts as well. A growing share of both teachers and principals perceive teacher demoralization to be a great or the greatest hindrance to meeting improvement goals, potentially reflecting the substantial effect of COVID-19 on their students, schools, and communities and foreshadowing future challenges for turnaround schools and districts.

FIGURE 7.5. Partnership District Educator Perceptions of Teacher Demoralization as a Hindrance to Improvement, Past Two Years



Note: Teachers and principals were asked about the extent to which they believed teacher demoralization was a hindrance to achieve your improvement goals. Response options were "not a hindrance," "a slight hindrance," "a moderate hindrance," "a great hindrance," and "the greatest hindrance."

Evidence of teacher demoralization and burnout also emerged from responses in the survey's open-ended question. Forty percent of open-ended responses described diminished teacher morale in some capacity. For example, one teacher shared that they had lost their enthusiasm for the profession:

> *The profession I was once passionate about has become a strain on my body, mind, and spirit [...] I WISH daily, with all of my heart, that my talents could be used in a productive way, for an organization that was well run.*

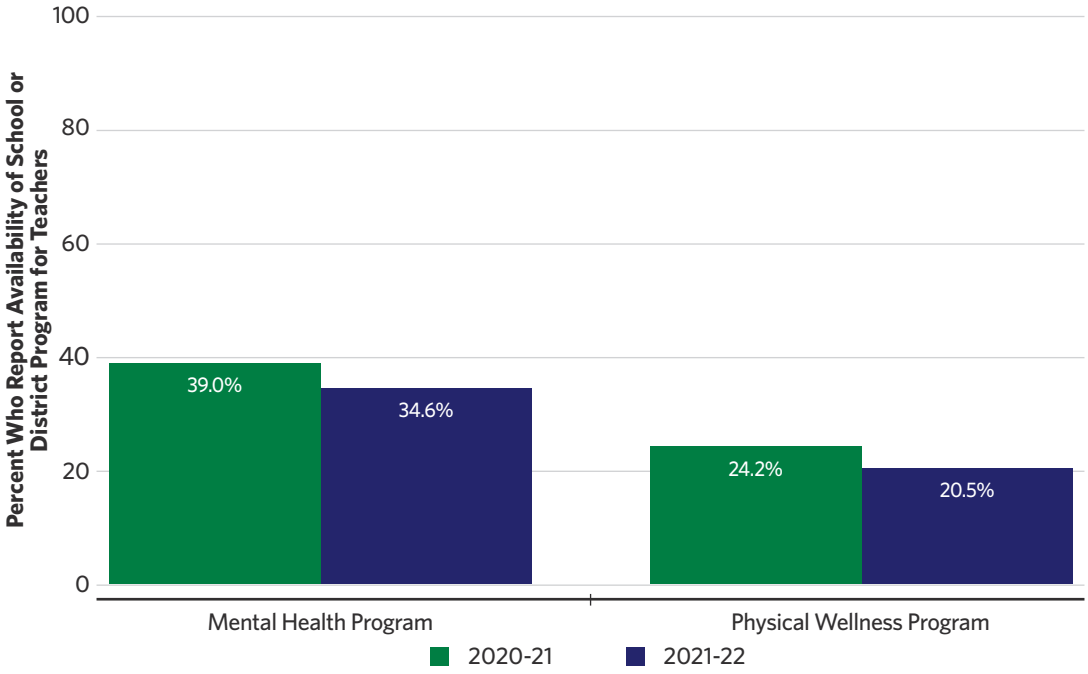
Another described a multitude of challenges that undercut their emotional health and the ways these challenges interacted with personal responsibilities:

> *We are so overwhelmed with the social and emotional needs of students and families. We have no time for our own well-being. It is taking a toll. I have low pay and high anxiety. We are way overworked and being online 24 hours a day and on weekends is a tipping point. My income is the only income my family has or I would have left years ago. I love teaching. But, there's so little support. We are blamed for everything. Yet, [we] have too few supports. I'm constantly exhausted. I'm running on empty. It's not fair to my own son. Plus, I take care of my mother. No other occupation expects these endless hours, changes, and low pay.*

Another teacher explicitly connected demoralization to considering plans to leave the profession, writing, *"I am very disheartened to think about leaving teaching, but at the same time I feel as if the education system throughout the country is crumbling underneath problems we have let escalate to enormous proportions."*

Despite growing concerns about teacher demoralization, survey data suggest that Partnership districts offered fewer resources to support teacher mental and physical health in 2021-22 than in 2020-21. Figure 7.6 summarizes teacher reports that their school or district provided teachers with a mental health program and physical wellness program, respectively, showing slight decreases in each of these items.

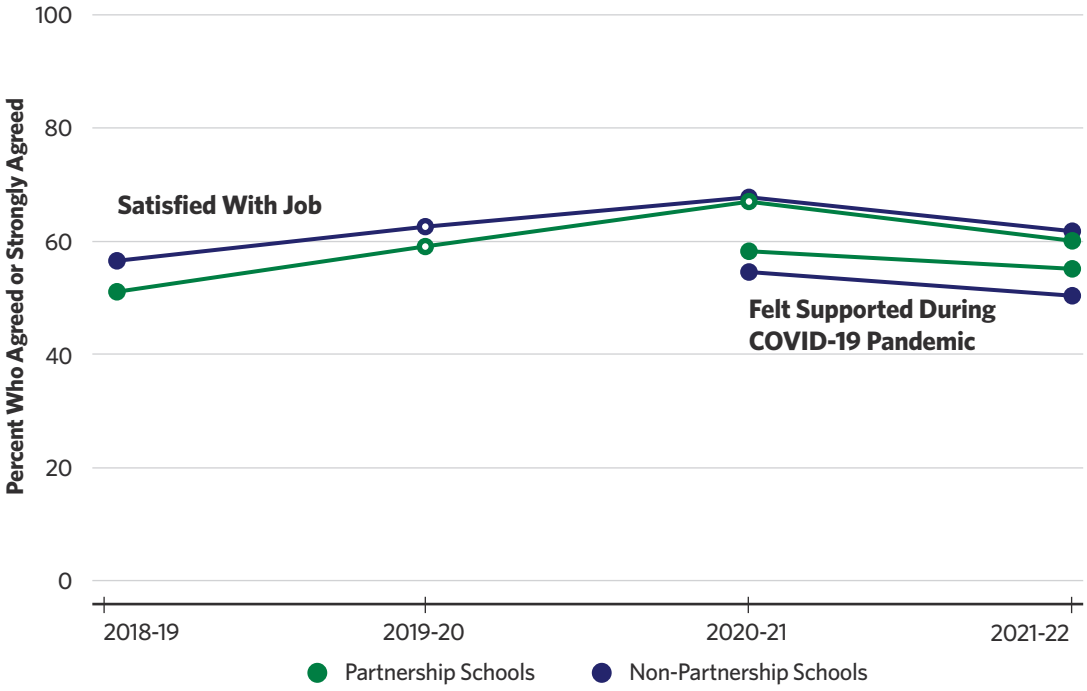
FIGURE 7.6. Partnership District Teacher-Reported Available Resources to Support Teachers' Mental and Physical Health, Past Two Years



Note: Teachers were asked, "From the following list, please identify the programs and services that are made available to you by your school/district during the school year" and were instructed to select all that apply.

Human capital hindrances and decreased morale raise concerns about teacher job satisfaction, which can presage future teacher turnover or contribute to declines in teacher effectiveness (Herman et al., 2018; Madigan & Kim, 2021; Nguyen et al., 2022). The Year Three Report showed an increase in teacher-reported job satisfaction in Partnership districts—especially in Partnership schools—during the 2020-21 school year. However, in 2021-22, teacher job satisfaction dipped to pre-pandemic levels in both Partnership and non-Partnership schools, with approximately 60% of teachers reporting satisfaction with their jobs.

FIGURE 7.7. Partnership District Teacher-Reported Job Satisfaction, by Partnership Status Over Time



Note: Teachers were asked the extent to which they agreed that they were satisfied with their job and felt supported by their school and district administration during the COVID-19 pandemic. Response options were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree." The difference between 2020-21 and 2021-22 is statistically significant ($p<0.001$ for job satisfaction, $p<0.10$ for feeling supported during the COVID-19 pandemic).

As reported job satisfaction dipped, the share of teachers reporting that they have felt supported by their administration during the COVID-19 pandemic also decreased slightly, from 56% in 2020-21 to 53% in 2021-22. These findings point to possible concerns about teacher retention and effectiveness in Partnership districts as teachers continue to grapple with daily challenges stemming from the COVID-19 pandemic.

Together, these findings suggest that human resources challenges, which were substantial concerns before the COVID-19 pandemic but waned in priority in the first full COVID-19 pandemic school year, have re-emerged in the second full COVID-19 pandemic school year. Moreover, educators believe these challenges are hindering school and district improvement. Specifically, educators reported that historically prevalent challenges such as low teacher retention and an insufficient supply of certified teachers increased in 2021-22 after reporting that they were

relatively minimal hindrances during 2020-21. In addition, educators report that hindrances such as low teacher attendance and lack of availability of substitutes, which we asked about for the first time during the COVID-19 pandemic, increased between the 2020-21 and 2021-22 school years. Accordingly, as is the case across the country, Partnership educators are exhibiting lower job satisfaction and are increasingly concerned about teacher demoralization and mental health challenges and the extent to which these challenges may undermine improvement efforts.

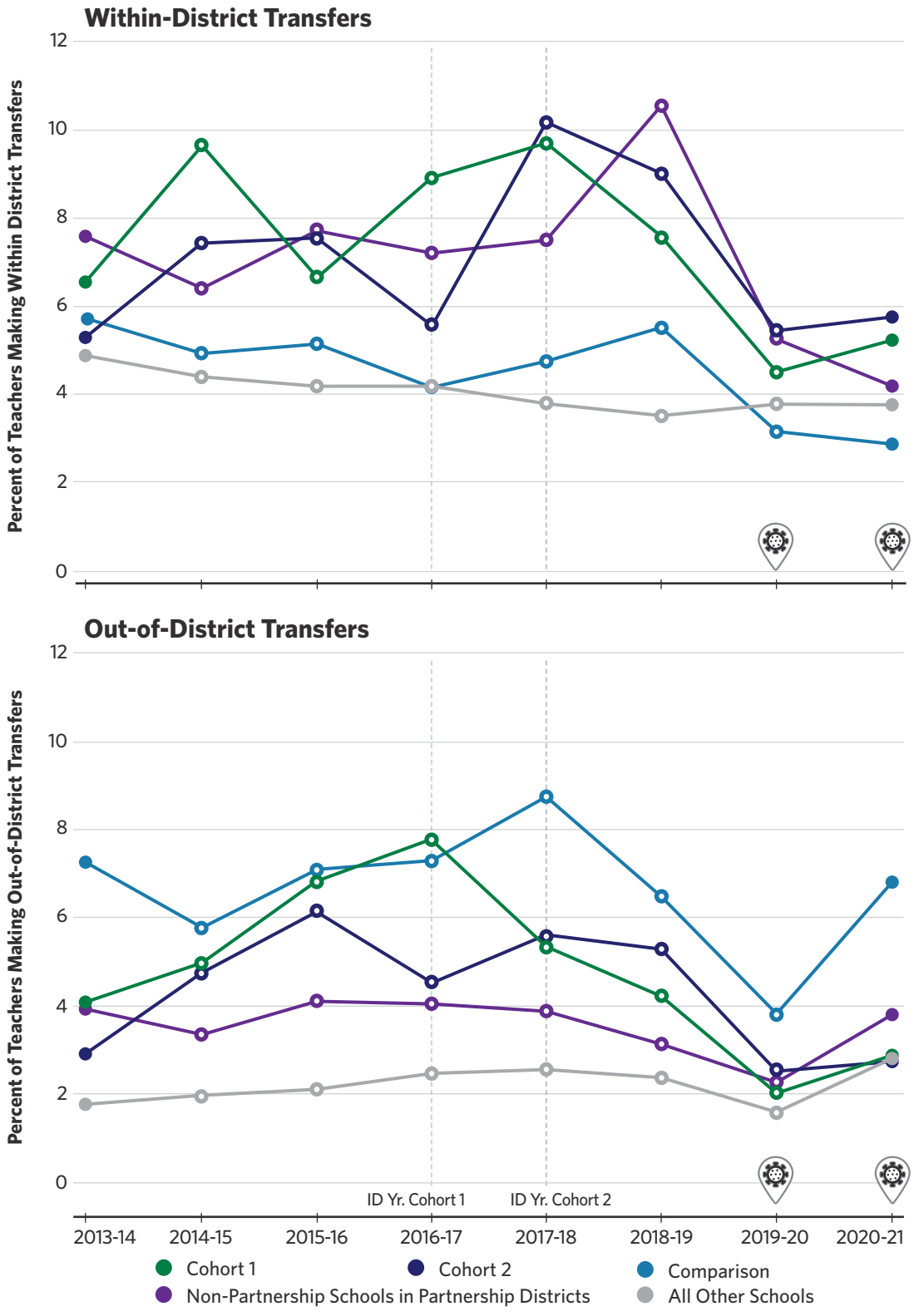
TEACHER TURNOVER

A large literature finds that teacher turnover is associated with decreased student achievement (Bryk & Schneider, 2002; Carver-Thomas & Darling-Hammond, 2017; Guin, 2004; Ronfeldt et al., 2013). Low-performing schools like those in Partnership experience more teacher turnover, on average, and a less robust educator pipeline than higher performing, more affluent schools (Boyd et al., 2005; Clotfelter et al., 2004, 2008a). Moreover, the implications of high teacher turnover and a tight educator labor market are magnified in turnaround schools because a stable, high quality educator workforce is central to successful turnaround (Henry et al., 2020; Malen & Rice, 2016). In this subsection, we begin by examining teacher mobility from the school. We do so by plotting within- and out-of-district teacher transfers over time, and then showing difference-in-differences estimates predicting the probability that a teacher will leave their school (regardless of pathway out) followed by the probability of each type of transfer. We turn next to descriptive and difference-in-differences analyses of leaving the teaching profession in Michigan public schools. Finally, we move to a descriptive analysis of the duration of time teachers spend in their districts to better understand the implications of the turnover schools and districts experience.

Each of these dimensions of teacher turnover are relevant to school turnaround outcomes. While some school turnaround policies are built around intentional staff turnover—deliberate dismissal or coaching out of less effective teachers and recruitment of more effective replacements—the ad hoc turnover that occurs at a higher rate in low-performing schools and districts can undermine reform efforts. When teachers turn over, regardless of where they go, the schools and districts are charged with finding and training replacements and replacement teachers need to acclimate to their new positions. High rates of turnover can erode relational trust and staff cohesion as departments and professional learning communities adapt to constant churn and students need to build new relationships with teachers (Johnson et al., 2012; Nguyen et al., 2020; Pham, 2022; Ronfeldt et al., 2013).

Pathways out of a school also have important policy implications because within-district transfers, out-of-district transfers, and exits from the profession have different effects on the district and state pools of available teachers. While within-district transfers can have detrimental effects for individual schools, they also retain talent within the district and may reflect movements in pursuit of better fits that will ultimately benefit both teachers and students. Transfers out of the district, by contrast, generate human capital losses at the district level. When teachers leave the teaching profession in Michigan public schools entirely, it affects the teacher pipeline for all schools. These losses may be felt most acutely by low-performing schools and districts like those in Partnership, which already struggle to recruit teachers and rely more heavily on new and novice teachers (Johnson et al., 2012; Simon & Johnson, 2015).

FIGURE 7.8. Average Teacher Transfer Rates in Partnership Schools, Districts, and Comparisons Over Time



Note: Descriptive trends in within- and out-of-district teacher transfers over time. Figures exclude exits due to school closures. Transfers are measured at end of listed school year and assigned to school that teacher transferred from. For example, a teacher who was in a Cohort 1 school in 2018-19 and then transferred to a new district in 2019-20 would be counted as a Cohort 1 out-of-district transfer in 2018-19. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic.

Teacher Transfers Increased in 2021-22 After a Year of Remarkably Low Transfers But Did Not Reach Pre-Pandemic Levels

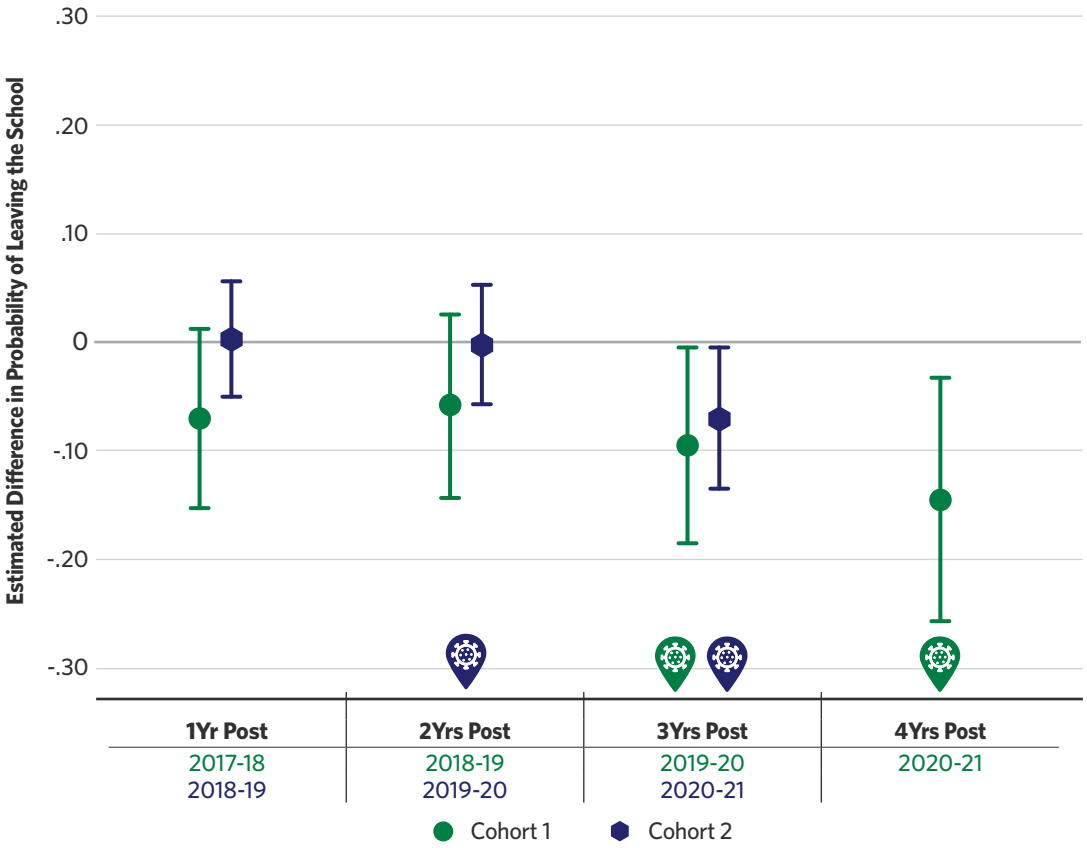
Figure 7.8 provides within- (first panel) and out-of-district (second panel) transfer rates from 2013-14 through 2020-21 from both cohorts of Partnership schools, comparison schools, non-Partnership schools in Partnership districts, and all other schools in the state. These descriptive graphs points to four broad takeaways. First, transfers out of Partnership schools, comparison schools, and non-Partnership schools in Partnership districts have historically been higher than transfers out of other schools in the state. Second, out-of-district transfers have been falling in Cohort 1 since Partnership identification, pointing to potential progress on teacher retention in those districts. Third, transfers—both within- and out-of-district—dipped substantially in the first COVID-19 pandemic school year and for the most part rebounded in the 2020-21 school year. Finally, however, the COVID-19 pandemic era trends look different in Partnership and non-Partnership schools; while Partnership districts have historically experienced more out-of-district mobility than non-Partnership districts, transfers out of these districts did not rise as steeply after 2020-21 as transfers from other districts.

Teacher Turnover Decreased in Partnership Schools During COVID-19 Pandemic School Years

Figure 7.9 provides difference-in-differences estimates for teachers leaving their schools. While the descriptive graphs above illustrate within- and out-of-district transfers for each group of schools, estimates from the models presented here show the probability of leaving Partnership schools relative to comparison schools—regardless of pathway out. In the left panel, the first two estimates for Cohort 1 and the first estimate for Cohort 2 show that there was no significant difference in the probability teachers left Partnership schools relative to comparison schools prior to the COVID-19 pandemic—though Cohort 1 teachers were descriptively less likely to leave their schools than comparison teachers in the pre-pandemic period. Then, in 2019-20, at the start of the COVID-19 pandemic (two years post identification for Cohort 2 and three years post identification for Cohort 1), Cohort 2 teachers were similarly likely to leave their school while Cohort 1 teachers were less likely to leave their school than comparison school teachers.

At the end of 2020-21, teachers in both cohorts were less likely to leave their schools than teachers in comparison schools, with a 14 percentage point decrease in Cohort 1 and a 7 percentage point decrease in Cohort 2. These effect sizes are both statistically significant and large in magnitude; prior to Partnership identification, Partnership schools were losing 19–28% of their teachers in any given year.

FIGURE 7.9. Difference-in-Differences Estimates of the Effect of Partnership on Teacher Turnover from School



Note: Markers denote coefficient estimates on interaction between Partnership cohort and implementation years in difference-in-differences model. Spikes represent 95% confidence intervals. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic for each cohort (Cohort 1 in green and Cohort 2 in blue).

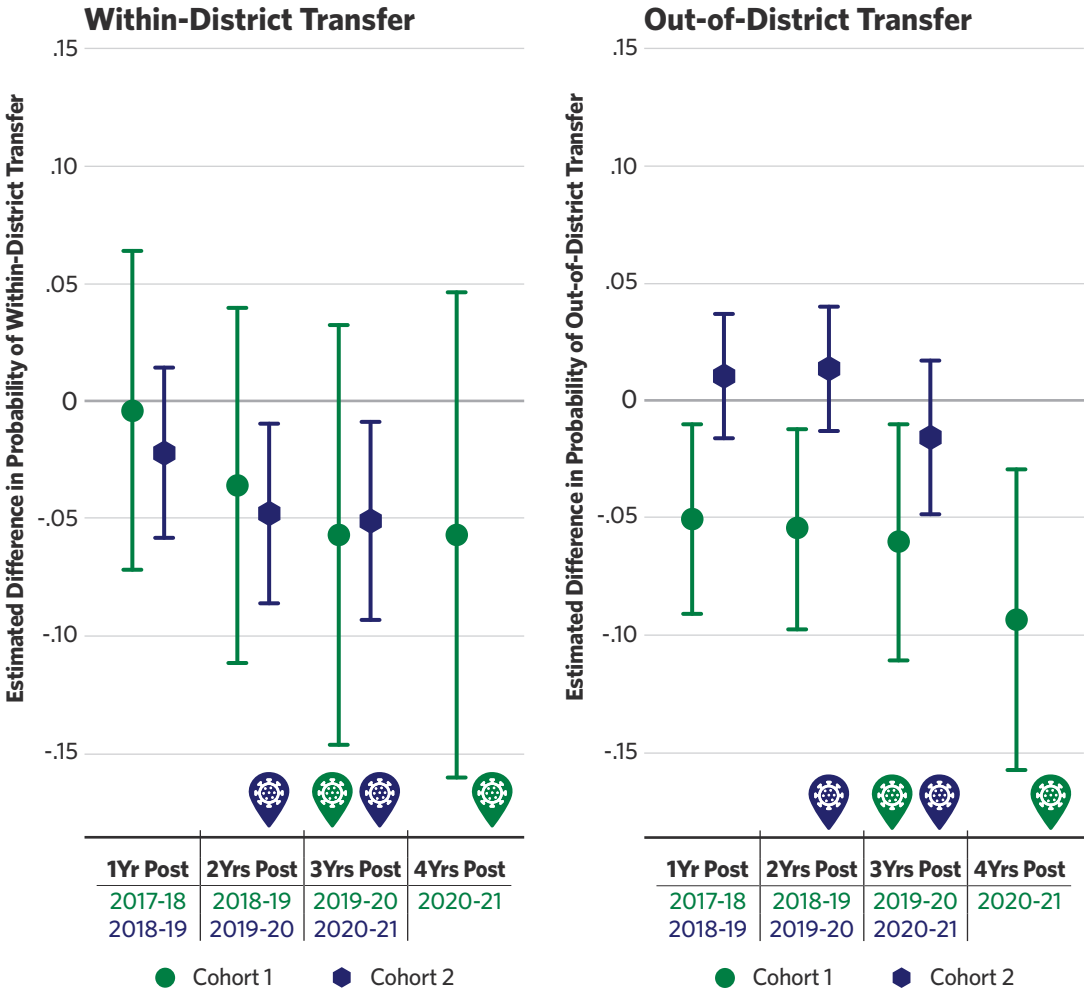
Cohort 2 Schools Have Experienced Fewer Within-District Transfers During Partnership Implementation, While Cohort 1 Schools Experienced Fewer Out-of-District Transfers

As described earlier, teachers leaving a school has implications for that school's turnaround, but their destination also matters for understanding human resources at the district level. We therefore turn next to an explicit examination of within- and out-of-district transfers in the difference-in-differences framework. Figure 7.10 provides difference-in-difference estimates for within- (left panel) and out-of-district (right panel) transfers. We do not detect an effect of Partnership or the COVID-19 pandemic on within-district transfers in Cohort 1 schools; though the estimates for years two to four are all negative, they are highly imprecise. In Cohort 2, where within-district transfers were increasing prior to Partnership identification, we find that the probability of within-district transfer decreased by about 5 percentage points in each COVID-19 pandemic school year.[2]

The right-hand panel shows that in each of the years since Partnership identification, the probability of out-of-district transfer has declined in Cohort 1 schools. This decrease magnified in each pandemic school year—from 5.4 percentage points in 2018-19 (before the COVID-19 pandemic)

to 6 percentage points in 2019-20 and 9.3 percentage points in the 2020-21.[3] Notably, the Cohort 1 point estimates here are similar to those for within-district transfers (just more precise), suggesting that all types of transfers from Cohort 1 schools have been declining at a steady rate relative to comparison schools since Partnership implementation. In Cohort 2, where out-of-district transfers were flatter prior to Partnership, we see a slight but statistically insignificant decrease in 2020-21.

FIGURE 7.10. Difference-in-Differences Estimates of the Effect of Partnership on Within- and Out-of-District Transfer



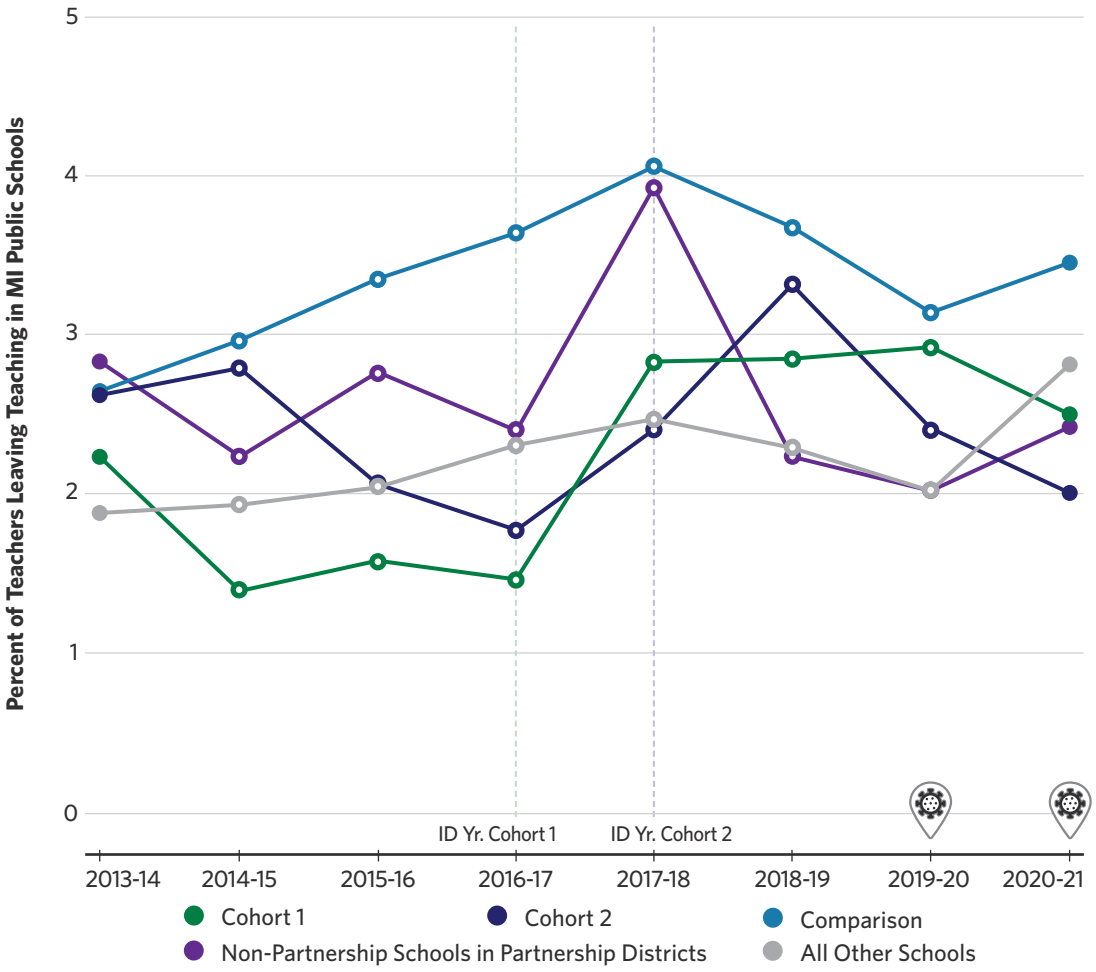
Note: Markers denote coefficient estimates on interaction between Partnership cohort (first panel) or round (second panel) and implementation years in difference-in-differences model. Spikes represent 95% confidence intervals. Each panel provides estimates from a single model estimating effects of Partnership and the COVID-19 pandemic on within-district transfers (left panel) and out-of-district transfers (right panel) for teachers in Cohort 1 and Cohort 2 schools, respectively.

Far Lower Proportions of Partnership School Teachers Exited the Michigan Teacher Workforce at the End of 2020-21 Than the Prior Year

We turn next to teachers leaving the Michigan teacher workforce. Figure 7.11 provides the rate of teachers leaving over time in both cohorts of Partnership schools, comparison schools, non-Partnership schools in Partnership districts, and all other schools.[4] Here, we find that unlike other

teacher mobility outcomes, exits from the profession are not consistently higher in Partnership schools and districts than in higher performing, more affluent schools. Rather, it appears that mobility rates in Partnership schools are driven by teachers' leaving to teach in other schools and districts. Figure 7.11 also highlights some other important patterns. First, exits increased substantially in 2017-18, the first implementation year for Cohort 1 and the identification year for Cohort 2. Cohort 1 exits have remained elevated, whereas exits in Cohort 2 schools rose again in their first implementation year and then declined in each of the two COVID-19 pandemic years.

FIGURE 7.11. Average Teacher Exit Rates in Partnership Schools, Districts, and Comparisons Over Time



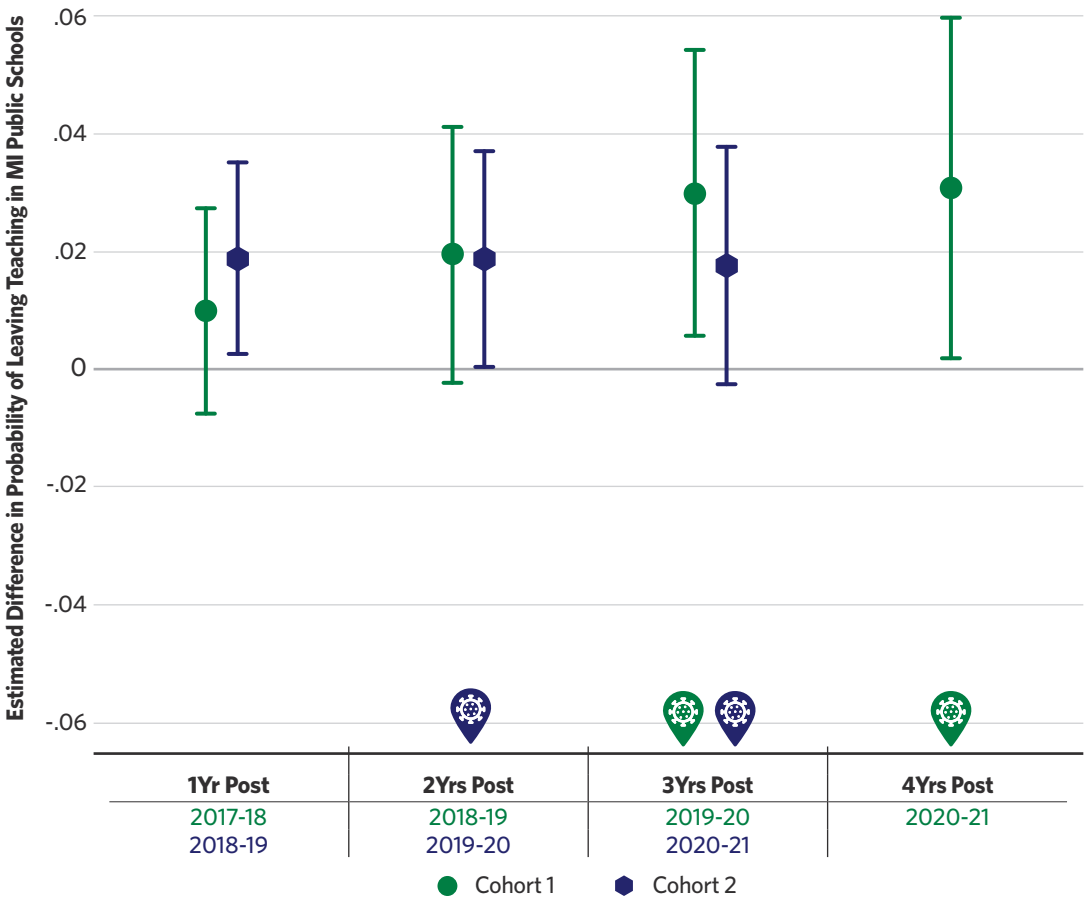
Note: Descriptive trends for leaving teaching in Michigan public schools over time. Leaving is measured at end of listed school year and assigned to the school that the teacher left. For example, a teacher who was in a Cohort 1 school in 2018-19 and then exited in 2019-20 would be counted as a Cohort 1 leaver in 2018-19. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic.

Cohort 1 schools were the only ones to experience a slight uptick in exits from the teaching profession in the first COVID-19 pandemic year. Then, as exits declined in Partnership schools in 2020-21, they increased in non-Partnership schools in Partnership districts, comparison schools, and all other schools. At the end of 2020-21, 2.5% of Cohort 1 teachers and 2% of Cohort 2 teachers left the teaching profession.

Partnership School Teachers Left the Michigan Public School Teacher Workforce at Higher Rates than Comparison School Teachers in Each Year of Partnership

Figure 7.12 provides difference-in differences estimates examining the effect of Partnership and the COVID-19 pandemic on leaving the Michigan public school teacher workforce. While Figure 7.11 provided average teacher exit rates over time, the difference in differences estimates compare Cohort 1 and Cohort 2 Partnership schools with comparison schools during Partnership implementation relative to before the intervention.

FIGURE 7.12. Difference-in-Differences Estimates of the Effect of Partnership on Leaving Teaching in Michigan Public Schools



Note: Markers denote coefficient estimates on interaction between Partnership cohort and implementation years in difference-in-differences model. Spikes represent 95% confidence intervals. Placemarkers on the horizontal axis denote years affected by the COVID-19 pandemic for each cohort (Cohort 1 in green and Cohort 2 in blue).

We find that in each year of Partnership, teachers in both Partnership cohorts were more likely to leave teaching in the Michigan public education system than their peers in comparison schools. While these differences in exit rates between Cohort 1 and comparison schools remained relatively stable throughout Partnership implementation, they increased slightly and are only statistically significant during the past two (COVID-19 pandemic) school years. However, the coefficient

estimates during COVID-19 are not significantly different from the 2018-19 estimates (i.e., the year before the COVID-19 pandemic). Thus, the COVID-19 pandemic did not appear to magnify the effects of Partnership on teachers' exits from teaching in Michigan. Cohort 2's greater rate of exit (relative to comparison schools) remained steady through all three years of Partnership implementation, although the estimates become less precise over time. In each year, teachers in Partnership schools were 1.5–2 percentage points more likely than their peers in comparison schools to leave teaching in Michigan public schools.

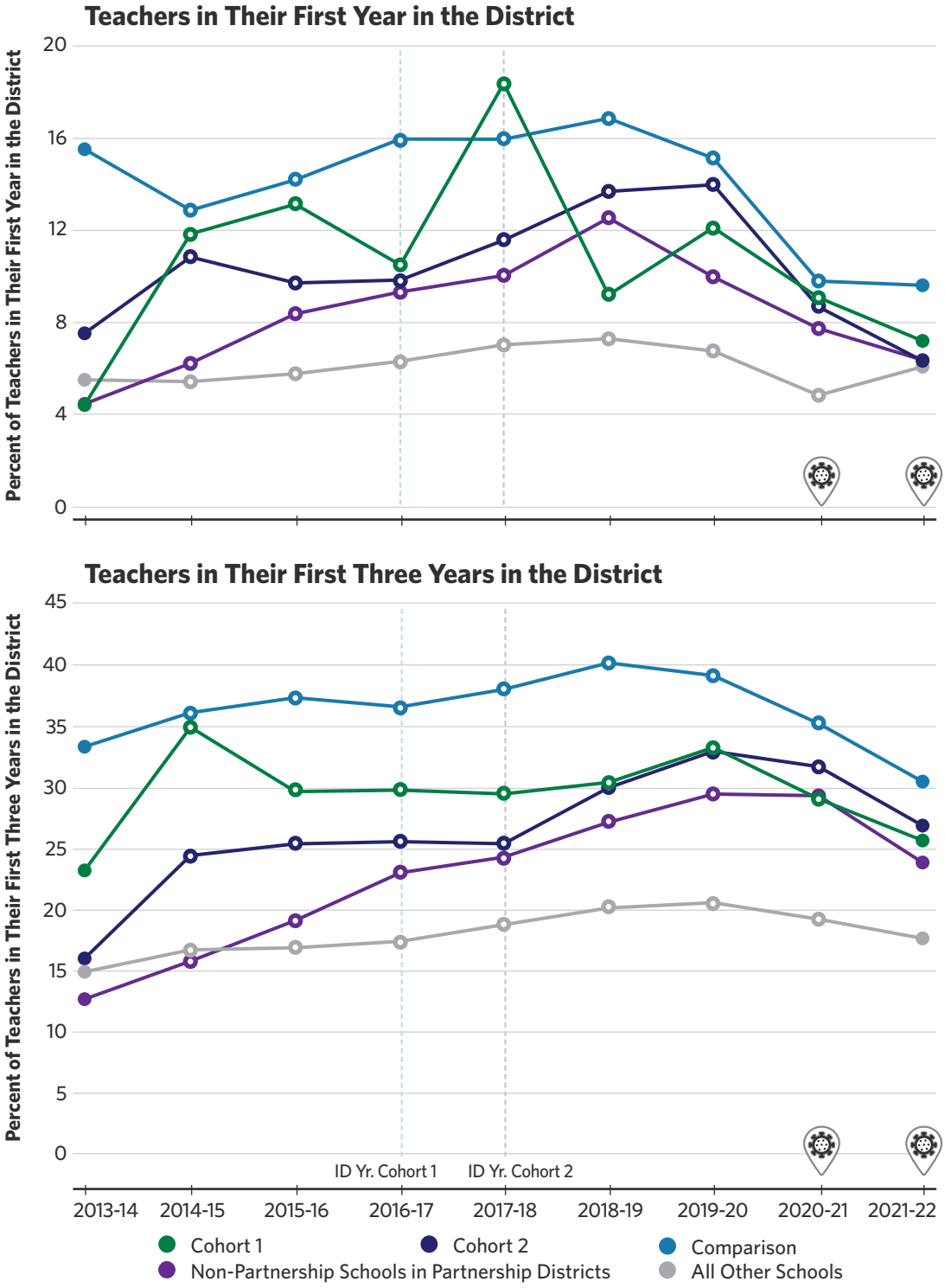
Together, these findings point to a nuanced picture of teacher turnover in Partnership schools—since Partnership implementation and during the COVID-19 pandemic. On one hand, teacher mobility out of Partnership schools has decreased. Both within- and out-of-district transfers from Partnership schools declined during the COVID-19 pandemic and did not return to pre-pandemic levels in 2020-21 even as they did elsewhere in the state. On the other hand, beginning in the first Partnership implementation year, Cohort 1 teachers in particular began leaving teaching in Michigan public schools at higher rates than pre-Partnership relative to a set of similar schools, and have continued to do so for all four years of implementation. Cohort 2 schools also saw an initial uptick in teachers leaving teaching in Michigan public schools but experienced fewer exits during the COVID-19 pandemic, though exits were still higher than in comparison schools. Together, these findings point to potential reasons for optimism with respect to teacher retention trends in Partnership schools—though it may also be the case that Partnership schools will return to (or even surpass) pre-pandemic mobility levels as the gradual return to normalcy continues.

Partnership Schools, Districts, and Other Low-Performing Schools Continue to Rely More Heavily Than Others on Teachers Who Are New or Novice in their District

High rates of teacher turnover mean that Partnership schools and districts need to continuously find new teachers to fill open positions. Because first-year and novice teachers are disproportionately represented in position pools (Johnson et al., 2005, 2012; Simon & Johnson, 2015; Viano et al., 2021), that often means filling open positions with new teachers who need more support and training on the job. While our data do not include valid measures of total teaching experience over time, we can observe the number of years that teachers were employed in their district. Teachers who are in their first year in a district are also often in their first year teaching—especially in low-performing schools, which rely heavily on novice teachers to fill open positions (Clotfelter et al., 2005; Johnson et al., 2012; Simon & Johnson, 2015).

Figure 7.13 illustrates the share of teachers who are in their first year (top panel) and first three years (bottom panel) in their district for both cohorts of Partnership schools, comparison schools, non-Partnership schools in Partnership districts, and all other schools. Relative to higher performing schools in Michigan (i.e., all other schools), low-performing schools and districts have consistently relied more on teachers who are new or relatively new to the district. This finding reflects low-performing schools and districts' higher rates of out-of-district transfers—and in the case of Partnership schools and districts, higher rates of exit from the teaching profession. When teachers leave the district, either for a position in another district or to leave teaching entirely, school and district leaders need to fill vacancies with new-to-district teachers.

FIGURE 7.13. Average First-Year and Novice Teacher Rates Over Time in Partnership Schools, Districts, and Comparisons



Note: Descriptive trends for share of first-year and novice teachers over time. Novice teachers are those with three or fewer years of teaching experience. Placemarkers on the horizontal axis denote years affected by COVID-19.

The figures in the first panel here largely lag a year behind the trends in the second panel of Figure 7.8, which shows out-of-district transfers over time; specifically, the share of first-year teachers increases in the years following an uptick in out-of-district transfers and decreases in the years following a dip in out-of-district transfers. The second panel shows similar though less volatile patterns. Because non-Partnership schools in Partnership districts experience the greatest share of out-of-district turnover over time, on average, they consistently rely on the greatest share of teachers in their first three years in the district. Cohort 1 and Cohort 2 schools, respectively, with the next highest rates of out-of-district transfers, also rely more than other schools on teachers with less experience in the district, though not as much as comparison schools.

TEACHER RETENTION

While the administrative data examined earlier helps us to understand patterns in teacher retention and exit over the past many years, teacher-reported intentions to remain in their positions help to predict future turnover or retention. In this subsection, we draw from survey data to examine teacher-reported employment plans in each of the past three survey waves (fall 2019, spring 2021, spring 2022). We then unpack those plans for the most recent year by examining the factors that teachers report contributed to their plans.

After Unusually High Teacher Retention in 2020-21, Teacher-Reported Intentions to Stay in their Positions Reverted Back to Pre-Pandemic Levels

Statewide administrative data only allow us to assess teacher mobility through the 2020-21 school year. Yet, as discussed throughout the report, 2021-22 brought new and distinct challenges to Partnership schools and districts that could have affected educators' propensities to stay or leave. Using our survey data, we can observe teachers' reported intentions to stay or leave in 2021-22.

Figure 7.14 summarizes these reported plans in both Partnership and non-Partnership schools in Partnership districts over time. After a sizeable increase in 2020-21 in the share of teachers reporting plans to stay in their schools, intentions to stay dropped back to pre-pandemic levels, with 77% of Partnership school teachers and 81% of non-Partnership school teachers reporting plans to stay in their schools in some capacity. This represents a 9% decline in the share of Partnership school teachers and a 5% decline in the share of non-Partnership school teachers intending to stay. Meanwhile, the share of Partnership and non-Partnership school teachers intending to leave education or retire remained constant at about 8% in Partnership schools while increasing from approximately 5% to approximately 9% in non-Partnership schools in Partnership districts. Partnership school teachers instead showed an increase in plans to transfer out of their districts.

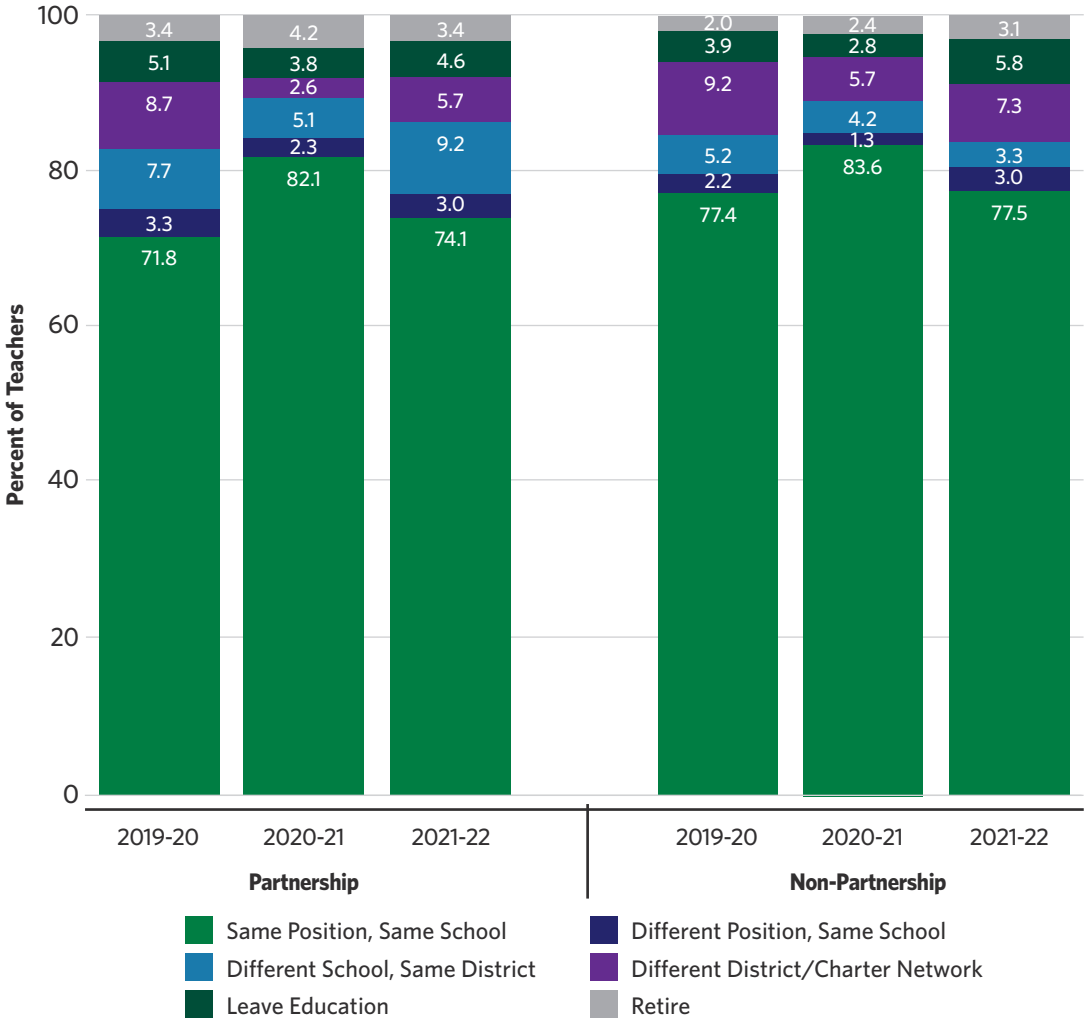
While these data reflect intentions and not necessarily future behavior, the decreased share of teachers reporting plans to stay, at minimum, may denote rising teacher dissatisfaction and burnout after two years of COVID-19 pandemic schooling. Indeed, 20% of teachers' responses to open-ended survey items described feeling undervalued, and 7% said they felt demoralized by teaching but planned to remain in their positions for a variety of reasons, including their

students, financial need, and becoming fully vested in the retirement system. For example, one teacher wrote:

> *Morale is at its breaking point for many teachers. Those who can retire are and the young teachers are leaving. The only reason I will stay for two more years is the proximity to my home and [the] fact that I promised a couple of my students that I would stay until they graduate. After that, I will leave to anywhere.*

Another teacher shared, *"So many times I wanted to quit but would be homeless if I did."*

FIGURE 7.14. Partnership District Teacher Reported Career Plans for the Next School Year, by Partnership School Status Over Time



Note: Teachers were asked, "Which of the following best describes your plans for next school year?"

Along with the statewide increases in teacher transfers at the end of the 2020-21 school year, these data on teacher intentions raise concerns about teacher retention in Partnership schools and districts. Partnership schools and districts have historically struggled to retain teachers and to recruit experienced and highly effective replacements. These data suggest that those challenges may become even more pronounced in future school years.

Teachers Planning to Remain in the Profession Cite Climate, Culture, Leadership, and Their Students as Primary Motivation to Stay While Teachers Planning to Leave Cite Workload, Pay, and Leadership

Several different factors may contribute to teacher intentions to remain in their job, transfer, or leave the profession. In low-performing schools in particular, evidence from Partnership and other contexts suggests that teachers are especially concerned with factors related to administrative support (e.g., school and district leadership), disciplinary enforcement, safety, and salary in their considerations about whether to remain in their schools (Viano et al., 2021).

To better understand the motivations driving teacher decisions in Partnership districts, we asked teachers about the extent to which a variety of items factored into their reported plans. Figure 7.15 provides a visualization of teacher responses by ranking each item from 1-10 based on the share of teachers reporting that it was a major or the primary factor in their decision. The first panel provides importance ranks for Partnership school teachers and the second provides these ranks for non-Partnership school teachers in Partnership districts. In parallel with findings from the Year Three Report, the top three reasons Partnership district teachers reported for staying (the first column) are culture and climate, leadership, and their students. COVID-19-related factors ranked relatively low in stayers' decisions, with the administration's treatment of teachers during the COVID-19 pandemic, COVID-19 safety in school, and personal health related to COVID-19 all in the bottom half of factors for both Partnership and non-Partnership school teachers. Stayers ranked the school or district's accountability designation as the least important reason for staying.

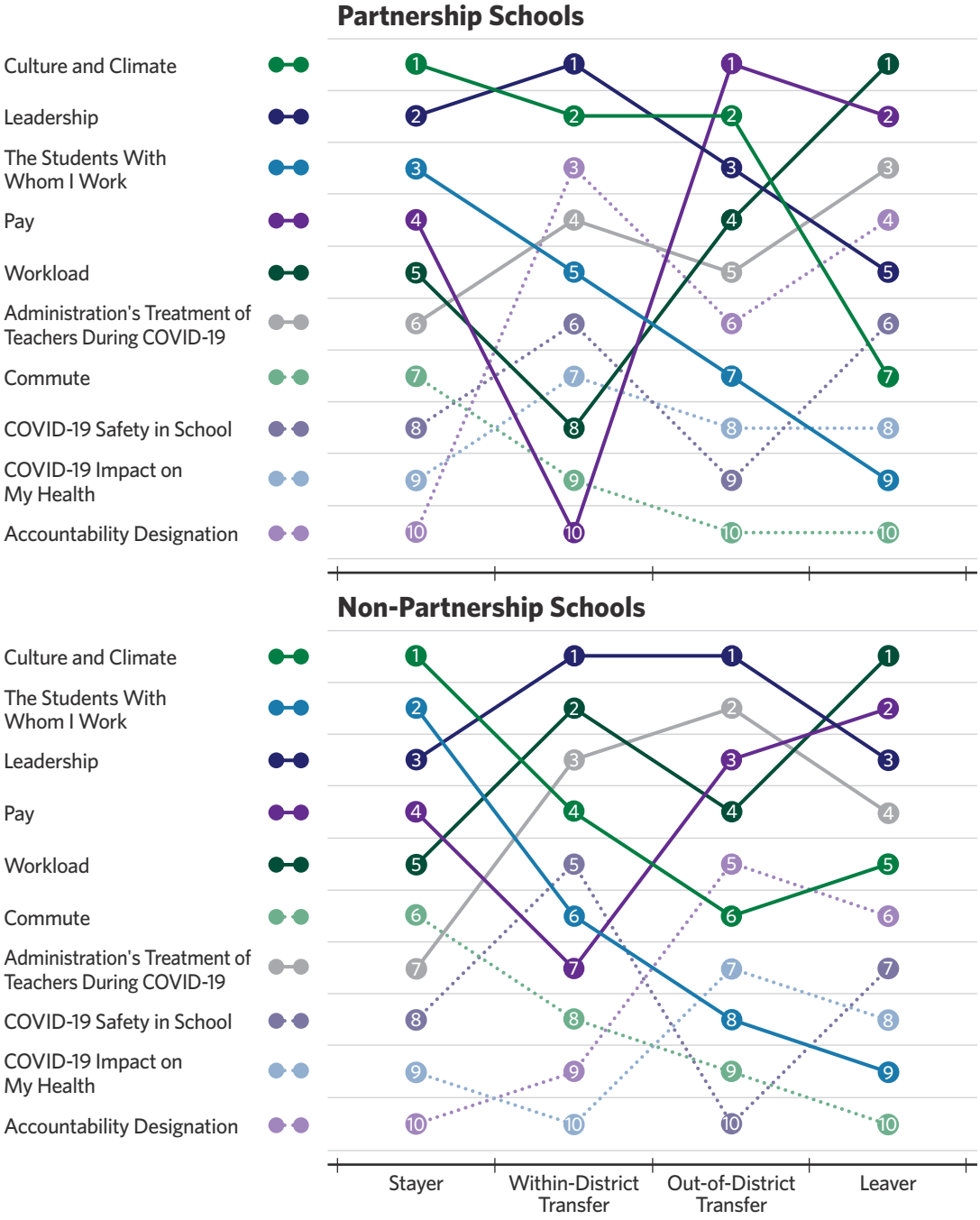
The second column ranks reasons for within-district transfers. Here, culture and climate and leadership again rank highly (top two in Partnership and in the top four in non-Partnership), underscoring that these two factors have the potential to induce teachers to either stay in or to leave their positions. Meanwhile, the accountability designation—ranked last among stayers—was a major factor for teachers in Partnership schools (#3) but not non-Partnership schools in those districts (#9). It may be the case that teachers who do not want to leave their district choose to move to a nearby school that is not designated as low performing. Survey open-ended responses help to unpack this finding, as 10% of respondents raised issues related to accountability—underscoring that the accountability designation increases pressure for teachers in low-performing schools.

Specifically, some teachers expressed that the school's accountability designation created more acute pressures for them in the classroom—especially as they work to mitigate challenges emanating from the COVID-19 pandemic such as student mental health crises and high rates of student absenteeism. It may be the case that the magnified sense of personal accountability is contributing to teacher burnout and decisions to leave. For example, one teacher wrote:

> *I love working with kids, but college never prepared me for the amount of hardship and stress that would come with the job. I love working with my kids, but the constant fear of being written up due to a bad lesson, or because a student who never shows up had their test scores drop is a type of stress that I don't think I can do much more of.*

Figure 7.15 also highlights that students are a central consideration in teachers' decisions to stay and are not important drivers of their decisions to leave. In Partnership schools, teachers intending to stay rank students as the #3 factor in that decision, teachers intending to transfer within-district rank students as #5, teachers intending to transfer out of district rank students #7, and teachers intending to leave the profession rank students ninth—just ahead of commute. Teachers in non-Partnership schools follow a very similar pattern.

FIGURE 7.15. Ranked Partnership District Teacher-Reported Reasons for Employment Plans, by Partnership School Status and Intended Pathway



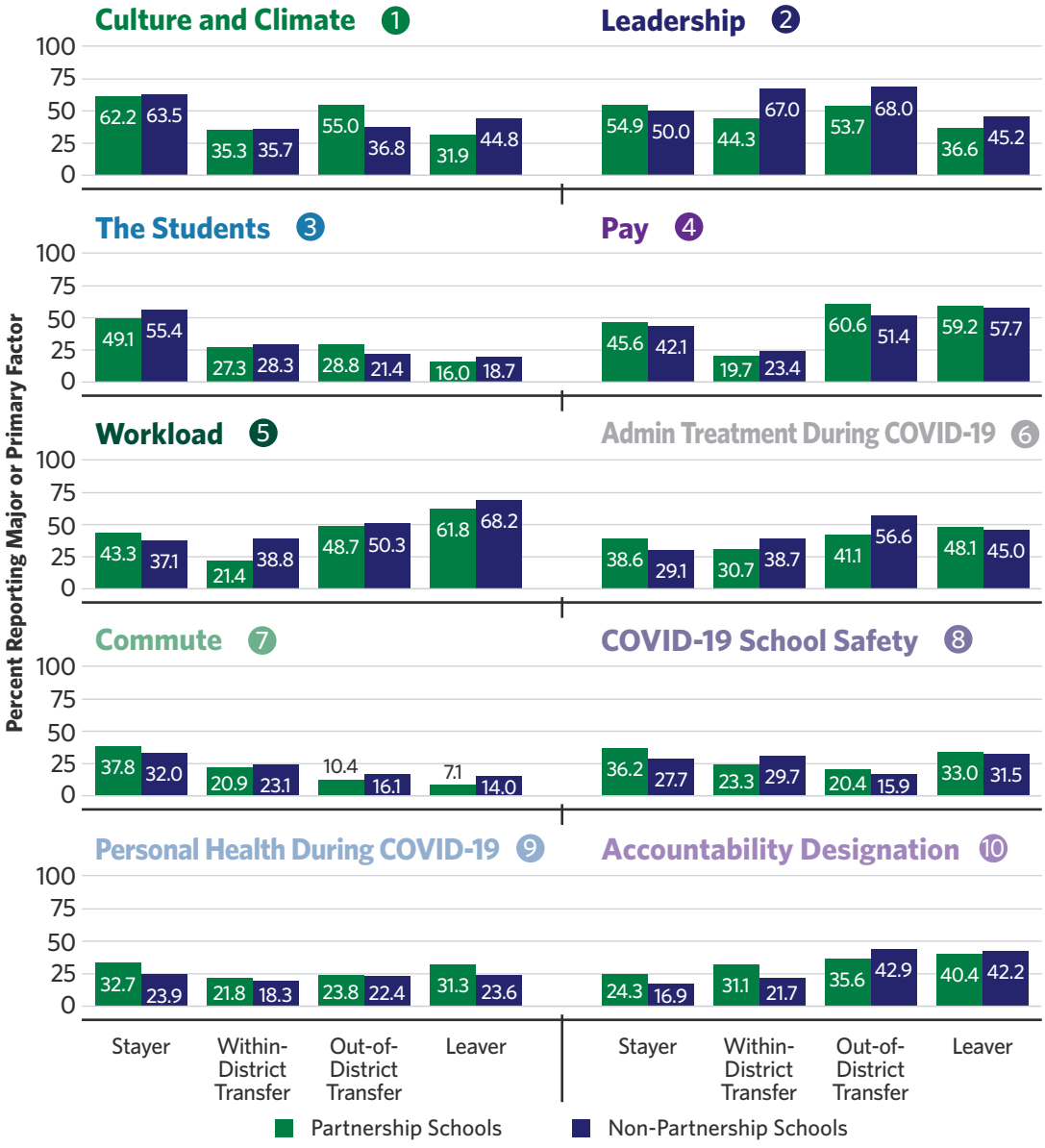
Note: Teachers were asked about the extent to which each of the above items factored into their reported plans for the following school year. Response options were "not a factor," "a minor factor," "a moderate factor," "a major factor," or "a primary factor." Marker colors denote items, numbers provide the rank of each item based on the share of teachers under each reported plan selecting a major or primary factor.

Administration's treatment of teachers during the COVID-19 pandemic appeared to play a more important role in teachers' exit decisions than in their intentions to stay. While teachers ranked it relatively low as a reason to stay, they ranked it much higher as a reason for transferring and leaving the profession. Open-ended responses reinforce this finding, with 16% of respondents raising concerns about district administration in particular. One noted:

It isn't COVID or student behavior that seems to be causing educators to flee the profession. The complete lack of appreciation from central administration, the lack of understanding from central admin of what teachers are truly dealing with, and insufficient pay are leading to mental stress and mass exodus of teachers. We can endure A LOT if we just felt acknowledged and appreciated.

Figure 7.16 provides additional context by showing the percent of teachers who reported that each item was a major or primary factor in their employment plan.

FIGURE 7.16. Percent of Teachers Reporting That Various Factors Contribute to Employment Plans, by Partnership School Status and Intended Pathway

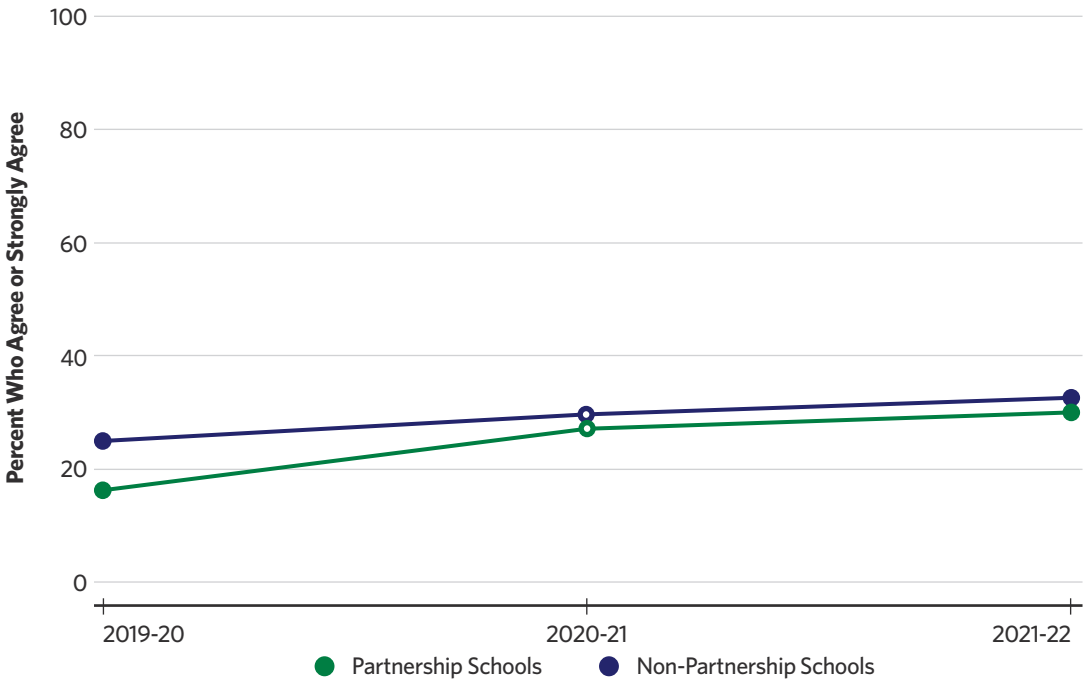


Note: Teachers were asked about the extent to which each of the above items factored into their reported plans for the following school year. Response options were "not a factor," "a minor factor," "a moderate factor," "a major factor," or "a primary factor." Bars denote share of teachers reporting a major or primary factor. Panel header colors and numbers align with those in the first panel of Figure 7.15.

Column 3, ranking factors for out-of-district transfers, again places leadership near the top (#3 in Partnership and #1 in non-Partnership schools). Most notably, the importance of pay soars to #1 for Partnership schools and #3 for non-Partnership schools. Because salaries are set at the district level, this finding highlights that while teachers may choose to stay in a school due to strong leadership, culture and climate, and their students, they may also be inclined to leave if a nearby district offers better pay.

Indeed, teachers express very little satisfaction with their pay. Figure 7.17 shows that only 30% of teachers in Partnership schools and 33% in non-Partnership schools were satisfied with their salaries, about on par with the previous year.

FIGURE 7.17. Partnership District Teacher-Reported Salary Satisfaction, by Partnership School Status Over Time



Note: Teachers were asked about the extent to which they were satisfied with their salary. Response options were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree."

In each of year of interviews for this study, low pay has emerged as a key issue Partnership district leaders grapple with in teacher recruitment and retention efforts. The district leader of Canucks noted:

> *We are surrounded by a lot of very affluent districts and what those districts are paying, so we're competing with them, but we really don't have the financial resources to compete when the district down the street is offering $10,000 more, so that's been a challenge I would say. For the last year, we did make some changes to increase salaries, which did help, but I'd say that was, looking at the salary and kind of making it an even playing field would help even more.*

Pay was also a key issue in open-ended survey responses, with 22% of teachers raising a need to increase pay. One teacher wrote, *"I also feel disheartened that I went to school to do this job and am barely making a living wage to compensate me."*

Finally, Column 4 of Figure 7.15 shows that the top-reported reason for leaving the profession from both Partnership and non-Partnership schools is workload. Indeed, 18% of open-ended responses raised concerns about workload—often together with low pay. One teacher summarized teaching as, *"In short it's too much work for too little pay."* Another described an unrelenting workload as:

> *We are not paid for the 10- to 12-hour days we put in, and the time we sacrifice on the weekends. We do work before work to prepare for work. We create work during the work period. We do work after work for work as follow-up from the workday that will be handed back the next day.*

Similar to last year, these findings suggest that teachers in Partnership schools and districts value culture, climate, leadership, and their students and consider these factors in deciding to stay in their schools. While positive perceptions of leadership may promote teacher retention, negative perceptions of leadership may drive teachers to transfer out of schools or districts. Workload and pay are the primary factors driving teachers to leave the profession.

Workload and pay are the primary factors driving teachers to leave the profession.

Together, these findings point to potential levers for schools and districts to aid in their efforts to recruit and retain teachers. Specifically, a focus on school and district leadership and positive school climate could promote teacher retention. However, there are limitations to the extent individual schools and districts can affect teacher retention, especially in the Michigan teacher workforce as a whole. Responses suggest that reducing exits from teaching may require structural changes to the profession, greater pay, and sufficient school and district resources to manage teacher workloads.

TEACHER RECRUITMENT

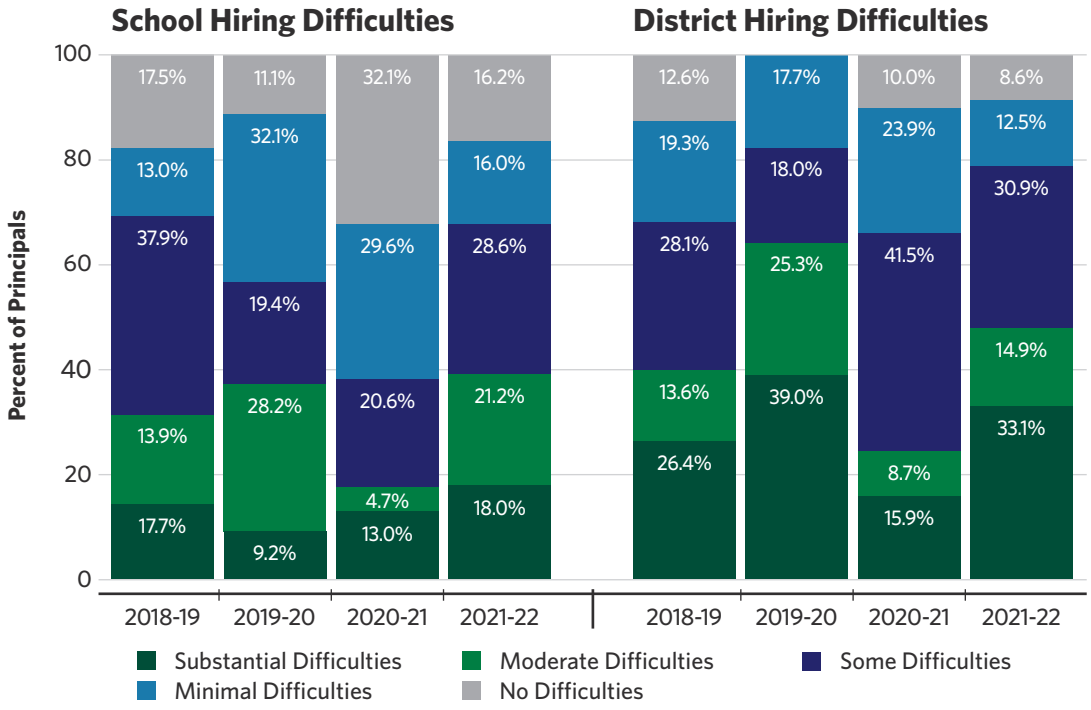
When teachers leave, whether for a new school, district, or professional field, schools and districts typically need to fill the vacancies they left behind. Hiring new teachers and principals to fill vacancies is especially challenging for low-performing schools and districts throughout the country (Guarino et al., 2006; Hanushek et al., 2004b; Papay & Kraft, 2016). Hiring highly effective teachers is also critical for student success, making teacher recruitment a central component of successful turnaround.

Principals Report More Challenges Hiring in 2021-22 Than in Prior Years

To better understand the extent to which Partnership schools and districts struggled to fill open teaching positions, we asked principals about school and district difficulties hiring teachers. Figure 7.18 summarizes principal responses over time. There are three main takeaways. First,

principals have consistently reported some degree of school and district hiring difficulties. Second, principal reports of hiring difficulties—especially at the school level—dropped considerably in 2020-21. In the first full COVID-19 pandemic year, the share of principals reporting moderate to substantial school hiring difficulties was cut in half and the share reporting no difficulties tripled. Third, hiring difficulties re-escalated in 2021-22, with nearly 40% of Partnership district principals reporting moderate to substantial school hiring difficulties and only 16% reporting no difficulties. At the district level, nearly half reported moderate to substantial difficulties and less than 10% reported no difficulties. Notably, one third of principals reported substantial difficulties with hiring—over twice as many as the year prior.

FIGURE 7.18. Partnership District Principal Reports of Teacher Hiring Difficulties Over Time



Note: Principals were asked, "To what extent did your school and district or charter management organization experience difficulties in recruiting and hiring teachers this school year?"

Though not shown here, Partnership school principals reported greater hiring difficulties, on average, than their district peers in non-Partnership schools this year. Specifically, 47% of Partnership school principals compared with 33% of non-Partnership school principals reported moderate to substantial challenges with hiring teachers to work in their school.[5]

Given the large number of teacher transfers statewide at the end of 2020-21, Partnership schools and districts may have had even more competition than before for teachers to fill open positions. To the extent that teacher burnout leads to increased exits from the profession and tighter labor markets, these hiring difficulties may become more salient over time. To that end, understanding the factors that contribute to hiring difficulties may help to inform policy aimed at recruiting highly effective teachers in Partnership schools and districts.

Principals Continue to Perceive that Malleable School Factors Contribute Positively to Hiring Efforts, While Pay and Community Contextual Factors Contribute Negatively

To better understand the mechanisms driving teacher hiring, we asked principals to indicate the extent to which a variety of factors contribute to their ability to recruit teachers. Figure 7.19 summarizes average principal responses along three dimensions—in-school factors (i.e., school-level factors that teachers and school or district leaders may be able to change), out-of-school factors (i.e., community and contextual factors that are external to the school and likely cannot be changed by school-based actors), and other factors such as Partnership status, COVID-19, and pay.

FIGURE 7.19. Partnership District Principal Reports of Factors Contributing to Hiring Efforts, 2021-22

Note: Principals were asked to rate the extent to which each factor affects principals' ability to recruit and hire teachers. Bars represent mean response across all principal respondents in Partnership districts.

Response options ranged from "very negatively impacts" (1) to "very positively impacts" (5). Bars that cross the midpoint reflect factors that principals felt positively affected their ability to recruit and hire teachers, bars that stop at the midpoint reflect factors that principals did not believe affected their ability to hire, and bars below the midpoint reflect factors that principals believed negatively affected their ability to hire.

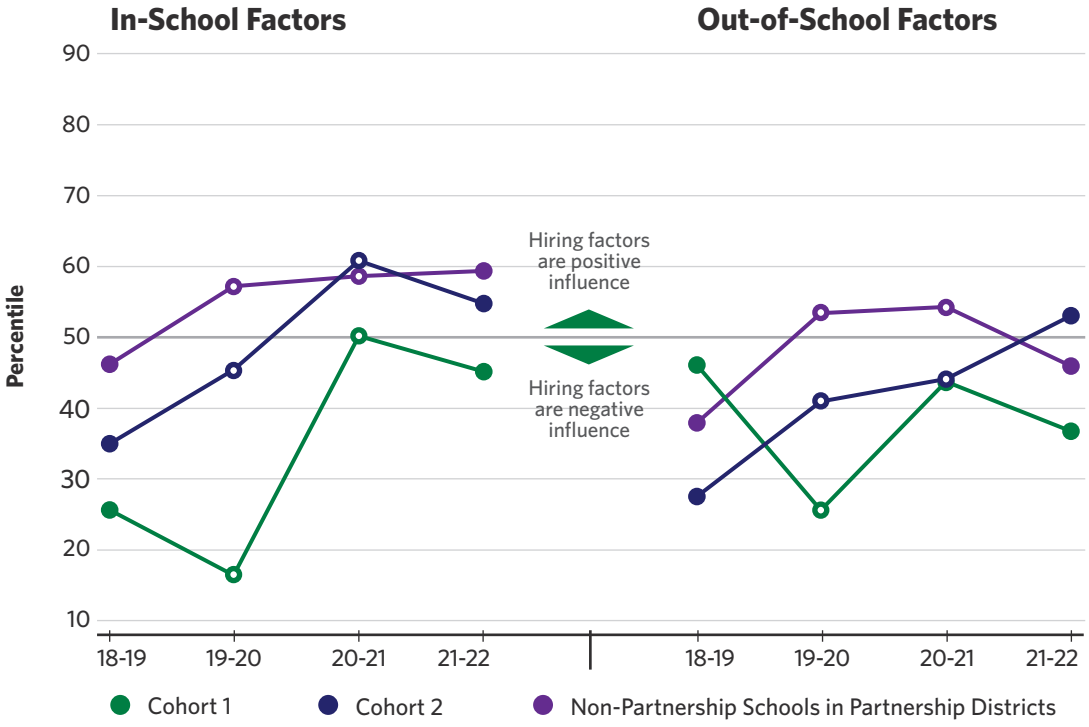
Principals believe that only three factors—culture and climate, ability to offer professional development or support, and discipline—positively affected their ability to hire teachers. All three of these are "malleable school factors" that can be affected by school leadership improvement efforts. Principals rated academic performance as a neutral factor and rated all other factors as negatively contributing to their hiring efforts. The most negative were related to teacher pay—in particular, teacher salaries and competition from nearby districts. The next most negative was health concerns from COVID-19.

FIGURE 7.20. In-School and Out-of-School Hiring Challenges Constructs

We generated two constructs, shown in Figure 7.20, that reflect in-school and out-of-school hiring challenges. Figure 7.21 shows principal responses over time to the in-school (first panel) and out-of-school (second panel) factors for Cohort 1, Cohort 2, and non-Partnership schools in Partnership districts, respectively. Marker heights denote the average percentile of Cohort 1, Cohort 2, and non-Partnership school principal responses to items about in-school and out-of-school hiring factors.

While principals in all three groups reported that in-school factors were increasingly positively influencing hiring, peaking in the 2020-21 school year, Partnership school principals believed this factor was less persuasive in 2021-22. This may reflect reports of decreases in job satisfaction and morale. Although less positive in 2020-21, principals' reports of the beneficial influence of out-of-school factors on hiring also decreased in the 2021-22 school year (although not for Cohort 2). Cohort 1 principals consistently perceived more negative influences of both in-school and out-of-school hiring factors. As we describe in Section Eight, Cohort 1 schools are among the persistently lowest performing in the state and have grappled with challenges related to human capital, school climate, and student discipline.

FIGURE 7.21. Partnership District Principal Perceptions of Influence of In-School and Out-of-School Hiring Factors, By Partnership School Status Over Time



Note: Marker heights represent mean percentiles of Cohort 1, Cohort 2, and non-Partnership school principals on responses to items related to in-school and out-of-school hiring factors. The 50th percentile represents the average for all principals across each of the four survey waves. A mean response above the 50th percentile line indicates that a given group reported a more positive influence of in-school (first panel) or out-of-school (second panel) hiring factors than the average respondent across the three survey waves. A mean response below the 50th percentile line indicates that a given group reported a more negative influence of these factors.

Together, these findings point to a resurgence of teacher recruitment challenges following a brief respite in 2020-21 when teachers were waiting out the COVID-19 pandemic to make moves, and when educators were largely focused on immediate challenges related to the COVID-19 pandemic and remote learning. While Partnership districts appear to have made efforts to target funding toward human capital in Partnership schools, Partnership school leaders still report pronounced challenges recruiting teachers into their schools and districts. These challenges may be even greater in Cohort 1 schools.

TEACHER SALARY, INCENTIVES, AND SUPPORTS

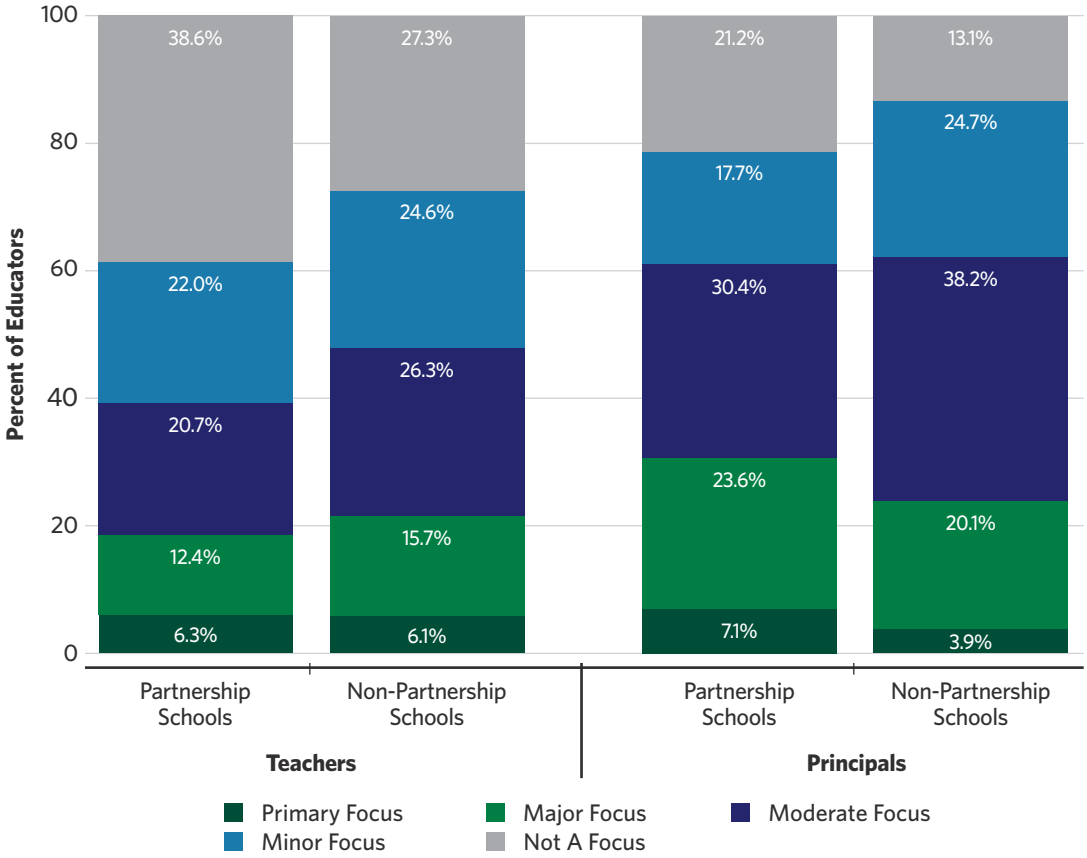
Pay has been a recurrent theme throughout this section. Teachers cite low pay as a reason for leaving the profession, and principals reported that pay and competition from nearby districts were negative influences in their ability to recruit and hire teachers. Only 29% of teachers reported being satisfied with their salary in 2021-22, as we show in Figure 7.7. Partnership district leaders cited pay as a reason for professional turnover and a potential impediment for the teacher pipeline; even if low pay doesn't lead teachers to leave the profession, it may dissuade new teachers from entering. For example, the Knights district leader said:

> *Many folks don't think teachers are professionals. I think there are so many reasons now why folks are leaving the profession, and some of us who've been around a lot longer, we've established relationships that we don't want let go of. We are in a pension system, so we will be rewarded at the end of the 30 year career, but some of our younger folks will do this job for a year or two and they're out. I can make it—it's so unfortunate that we only pay and it's not just us, but we're paying our teachers $40 thousand a year. [...] I think morale is probably at its lowest, but there are still many of us who are passionate about the work. We just need to do more to entice folks to get into the profession, pay them a good wage, do something to restore the retirement system, so they'll stick around a long time because we can't keep hiring 100, 200 teachers a year, can't do.*

Partnership Districts Leveraged Available Resources to Address Staffing Challenges

While the above findings point to pay as a flashpoint in Partnership districts, Partnership schools and districts were making efforts to mitigate pay gaps. One approach to doing so is recruitment and retention incentives, which some research suggests can help fill vacancies and reduce turnover in low-performing schools in particular (Clotfelter et al., 2008a, 2008b). Figure 7.22 summarizes teacher and principal perceptions of the degree to which their schools focus on teacher recruitment or retention incentives. More educators reported that incentives were at least a moderate focus in 2021-22 than in 2020-21—pointing to the possibility that districts were leveraging Partnership and COVID-19 pandemic resources for these purposes.

FIGURE 7.22. Partnership District Educator Reports of Recruitment or Retention Incentives as a Focus in Their School, Past Two Years

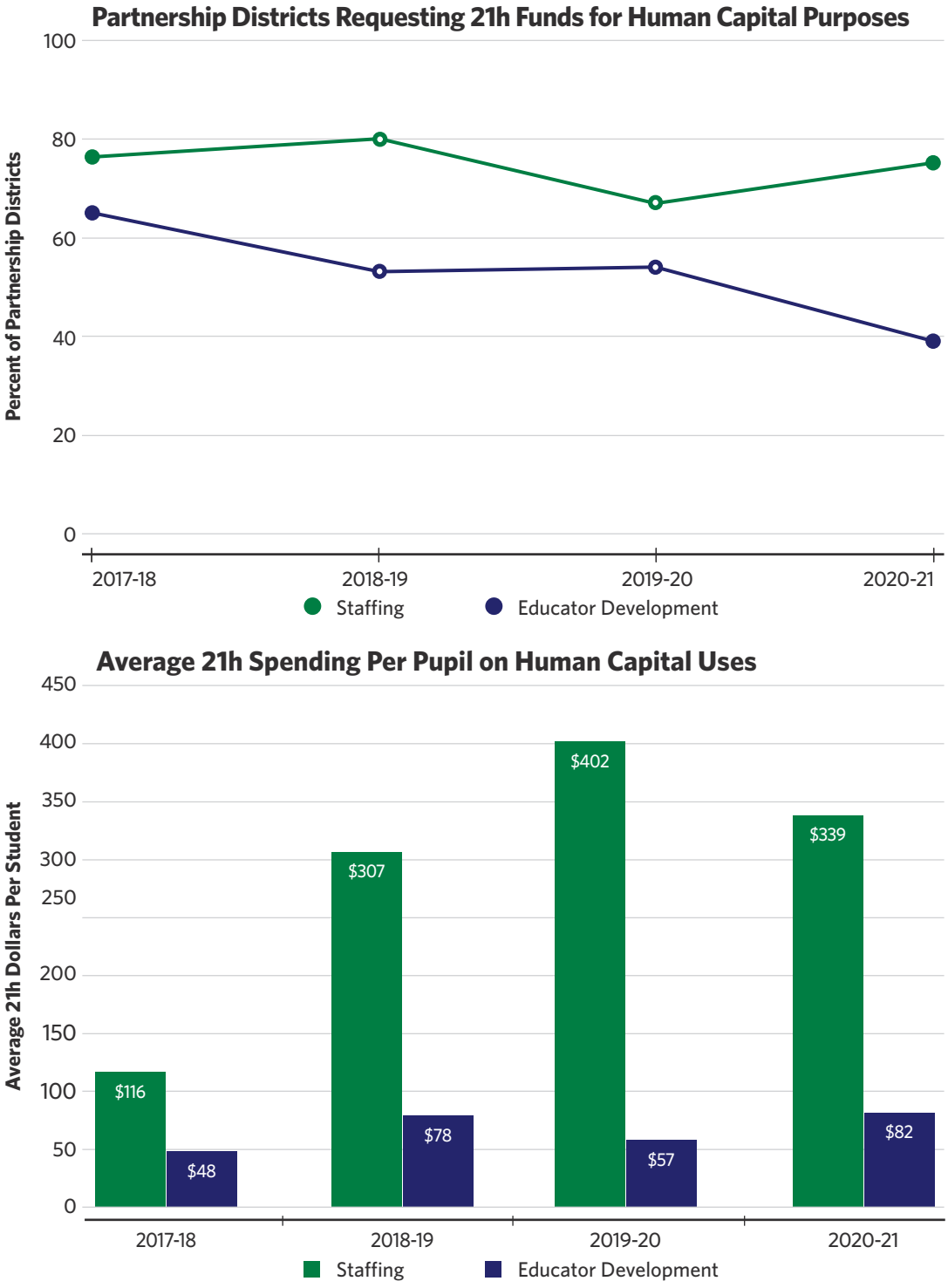


Note: Teachers and principals were asked the extent to which monetary incentives to recruit and/or retain teachers were a focus in their school.

Incentives or bonuses are one potential strategy to improve teacher recruitment and retention; others include centralized application and recruitment systems, stipends for teachers taking on additional responsibilities, and grow-your-own programs that invest in available local teaching talent. Our analysis of 21h funds disbursements points to the extent to which Partnership districts were using Partnership funds to invest in teacher hiring, retention, and development.

Figure 7.23 provides the share of districts (first panel) that used 21h funds for human capital related purposes in each of the first four years of Partnership and the average amount spent for these purposes per student (second panel). In each year of Partnership, the vast majority of Partnership districts used 21h funds for staffing purposes. In 2020-21 (the most recent year these data are available), nearly 80% of Partnership districts receiving 21h funds spent at least some of them on staffing. About 40% of Partnership districts also spent 21h funds in 2020-21 for educator development purposes such as professional development and coaching. The second panel shows that this spending translated to about $340 per pupil on staffing and $82 per pupil on educator development.

FIGURE 7.23. Partnership District Human Capital-Related Uses of 21h Funds Over Time

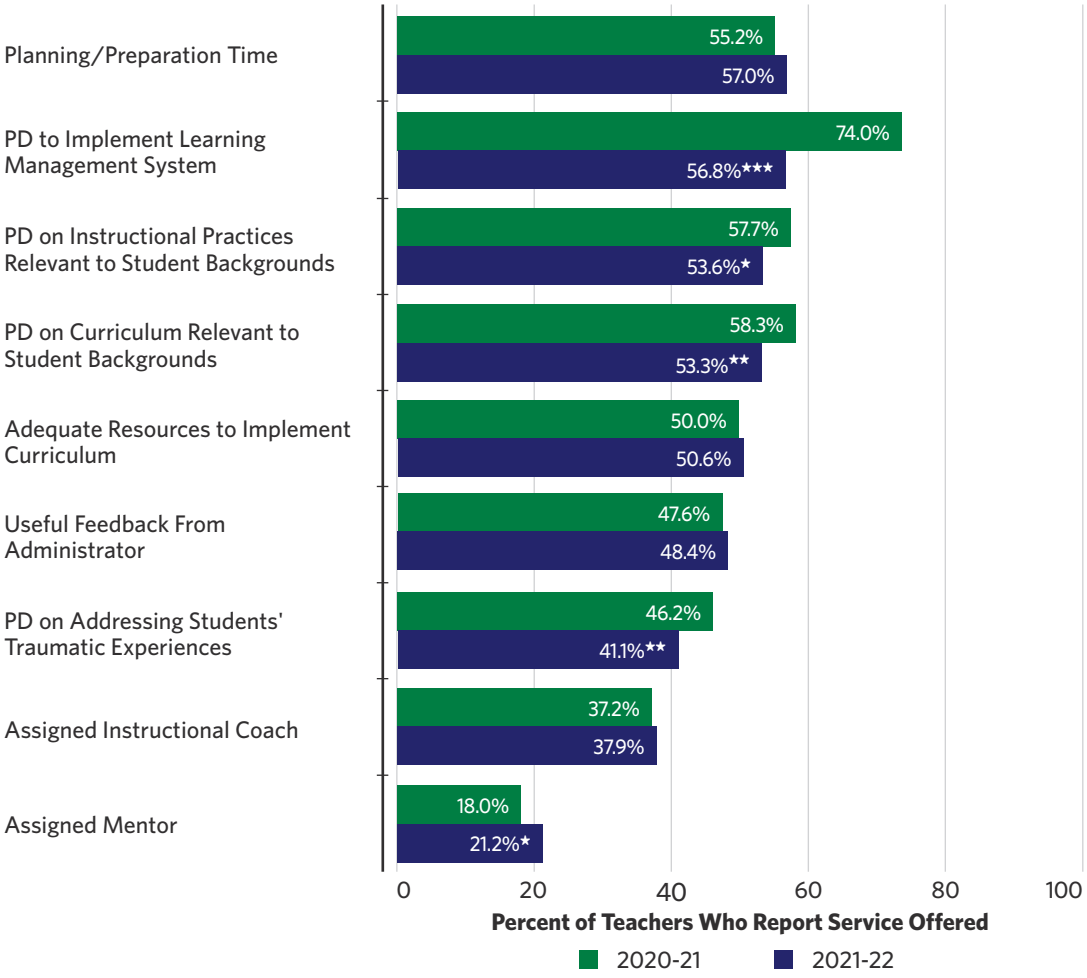


Note: Descriptive summary over time of the share of Partnership districts receiving 21h funds for staffing and educator development purposes (first panel) and the average amount spent for these purposes per pupil. Sample restricted to just those districts receiving any 21h funds in a given year.

Despite District Investments, Teachers Report Fewer Supports and Resources Available to Them in 2021-22

Though Partnership districts were investing in human resources, teachers reported having fewer supports available to them in 2021-22 than in the previous year. Professional development on learning management systems decreased most sharply—perhaps unsurprising since districts largely have returned to in-person learning after needing to adapt to remote instruction during the COVID-19 pandemic school years. In addition, teachers reported several other supports decreasing. Most prevalently, teachers reported less professional development on culturally relevant instructional practices and curriculum, and on addressing traumatic experiences in students' lives. The final set of bars shows that slightly more teachers reported having an assigned mentor.

FIGURE 7.24. Partnership District Teacher Reports of Services and Supports Made Available to Them, Past Two Years



*Note: Teachers were asked, "From the following list, please identify the programs and services that are made available to you by your school/district during the 2021-22 school year" and were instructed to select all that apply. Bars denote percent of teachers selecting each item. * p<.10, ** p<.05, *** p<.01*

Though not shown here, teachers in Partnership schools were more likely than their peers in non-Partnership schools to have access to culturally relevant curriculum (58% vs. 50%) and access to an instructional coach (43% vs. 34%). This again points to the possibility that Partnership districts may have been directing available funding to Partnership schools.

These findings underscore that Partnership schools and districts were making efforts to support teachers but may have lacked sufficient resources to fully meet those needs.

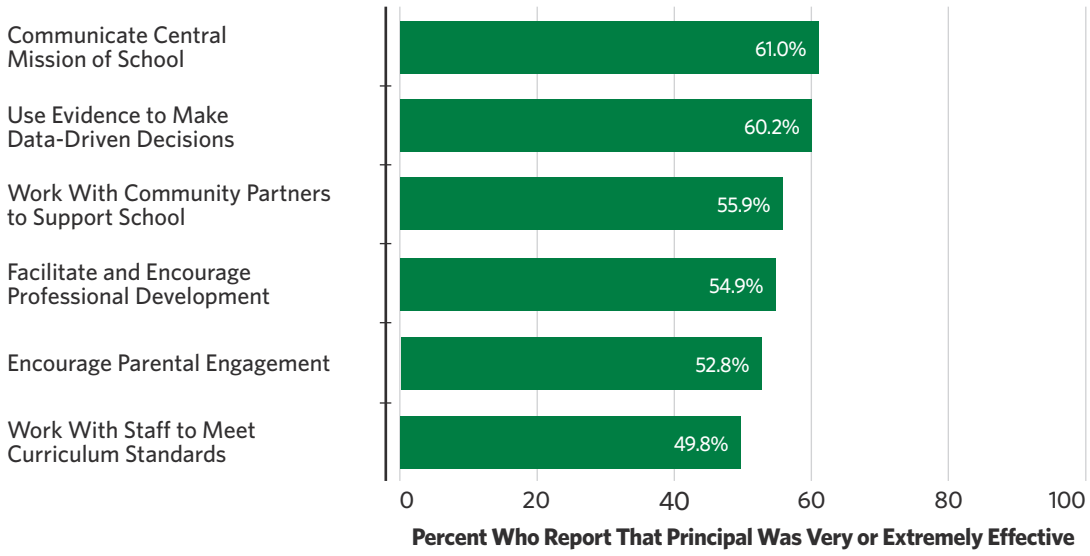
SCHOOL LEADERSHIP

School leaders are a critical ingredient for successful school improvement. They play key roles in teacher retention, school climate, goal-setting and expectations, establishing and fostering collaborative processes, and making organizational decisions (Finnigan & Stewart, 2009; Hallinger & Heck, 1998; Jacobson et al., 2005; Leithwood & Jantzi, 1990)—all factors that are central to school improvement. Our findings above and in previous reports provide additional evidence for the role of principals in teacher retention efforts, as teachers have consistently ranked school leadership as a major factor in their decisions to stay in their roles.

Partnership District Teachers Continue to Perceive That Their Principals are Effective, Though Somewhat Less So in 2021-22

The majority of teachers in Partnership districts reported positive perceptions of their principal's effectiveness over multiple dimensions of school leadership. Figure 7.25 summarizes these responses, showing that Partnership school teachers largely believed their principal was highly effective.

FIGURE 7.25. Partnership District Teacher Reports of Principal Effectiveness



Note: Teachers were asked how effectively their principal or school leader performed each of the above. Response options were "not at all effectively," "slightly effectively," "somewhat effectively," "very effectively," and "extremely effectively."

To understand how these perceptions vary across schools and over time, we compare scores on a construct representing effective school leadership. Figure 7.26 summarizes the items in the construct.

FIGURE 7.26. Effective School Leadership Construct

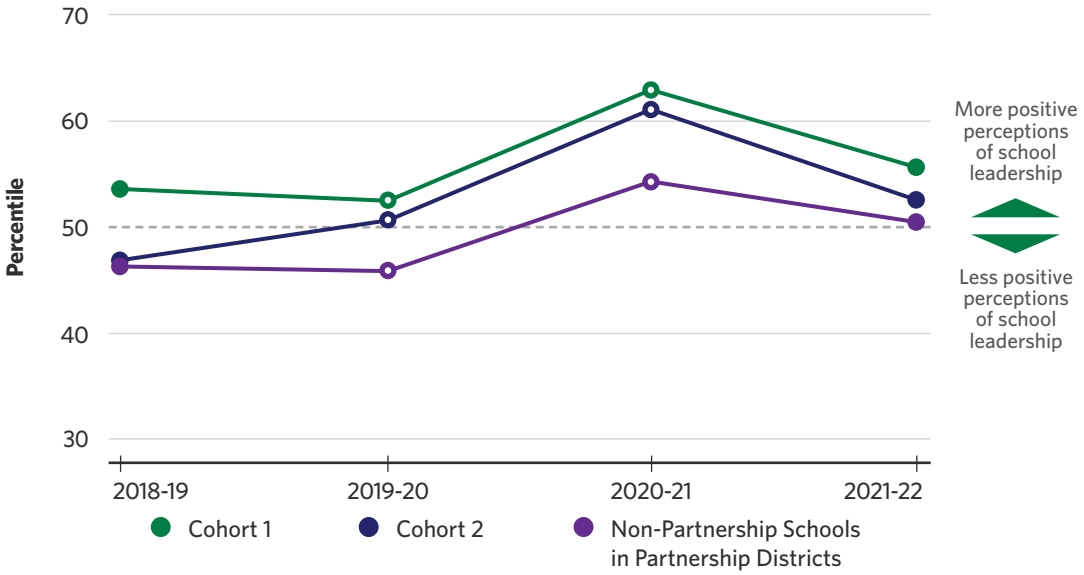
SCHOOL LEADERSHIP

How effectively principal:

- Works with staff to meet curriculum standards
- Communicates central mission of school
- Uses evidence to make data-driven decisions
- Works with community partners
- Facilitates professional development
- Encourages parent engagement
- Communicates improvement goals and strategies with teachers

Figure 7.27 displays this construct over time for Cohort 1, Cohort 2, and non-Partnership schools. First, we show that both cohorts of Partnership school teachers have consistently reported more positive perceptions of their principals than have teachers in non-Partnership schools. Second, all three groups' perceptions of principal effectiveness dipped back down in 2021-22 after an increase in 2020-21. This finding is in line with the slight dip in the share of teachers reporting feeling supported by their administration during the COVID-19 pandemic, shown in Figure 7.7.

FIGURE 7.27. Effective School Leadership, by Partnership Status Over Time



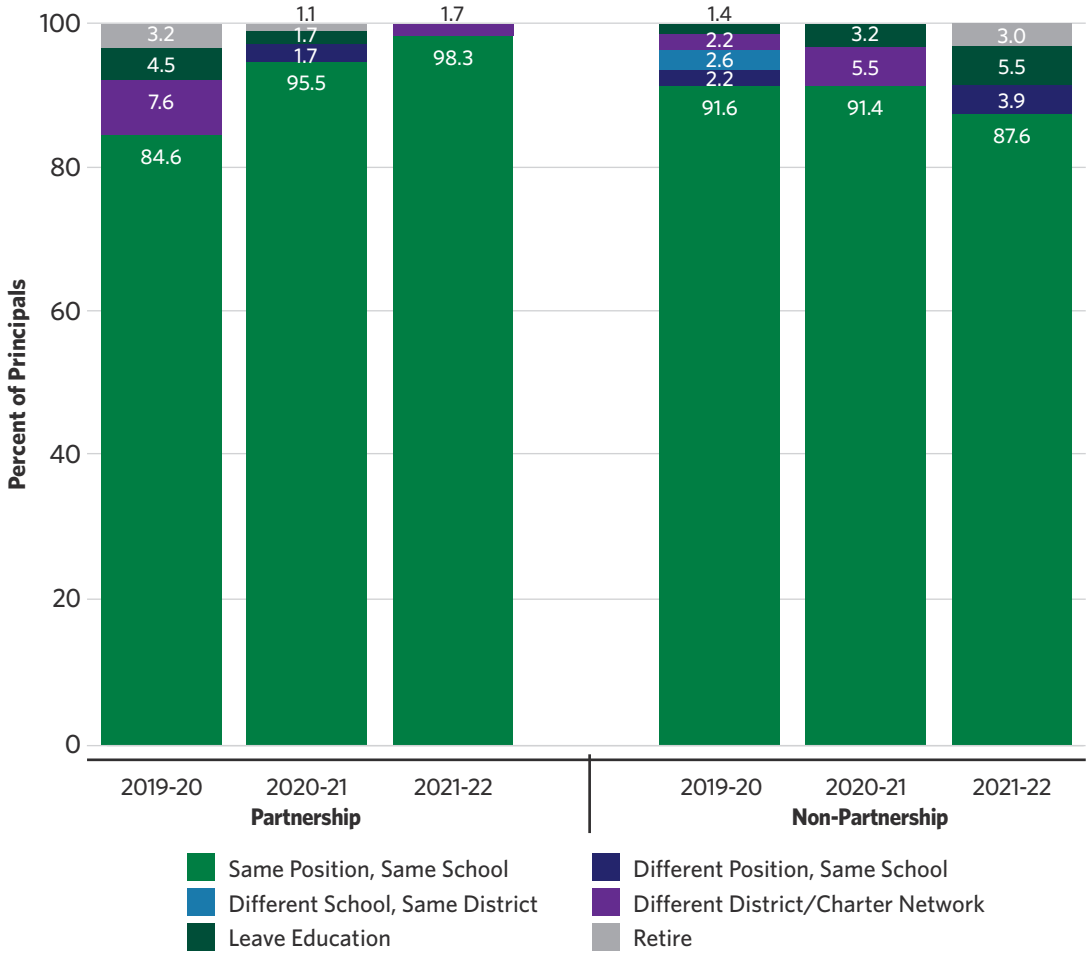
Note: Marker heights represent mean percentiles of Cohort 1, Cohort 2, and non-Partnership school teacher responses to items related to principal effectiveness. The 50th percentile represents the average for all teachers across each of the three survey waves. A mean response above the 50th percentile line indicates that a given group reported that their principal was more effective than the average teacher respondent across the three survey waves. A mean response below the 50th percentile indicates that a given group reported lower than average principal effectiveness.

Principals in Partnership Districts—and Especially Partnership Schools—Continued to Overwhelmingly Report Plans to Remain in Their Positions

Principal turnover can in turn increase teacher turnover and decrease student achievement (Bartanen et al., 2019; Harbatkin & Henry, 2019; Miller, 2013). Principal turnover also tends to be especially frequent in low-performing schools like those in Partnership (Battle, 2010; Fuller & Young, 2009; Loeb et al., 2010). In turnaround schools in particular, principal turnover can disrupt ongoing improvement processes and undermine improvement efforts.

In Partnership districts and especially in Partnership schools, we find that principals in 2021-22 overwhelmingly reported plans to stay in their schools. Figure 7.28 displays principal-reported employment plans in each of the past three years. Almost all Partnership school principals in 2021-22 (98%) reported that they planned to stay in their school this year—the largest share of any year. In non-Partnership schools, 88% reported plans to stay, a very slight decline from 2019-20 and 2020-21. Meanwhile, no Partnership school principals reported plans to leave the profession or retire, while about 8.5% of non-Partnership school principals reported plans to do so.

FIGURE 7.28. Partnership District Principal Reported Career Plans for the Next School Year, By Partnership School Status Over Time

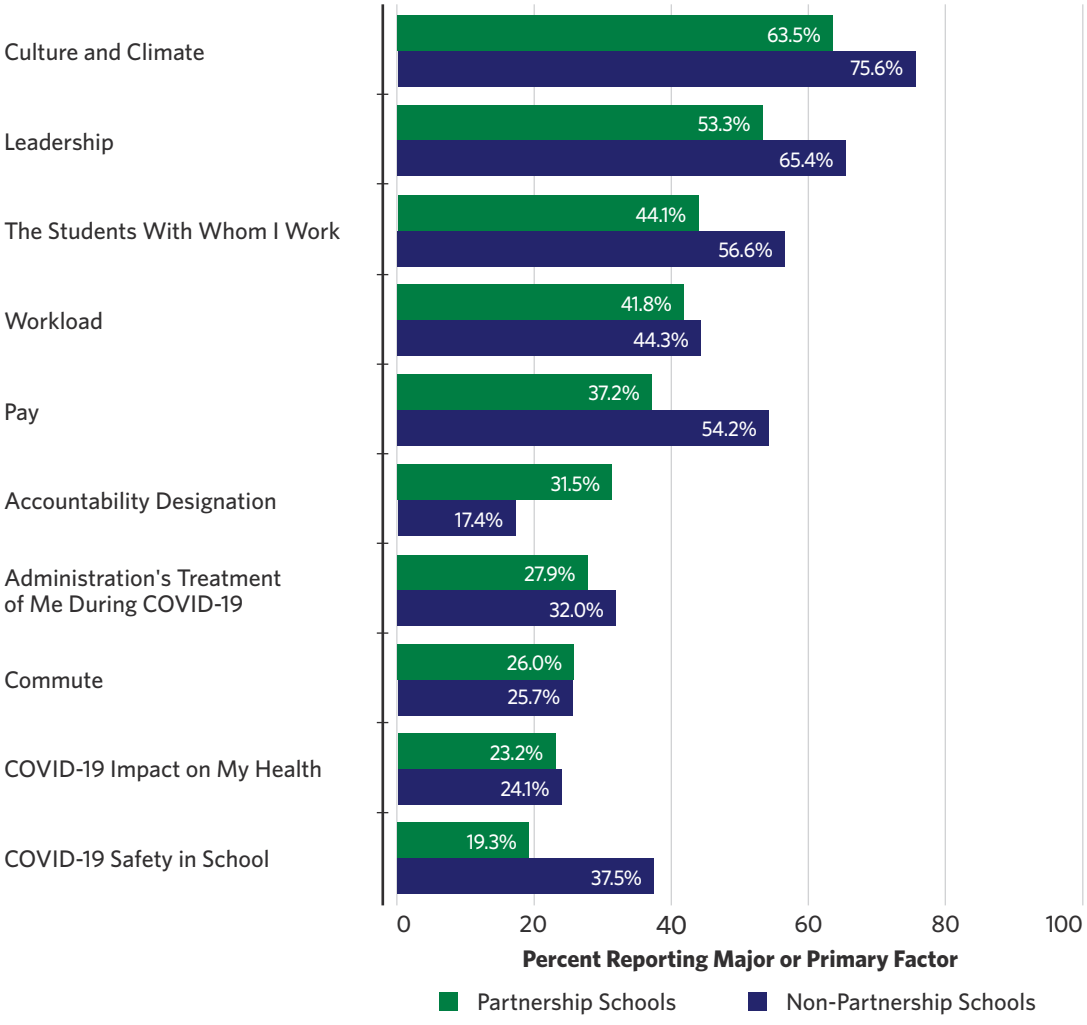


Note: Principals were asked, "Which of the following best describes your plans for next school year?"

These findings highlight a potential bright spot for Partnership schools in particular. If these principals are highly effective—as their teachers perceive them to be—retaining them in the Partnership school buildings may help to buoy school improvement efforts into future years.

Understanding the mechanisms motivating principals to stay in their positions may help districts to continue to retain highly effective principals in their turnaround schools. As with teachers, we asked principals about the extent to which a variety of factors contributed to their plans. Figure 7.29 provides the share of Partnership and non-Partnership school principals reporting that each factor was a major or primary factor in their decisions to stay.[6] Like teachers, principals reported that culture and climate, leadership, and their students were the most salient reasons in their decisions. The least important reasons factoring into Partnership school principals' decisions to stay were COVID-19 safety, COVID-19 health impacts, and commute. The least relevant for non-Partnership school principals were the school or district accountability designation, COVID-19 health impacts, and commute.

FIGURE 7.29. Percent of Principals Reporting That Various Factors Contribute to Plans to Remain in Role, by Partnership School Status, 2021-22



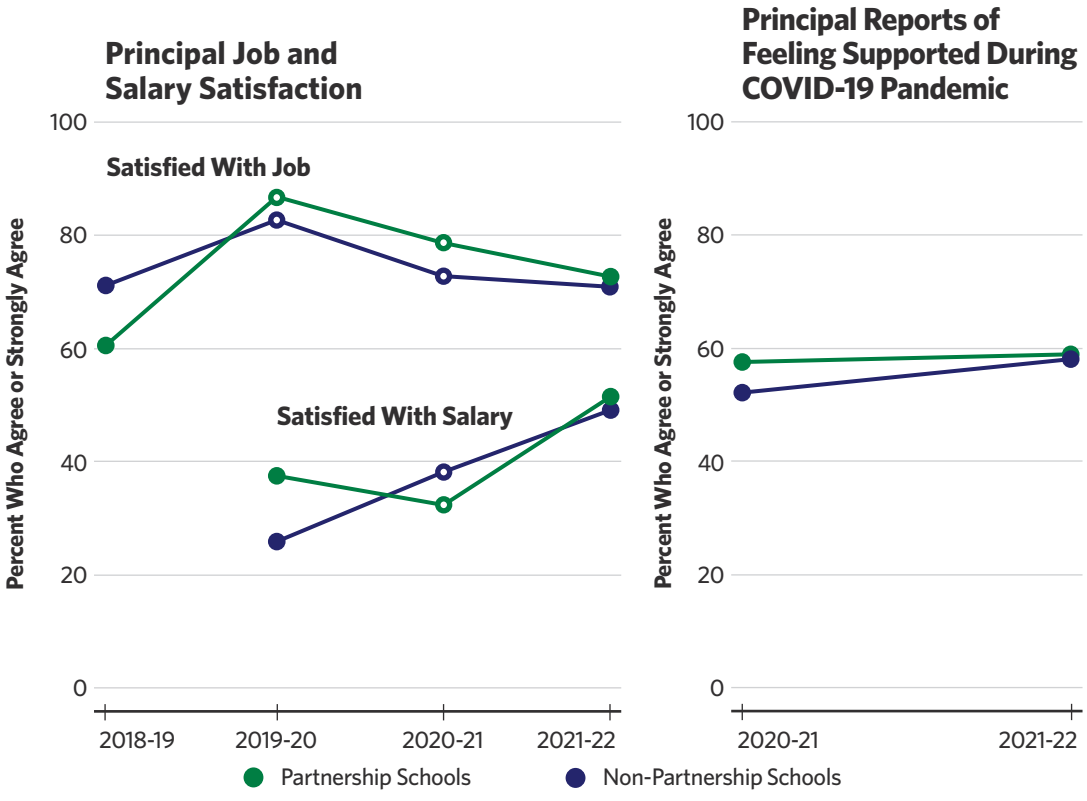
Note: Principals were asked the extent to which each item factored into their plans to leave or stay in the 2021-22 school year. Response options were "not a factor," "a minor factor," "a moderate factor," "a major factor," or "a primary factor." Items are sorted by frequency for principal stayers in Partnership schools.

One Partnership district leader suggested another reason that principals are staying in their positions—noting that the challenges principals are contending with would likely be challenges in any school:

> *At this point, we've been rather stable with our principals. I think the reality is most principals, when they become a principal, that's how they identify their career and their profession, with some exceptions. Right now, it's not like the grass is greener on the other side because of COVID. I feel like our principals are struggling, but they look at the bigger picture, and they say, "Okay, I'm not happy with what's going on, but, okay, I'm gonna remain a principal and do this in another district. What's really gonna be different?" We're really stable there. I'm not foreseeing this mass exodus of principals or a challenge there.*

Given the high rates of principals intending to stay in their positions, it is perhaps unsurprising that principals report very high levels of job satisfaction. Figure 7.30 summarizes principal reports of job and salary satisfaction over time. In 2021-22, just over 70% of both Partnership and non-Partnership school principals reported that they were satisfied with their jobs. While high, that figure has decreased slightly over each of the past two years, though none of these decreases were statistically significant. While job satisfaction decreased, salary satisfaction among principals has increased, reaching 50% in 2021-22. Principals in Partnership and non-Partnership schools report similar levels of job and salary satisfaction.

FIGURE 7.30. Partnership District Principal-Reported Job and Salary Satisfaction, by Partnership Status Over Time



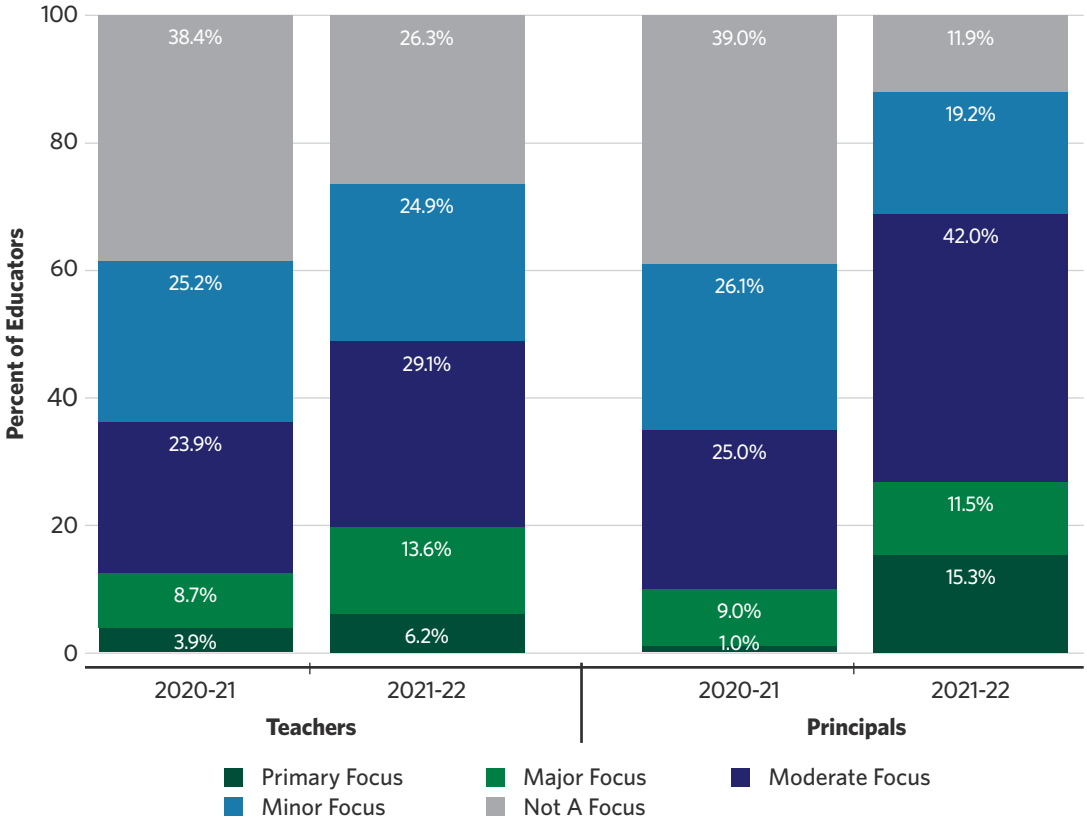
Note: Principals were asked the extent to which they agreed that they were satisfied with their job, satisfied with their salary, and felt supported by their school and district administration during the COVID-19 pandemic. Response options were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree."

Finally, while teachers reported a slight decrease in feeling supported by their administration during the COVID-19 pandemic, principal perceptions became slightly more positive, though again the year-to-year difference was not statistically significant.

Partnership Districts Have Strengthened Their Focus on Administrator Recruitment and Hiring

Although most principals intend to remain in their positions, Partnership districts have maintained and even increased their attention to administrator recruitment and hiring. Figure 7.31 summarizes teacher and principal reports of administrator recruitment and hiring as a focus in their school. While educators reported that their schools did not have a particularly strong focus on administrator recruitment in 2020-21, the share of teachers and principals reporting it as a major or primary focus increased in 2021-22 and the share reporting it was not a focus decreased.

FIGURE 7.31. Partnership District Educator Reports of Administrator Recruitment and Hiring as a Focus in Their School, Past Two Years



Note: Teachers and principals were asked the extent to which administrator recruitment and hiring were a focus in their school.

Together, these findings on school leadership point to a bright spot for Partnership schools and districts. Teachers largely perceive that their educators are effective and perceptions of effectiveness are even higher in Partnership schools, principals largely reported plans to remain in their positions, and schools and districts have stepped up their focus on administrator recruitment and hiring to build a pipeline for future years. These findings largely align with those reported in the Year Three Report, underlining a potential success of the Partnership Model.

SUMMARY

Human capital remains a central component of turnaround in Partnership schools and districts. Historically, low-performing schools and districts have grappled with challenges related to human resources, and Partnership schools and districts are no different. We find that some of the most salient of these challenges relate to teacher absenteeism and availability of substitutes, teacher retention, and teacher supply. In Partnership schools and districts, the COVID-19 pandemic appears to have exacerbated some of these challenges while diminishing others (at least in the short term).

Teacher absenteeism in particular climbed in 2021-22 as schools contended with pandemic-related illness and quarantine periods and principals struggled to find substitutes to fill in. On the other hand, teacher transfers declined in the first full COVID-19 pandemic school year (2020-21) and did not rebound fully to pre-pandemic levels in Partnership and other low-performing schools even as they did in higher performing schools. This decreased teacher mobility points to potential signs of progress with respect to teacher retention in Partnership schools. However, even as Partnership school teachers transferred less frequently, they have been leaving teaching in Michigan public schools at increasingly higher rates since Partnership began.

While these findings provide some evidence of progress in teacher retention, survey data suggest that Partnership district teachers are planning to leave their posts and principals are struggling to fill positions at rates similar to pre-pandemic years, suggesting the dip in teacher transfers may be a temporary COVID-19 pandemic blip rather than the beginning of a longer-term trend. Teachers cite school climate, culture, leadership, and their students as reasons they stay in their positions, while they cite workload, pay, and leadership as reasons for leaving.

School leadership is central to school turnaround and continues to be a bright spot in Partnership schools and districts, though fault lines have emerged since the first full pandemic school year. Teachers believe their principals are effective, though these perceptions have dwindled slightly since the 2020-21 school year. Partnership district principals largely reported plans to stay in their positions, especially in Partnership schools, though they reported less job satisfaction than in the prior year.

This section shows that human capital remains an important component of the Partnership Model and that progress toward human capital improvements is evident but potentially tenuous as the slow return to normalcy continues.

SECTION SEVEN NOTES

1. Teacher absences looked different in 2020-21, when Partnership districts were operating largely under remote instruction. If principals were not always aware of teacher absences during remote instruction, the 2020-21 figures may be an underreport.

2. These estimates are relative to a positive and significant pre-identification trend of 1 percentage point. In other words, the model assumes that in the absence of Partnership, within-district transfers from Cohort 2 schools would have increased by 1 percentage point in the first implementation year, 2 in the second, and 3 in the third.

3. These estimates are relative to a positive and significant pre-identification trend of 1.5 percentage points. In other words, the model assumes that in the absence of Partnership, out-of-district transfers from Cohort 1 schools would have increased by about 1.5 percentage points over and above the previous year in each year of implementation.

4. In the Year Four Report, we use a more precise definition of leaving teaching and follow stricter rules for assigning a teacher to a Partnership school than in prior years. Specifically, we count a teacher as leaving if they (1) were in a particular school as their primary teaching assignment for that school year (i.e., in cases of teachers assigned to multiple schools, the school where they were employed for the greatest share of their time), and (2) were not employed primarily as a teacher in Michigan public schools in the following year. This differs from the definition in the Year Three Report in which we treated a teacher as being assigned to a school if they (1) were in a particular school as their primary *or* secondary assignment (i.e., in cases of teachers assigned to multiple schools, the schools where they were employed for the greatest or second-greatest share of their time), and (2) were not employed at all in Michigan public schools in the following year. Thus, some results are slightly changed from previous years' reports.

5. This difference was meaningfully large but not statistically significant.

6. We do not include analyses for intended transfers and leavers because there are not enough principals who reported plans to transfer or leave.

Partnership Turnaround:
Year Four Report

SECTION EIGHT: DEEPER CHALLENGES IN PARTNERSHIP'S FIRST COHORT

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Section Eight: Deeper Challenges in Partnership's First Cohort

As mentioned in Section Three, students and educators in Partnership schools and districts are, on average, grappling with more pronounced challenges than their peers throughout the state. Partnership communities are home to more families below the poverty line, more food and housing insecurity, and a lesser share of adults who completed high school and college than non-Partnership communities. Schools and districts reflect the communities they serve, and Partnership schools and districts are therefore home to a population of students that have the greatest educational needs in the state. However, while Partnership schools need more support than non-Partnership schools on average, they are not homogenous.

In particular, Partnership's two implementation cohorts may need different levels and types of support. Cohort 1 was the first group of schools selected for Partnership. Identified in the 2016-17 school year after three straight years being designated as low performing, Cohort 1 contains the state's persistently lowest performing schools. The second implementation cohort, identified in the 2017-18 school year, comprises a more varied group of schools. While Cohort 2 schools are all low performing by definition, they were selected for several different reasons and not all were low performing for multiple years.

Cohort differences matter for three reasons. First, Cohort 1 schools that are not reidentified are slated to exit Partnership at the end of the 2021-22 school year. However, their progress—the same progress that will allow them to exit Partnership—is due in part to the supports and structures of the Partnership Model. Schools that exit may need transitional supports. Second, the

Partnership Model is intended as a tailored intervention in which supports are aligned to school needs. Given the differences across cohorts, it is likely that Cohort 1 schools have different needs than those in Cohort 2. Thus, they may need different types or levels of support. Finally, in the Year Three Report and in Section Five and Section Seven of this year's report, we find meaningful differences across cohorts with respect to the effects of Partnership and the COVID-19 pandemic on different outcomes. These different effects may be related, in part, to other differences between cohorts. Understanding the contexts in which these effects have unfolded may therefore help to unpack differential effects of the Partnership Model and the COVID-19 pandemic on Michigan's low-performing schools.

In this section, we draw on teacher[1] survey data to investigate differences between cohorts along four dimensions: difficulties stemming from the COVID-19 pandemic; teacher perceptions of challenges related to classroom management, student behavior, and school safety; teacher perceptions of culture and climate; and challenges and successes related to staffing and human capital.

THE COVID-19 PANDEMIC APPEARED TO HAVE AN OUTSIZED EFFECT ON COHORT 1 SCHOOLS

In Section Three, we describe the ways the COVID-19 pandemic has disproportionately affected Partnership communities, districts, and schools. Here, we show that teachers in Cohort 1 schools perceive those challenges to be even greater. To examine the extent to which pandemic-related challenges may have differentially affected students in the two Partnership cohorts, we draw from a construct representing teacher perceptions of their students' health care and housing challenges over each of the past two years, summarized in Figure 8.1. As we describe in Section Three, these challenges were more pronounced in Partnership districts over the past two years. The percentage of teachers reporting that the following were a major or the greatest challenges for their students in 2021-22 were 62% student mental health, 50% student mental health care, 37% food insecurity, 27% homeless or housing instability, and 23% access to health care.

FIGURE 8.1. Health Care and Housing Challenges Construct

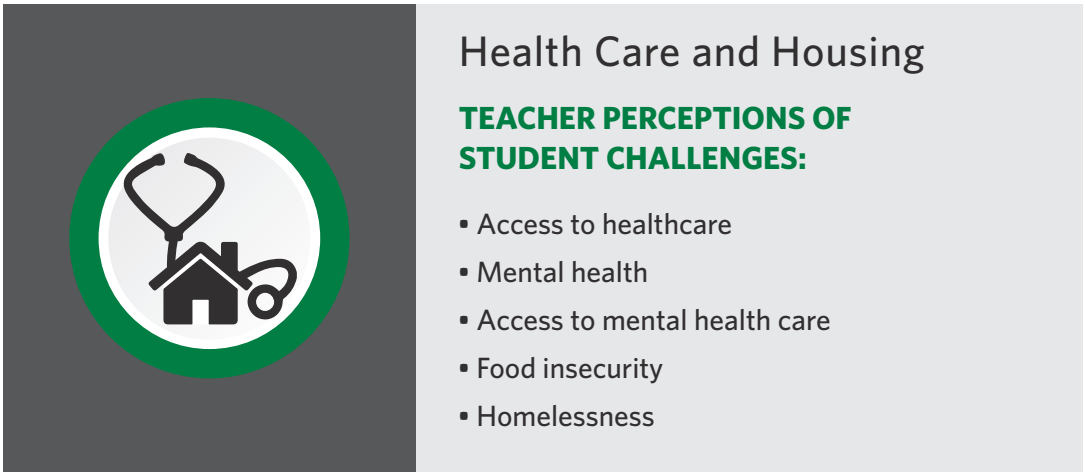
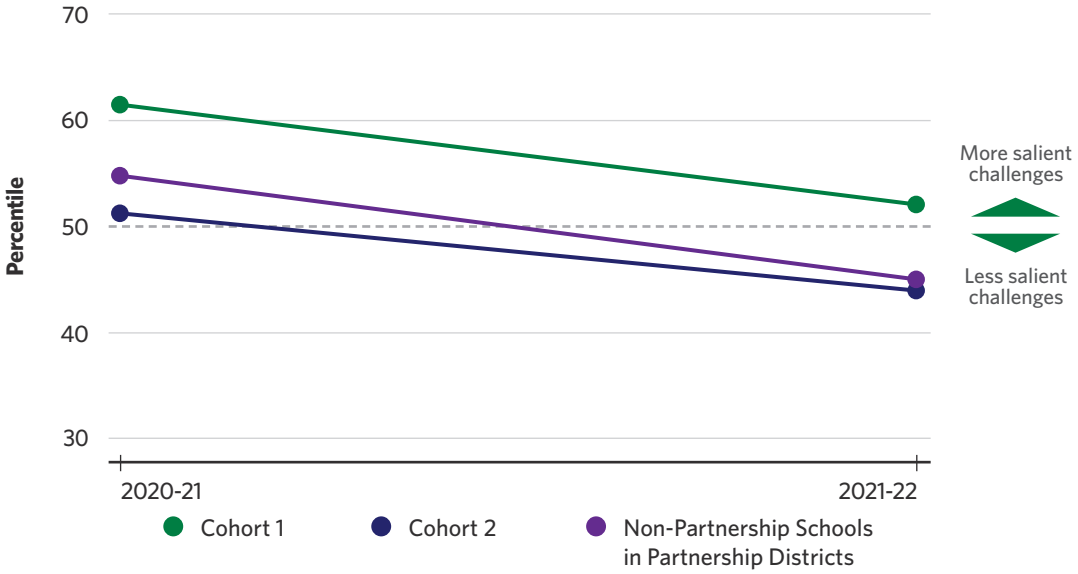


Figure 8.2 shows the change over each of the past two years for Cohort 1, Cohort 2, and non-Partnership schools. There are two takeaways. First, in both 2020-21 and 2021-22, Cohort 1 teachers perceived that their students faced more salient challenges than teachers in Cohort 2 and non-Partnership schools in Partnership districts. Second, even as perceptions of these factors as challenges waned in 2021-22 among all groups, teachers in Cohort 1 reported that the challenges facing their students in 2021-22 were at the same level as those facing students in Cohort 2 and non-Partnership schools in the first full COVID-19 pandemic school year.

FIGURE 8.2. Health Care and Housing Challenges, by Partnership Status Over Time



Note: Marker heights represent mean percentiles of Cohort 1, Cohort 2, and non-Partnership school educators in response to items related to health care and housing challenges in each of the past two survey waves. The 50th percentile line represents the average teacher respondent across both years we asked these questions. A mean response above this line indicates that a given group reported more salient challenges than the average respondent across teachers in each of the two survey waves. A mean response below this line indicates that a given group reported less salient challenges.

While the 2021-22 survey asked only a subset of questions related to pandemic-related challenges, the Year Three Report also highlights that Cohort 1 teachers perceived that their students faced greater challenges across multiple dimensions in 2020-21—including challenges related to illness, economics and attendance, and health care and housing.

These challenges may have undercut early progress in Cohort 1, though we cannot say with certainty what mechanism contributed to COVID-19 pandemic changes in outcomes. In particular, Section Five shows that after early increases in graduation rates among Cohort 1 high schools, progress stalled during the first two COVID-19 pandemic school years (2019-20 and 2020-21).

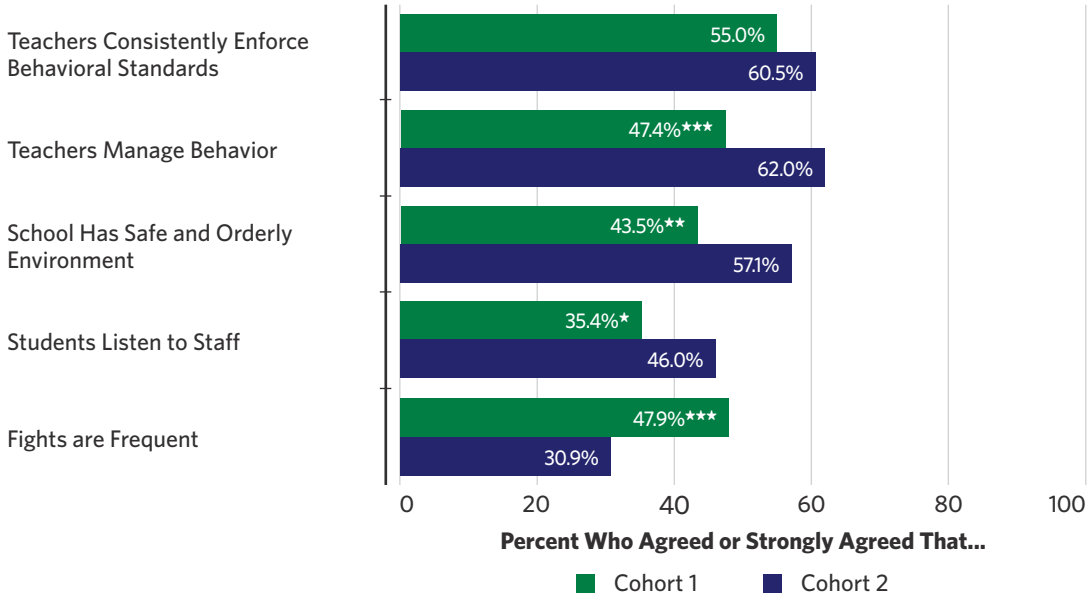
In 2021-22, Cohort 1 teachers again cited greater attendance challenges, as we describe in Section Three. Specifically, about 80% of Cohort 1 teachers compared with 72% of Cohort 2 teachers reported that the inability to attend school consistently was a major or the greatest challenge for their students this year (see Figure 3.15 and Figure 3.16).

TEACHERS IN COHORT 1 SCHOOLS PERCEIVED GREATER CHALLENGES RELATED TO CLASSROOM MANAGEMENT, STUDENT BEHAVIOR, AND SCHOOL SAFETY

While we show in Section Six that educators in Partnership schools perceive that school safety and student behavior have improved since the COVID-19 pandemic, there is variation in the extent to which teachers reported positive perceptions of safety and behavior-related items (see Figure 6.12). For example, fewer than half of teachers in Partnership districts agree or strongly agree that students listen to staff, and nearly one-third reported that fights are frequent.

Notably, Cohort 1 teachers reported less positive perceptions of school safety and student behavior. Figure 6.14 shows that over each of the past few years, Cohort 1 teachers reported worse perceptions than their Cohort 2 peers (in 2018-19, the two cohorts were similar). Figure 8.3 summarizes the individual items in the school safety and student behavior construct by cohort, underscoring that across each of the items, Cohort 1 teachers perceive worse school culture, including related to consistent enforcement of behavioral standards, behavior management, and school environment. At the same time, a significantly *greater* share of Cohort 1 than Cohort 2 teachers agreed that fights are frequent in their school.

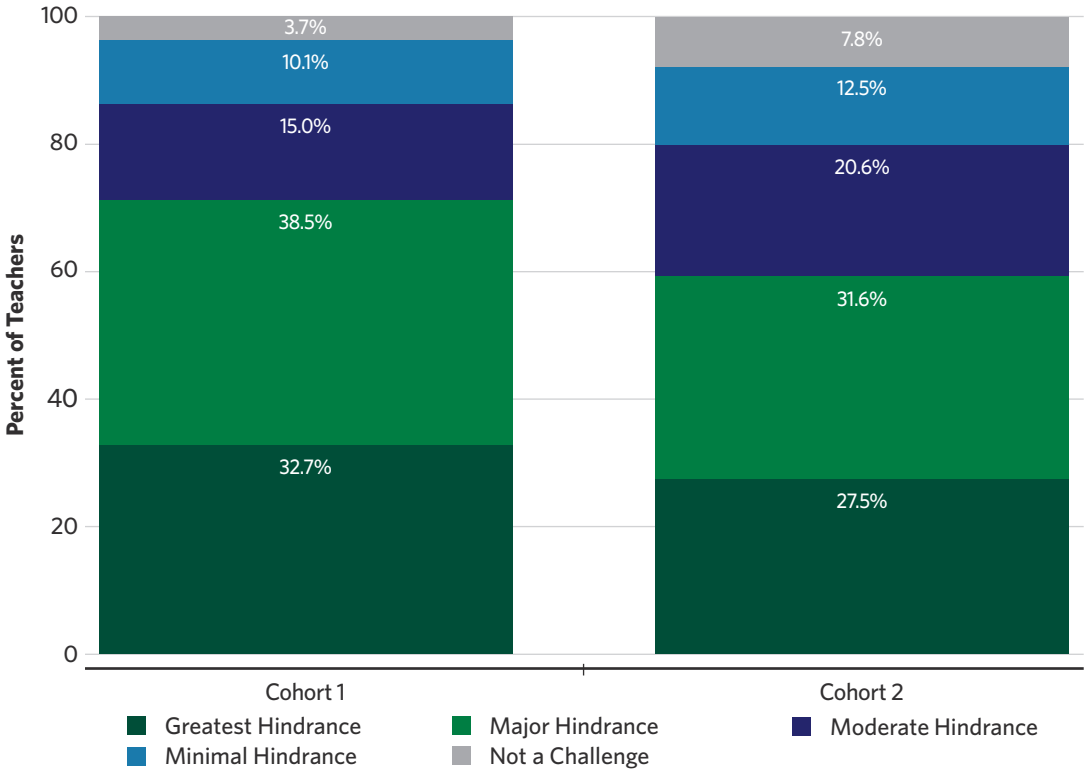
FIGURE 8.3. Partnership School Teacher Perceptions of School Safety and Student Behavior, by Cohort, 2021-22



*Note: Teachers were asked, "Please indicate the extent to which you agree or disagree with the following statements about your school." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree." ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

Teachers believe that these student behavioral challenges hinder improvement efforts. Figure 8.4 summarizes teacher responses to a question asking about the extent to which student behavior was a hindrance to school or district improvement. Here, student behavior was listed in the survey among a bank of other possible hindrances to improvement, including factors related to resources and capacity, human capital, planning time, enrollment, student motivation, and parent engagement. The green bars show that a very large share of teachers in both cohorts believe that student behavior is a great or the greatest hindrance to school improvement, and the gray bars show that only a small share believe that student behavior is not a hindrance at all. There are also meaningful differences between the two bars. First, more Cohort 1 (71%) than Cohort 2 (59%) teachers perceive student behavior to be a great or the greatest hindrance to improvement. Additionally, about half as many Cohort 1 as Cohort 2 teachers reported that student behavior was not a hindrance at all (4% vs. 8%).

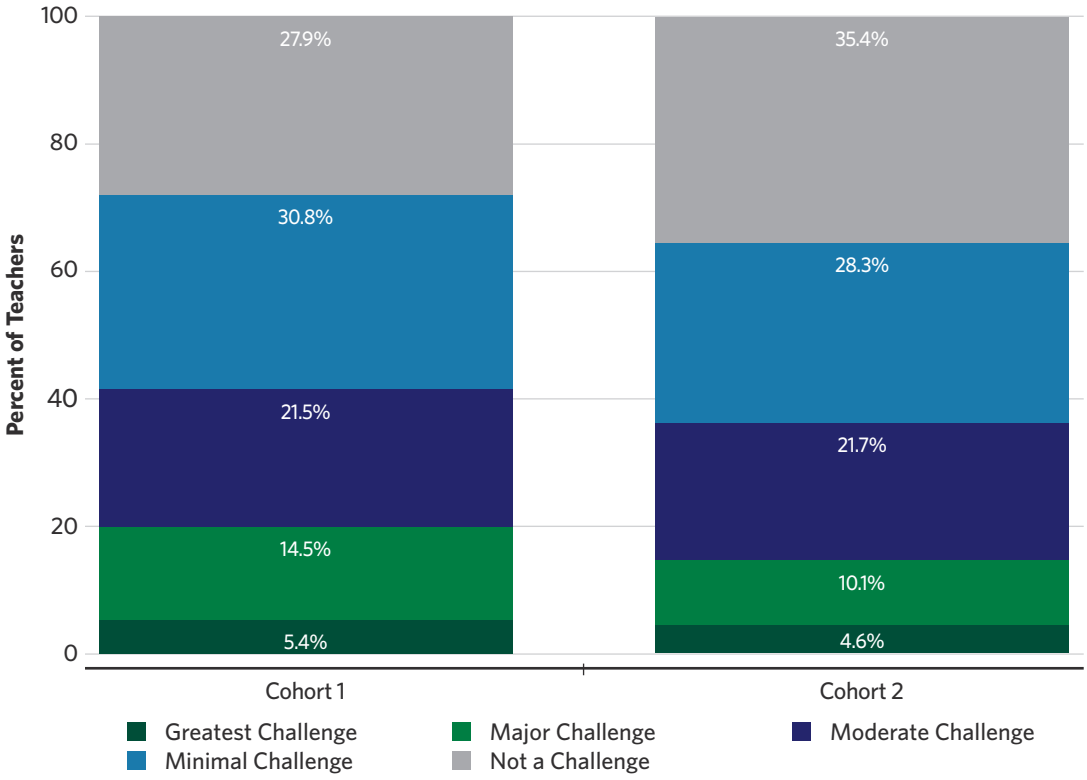
FIGURE 8.4. Partnership School Teacher Perceptions of Student Behavior as a Hindrance to School Improvement, by Cohort, 2021-22



Note: Teachers were asked the extent to which they believed student behavior was a hindrance to achieving their improvement goals.

Challenging student behavior may translate to difficulties with classroom management. While few teachers perceive classroom management to be one of their greatest challenges in the 2021-22 school year, a greater share of Cohort 1 (20%) than Cohort 2 (15%) teachers report that classroom management is a major or the greatest challenge in the classroom as we show in Figure 8.5. Additionally, a greater share of Cohort 1 teachers report that classroom management is at least a minimal challenge, with only 28% of Cohort 1 teachers compared with 35% of Cohort 2 teachers reporting it is not a challenge at all.

FIGURE 8.5. Partnership School Teacher Perceptions of Classroom Management as a Challenge, by Cohort, 2021-22



Note: Teachers were asked about the extent to which classroom management was a challenge for them in the classroom this year.

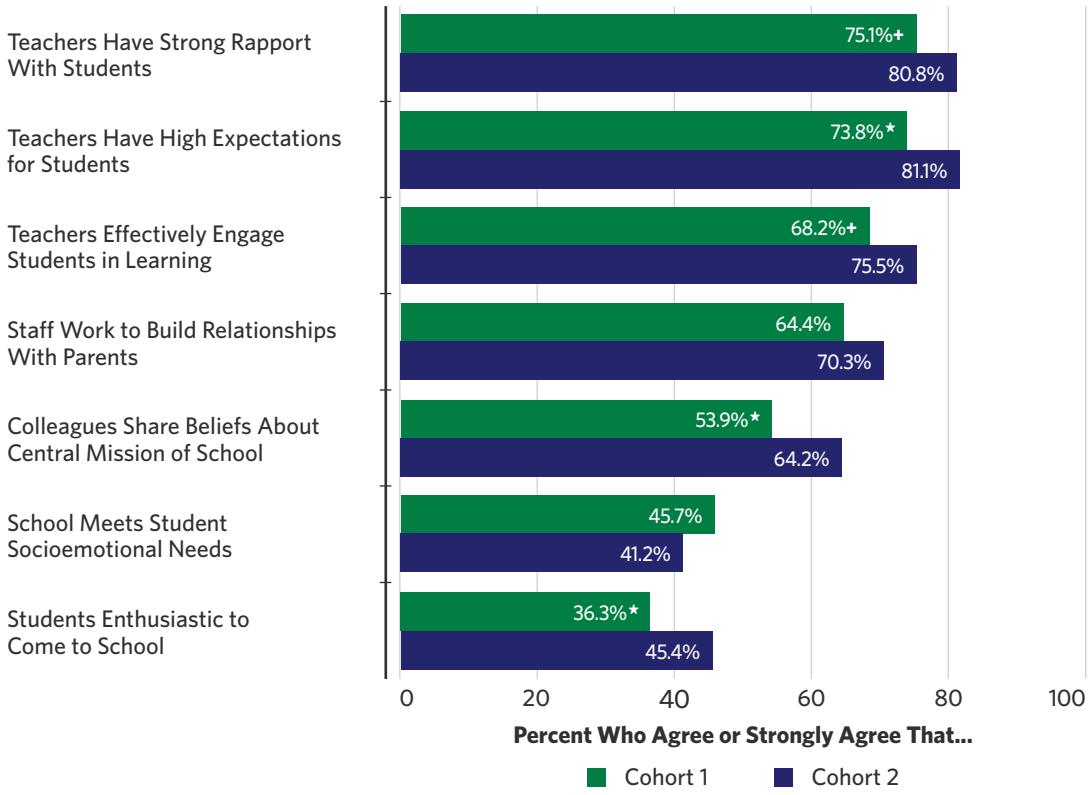
Together, these findings underscore that while teachers across Partnership districts perceive substantial challenges related to classroom management, student behavior, and school safety, these challenges were most pronounced in Cohort 1 schools. Interestingly, Cohort 1 teachers did not report greater behavioral challenges due to the COVID-19 pandemic in particular (see Figure 3.6), suggesting that these Cohort 1 behavioral challenges predated the COVID-19 pandemic.

COHORT 1 TEACHERS REPORTED MORE CHALLENGING SCHOOL CULTURE AND CLIMATE

Given the greater challenges related to student behavior experienced by Cohort 1 teachers, it follows that Cohort 1 teachers and principals have perceived less positive school climate than their peers in Cohort 2 and non-Partnership schools in most study years (see Figure 6.11). Figure 8.6 summarizes teacher responses to individual items related to school climate and culture, by cohort. Across all but one item (on which the differences between cohorts were not statistically significant), Cohort 1 teachers reported less positive perceptions of their schools than Cohort 2 teachers. Given the findings in Section Three related to student mental health challenges and motivation to learn, it is particularly concerning that a low share of teachers report that the school meets students' socioemotional needs (46% Cohort 1 and 41% Cohort 2) and that students are enthusiastic to come to school (36% Cohort 1 and 45% Cohort 2).

We highlight here, though, that some of these responses point to reason for restrained optimism. While Cohort 1 teachers were less positive than their Cohort 2 peers, it is still the case that about three-quarters of Cohort 1 teachers agreed that teachers have a strong rapport with students and that teachers have high expectations for students—components of school climate that research suggests are important to successful school turnaround and teacher retention (Bryk et al., 2010; Cucchiara et al., 2015; Johnson et al., 2005; Peurach & Neumerski, 2015; Viano et al., 2021).

FIGURE 8.6. Partnership School Teacher Perceptions of Climate and Culture, by Cohort, 2021-22



*Note: Teachers were asked, "Please indicate the extent to which you agree or disagree with the following statements about your school." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree." ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

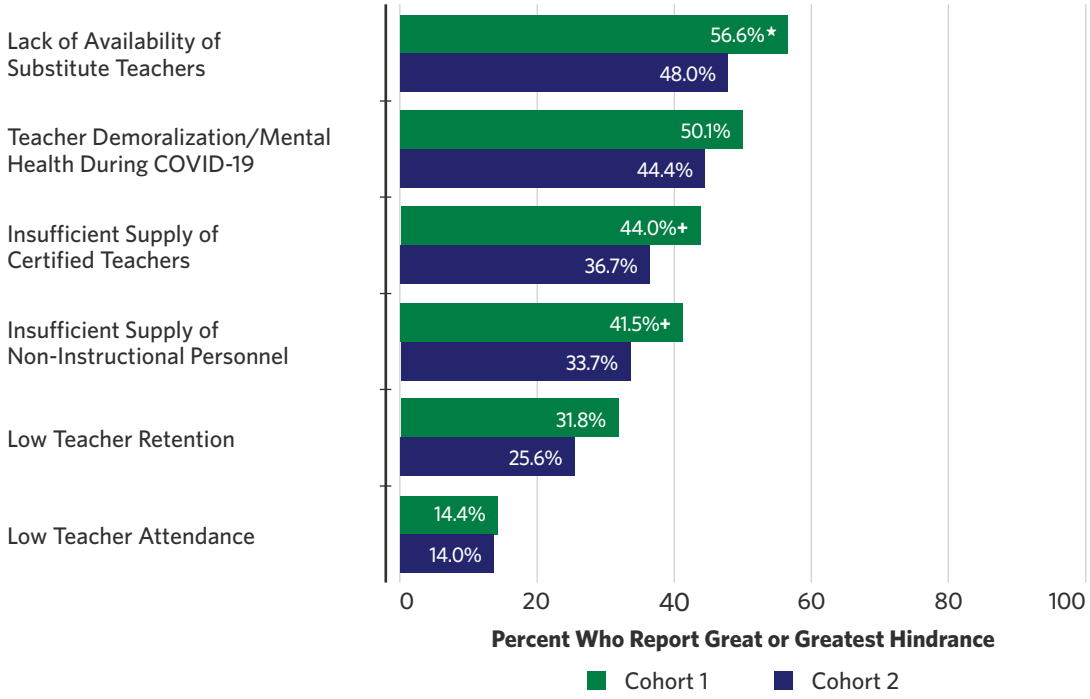
HUMAN CAPITAL IS A GREATER HINDRANCE TO IMPROVEMENT FOR COHORT 1 SCHOOLS

Turnaround schools throughout the country struggle to retain highly effective teachers and to hire qualified teachers. However, human capital is one of the most critical contributors to successful school and district turnaround. It is therefore crucial that Partnership schools and districts improve their recruitment, development, and retention of high quality educators.

Concerningly, we show in Section Seven that Cohort 1 schools tend to experience greater teacher mobility, especially with respect to teachers leaving the profession entirely.

Indeed, Cohort 1 teachers perceive greater hindrances to school improvement related to human capital. Figure 8.7 shows that, on average, a greater share of Cohort 1 teachers reported that each of several human capital-related factors is a great or the greatest hindrance to improvement. In particular, teachers reported that lack of availability of substitutes was the greatest hindrance to improvement, followed by teacher demoralization, insufficient supply of certified teachers, and insufficient supply of non-instructional personnel. Specifically, 57% of Cohort 1 teachers compared with 48% of Cohort 2 teachers reported that lack of availability of substitute teachers was a great or the greatest hindrance to improvement. Though not shown here, a lesser share of Cohort 1 than Cohort 2 teachers reported that lack of substitutes was not a hindrance at all (13% vs. 19%).

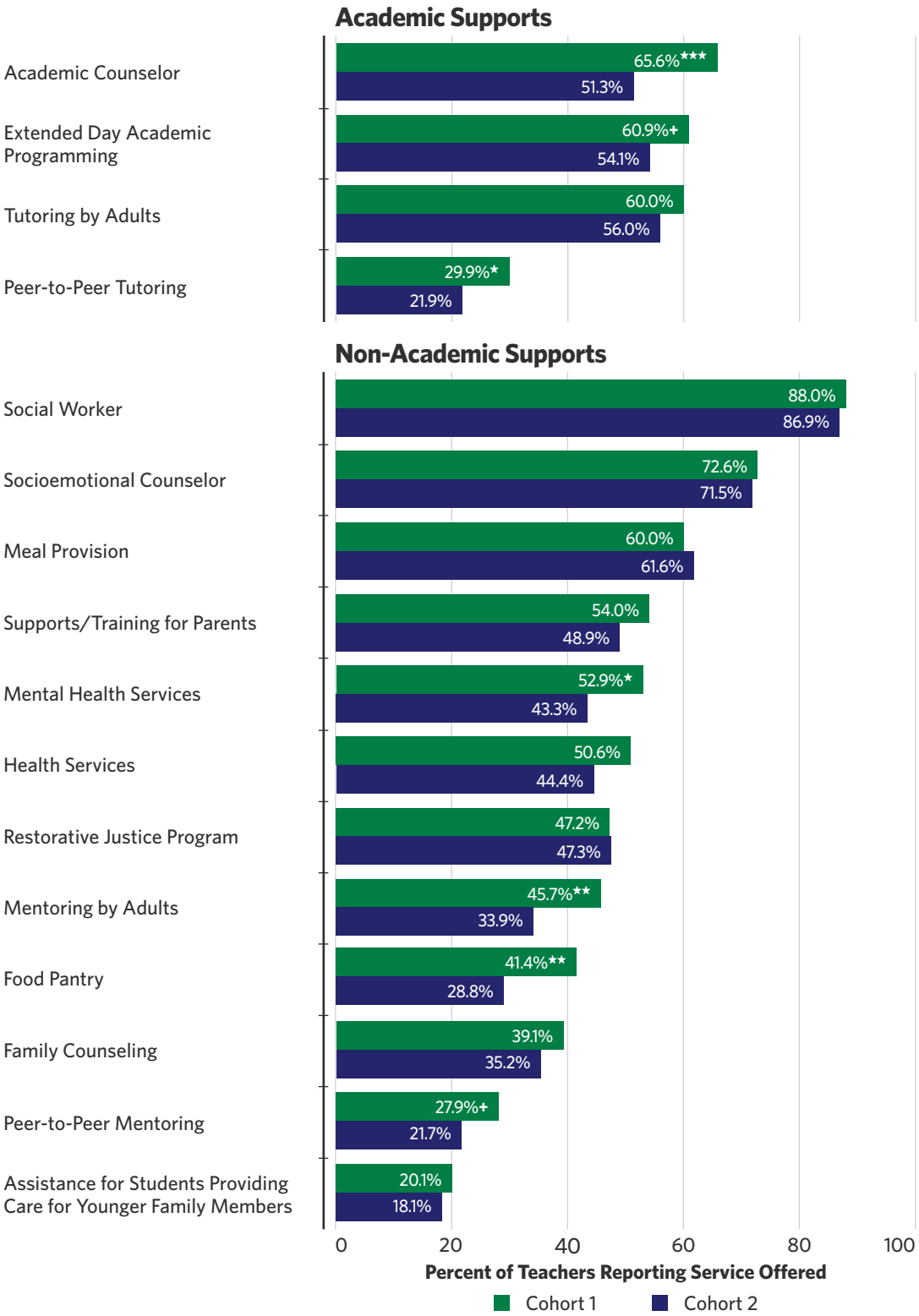
FIGURE 8.7. Partnership School Teacher Perceptions of Human Capital-Related Hindrances to Improvement, by Cohort, 2021-22



*Note: Teachers were asked, "To what extent is each of the following a hindrance to achieving your improvement goals?" Response options were "not a hindrance," "a slight hindrance," "a moderate hindrance," "a great hindrance," and "the greatest hindrance." ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

These findings underscore that though Partnership districts have made significant efforts toward teacher recruitment and retention (described in each of the first three reports), substantial challenges remain. Nowhere are these challenges more salient than in Cohort 1 schools, where students grapple with more pronounced out-of-school challenges and teachers perceive greater challenges related to student behavior, school safety, and culture and climate.

FIGURE 8.8. Partnership School Teacher Reports of Student Supports and Services, by Cohort, 2021-22



*Note: Teachers were asked, "From the following list, please identify the services that are made available to your students by your school/district." ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

COHORT 1 SCHOOLS MAY BE INVESTING GREATER RESOURCES IN STUDENT SUPPORTS TO MITIGATE CHALLENGES

While this section emphasizes the pronounced challenges faced by educators and students in Cohort 1 schools, we also find that Cohort 1 schools may be offering more supports and services to their students. Figure 8.8 summarizes the share of teachers who report that their school made a variety of services available to students in 2021-22.[2] The first panel shows that a greater proportion of Cohort 1 than Cohort 2 teachers reported that their schools offered each of the four listed academic supports for accelerated learning. The second panel shows a similar though less prominent pattern for non-academic supports. The most evident differences are related to mental health services, mentoring (both by adults and peers), and a food pantry.

SUMMARY

Schools fall into low-performing status, in part, because they are unable to meet student needs with available resources. The Partnership Model aims to close the resource gap for these low-performing schools and support schools and districts in their improvement efforts. Partnership is, at its core, a tailored intervention, and the Partnership Model aims to identify local needs and support schools and districts to address those needs. Importantly, not all Partnership schools and districts have the same needs. This section underscores that the first cohort of Partnership schools has the greatest need with respect to student COVID-19 pandemic challenges, classroom management, student behavior, school safety, and human resources.

Though Cohort 1 has greater need in some respects than Cohort 2, the Year Two Report shows that Cohort 1 schools experienced greater student achievement gains than Cohort 2 schools prior to the COVID-19 pandemic. This finding underscores that the Partnership Model was previously able to address these challenges and promote positive student outcomes. As schools and districts move forward in their efforts to accelerate learning, they may require more resources and supports to mitigate opportunity gaps wrought by the COVID-19 pandemic. Cohort 1 schools in particular may need more resources and support—even if they are slated to exit Partnership status in summer 2022.

SECTION EIGHT NOTES

1. We focus in this section on teacher survey data only because of a relatively low number of principal responses, especially within cohort in the 2021-22 school year.

2. In Section Six, we provide responses to a similar set of question items based on principal data. In that case, we use principal data because we asked this question to principals in each of the past two years and are therefore able to show year-to-year differences. Here, we show teacher responses because we have greater cohort-level coverage using teacher data. A group-level comparison across teacher and principal responses in 2021-22 shows that teachers and principals within subgroups report similar availability of services.

Partnership Turnaround:
Year Four Report

SECTION NINE: IMPLEMENTING PARTNERSHIP DURING THE COVID-19 PANDEMIC

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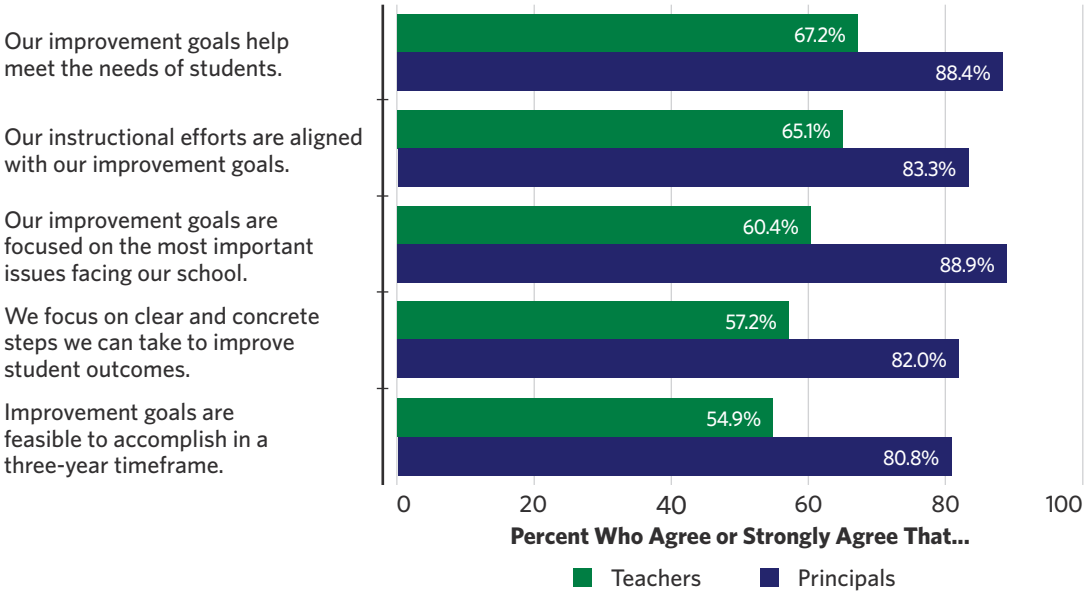
Section Nine: Implementing Partnership During the COVID-19 Pandemic

As we noted in the introduction to this report, and then discussed in detail in Section Three, the COVID-19 pandemic had an outsized effect on Partnership schools and districts, as well as on their communities. Nonetheless, Partnership schools and districts persisted in their improvement efforts, working to accomplish the improvement goals outlined in their Partnership Agreements and meet the needs of their students. In this section, we describe the ways that Partnership district leaders and educators engaged with the turnaround process during the COVID-19 pandemic and how perceptions of turnaround appeared to change since the COVID-19 pandemic began.

EDUCATORS BELIEVE IN THEIR PARTNERSHIP IMPROVEMENT GOALS, THOUGH REPORT LESS BUY-IN THAN LAST YEAR

Even as educators in Partnership districts managed challenges stemming from the COVID-19 pandemic, Partnership schools and districts retained a focus on improvement efforts (see Section Six) and educators reported that they remained committed to improvement goals. Figure 9.1 shows that educators largely believed in their improvement goals and the steps they were taking to reach them.

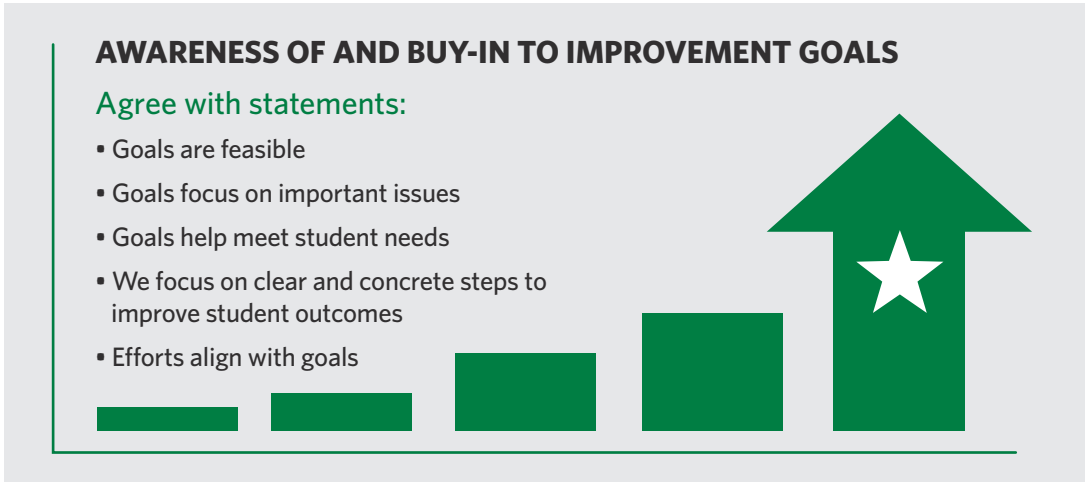
FIGURE 9.1. Partnership District Educator Agreement With Statements Related to Buy-In to Improvement Goals, 2021-22



Note: Teachers and principals were asked, "Please indicate the extent to which you agree or disagree with the following statements about your organization's improvement goals." Response options were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree."

However, when we compare educators' buy-in to improvement goals over the course of Partnership implementation, measured through a construct based on these individual items (see Figure 9.2), we see that educators' belief in these goals waned slightly in the 2021-22 school year. Figure 9.3 displays the change over time in educators' endorsement of improvement goals in Cohort 1, Cohort 2, and non-Partnership schools in Partnership districts. Teachers, shown in the left panel, expressed increased buy-in over the first three years of the reform, even during the 2020-21 school year as the COVID-19 pandemic caused massive disruptions to schooling and to students' and educators' lives. However, in the most recent school year, they expressed less optimism that their goals were feasible to accomplish and that they provided a blueprint for how to best meet students' needs.

FIGURE 9.2. Improvement Goal Buy-In Construct



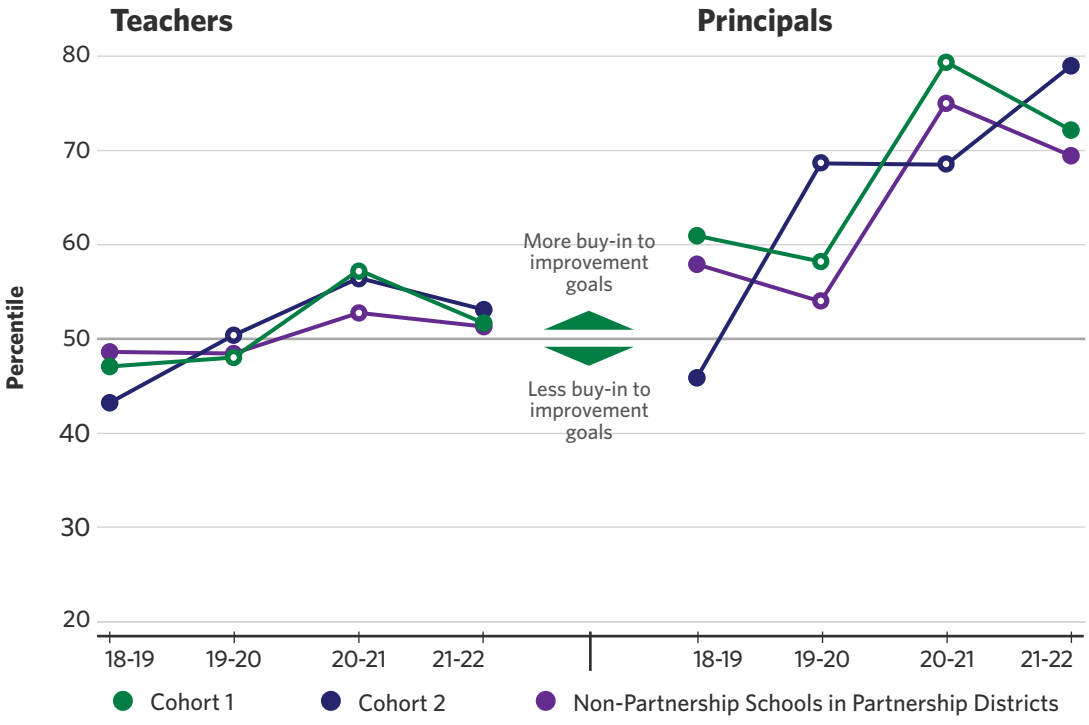
Similarly, principals' buy-in decreased in 2021-22 for those in Cohort 1 and non-Partnership schools in Partnership districts, though remained higher than before the COVID-19 pandemic. Cohort 2 principals' concurrence increased during the 2021-22 school year. Notably, buy-in across all groups (other than Cohort 2 principals) was still greater than before the COVID-19 pandemic, but lower than during the 2020-21 school year.

These shifts may reflect educators' acknowledgement of the ways the COVID-19 pandemic made school improvement efforts difficult. In particular, though not shown here, in 2021-22, teachers were less likely to agree that their improvement goals are feasible, that they focus on the most important issues facing their schools, and that they have the resources they need to accomplish their goals.

Educators in Partnership districts remained committed to improving outcomes for their students.

Given how greatly students' needs expanded during the COVID-19 pandemic, the extent to which school operations were interrupted (see Section Three), and the teacher burnout described in Section Seven, educators' somewhat diminished buy-in may reflect their concerns that their goals and plans may be insufficient. Nonetheless, these findings suggest that despite it all, educators in Partnership districts largely remained committed to improving outcomes for their students and believed that their Partnership goals still provide a suitable channel for making these improvements.

FIGURE 9.3. Partnership District Educator Reports of Improvement Goal Buy-In, by Partnership School Status Over Time



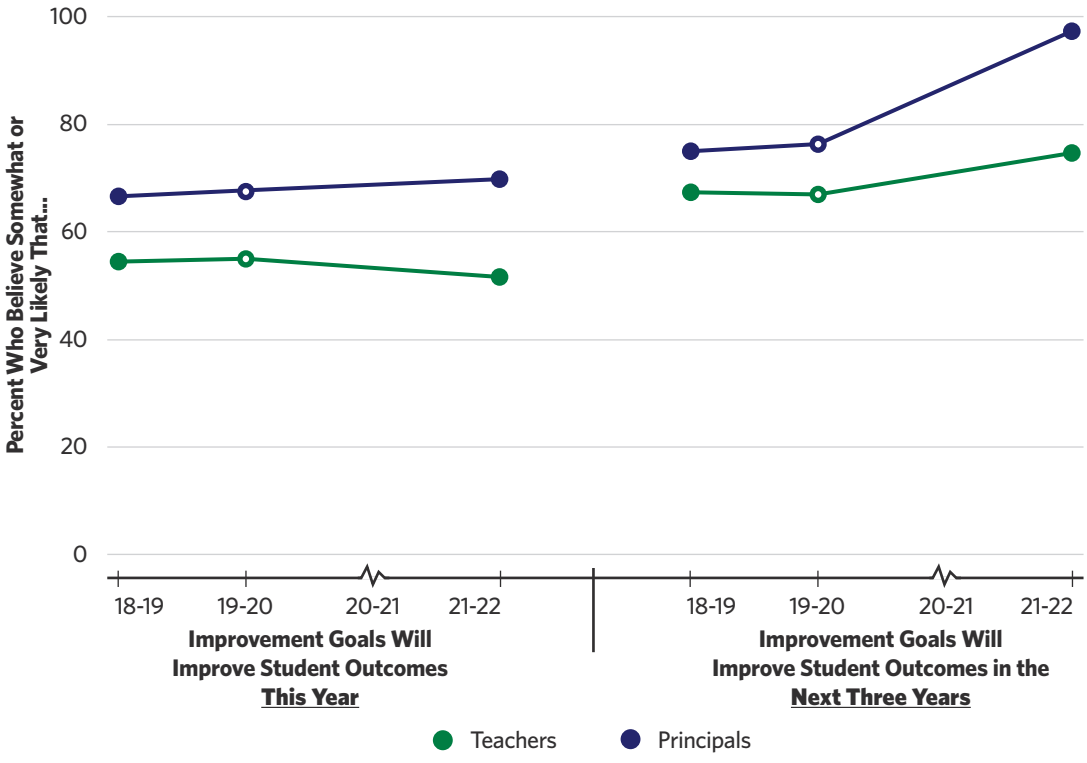
Note: Markers denote the reported level of improvement goal buy-in over each of the four years of survey administration. The first panel shows the average percentile of teachers by year and Partnership status and the second panel shows principals in the same groups.

WHILE OPTIMISTIC ABOUT IMPROVEMENT, EDUCATORS BELIEVED ACCOUNTABILITY EXPECTATIONS WERE UNREALISTIC

Educators at both the district and school levels expressed restrained optimism that the Partnership Model would help to improve student outcomes, though they were less confident their schools and districts would make sufficient progress to fully meet improvement goals.

The first panel of Figure 9.4 shows that teacher and principal perceptions that their improvement goals would improve student outcomes *within the year* remained relatively constant through the study period, at about two-thirds for principals and hovering just above 50% for teachers. While we did not ask this question in 2020-21, it is clear from the 2021-22 responses that COVID-19 era perceptions were very similar to pre-pandemic perceptions. The second panel shows that the share of educators who believed improvement goals were likely to improve student outcomes *within three years* has grown since the COVID-19 pandemic began—increasing from about two-thirds of teachers pre-pandemic to three-fourths in 2021-22, and increasing from about three-fourths of principals pre-pandemic to nearly 100% in 2021-22.

FIGURE 9.4. Partnership District Educator Perceptions That Improvement Goals Are Likely to Improve Student Outcomes Over Time



Note: Teachers and principals were asked, "In your opinion, how likely is it that your organization's improvement goals will improve student outcomes?" Response options were "very likely," "somewhat likely," "neither likely nor unlikely," "somewhat unlikely," and "very unlikely." Question was not asked in 2020-21.

Together, these results suggest that Partnership district educators are slightly less optimistic than before the COVID-19 pandemic that improvement goals would be great enough for schools to fully reach their improvement goals in the very near term, but more confident that they can meaningfully improve student outcomes over the next three years.

Partnership district leaders in interviews conveyed similarly optimistic but measured perceptions of district improvement. In general, despite the added burdens and challenges created by the COVID-19 pandemic, leaders believed in their Partnership goals and felt confident about meeting them. The Rangers charter leader explained:

> *I think that our academic scores have improved since being in the Partnership Agreement. We're making steps in the right direction. [...] We're nowhere near where I would like to be, but I think it takes time, so every little step that we're making towards those goals, I think that it's because of the Partnership Agreement. [...] We're seeing a large impact on our M-STEP scores—have started to increase. [...] As far as student suspensions and referrals, we've seen a huge decrease in those working in the Partnership Agreement. Our attendance has increased. Staffing was right on track up until the pandemic.*

However, as this leader alluded to in saying "up until the pandemic," Partnership schools and districts were working toward meeting goals that they set before the COVID-19 pandemic upended public education. The Canadiens district leader lamented not being able to focus as urgently on student achievement, saying, *"it feels like 80 percent of my job is now managing COVID."*

"It feels like 80 percent of my job is now managing COVID."

Given the COVID-19 pandemic context and how difficult pandemic schooling has been for Partnership districts, many Partnership district leaders believed that accountability pressures should have been muted for another year. For instance, the Canucks district leader noted that expectations about meeting improvement goals were misguided in light of the COVID-19 pandemic. Specifically, they expressed criticism about the state's focus on keeping Partnership schools to "the same requirements" amidst so many pandemic-related challenges:

> *We talk about closing the achievement gap, but prior to the pandemic, yes, we had benchmarks and goals, but now you're looking at students— [...] because we're focusing on teaching/learning benchmarks, it's hard to take that time again out of the calendar to say, "hey, let's just take this time to get to know and really meet the needs of our students truly." That's where I think the con is, and the state does not. To keep us to those same requirements is just really—it's not—I won't say we won't do our best or give up, but it's extremely difficult, and what's best for students? So if our teachers are burnt out doing all of this in and out because of high absenteeism and no fault of theirs, how do our students feel? They have experienced loss. Their parents are sick. That's the part about the state, the political part, there's a big disconnect.*

Some teachers in open survey responses expressed similar sentiments. One described their frustrations about being held accountable for student learning for students who do not attend school—a widespread challenge described in Section Three:

> *Students seem down, and most do not care about their school work. They have experienced much trauma, and all our state cares about is test scores. It is incredibly frustrating to be held accountable for test scores when students miss so much school (one of my students has missed 56 1/2 days so far this school year) yet, I am still being held accountable for their progress.*

Another teacher said that students were making progress but pre-pandemic expectations for that progress were unrealistic:

> *I believe the expectations for students have not adjusted for the pandemic. We came back to business as usual, not accounting for the learning gaps and social emotional issues the students would be facing. All of the students are going through so much, yet the higher ups are expecting them to make huge growth this year and for the teachers to make sure they fill in those learning gaps. Students will grow. They just might not grow three grade levels in one year. It has been very stressful for students and teachers.*

TEACHERS REPORT FEWER CHALLENGES WITH DATA, RESOURCES, EMOTIONAL CONNECTIONS, AND TRUST-BUILDING IN 2021-22

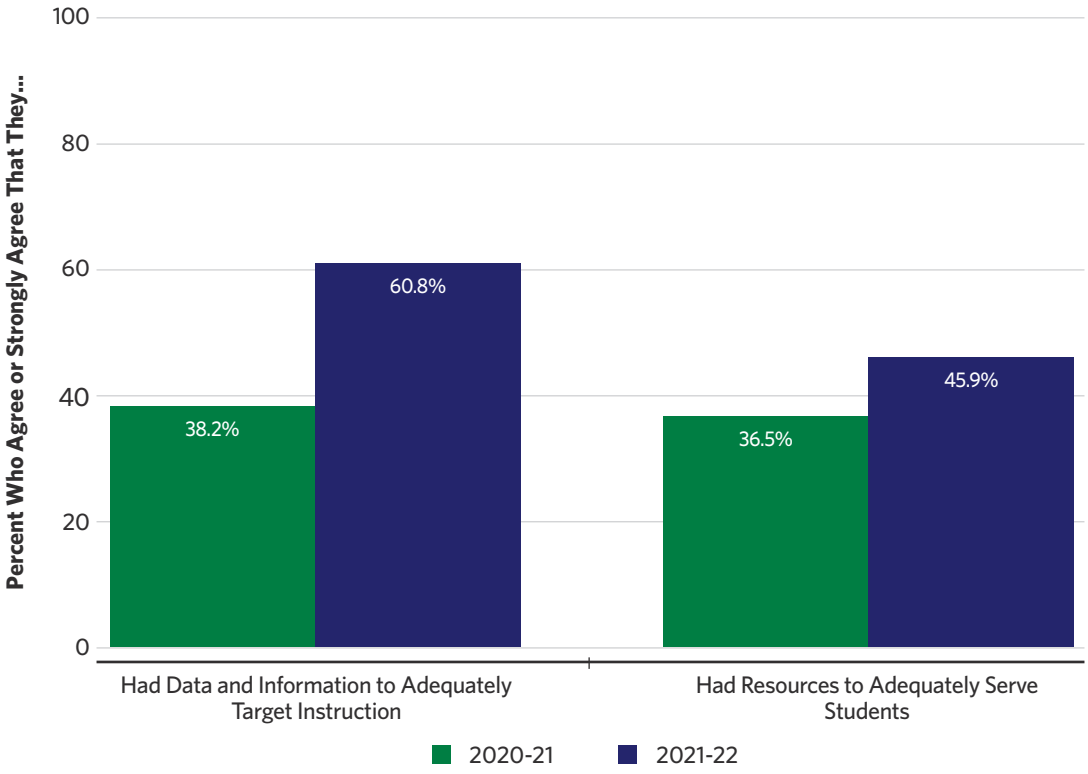
Although there were additional and different challenges in the 2021-22 school year relative to the 2020-21 school year and educators were slightly less optimistic that their school improvement goals would translate into proximate achievement gains, it appears that some challenges wrought by the COIVD-19 pandemic eased slightly in this second full year of pandemic learning. In particular, a greater share of teachers believed they had the data and information needed to adequately target instruction and the resources they needed to serve students. In addition, teachers reported fewer challenges in establishing emotional connections and building trust with students. These data—shown in Figure 9.5 and Figure 9.6—highlight that teachers felt better equipped in 2021-22 to educate and emotionally support their students than in the year prior.

The increased perception that teachers had data and information to target instruction comes after a year when districts made new investments in their data systems. Administrative data on 21h allocations shows that almost all Partnership districts requested 21h funds for data systems and support in 2020-21—a substantial increase from the first three years when only 8-27% of districts requested funds for data use. However, dollar amounts were fairly modest; our analyses suggest that these investments in data systems totaled about $176,000 across 27 districts, an average of about $6,500 per district or $300 per student. In addition, the Return to Learn

legislation[1] required districts to administer benchmark assessments in both 2020-21 and 2021-22, which may have increased administrators' and teachers' access to real-time information about their students' progress.

It also is unsurprising that more teachers—25% more (9.4 percentage points)—reported they had sufficient resources to meet their students' needs than in the previous year. The federal government invested over $350 million in Michigan public schools through the American Recovery Plan Elementary and Secondary School Emergency Relief (ESSER) funds.[2] These dollars provided Michigan public school districts with the ability to target resources to their locally defined needs, and a large share went to Partnership districts because the formula funds were based on Title I Part A allocations and because the state targeted a subset of funds specifically for the highest needs districts (Hatch & Harbatkin, 2021).

FIGURE 9.5. Partnership District Teacher Perceptions of Their Instructional Resources, Past Two Years

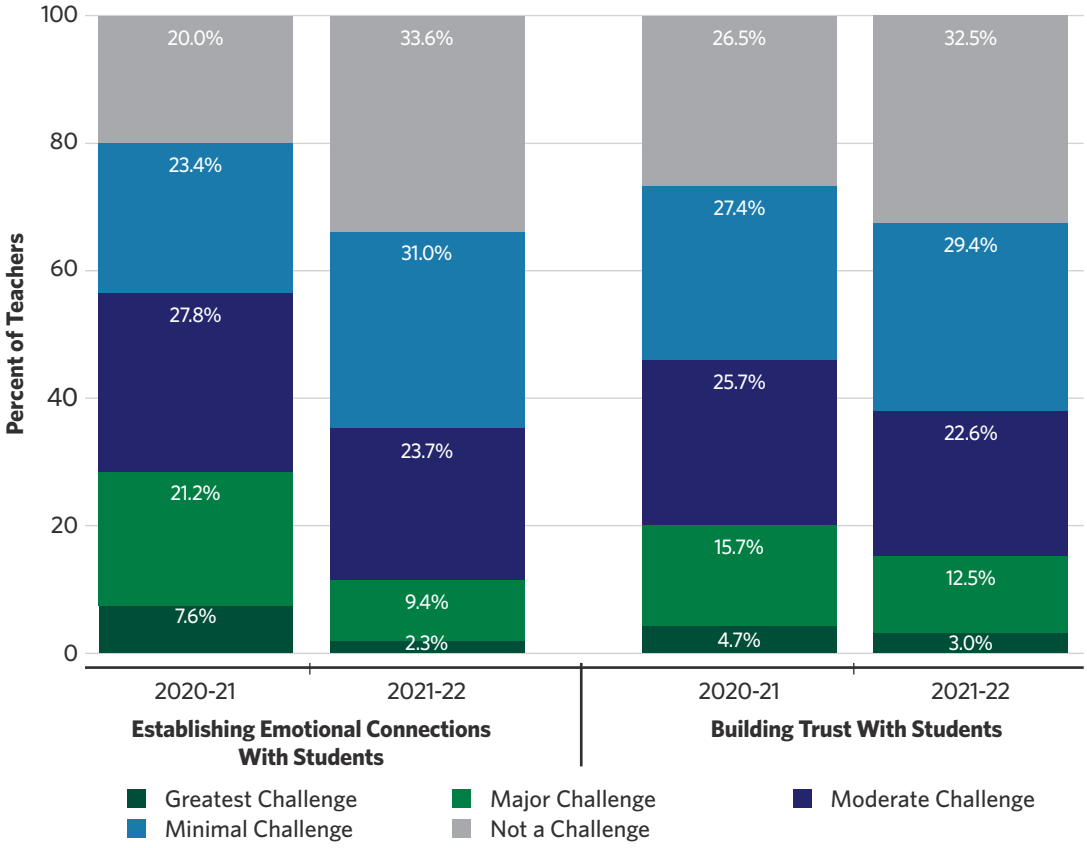


Note: Teachers were asked about the extent to which they agreed with each statement. Response options were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree." Differences on both items between 2020-21 and 2021-22 are significant at p<0.001.

Equally important as improvements in data and resources in the 2021-22 school year, as students returned to in-person instruction, teachers reported greater ease in establishing emotional connections and building trust with students. This kind of emotional support and trust-building were especially salient challenges for teachers in 2020-21 as Partnership districts operated largely

remotely. In the 2021-22 school year, the share of teachers reporting that establishing emotional connections with students was a major or the greatest challenge in the classroom decreased by 40% (from 29% to 12%) and the share reporting that building trust with students was a major or the greatest challenge decreased by 24% (from 20% to 16%). Meanwhile, the share reporting that establishing emotional connections and building trust were *not* a challenge (shown in grey) *increased* at similar rates.

FIGURE 9.6. Partnership District Teacher Perceptions of Student-Teacher Relations in Partnership Districts as a Challenge, Past Two Years



Note: Teachers were asked, "To what extent have each of the following been challenges for you in the classroom this school year?" Differences between 2020-21 and 2021-22 are significant at p<0.001.

Still, despite signs of progress, it is clear that challenges remained. Although teachers reported having more of the data and resources they needed to educate students, many still reported shortfalls. In particular, given the substantial crises in which Partnership districts and communities found themselves, as outlined in Section Three, relatively few teachers (less than half) believed they had adequate resources to meet their students' needs. Similarly, although a smaller share of teachers reported difficulties establishing emotional connections and building trust, the majority of teachers in Partnership districts still believed these were challenges in each year.

These findings therefore underscore additional needs in 2021-22. The COVID-19 pandemic introduced new instructional challenges, with the pivot to remote instruction in 2020, unplanned modality shifts in 2021-22, and widespread student absenteeism and disrupted learning. These responses highlight that teachers did not feel they had what they needed to support their students in the COVID-19 pandemic context.

THOUGH DISTRICTS WERE STRUGGLING, THE PARTNERSHIP MODEL PROVIDED THEM WITH ACCESS TO USEFUL SUPPORTS

Despite these challenges, data from Partnership district leaders and educators suggest that the Partnership Model laid the groundwork for improvement and was successfully bridging some gaps between resources and district needs. One of the ways the Partnership Model is intended to help districts and schools improve is by providing supports from both MDE (i.e., OPD, Partnership Agreement liaisons) and their ISDs.

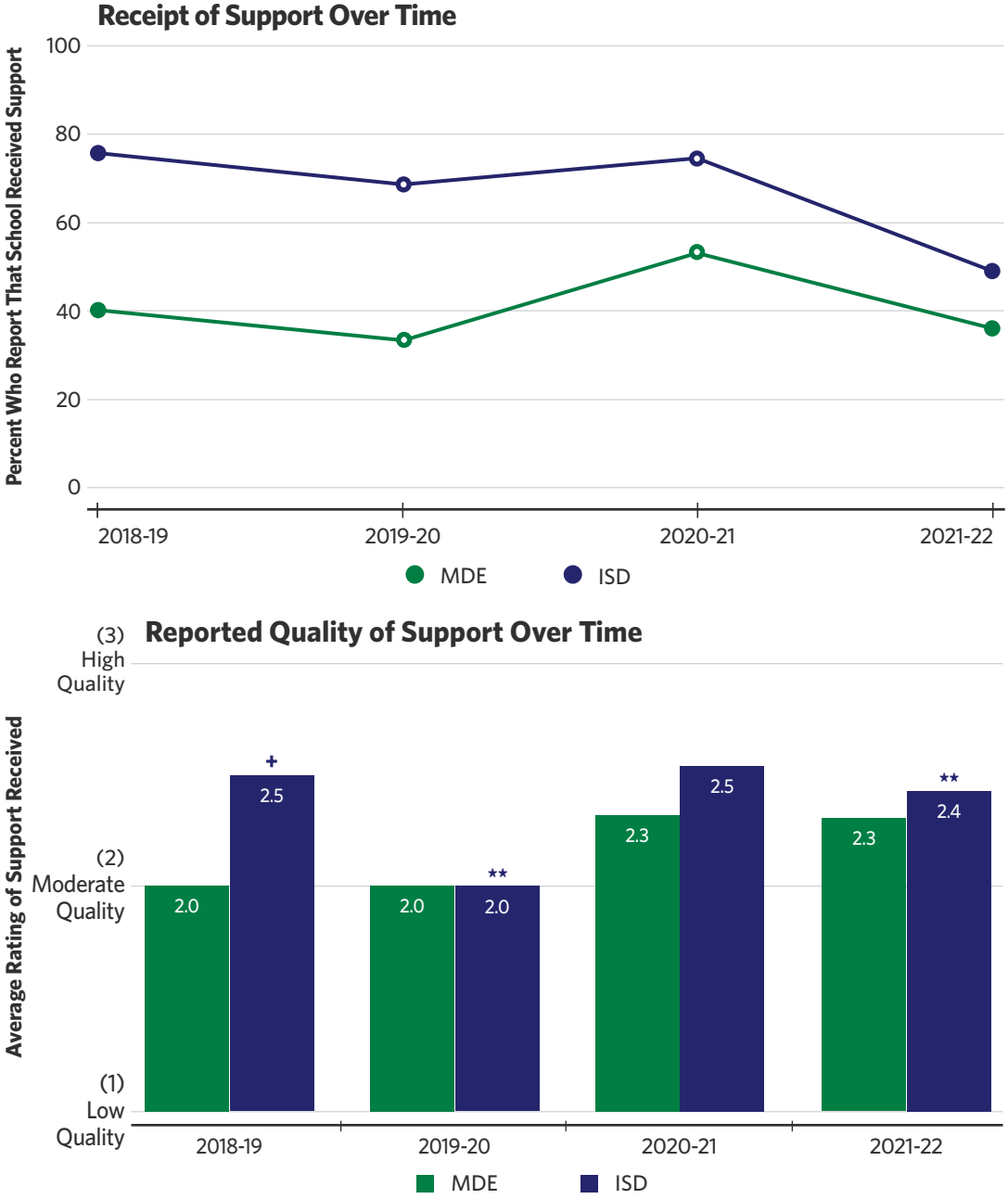
To better understand the extent to which Partnership schools were taking up available supports, we asked principals in each survey year whether they received assistance or support from MDE and their ISD, respectively, and about the quality of the assistance they received. Figure 9.7 summarizes principal responses in each of the four survey waves, with the share reporting they received assistance from each source in the first panel and principals' average rating of the quality of the assistance in the second panel.

Data from Partnership district leaders and educators suggest that the Partnership Model laid the groundwork for improvement and was successfully bridging some gaps between resources and district needs.

In 2021-22, about 36% of principals reported receiving MDE supports and 48% received ISD supports. These figures represent a slight decrease from prior years.[3] In each year, Partnership district principals rated these supports as moderate to high quality on a 1-3 scale where a one represents low quality and a three represents high quality. Notably, principals perceived supports from MDE as higher quality during the two full COVID-19 pandemic school years than they had before.

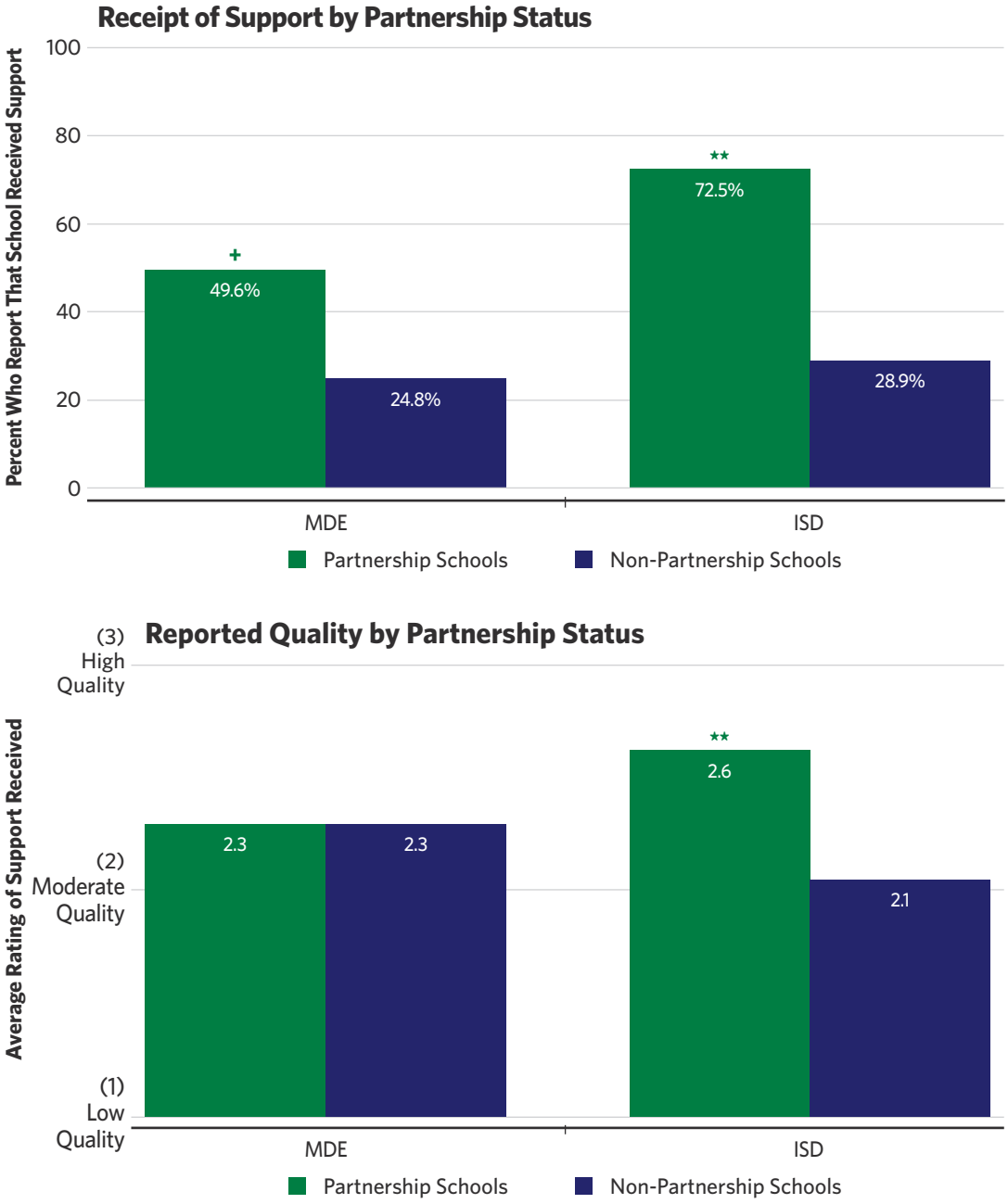
Figure 9.8 breaks down the 2021-22 responses by Partnership school status, highlighting that —as expected—Partnership schools received more supports than non-Partnership schools in Partnership districts and that Partnership school principals perceived ISD supports in particular to be especially high quality.

FIGURE 9.7. Partnership District Principal-Reported Receipt and Quality of MDE and ISD Supports Over Time



*Note: Principals were asked, "During the current school year, has your school received assistance or support from the following groups, and if so, how would you rate the quality of that assistance or support?" In response to the first question, principals were asked to select a checkbox if their school received supports from a given provider. Response options for the second question were "low quality," "moderate quality," and "high quality." Marker heights in first panel denote the share of principals indicating that they received assistance or support from the listed group. Bar heights in the second panel provide the average rating of supports, where low quality is coded as 1, moderate quality as 2, and high quality as 3. ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

FIGURE 9.8. Partnership District Principal-Reported Receipt and Quality of MDE and ISD Supports, By Partnership School Status



*Note: Principals were asked, "During the current school year, has your school received assistance or support from the following groups, and if so, how would you rate the quality of that assistance or support?" In response to the first question, principals were asked to select a checkbox if their school received supports from a given provider. Response options for the second question were "low quality," "moderate quality," and "high quality." Bar heights in first panel denote the share of Partnership and non-Partnership school principals, respectively, indicating that they received assistance or support from the listed provider. Bar heights in the second panel provide the average rating of supports, where low quality is coded as 1, moderate quality as 2, and high quality as 3. ***p<0.001, **p<0.01, *p<0.05, +p<0.10*

District leaders also expressed appreciation for the technical and moral support provided by MDE and ISDs, especially during a time when challenges and responsibilities were increasing. Interview data show that many leaders appreciated the relationships and having a supportive community to tackle challenges together rather than doing so in isolation. The charter leader of Predators explained:

> *I do feel like I've been supported. I don't feel like I'm off on this island by myself, making these decisions, that it's too much for me to do. I have a team. I have, whether it's my ISD rep, my MDE rep, whoever it might be, I have people to talk things through and say, "Hey, this is the struggle I have. What do you think about this? What do you think about that?" We actually meet monthly. […] In that meeting, as we're talking anything up and coming, we're talking about data for the school […] and those meetings just really have us all getting on the same page, speaking the same language.*

As in prior years, others also described important technical supports provided by ISDs, such as coaching, feedback, and professional development. The charter leader of Blues explained:

> *They have agents within the ISD system that help give us continuous support throughout the year, so it's more often than just those periodic meetings that we have. […] They come in they see us in our work and can provide immediate feedback and immediate resources if it's possible. They have been very valuable to our team.*

STATE TURNAROUND DOLLARS AND FEDERAL COVID-19 PANDEMIC RELIEF FUNDS HELPED PARTNERSHIP DISTRICTS ALLEVIATE FINANCIAL CONSTRAINTS

The Partnership Model comes with technical supports, like those described earlier, in addition to material supports through additional funding. These funding supports are crucial; myriad high-quality studies have shown that increased school spending leads to higher near-term student achievement and to improved longer-term outcomes (e.g., Jackson, 2020; Jackson et al., 2021). However, research indicates that districts with high concentrations of poverty need substantially more funding than more affluent districts to provide students with an adequate education (Augenblick, Palaich and Associates, 2021; Augenblick, Palaich and Associates & Picus, Odden and Associates, 2018). Additionally, as we show in the Year Three Report, Partnership districts raise less than non-Partnership districts from local property taxes, pointing to a greater need for public funds.

Partnership schools and districts receive funding from several public sources to support their turnaround efforts. First, all Partnership districts are eligible for state 21h funds—about $6 million to $7 million per year in state funding allocated across all Partnership districts for school

and district turnaround. Second, ISDs with schools designated for turnaround under the federal ESSA receive Regional Assistance Grants (RAG) to go toward turnaround districts, either in the form of technical supports or direct assistance. RAG supports, therefore, go to districts with Round 3 schools—the state's first cohort of Comprehensive Support and Improvement schools under ESSA. Finally, federal ESSER funds provided all schools and districts—and even more for high-poverty schools like those in Partnership—with a large infusion of federal dollars that districts have been able to leverage toward improvement efforts.

In each year of study, Partnership district leaders have cited 21h funding as being especially useful toward their improvement efforts. Those positive perceptions continued in 2021-22, and leaders shared that they used funds to mitigate challenges stemming from the COVID-19 pandemic, such as technology access and staff retention. For example, when asked whether 21h helped them meet Partnership goals, the charter leader of Rangers said *"definitely,"* and went on to describe using the money for teacher retention bonuses (see Section Seven) as well as the purchase of Chromebooks, computer programming courses, and 3D printing.

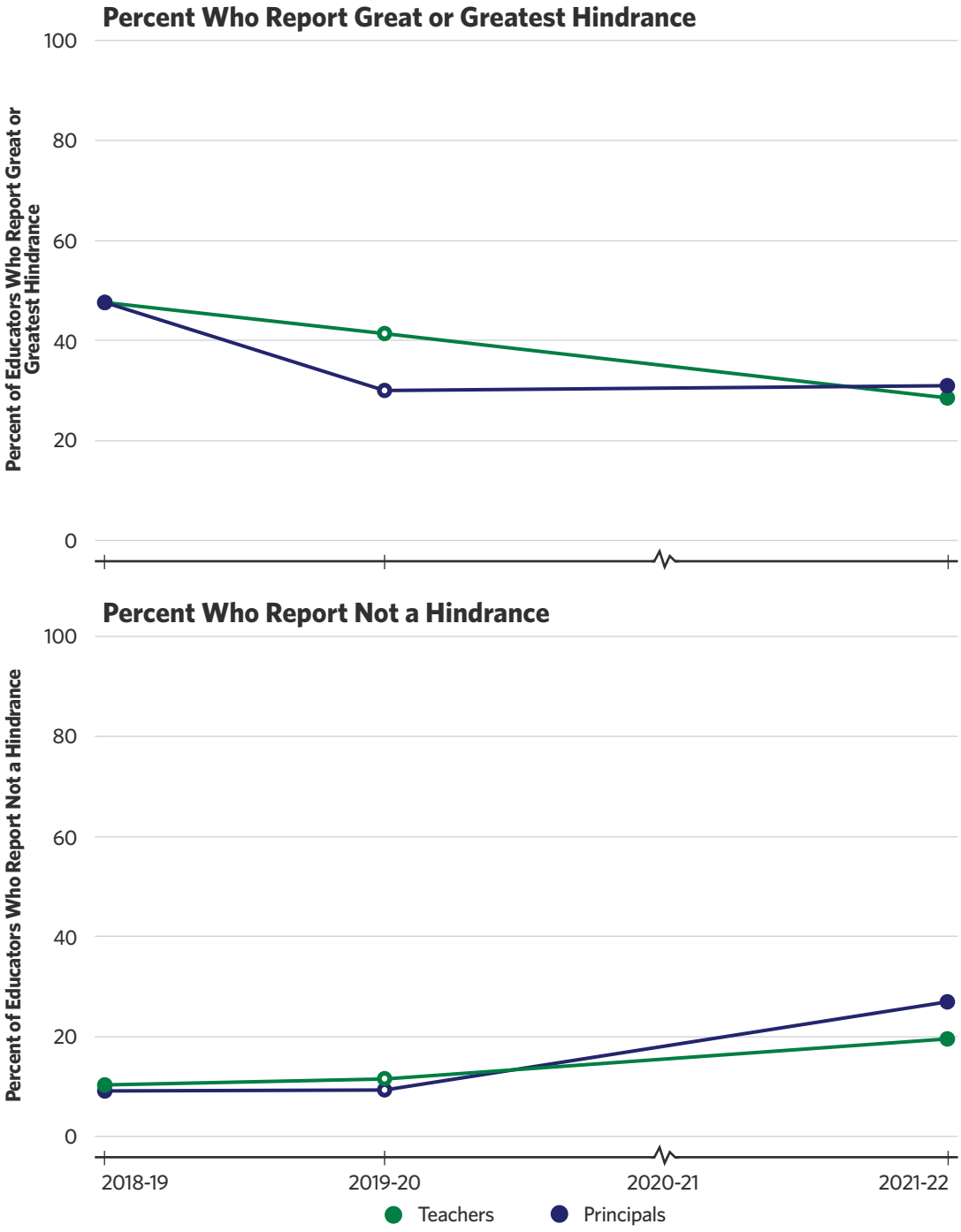
Partnership district leaders have cited 21h funding as being especially useful toward their improvement efforts.

Many other leaders used funds in similar ways. The charter leader of Oilers said, *"We were able to get touchscreen monitors for our teachers. We were able to buy the scientific calculators to take with us to testing sites and things like that."* Lightning's charter leader noted, *"In terms of money and funding, the big thing for us was, we used a lot of the funding for technology, computers, in the beginning."* Similarly, the charter leader of Sabres used the funding for additional technology, including Chromebooks, so that every household had the ability to go online.

These interviews make clear that Partnership district leaders leveraged available funding sources to meet school and district needs. While available resources were still a challenge—as noted by over half of teachers who believed they did not have adequate resources to meet students' needs—in 2021-22, more principals and teachers reported that financial constraints were *not* a hindrance towards meeting their improvement goals and fewer reported that they were.

The top panel of Figure 9.9 shows the share of educators reporting that financial constraints were a great or the greatest hindrance and the second panel shows the share reporting that they were not a hindrance at all. While about half of teachers and principals believed in 2018-19 that financial constraints were a great or the greatest hindrance to improvement, that figure has decreased in each subsequent year. By 2021-22, just 29% of teachers and 31% of principals believed that financial constraints were a great or the greatest hindrance to improvement, and the proportion of teachers and principals reporting that financial constraints were *not* a hindrance at all increased from about 10% in each of the pre-pandemic years to 20% of teachers and 27% of principals in 2021-22.

FIGURE 9.9. Partnership District Educator Perceptions of Financial Constraints as a Hindrance to Meeting Improvement Goals Over Time



Note: Teachers and principals were asked about the extent to which they believed financial constraints were a hindrance to achieving their improvement goals. Response options were "not a hindrance," "a slight hindrance," "a moderate hindrance," "a great hindrance," and "the greatest hindrance." Question was not asked in 2020-21.

Together, these findings highlight that the Partnership Model has appeared to successfully increase the financial means of low-performing schools and districts, but that funding on its own has not fully bridged the resource and capacity gap for Partnership districts. For example, the Devils' district

leader noted that the additional funding has been instrumental in meeting resource needs, but the district still needs sufficient staff to best leverage the resources the district has acquired:

> *The majority of our support has been in dollars. [...] and those dollars have gone to purchase things that are critical needs that we have, so for instance, a social studies curriculum. Problem is that implementing that curriculum when you're down so many teachers has been very difficult. We're not able to implement with fidelity. Now we have these textbooks and these resources for a curriculum, but the struggle is getting them in the classroom, getting the teachers trained to use them and deliver that instruction. The support would be great if we could find the people, but unfortunately the support we need [now] are people, not things.*

We discuss human capital challenges earlier in Section Seven, but this quote emphasizes that school and district needs may have evolved as new funding became available. The COVID-19 pandemic has laid bare inequities of opportunity in Partnership schools and districts, and additional financial resources stemming from the Partnership Model and COVID-19 pandemic relief funds have buoyed districts in narrowing some of those gaps.

SUMMARY

Partnership schools and districts were working toward turnaround before the COVID-19 pandemic struck. In the 2020-21 and 2021-22 school years, they have continued their school and district improvement processes against the backdrop of the COVID-19 pandemic, which had an outsized negative effect on Partnership communities. Despite extensive challenges, Partnership district leaders, principals, and teachers continued their improvement efforts during pandemic schooling, continued to report high levels of buy-in to their improvement goals, and maintained optimism that students would make progress.

For some educators, accountability pressures loomed large as they worked to support their students, with academic achievement goals casting a shadow over the school year for these educators. But for others, the Partnership Model was a lifeline, providing educators with resources, funding, and the accountability necessary to move forward.

SECTION NINE NOTES

1. http://legislature.mi.gov/doc.aspx?2020-HB-5913
2. https://oese.ed.gov/offices/education-stabilization-fund/elementary-secondary-school-emergency-relief-fund/
3. This decrease may be due to two concerns with these particular survey data. First, this survey item is constructed as a series of checkboxes which we code as receipt of service from a specific entity if the respondent checked the box and as no service provided by that entity if the respondent did not check the box. If a respondent simply skipped an item, we therefore counted a skipped response as did not receive service. Second, there may be sampling noise due to differences in the principal sample between years.

10

Partnership Turnaround:
Year Four Report

SECTION TEN: KEY TAKEAWAYS AND POLICY RECOMMENDATIONS

EPIC
Education Policy
Innovation Collaborative

Section Ten:
Key Takeaways and Policy Recommendations

This report is the fourth in our multi-year evaluation of the implementation and efficacy of the Partnership Model of school and district turnaround. In it, we provide an updated overview of Partnership Model implementation and outcomes in Partnership schools and districts across the state and document how the COVID-19 pandemic has affected Partnership schools and districts as they work to support students and families during this unprecedented time. In this final section, we outline key takeaways and highlight three ways these results should inform future policymaking.

KEY TAKEAWAYS

Students and Educators in Partnership Schools and Districts Continue to Grapple With the Effects of the COVID-19 Pandemic

The effects of the COVID-19 pandemic continue to be felt disproportionately in Partnership communities, districts, and schools. By March 2022, the COVID-19 pandemic had resulted in 17% more deaths in Partnership relative to non-Partnership communities. Teachers in Partnership districts estimated that up to 60% of students and their families had contracted COVID-19, and up to 63% of students suffered socioemotional trauma as a result of the COVID-19 pandemic. While educator-perceived student motivation to learn improved with the return to in-person learning, educators reported that students struggled more with behavior as a result of the COVID-19 pandemic.

Unsurprisingly, the trickle-down effects of COVID-19 on health and safety affected Partnership educators' and students' capacities to teach and learn during the 2021-22 school year. Teachers and principals in Partnership districts reported that as many as one-third of their students were absent from school each day, and reported student absenteeism was especially pronounced in Partnership schools in particular. Moreover, as Partnership districts worked to balance educator and student health and learning, they faced frequent school and classroom closures that required unplanned shifts in instructional modality and led to interrupted learning. Sixty-one percent

of Partnership district principals reported school and classroom closures by late winter of the 2021-22 school year, due not only to COVID-19 outbreaks and quarantines, but also—and more so—due to insufficient instructional staff and tremendous difficulties finding substitutes to staff classrooms when teachers were unable to do so.

Students in Partnership Schools and Districts Increased Out-of-District Transfers After a Year of Reduced Mobility, and Continued to Exit the Michigan Public School System at Higher Rates Than Before the COVID-19 Pandemic

While student mobility between public schools and districts in Michigan decreased after the 2019-20 school year, exits from Michigan public schools overall increased statewide, especially in Partnership schools. After the 2020-21 school year, transfers between school districts rebounded in low-performing schools—including those in Partnership districts as well as in comparison schools—though did not reach pre-pandemic levels. Moreover, while fewer students in low-performing schools left Michigan public schools altogether after the 2020-21 school year, this was not the case in Partnership schools and in Cohort 1 in particular, which continued to see increases in exits from the state public school system after the 2021-22 school year.

After Especially Low Kindergarten Enrollment in Fall 2020, Missing Kindergarteners Did Not Return to Partnership Schools and Districts in Fall 2021

The documented decline in district enrollments during the 2020-21 school year was largely driven by steep drops in kindergarten enrollment. If those kindergarteners returned to Michigan public schools the following year—either to kindergarten or to first grade—we would expect to see enrollments in those two grades increase to levels higher than before the COVID-19 pandemic. This did not happen. Rather, we continue to see decreased first-grade enrollment across all school types and it was especially pronounced in Partnership schools and districts. While kindergarten enrollments did rebound, they did not do so to pre-pandemic levels, and Partnership schools saw particularly low rates of return.

Students in Partnership Districts Struggled Academically But Exhibited Slightly Greater Achievement Growth Over the 2020-21 School Year on Some Benchmark Assessments Relative to Similar Districts

Partnership district educators expressed concerns that their students were not on track academically when they began the 2021-22 school year, and only 9% of principals and 12% of teachers believed their students would be proficient by the end of the school year. Eighty percent of Partnership district teachers reported that their students were struggling with academic content as a result of pandemic-related interruptions to learning.

Partnership districts' performance on benchmark assessments during the 2020-21 school year support educators' concerns; Partnership districts scored lower, on average, on benchmark assessments and made smaller fall-to-spring gains over the course of the 2020-21 school year than other districts throughout the state. Notably, however, students in Partnership districts made similar and in some cases greater gains on their benchmark assessments than did students in demographically and academically similar districts across the state.

Early Progress Toward Increasing Graduation Rates Stalled During the COVID-19 Pandemic and Did Not Improve in 2021-22

Low-performing schools in Michigan—including Partnership schools, non-Partnership schools in Partnership districts, and near-selected comparison schools—have had persistently lower graduation rates than other schools over time. However, graduation rates in Cohort 1 Partnership schools increased in each of the first two years of the Partnership intervention before declining during the COVID-19 pandemic. Graduation rates declined in 2020-21 across all schools in Michigan, but most prominently in Partnership schools and districts and comparison schools. Put simply: the COVID-19 pandemic stalled progress toward increasing some Partnership schools' graduation rates and had the greatest effect on graduation rates in the schools and districts that were already struggling the most.

Partnership Schools and Districts Provided Services and Strategies Intended to Address Pandemic-Induced Interruptions to Learning, Focusing Largely on Approaches That Were Popular Pre-Pandemic

Partnership districts implemented several strategies intended to support and accelerate student learning during the 2021-22 school year. In particular, two-thirds of principals reported providing tutoring by adults, and one-third reported peer-to-peer tutoring. A majority of principals also said that their districts provided academic counselors.

Although the majority of districts provided tutoring, relatively few principals believed that providing one-on-one tutoring was a priority for their districts; on average, principals reported using one-on-one tutoring to a lesser degree than nearly any other accelerated learning strategy. Rather, Partnership district principals described using strategies that were popular pre-pandemic, with the majority prioritizing data-driven instruction, Essential Skills, and culturally responsive teaching.

Partnership Districts Focused on Supporting Student Socioemotional Health and Well-Being Outside the Classroom

Given the detrimental effect of the COVID-19 pandemic on students in Partnership districts, Partnership educators prioritized students' socioemotional, mental health, and behavioral needs during the 2021-22 school year. Partnership principals reported a marked increase in the provision of social workers, socioemotional counselors, restorative justice programs, and mentoring initiatives from 2020-21 to 2021-22, as well as a maintained focus on mental health services and physical health services.

Human Capital Challenges Resurfaced and, in Many Ways, Magnified During the Second COVID-19 Pandemic School Year

Challenges related to COVID-19, such as illness and quarantine, led to increased teacher absenteeism during the 2021-22 school year, and substitute teachers often were not available. Partnership principals reported that 18-36% of teachers were absent each day, and substitutes were only available one-third to one-half of the time.

In addition, teacher turnover remained a persistent problem across all low-performing schools in the state. While transfers to other districts dropped substantially after the 2019-20 school year, these rates rebounded after the 2020-21 school year, although at lower rates in Partnership relative to low-performing comparison schools. Moreover, Partnership school teachers left the Michigan public school system at higher rates than teachers in comparison school districts, although this did not appear to be driven by the COVID-19 pandemic. Recruitment posed significant challenges as well, with principals reporting greater challenges hiring teachers in 2021-22 than in prior years.

These staffing challenges accentuated critical concerns related to human resources that existed before the COVID-19 pandemic in Partnership districts. Both principals and teachers consider insufficient human resources to be major hindrances to school and district improvement, and this perception has increased over the two full pandemic-affected school years. Moreover, teacher morale has decreased over the course of the COVID-19 pandemic, as greater proportions of both teachers and principals reported that teacher demoralization is a substantial hindrance to improvement efforts. It may not be surprising, then, that Partnership teachers' reported intentions to leave their schools and districts—which had dropped during the 2020-21 school year—reverted back to pre-pandemic levels.

School Leadership Remained a Bright Spot in Partnership Schools and Districts

School leadership matters for school improvement. Not only do effective school leaders help guide turnaround, but they also play an important role in setting the culture and climate of their schools and can bring needed stability to schools that often grapple with high rates of staff turnover. Indeed, one of the main factors Partnership teachers cite each year as their motivation for staying or leaving their positions is school leadership.

The majority of teachers in Partnership districts held positive perceptions of their principals' effectiveness across several dimensions of school leadership, including communicating the central mission of the school, using evidence to make data-driven decisions, working with community partners, facilitating professional development, and engaging parents. Partnership school teachers in particular held positive perceptions of their school leaders relative to teachers in their districts who were not in Partnership schools—although both sets of teachers rated their principals as slightly less effective in 2021-22 than in 2020-21, but higher than before the COVID-19 pandemic.

COVID-19 Relief Funds and State Turnaround Dollars Helped Partnership Districts to Mitigate COVID-19 Pandemic-Induced Challenges

As in years past, Partnership district leaders cited state turnaround dollars as critical to supporting their improvement efforts. Leaders shared that they used 21h and RAG funds to improve technology access and address staffing challenges. In 2020-21, nearly 80% of Partnership districts receiving 21h funds spent at least some portion on staffing, and 40% spent funds on educator development.

While the majority of Partnership leaders and educators in previous years had cited financial constraints as a major hindrance to improvement, by the 2021-22 school year, just under a third of teachers and principals believed that financial constraints were a great or the greatest hindrance. This is likely due to the influx of federal COVID-19 pandemic relief dollars. District leaders noted, however, that available funds were still insufficient on their own to fully address their ongoing staffing challenges, in part because of the lack of available educators applying to positions in their districts.

POLICY RECOMMENDATIONS

Continue Supporting Partnership and Other Low-Performing Schools and Districts

The outsized effect of the COVID-19 pandemic on Partnership communities, educators, students, and school systems has made school improvement—always a difficult task—even harder. Moreover, statewide challenges with teacher recruitment and retention continue to be felt more acutely in Partnership districts. Our data make clear that Partnership educators and leaders are working to provide the necessary academic, mental health, and socioemotional support services to help their students succeed. But these initiatives are costly—both in terms of dollars and the time and emotional toll on Partnership educators. While state turnaround dollars and federal COVID-19 pandemic recovery funds have gone a long way to help Partnership schools and districts, the road to recovery will be long. State policymakers will need to continue funding Partnership and other low-performing schools and districts and providing them with assistance to help them build on early progress, accelerate learning, and continue to support their students. Current estimates suggest that a greater number of districts will be identified for Partnership in Round 4. However, the current budget appropriation maintains the state's investment of $6 million a year for 21h funds. These funds will likely be insufficient to adequately support an increased number of Partnership districts, especially as COVID-19 pandemic relief funds are exhausted and districts work to recover from the COVID-19 pandemic. Policymakers should allocate additional funds to Partnership districts in the coming years in order to better support their improvement efforts for the duration of the three-year intervention period.

Assist Partnership Educators and Leaders in the Use of Evidence-Based Interventions to Accelerate Learning

While aggregate benchmark assessment data suggest that students in Partnership districts experienced achievement growth on par with—and sometimes at higher rates than—students in similar districts, they are nonetheless performing at levels far below average in Michigan. Principals reported implementing several important strategies in the 2021-22 school year intended to help accelerate student learning. It will be important to support Partnership school and district leaders as they continue to work to accelerate learning, in particular providing them with resources to enable the use of evidence-based interventions—such as one-on-one or small group tutoring—that hold the greatest promise to foster achievement growth.

Provide Districts Exiting Partnership with Additional Resources to Ensure Continued Improvement

The 2022-23 school year will be the first in which districts will exit turnaround status after undergoing the full Partnership intervention. Some of these districts will be re-identified for Round 4 (Cohort 3) of the intervention, but a subset of Cohorts 1 and 2 Partnership districts will exit Partnership entirely. These districts are still among the most affected by the COVID-19 pandemic, and they still serve large populations of historically disadvantaged students. By district and school leaders' own accounts, Partnership supports and resources helped them to improve. Losing the opportunity to access these resources and supports after more than two years of pandemic-related challenges might endanger their progress. Of course, over the last two years, school systems across the state have received considerable one-time federal Elementary and Secondary School Emergency Relief (ESSER) funds, as well as increased state per-pupil funding as a result of the updated school funding formula. But one-time funds by definition will not be available in the long run, and increased per-pupil funding may not be enough to sufficiently address the substantial needs of exited districts as they work to recover from the pandemic and continue making progress. Policymakers should continue support these newly exited districts—financially and through additional operational and developmental assistance.

As the State Focuses Efforts on Strengthening the Educator Pipeline and Workforce, Pay Particular Attention to Ensure Partnership Schools and Districts Can Recruit, Retain, and Support Teachers

Partnership schools and districts have higher rates of teacher turnover than wealthier and higher-performing school districts, and substantial proportions of Partnership educators reported low morale and intentions to leave in the coming years. Our data show that Partnership teachers cited leadership, culture, climate, and their students as reasons to stay in their positions, and cited pay and workload as reasons to leave. Policymakers should consider how to target efforts to retain and grow the educator workforce in Partnership districts in particular, focusing on improving pay, reducing workload, and retaining effective leaders who can in turn build productive and welcoming schools with supportive working conditions.

Support Partnership Schools and Districts in Efforts to Reduce Student Absenteeism

The COVID-19 pandemic exacerbated existing challenges related to student absenteeism and in particular chronic student absenteeism—reducing opportunity to learn among students who may already be grappling with significant challenges impeding their learning. Policymakers and district leaders should consider ways to decrease student absenteeism. For instance, schools can leverage existing resources (e.g., the Michigan Department of Education's ENGAGE program) to make connections with students who are facing challenges that impede their ability to consistently attend class, support student success, identify the barriers to attendance and engagement, and provide supports to mitigate those barriers. If and when absenteeism stems from required quarantine protocols, districts should continue to work to abate the negative effects of missed in-person learning (for example, through resources for engaging quarantining students and high-quality virtual engagement opportunities).

KEY TERMS

1. **21h Funding:** 21h is a grant the Michigan Legislature appropriates and the Office of Partnership Districts (OPD) administers at the Michigan Department of Education. Partnership districts are eligible to apply for 21h funding to support the implementation of their Partnership Agreement.
2. **CEPI (Center for Educational Performance and Information):** The Center for Educational Performance and Information (CEPI) collects and manages Michigan's educational administrative data such as records on the state's teachers, students, and facilities.
3. **Charter School/Public School Academy (PSA):** A publicly funded, independently operated public school which is not regulated by a traditional public school district.
4. **ESSA (Every Student Succeeds Act):** Passed in 2015, the federal Every Student Succeeds Act (ESSA) is the most recent reauthorization of the Elementary and Secondary Education Act, which outlines the federal government's education policies.
5. **ESSER (Elementary and Secondary School Emergency Relief Fund):** Congress allocated relief funds from the CARES Act to be directed to K-12 public education across the country, through the new program called the Elementary and Secondary School Emergency Relief fund (ESSER). Money was disbursed to State Education Agencies, which would then allot school districts an amount based on federal guidelines.
6. **Extended COVID-19 Learning (ECOL) Plan Monthly Questionnaire:** Under Return to Learn legislation, a series of three bills signed into law on August 20, 2020, each district in Michigan was required to develop an extended continuity of learning (ECOL) plan including a description of instructional modality (e.g., in-person, remote) during the 2020-21 school year. After submitting the initial ECOL plan, districts were required to reconfirm the mode of instructional delivery each month.
7. **IEP (Individualized Education Program):** An individualized education program (IEP) is a written document for students with disabilities ages 3 through 25 that outlines the student's educational needs and goals and any programs and services the intermediate school district (ISD) or its member district will provide to help the student make educational progress.
8. **ISD/RESA (Intermediate School District/Regional Educational Service Agency):** In Michigan, ISDs/RESAs are educational entities that operate between the Michigan Department of Education and local education agencies, often serving the local education agencies within a given county. Local education agencies can receive a range of services through their ISD.
9. **LEA (Local Education Agency):** A local education agency (LEA) is an entity that operates a public school. Local education agencies can be traditional public school districts or charter schools/networks.
10. **MDE (Michigan Department of Education):** The Michigan Department of Education (MDE) is Michigan's state education agency.
11. **MDHHS (Michigan Department of Health and Human Services):** The Michigan Department of Health and Human Services (MDHHS) is a department of state of Michigan that provides public assistance, child and family welfare services, mental health and substance abuse services, and oversees health policy and management.
12. **M-STEP (Michigan Student Test of Educational Progress):** A suite of assessments administered to Michigan's students since spring 2015. M-STEP is the assessment that the Michigan Department of Education uses for school and district accountability.
13. **Non-Partnership School:** Non-Partnership schools are schools within Partnership districts that have not been identified as Partnership schools themselves.
14. **OPD (Office of Partnership Districts):** The Office of Partnership Districts (OPD) is a unit within the Michigan Department of Education that identifies, supports, and evaluates Partnership districts.
15. **Partnership Agreement:** After being identified as a Partnership district, a local education agency works to develop a Partnership Agreement that guides its turnaround reform. This document identifies the district's strengths and weaknesses, sets 18- and 36-month improvement goals, outlines strategies to help the district achieve those goals, lays out consequences for failing to achieve improvement goals, and describes how a range of external partners will support the district to achieve these goals.

KEY TERMS *(continued)*

16. **Partnership Agreement Liaison:** Partnership Agreement liaisons are employed by the Office of Partnership Districts but work with Partnership districts themselves to support the implementation of their Partnership Agreements.
17. **Partnership District:** Local education agencies that operate a Partnership school automatically become a Partnership district and must develop a Partnership Agreement to improve student outcomes in the identified school(s).
18. **Partnership Model:** The Partnership Model is Michigan's plan for accountability, support, and improvement under the Every Student Succeeds Act. Under the Partnership Model, districts that operate the state's lowest-performing schools develop and implement a plan to turn them around over a three-year period.
19. **Partnership School:** A low-performing school that has been identified for Partnership.
20. **Priority Schools:** This designation applied to the lowest five percent of schools statewide in terms of performance through the 2016-2017 school year.
21. **RAG (Regional Assistance Grant):** The state awards these formula grants to local education agencies with low-performing Title 1 schools (currently Comprehensive Support and Improvement schools and previously Priority schools) to support school improvement activities.
22. **SAT (Scholastic Aptitude Test):** The Scholastic Aptitude Test (SAT) is an assessment of college readiness. In Michigan, all 11th graders take the SAT as part of the Michigan Merit Examination.
23. **TPS (Traditional Public School) Districts:** Traditional Public School (TPS) Districts are special-purpose districts with geographic boundaries and a publicly elected governing board that receive public funds to operate schools.

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APPENDIX A: PARTNERSHIP DISTRICTS AND SCHOOLS

District	Round	School	Exited Partnership?
American International Academy	2	American International Academy - Elementary	
Baldwin Public Schools	3	Baldwin Junior High School	
Battle Creek Public Schools	2	Ann J. Kellogg School	
	2	Northwestern Middle School	
Benton Harbor Area Schools	1	Dream Alternative Academy School of Choice	District exited summer 2018 via a Cooperative Agreement with MDE
	1	International Academy at Hull	
	1	STEAM Academy at MLK	
	2	Benton Harbor High School	
Bridgeport-Spaulding Community School District	1	Martin G. Atkins Elementary School	
David Ellis Academy	2	David Ellis Academy	
Detroit Delta Preparatory Academy for Social Justice	3	Detroit Delta Preparatory Academy for Social Justice	Closed by board
Detroit Leadership Academy	3	Detroit Leadership Academy Middle/High	
Detroit Public Safety Academy	3	Detroit Public Safety Academy	
Detroit Public Schools Community District	1	Ann Arbor Trail Magnet School	
	1	Bow Elementary-Middle School	
	1	Burns Elementary-Middle School	
	1	Clark, J.E. Preparatory Academy	
	1	Denby High School	
	1	Detroit Collegiate Preparatory High School	
	1	Detroit Institute of Technology at Cody	Closed by district
	1	Durfee Elementary-Middle School	
	1	Fisher Magnet Upper Academy	
	1	Ford High School	
	1	Gompers Elementary-Middle School	
	1	Henderson Academy	
	1	Law Elementary School	
	1	Marquette Elementary-Middle School	
	1	Mary McLeod Bethune Elementary-Middle School	
	1	Mason Elementary School	
	1	Mumford High School	
	1	Osborn Academy of Mathematics	
	1	Osborn College Preparatory Academy	Closed by district
	1	Osborn Evergreen Academy of Design and Alternative Energy	Closed by district
	1	Pershing High School	
	1	Sampson Academy	
	1	Southeastern High School	

District	Round	School	Exited Partnership?
Detroit Public Schools Community District (continued)	1	Thirkell Elementary School	
	2	Blackwell Institute	
	2	Brewer Elementary-Middle School	
	2	Carstens Elementary-Middle School	
	2	Central High School	
	2	Cody Academy of Public Leadership	Closed by district
	2	Detroit International Academy for Young Women	
	2	Dixon Elementary School	
	2	Dossin Elementary-Middle School	
	2	Earhart Elementary-Middle School	
	2	East English Village Preparatory Academy	
	2	Edward "Duke" Ellington @ Beckham	
	2	Emerson Elementary-Middle School	
	2	Greenfield Union Elementary-Middle School	
	2	King High School	
	2	King, John R. Academic and Performing Arts	
	2	Mackenzie Elementary-Middle School	
	2	Mann Elementary School	
	2	Marshall, Thurgood Elementary School	
	2	Neinas Dual Language Learning Academy	
	2	Noble Elementary-Middle School	
	2	Palmer Park Preparatory Academy	
	2	Pulaski Elementary-Middle School	
	2	Schulze Elementary-Middle School	
	2	Wayne Elementary School	
	3	A. Philip Randolph Technical High School	Closed by district
	3	Brenda Scott Academy for Theatre Arts	
	3	Brown, Ronald Academy	
	3	Carleton Elementary School	
	3	Cody High	
	3	Douglass Academy for Young Men	
	3	Eastside Detroit Lions Academy	
	3	Fisher Magnet Lower Academy	
	3	Gardner Elementary School	
	3	Garvey Academy	
	3	Mark Twain Elementary-Middle School	
	3	Medicine and Community Health Academy	
	3	Nichols Elementary-Middle School	
	3	Robeson Academy, Malcolm X Academy	

District	Round	School	Exited Partnership?
Eastpointe	1	Eastpointe Middle School	Released from Partnership status in the summer of 2020 by the Office of Partnership Districts
Ecorse Public Schools	3	Ecorse Community High School	
El-Hajj Malik El-Shabazz Academy	3	El Hajj Malik El-Shabazz Academy	Closed by board
Flint Community Schools	3	Accelerated Learning Academy	
	3	Doyle Ryder Elementary	
	3	Durant-Tuuri-Mott Elementary	
	3	Eisenhower School	
	3	Freeman School	
	3	Holmes STEM Academy	
	3	Neithercut Elementary	
	3	Northwestern High School (Flint)	Closed by district
	3	Pierce School	
	3	Potter School	
	3	Scott School	
	3	Southwestern Classical Academy	
Frederick Douglass International Academy	3	Frederick Douglass International Academy	Closed by board
GEE Edmonson Academy	3	GEE Edmonson Academy	Closed by board
Genessee STEM Academy	3	Genessee STEM Academy	Expected to be closed by board in summer 2022
Grand Rapids Public Schools	3	Alger Middle School	
Great Lakes Academy	3	Great Lakes Academy	
Insight School of Michigan	3	Insight School of Michigan	
Joy Preparatory Academy	3	Joy Preparatory Academy	
Kalamazoo	1	Washington Writers' Academy	District released from Partnership status in the summer of 2020 by the Office of Partnership Districts
	1	Woodward School for Technology and Research	
Lansing	2	Attwood Elementary	District released from Partnership status in the summer of 2020 by the Office of Partnership Districts
	2	Gardner International Academy	
	2	J.W. Sexton High School	
	2	North School	
	2	Woodcreek Achievement Center	
Macomb Montessori Academy	3	Macomb Montessori Academy	
Mildred C. Wells Preparatory Academy	2	Mildred C. Wells Preparatory Academy	
Muskegon Heights Public Schools Academy System	1	Muskegon Heights Academy	
	2	Dr. Martin Luther King Academy	

District	Round	School	Exited Partnership?
Oakland County Academy of Media & Technology (formerly Sarah J. Webber Media Arts Academy)	3	Oakland County Academy of Media & Technology (formerly Sarah J. Webber Media Arts Academy)	
Pontiac	1	Pontiac High School	
	1	Whitman Elementary School	
	2	Owens Elementary School	
	2	Pontiac Middle School	Exited April 2020 by district request
River Rouge	1	Ann Visger Preparatory Academy	
	1	CB Sabbath 6-8 Preparatory Academy	
Saginaw	1	Jesse Loomis School	
	1	Saginaw High School	
	2	Jesse Rouse School	
Saginaw Preparatory Academy	3	Saginaw Preparatory Academy	
Southwest Detroit Community School	3	Southwest Detroit Community School	Closed by board
University Preparatory Academy Art and Design (formerly Henry Ford Academy)	2	University Preparatory Art & Design – Elementary (formerly Henry Ford Academy: School for Creative Design)	
Wayne-Westland Community School District	2	Hoover Elementary School	Closed by district
William C. Abney Academy	3	William C. Abney Academy Elementary	

APPENDIX B: REGRESSION RESULTS

This appendix provides tables of regression coefficients for each of the regression models shown in the text of the report.

SECTION FOUR

TABLE B.1. Estimated Effects on Student Mobility, by Implementation Cohort

	Leaving School	Leaving District	Leaving MI Public School
Cohort 1 x Year (pooled, linear)	0.004 (0.004)	-0.003 (0.003)	-0.001 (0.002)
Cohort 2 x Year (pooled, linear)	0.005* (0.003)	-0.001 (0.002)	-0.002 (0.002)
Cohort 1 x treated year 1	-0.004 (0.012)	-0.005 (0.008)	-0.011 (0.007)
Cohort 1 x treated year 2	-0.020 (0.015)	0.001 (0.011)	-0.006 (0.006)
Cohort 1 x treated year 3	-0.060** (0.020)	0.008 (0.013)	0.005 (0.008)
Cohort 1 x treated year 4	-0.035 (0.024)	0.011 (0.016)	0.013 (0.009)
Cohort 2 x treated year 1	-0.005 (0.009)	0.005 (0.007)	0.008 (0.006)
Cohort 2 x treated year 2	-0.053*** (0.013)	0.015 (0.010)	0.027*** (0.007)
Cohort 2 x treated year 3	-0.021 (0.015)	0.006 (0.013)	0.017* (0.008)
School covariates	X	X	X
Selection covariates	X	X	X
Student characteristics	X	X	X
N	1,048,967	1,048,967	1,048,967
Adjusted R^2	0.116	0.101	0.080
Within R^2	0.078	0.061	0.023

*Note: All models include year fixed effects and linear cohort-specific pretrends. All models include structural movement indicator. Baseline (2016) round-centered school covariates, interacted with linear year trend, include economically disadvantaged, Black, other non-White, English learner, special education, and a logged function of enrollment. Cohort-centered selection covariates, interacted with a linear year trend, include school performance measures used to identify each round of Partnership. Student characteristics include race with white as the reference category and gender with female as the reference category. Leaving the school model includes a school closure indicator. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001*

TABLE B.2. Estimated Effects on Student Mobility, by Identification Round

	Leaving School	Leaving District	Leaving MI Public School
Round 2 x Year (pooled, linear)	0.004 (0.003)	-0.002 (0.003)	-0.002 (0.002)
Round 3 x Year (pooled, linear)	0.007* (0.003)	0.000 (0.003)	-0.003 (0.002)
Round 1 x treated year 1	-0.004 (0.012)	-0.005 (0.008)	-0.011 (0.007)
Round 1 x treated year 2	-0.020 (0.015)	0.001 (0.011)	-0.006 (0.006)
Round 1 x treated year 3	-0.060** (0.020)	0.008 (0.013)	0.005 (0.008)
Round 1 x treated year 4	-0.035 (0.024)	0.011 (0.016)	0.013 (0.009)
Round 2 x treated year 1	-0.005 (0.010)	0.008 (0.007)	0.006 (0.005)
Round 2 x treated year 2	-0.061*** (0.016)	0.024* (0.012)	0.020** (0.007)
Round 2 x treated year 3	-0.011 (0.018)	0.018 (0.014)	0.019* (0.008)
Round 3 x treated year 1	-0.006 (0.012)	0.003 (0.011)	0.010 (0.009)
Round 3 x treated year 2	-0.041* (0.020)	0.003 (0.014)	0.036*** (0.009)
Round 3 x treated year 3	-0.036* (0.018)	-0.012 (0.017)	0.014 (0.010)
Selection covariates	X	X	X
Student characteristics	X	X	X
N	1,048,967	1,048,967	1,048,967
Adjusted R^2	0.116	0.101	0.080
Within R^2	0.078	0.061	0.023

*Note: All models include year fixed effects and linear round-specific pretrends. All models include structural movement indicator. Baseline (2016) round-centered school covariates, interacted with linear year trend, include economically disadvantaged, Black, other non-White, English learner, special education, and a logged function of enrollment. Round-centered selection covariates, interacted with a linear year trend, include school performance measures used to identify each round of Partnership. Student characteristics include race with white as the reference category and gender with female as the reference category. Leaving the school model includes a school closure indicator. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001*

SECTION FIVE

TABLE B.3. Estimated Effects on Graduation and Dropout Rates

	Four-year grad		Five-year grad		Dropout	
	(1)	(2)	(3)	(4)	(5)	(6)
Cohort 1 x t-3	0.013 (0.040)	-0.026 (0.040)	0.059+ (0.035)	0.029 (0.035)	0.012 (0.030)	0.016 (0.031)
Cohort 1 x t-2	0.039 (0.040)	0.013 (0.040)	0.005 (0.035)	-0.015 (0.034)	-0.016 (0.030)	-0.013 (0.031)
Cohort 1 x t-1	0.013 (0.040)	-0.001 (0.039)	0.035 (0.034)	0.025 (0.034)	0.001 (0.030)	0.003 (0.030)
Cohort 1 x t+1	-0.004 (0.042)	0.008 (0.041)	-0.026 (0.034)	-0.016 (0.034)	-0.005 (0.032)	-0.006 (0.031)
Cohort 1 x t+2	0.013 (0.043)	0.037 (0.042)	-0.004 (0.036)	0.015 (0.035)	-0.012 (0.032)	-0.016 (0.032)
Cohort 1 x t+3	-0.052 (0.043)	-0.015 (0.042)	-0.009 (0.037)	0.018 (0.037)	0.010 (0.032)	0.004 (0.033)
Cohort 1 x t+4	-0.033 (0.043)	0.016 (0.043)	-0.042 (0.037)	-0.005 (0.037)	0.007 (0.032)	-0.000 (0.033)
Cohort 2 x t-4	0.033 (0.040)	0.010 (0.040)	0.058+ (0.034)	0.045 (0.034)	-0.025 (0.030)	-0.027 (0.031)
Cohort 2 x t-3	-0.009 (0.039)	-0.021 (0.039)	0.011 (0.033)	0.005 (0.033)	-0.013 (0.029)	-0.015 (0.030)
Cohort 2 x t-2	0.012 (0.038)	0.003 (0.037)	-0.012 (0.033)	-0.015 (0.032)	-0.009 (0.029)	-0.010 (0.029)
Cohort 2 x t-1	0.011 (0.037)	0.007 (0.037)	0.004 (0.032)	0.002 (0.032)	-0.012 (0.028)	-0.012 (0.028)
Cohort 2 x t+1	-0.034 (0.039)	-0.031 (0.038)	-0.020 (0.032)	-0.019 (0.032)	0.023 (0.030)	0.024 (0.030)
Cohort 2 x t+2	-0.075+ (0.040)	-0.057 (0.039)	-0.056+ (0.033)	-0.056+ (0.032)	0.031 (0.030)	0.030 (0.030)
Cohort 2 x t+3	-0.065 (0.040)	-0.040 (0.040)	-0.077* (0.034)	-0.065+ (0.034)	-0.006 (0.030)	-0.006 (0.031)
School covariates		X		X		X
N	770	770	763	763	770	770
Adjusted R^2	0.855	0.861	0.885	0.890	0.698	0.701
Within R^2	0.081	0.133	0.128	0.173	0.035	0.055

*Note: All models include year fixed effects. Baseline (2016) cohort-centered school covariates, interacted with linear year trend, include economically disadvantaged, Black, other non-White, English learner, special education, and a logged function of enrollment. Cohort-centered selection covariates, interacted with a linear year trend, include school performance measures used to identify each round of Partnership. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001*

TABLE B.4. Regression Estimates for District-Level Spring Benchmarks

	i-Ready				MAP			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A. Math								
Partnership district	-0.097*	-0.005	0.048	-0.021	-0.176***	-0.008	-0.008	-0.002
	(0.039)	(0.060)	(0.052)	(0.054)	(0.024)	(0.023)	(0.023)	(0.021)
Fall	0.919***	0.797***	0.751***	0.770***	0.996***	0.830***	0.780***	0.790***
	(0.047)	(0.050)	(0.042)	(0.039)	(0.015)	(0.028)	(0.032)	(0.032)
Months remote				-0.028***				-0.021***
				(0.007)				(0.002)
Virtual school				0.157*				0.093**
				(0.062)				(0.030)
Constant	0.022	0.315***	-0.618***	-0.558***	0.067***	0.295***	0.045	0.073
	(0.037)	(0.071)	(0.117)	(0.114)	(0.015)	(0.032)	(0.056)	(0.056)
Grade FE	X	X	X	X	X	X	X	X
District covariates		X	X	X		X	X	X
Lagged school proficiency			X	X			X	X
N	263	263	263	263	2815	2815	2815	2815
R^2	0.845	0.871	0.904	0.910	0.794	0.843	0.847	0.852
Panel B. Reading								
Partnership district	-0.067+	-0.017	0.078	0.022	-0.132***	0.002	0.008	0.011
	(0.036)	(0.055)	(0.055)	(0.053)	(0.021)	(0.022)	(0.022)	(0.021)
Fall	0.950***	0.880***	0.858***	0.877***	0.938***	0.806***	0.765***	0.769***
	(0.039)	(0.045)	(0.043)	(0.042)	(0.013)	(0.023)	(0.028)	(0.029)
Months remote				-0.022***				-0.013***
				(0.006)				(0.002)
Virtual school				0.171				0.048+
				(0.110)				(0.027)
Constant	0.038	0.202**	-0.415**	-0.379*	0.036**	0.206***	-0.092+	-0.084
	(0.033)	(0.063)	(0.159)	(0.161)	(0.012)	(0.033)	(0.055)	(0.055)
Grade FE	X	X	X	X	X	X	X	X
District covariates		X	X	X		X	X	X
Lagged school proficiency			X	X			X	X
N	243	243	243	243	2814	2814	2814	2814
R^2	0.886	0.907	0.918	0.922	0.773	0.809	0.814	0.816

*Note: Estimates from OLS regressions with heteroskedasticity-robust standard errors. District covariates include district means of economically disadvantaged, special education, English learner, Black, Hispanic, other race/ethnicity, a quadratic function of student enrollment. + p<.10, * p<.05, ** p<.01, *** p<.001*

SECTION SEVEN

TABLE B.5. Estimated Effects on Teacher Mobility, by Implementation Cohort

	(1) Left School	(2) Within-District Transfer	(3) Out-of-District Transfer	(4) Left MI Teaching
Cohort 1 x year trend	0.023* (0.011)	0.009 (0.010)	0.015** (0.005)	-0.006* (0.003)
Cohort 2 x year trend	0.006 (0.006)	0.010* (0.004)	-0.001 (0.003)	-0.005** (0.002)
Cohort 1 x treated year 1	-0.070+ (0.042)	-0.004 (0.035)	-0.049* (0.021)	0.010 (0.009)
Cohort 1 x treated year 2	-0.059 (0.044)	-0.036 (0.039)	-0.053* (0.022)	0.019+ (0.011)
Cohort 1 x treated year 3	-0.095* (0.047)	-0.057 (0.046)	-0.059* (0.026)	0.030* (0.013)
Cohort 1 x treated year 4	-0.145* (0.058)	-0.057 (0.053)	-0.093** (0.033)	0.031* (0.015)
Cohort 2 x treated year 1	0.003 (0.028)	-0.022 (0.019)	0.011 (0.014)	0.019* (0.008)
Cohort 2 x treated year 2	-0.003 (0.029)	-0.048* (0.020)	0.014 (0.014)	0.019+ (0.009)
Cohort 2 x treated year 3	-0.071* (0.034)	-0.051* (0.022)	-0.015 (0.017)	0.018+ (0.010)
School covariates	X	X	X	X
Selection covariates	X	X	X	X
Teacher characteristics	X	X	X	X
Promotion control	X	X	X	X
N	51,542	51,542	51,542	51,542
Adjusted R^2	0.039	0.049	0.054	0.122
Within R^2	0.009	0.005	0.006	0.108

*Note: All models include year fixed effects and linear cohort-specific pretrends. All models include structural movement indicator. Baseline (2016) round-centered school covariates, interacted with linear year trend, include economically disadvantaged, Black, other non-White, English learner, special education, and a logged function of enrollment. Round-centered selection covariates, interacted with a linear year trend, include school performance measures used to identify each round of Partnership. Teacher characteristics include race with white as the reference category and gender with female as the reference category. Leaving the school and transfer models include a school closure indicator. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001*

TABLE B.6. Estimated Effects on Teacher Mobility, by Identification Round

	(1) Left School	(2) Within-District Transfer	(3) Out-of-District Transfer	(4) Left MI Teaching
Round 1 x year trend	0.023*	0.009	0.015**	-0.006*
	(0.011)	(0.010)	(0.005)	(0.003)
Round 1 x treated year 1	-0.070+	-0.004	-0.049*	0.010
	(0.042)	(0.035)	(0.021)	(0.009)
Round 1 x treated year 2	-0.059	-0.036	-0.053*	0.019+
	(0.044)	(0.039)	(0.022)	(0.011)
Round 1 x treated year 3	-0.095*	-0.057	-0.059*	0.030*
	(0.047)	(0.046)	(0.026)	(0.013)
Round 1 x treated year 4	-0.145*	-0.057	-0.093**	0.031*
	(0.058)	(0.053)	(0.033)	(0.015)
Round 2 x year trend	0.010	0.010+	0.001	-0.006*
	(0.008)	(0.006)	(0.003)	(0.002)
Round 3 x year trend	0.002	0.009*	-0.002	-0.005*
	(0.007)	(0.004)	(0.004)	(0.002)
Round 2 x treated year 1	-0.019	-0.031	0.002	0.011
	(0.033)	(0.025)	(0.013)	(0.009)
Round 2 x treated year 2	-0.022	-0.070*	0.017	0.023*
	(0.038)	(0.027)	(0.017)	(0.012)
Round 2 x treated year 3	-0.093*	-0.059+	-0.016	0.017
	(0.045)	(0.034)	(0.020)	(0.012)
Round 3 x treated year 1	0.031	-0.011	0.023	0.029*
	(0.036)	(0.023)	(0.024)	(0.011)
Round 3 x treated year 2	0.022	-0.019	0.010	0.011
	(0.035)	(0.024)	(0.018)	(0.011)
Round 3 x treated year 3	-0.043	-0.042*	-0.014	0.018
	(0.037)	(0.020)	(0.021)	(0.013)
School covariates	X	X	X	X
Selection covariates	X	X	X	X
Teacher characteristics	X	X	X	X
Promotion control	X	X	X	X
N	51,542	51,542	51,542	51,542
Adjusted R^2	0.039	0.049	0.054	0.122
Within R^2	0.009	0.005	0.006	0.108

*Note: All models include year fixed effects and linear round-specific pretrends. All models include structural movement indicator. Baseline (2016) round-centered school covariates, interacted with linear year trend, include economically disadvantaged, Black, other non-White, English learner, special education, and a logged function of enrollment. Round-centered selection covariates, interacted with a linear year trend, include school performance measures used to identify each round of Partnership. Teacher characteristics include race with White as the reference category and gender with female as the reference category. Leaving the school and transfer models include a school closure indicator. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001*

APPENDIX C: FACTOR LOADING TABLES

This appendix provides tables of confirmatory factor analysis (CFA) loadings and Cronbach's alphas for all constructs described in Table 2.3 of Section Two and used throughout the report. In each table, we summarize the question item in the first column, provide the factor loading for the item in the second column, and provide the ψ (psi) in the third column. The factor loading, which can theoretically range from 0–1, represents the extent to which the item loads onto the factor, where values closer to one indicate that the item is more highly correlated with the factor and values closer to zero indicate that the item is less highly correlated. The ψ, which again can theoretically range from 0–1, provides the portion of the item that is *not* correlated with the factor, where values closer to one indicate that a *greater* share of the variation in the item is not captured by the factor and values closer to zero indicate that a *lesser* share of the variation in the item is not captured by the factor (i.e., a ψ (psi) of 0 would mean that all of the variation in the item is explained by the factor and a ψ of 1 would mean that none of the variation in the item is explained by the factor).

The Cronbach's α (alpha) at the bottom of each table represents the internal consistency of the items in the factor. It again can range from 0–1, where a value of one represents perfect correlation across items and a value of zero represents no correlation. The N provides the number of responses that contributed to the factor. Ns vary for two reasons. First, as described in Section Two, different constructs draw from different samples (i.e., years and principals vs. teachers). Second, response rates vary by item and we only use complete cases in the factor analysis.

The table note provides the full question text and the response choices. While the rows provide only a summary of the item text, the full text is provided in the online appendix with the full survey instruments.

SECTION SIX

TABLE C.1. Positive School Climate

	Loadings	Psi
School meets students' academic needs	0.805	0.352
Teachers have high expectations for students	0.750	0.437
Teachers have strong rapport with students	0.736	0.458
School meets students' socioemotional needs	0.703	0.505
Students are enthusiastic to come to school/learn	0.679	0.539
N	8,716	
Cronbach's alpha	0.780	

Note: Teachers and principals were asked, "Please indicate the extent to which you agree or disagree with the following statements about your school." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree." Questions asked to teachers and principals in all four survey waves.

TABLE C.2. Safe School Environment

	Loadings	Psi
School has a safe and orderly environment	0.851	0.276
Teachers manage behavior	0.825	0.320
Students listen to staff	0.774	0.401
Fights are frequent*	0.682	0.535
Teachers consistently enforce behavioral standards	0.662	0.561
N	6,476	
Cronbach's alpha	0.811	

Note: Teachers and principals were asked, "Please indicate the extent to which you agree or disagree with the following statements about your school." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree." Questions asked to teachers and principals in three of four survey waves (2018-19, 2019-20, and 2021-22).

**Item reverse-coded*

SECTION SEVEN

TABLE C.3. In-School Hiring Challenges

	Loadings	Psi
Student discipline	0.897	0.196
Student academic performance	0.873	0.239
Students listen to staff	0.774	0.401
N	295	
Cronbach's alpha	0.850	

Note: Principals were asked, "To what extent do the following factors affect your ability to recruit and hire teachers into your school?" Response options were "very negatively impacts," "somewhat negatively impacts," "does not impact," "somewhat positively impacts," and "very positively impacts." Questions asked only to principals in all four survey waves.

TABLE C.4. Out-of-School Hiring Challenges

	Loadings	Psi
Student family background	0.885	0.217
Community socioeconomic status	0.866	0.250
Student attendance	0.805	0.352
School or district geographic location	0.783	0.386
N	288	
Cronbach's alpha	0.856	

NOTE: Principals were asked, "To what extent do the following factors affect your ability to recruit and hire teachers into your school?" Response options were "very negatively impacts," "somewhat negatively impacts," "does not impact," "somewhat positively impacts," and "very positively impacts." Questions asked only to principals in all four survey waves.

TABLE C.5. Human Resources Hindrances

	Loadings	Psi
Low teacher retention	0.853	0.273
Insufficient supply of certified teachers	0.806	0.351
Low teacher attendance	0.776	0.398
Lack of availability of substitute teachers	0.770	0.408
N	3,986	
Cronbach's alpha	0.808	

Note: Teachers and principals were asked, "To what extent is each of the following a hindrance to achieving your improvement goals?" Response options were "not a hindrance," "a slight hindrance," "a moderate hindrance," "a great hindrance," or "the greatest hindrance." Questions asked to teachers and principals in each of the past two survey waves (2020-21 and 2021-22).

SECTION EIGHT

TABLE C.7. Health Care and Housing Challenges

	Loadings	Psi
Access to mental health care	0.854	0.270
Access to healthcare	0.815	0.336
Mental health	0.797	0.365
Food insecurity	0.797	0.365
Homelessness or housing instability	0.771	0.405
N	2,177	
Cronbach's alpha	0.861	

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," or "the greatest challenge." Questions asked to teachers and principals in each of the past two survey waves (2020-21 and 2021-22).

SECTION NINE—IMPLEMENTING PARTNERSHIP DURING THE COVID-19 PANDEMIC

TABLE C.6. Improvement Goal Buy-In

	Loadings	Psi
Goals will help meet needs of students	0.882	0.223
Goals focus on most important issues facing school	0.876	0.232
We focus on clear and concrete steps to improve student outcomes	0.837	0.300
Our instructional efforts align with our improvement goals	0.826	0.318
Goals are feasible to accomplish in three-year timeframe	0.807	0.349
N	9,525	
Cronbach's alpha	0.900	

Note: Teachers and principals were asked, "Please indicate the extent to which you agree or disagree with the following statements about your organization's improvement goals." Response options were "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree." Questions asked to teachers and principals in all four survey waves.

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