EPIC
Education Policy Innovation Collaborative

Michigan Student Achievement During the COVID-19 Pandemic

IPPSR Legislative Leadership Program, December 6, 2022

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Michigan State University

BACKGROUND ON EPIC

- The **Education Policy Innovation Collaborative (EPIC)** at Michigan State University is an independent, non-partisan research center that operates as the strategic research partner to the Michigan Department of Education (MDE) and the Center for Educational Performance and Information (CEPI).

- EPIC is devoted to **research with consequence** and the idea that rigorous evidence can improve education policy and, ultimately, students' lives.

- EPIC conducts **original research** using a variety of methods that include advanced statistical modeling, representative surveys, interviews, and case study approaches to **produce new insights** that decision-makers can use to create and implement policy.

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OUR RESPONSIBILITY AS RESEARCHERS

Research With Consequence

As the COVID-19 pandemic continues to disrupt education across the country, educators in every school, district, and state have been working tirelessly to **provide students with high quality learning experiences** and plan for instruction in the midst of great uncertainty and challenges.

We believe it is critical for those of us engaged in research to help educators with this daunting task. At EPIC, that means doing what we can in Michigan to help policymakers and practitioners use the **best available evidence to make the most informed choices possible**.

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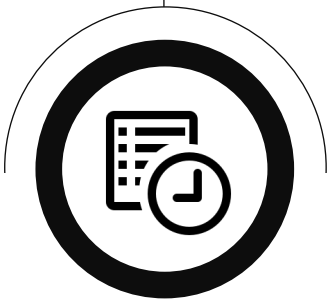
AGENDA



01 **Background, Data, & Methods**

Student assessment during the pandemic: what can and can't we learn from the data?

02 **Student Achievement**

How did Michigan students' achievement in 2020-21 and 2021-22 compare to national and MI trends before the pandemic?

03 **Student Growth**

How did student growth in 2020-21 and 2021-22 compare to typical year-to-year growth before the pandemic?

04 **Subgroup Differences**

How did achievement and growth differ across subgroups of students and districts?

05 **Successful District Cases**

How did districts that performed better than predicted in 2020-21 support student learning?

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TESTING AND REPORTING REQUIREMENTS IN MICHIGAN's "RETURN TO LEARN" LAW

Selecting and Administering Benchmark Assessments

- Michigan enacted the "Return to Learn" Law to track student progress during and after the pandemic.
- Districts were required to administer benchmark assessments to K-8 students in the fall and spring of the 2020-21 through 2022-23 school years to determine whether students made meaningful progress toward mastery in math and ELA.
- The legislation allowed districts to choose from a list of assessments from approved providers or use another assessment that meets certain criteria.
  - NWEA MAP Growth Assessment
  - Curriculum Associates i-Ready
  - Renaissance Learning Star 360
  - Smarter Balanced ICA
  - Another assessment that meets specified criteria
- The legislation also required a study of districts that were "successful" in supporting student learning during the pandemic.

TESTING AND REPORTING REQUIREMENTS IN MICHIGAN's "RETURN TO LEARN" LAW

Data Reporting and Analysis

- Districts using assessments from the approved list were required to provide aggregate data to be included in a series of statewide reports.
- EPIC collaborated with the Michigan Department of Education (MDE), the Center for Educational Performance and Information (CEPI), the Michigan Data Hubs (MDH), and the Michigan Education Data Center (MEDC) to collect and compile all assessment scores provided by districts.
- Most districts agreed to allow EPIC to aggregate their student-level data, while a few chose to prepare their own aggregate datasets.
- The resulting data are complicated. Districts used many different assessments and were not required to provide student-level data or pre-pandemic data. Test participation and administration were especially challenging when students were learning remotely.
- In addition, EPIC collected qualitative interview data from 5 case districts that performed better than would have been predicted during 2020-21 to understand how they supported student learning during the pandemic.
- EPIC has provided a series of reports for the legislature on student benchmark achievement and progress during the pandemic, as required by the law. https://epicedpolicy.org/category/covid19-reports/

FINDINGS FROM RECENT STUDIES USING NATIONAL & STATE DATA

The Pandemic Severely Impacted Student Learning, but We Know Relatively Little About "Recovery" During the 2021-22 School Year

- Nationally, average test scores in fall 2021 were substantially below historic averages. (Goldhaber et al., 2022)
- Impacts of the pandemic were worse for students attending high poverty schools, elementary schools, who learned remotely, and with lower baseline achievement. (Goldhaber et al., 2022)
- NAEP winter/spring 2022 data show substantial decreases in student achievement between 2019-2022. Decreases were worse for students who were in the bottom 10% of the distribution. Achievement gaps grew. (NAEP, 2022)
- Individual state data show negative impacts of the pandemic by spring 2021, with varying degrees of "recovery" by spring 2022.

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DATA AND METHODS

Sample Characteristics and Representativeness

Michigan's K-8 Population and Our Restricted Analytic Samples				
Population/Sample	Districts		Students	
	N	%	*N*	%
All MI districts with K-8 students	848	100.0	946,987	100.0
Spring 2022 benchmark assessment data	725	85.5	728,199	76.9
2021-22 school year growth data	719	84.8	696,977	73.6
Two-year growth data	587	69.2	423,425	44.7

Summary Statistics: All K-8 Students and Students with 2-Year Growth Data					
	All MI	NWEA	i-Ready	Star 360	DRC
Percent economically disadvantaged	55.7	47.6	54.9	48.6	34.5
Percent Asian	3.6	2.6	5.8	1.4	0.4
Percent Black	18.4	13.9	30.9	5.0	0.1
Percent Latino	8.8	7.9	9.9	10.0	3.0
Percent White	63.1	69.6	49.5	77.7	92.8
Months of in-person instruction (2020-21)	5.0	5.3	5.7	6.9	9.0
Total number of students	946,987	300,725	77,225	29,113	1,520
Total number of districts	848	482	46	56	11

DATA AND METHODS

We Look at the Data Several Different Ways to Get a More Complete and Nuanced Picture

Student Achievement

How many Michigan students scored at/above pre-pandemic norms?

How far above/below the norms were they?

What does this mean in terms of Michigan standards for grade-level proficiency?

How did student achievement in 2021-22 compare to 2020-21?

Student Growth

How did students' growth compare to the growth of similar students before the pandemic?

How much progress did students make toward a typical year's growth?

Which students demonstrated growth?

Subgroup Differences

How did achievement and growth differ across students from different demographic subgroups and that offered different modes of instruction in 2020-21?

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DATA AND METHODS

We Interviewed Leaders in Districts That Performed Better Than Predicted During 2020-21 to Understand How They Supported Student Learning During the Pandemic

Interview Participants		
District	**Primary Modality**	**Interview participants**
District A	In-Person	District leaders = 5 School and teacher leaders = 3
District B	In-Person	District leaders = 5 School and teacher leaders = 4
District C	Hybrid	District leaders = 4 School and teacher leaders = 7
District D	Hybrid	District leaders = 6 School and teacher leaders = 4
District E	Remote*	District leaders = 3 School and teacher leaders = 5

** While only one district was considered fully remote, all five districts engaged in different levels of remote instruction during the 2020-21 school year*

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How did Michigan students' achievement during the pandemic compare to pre-pandemic trends?

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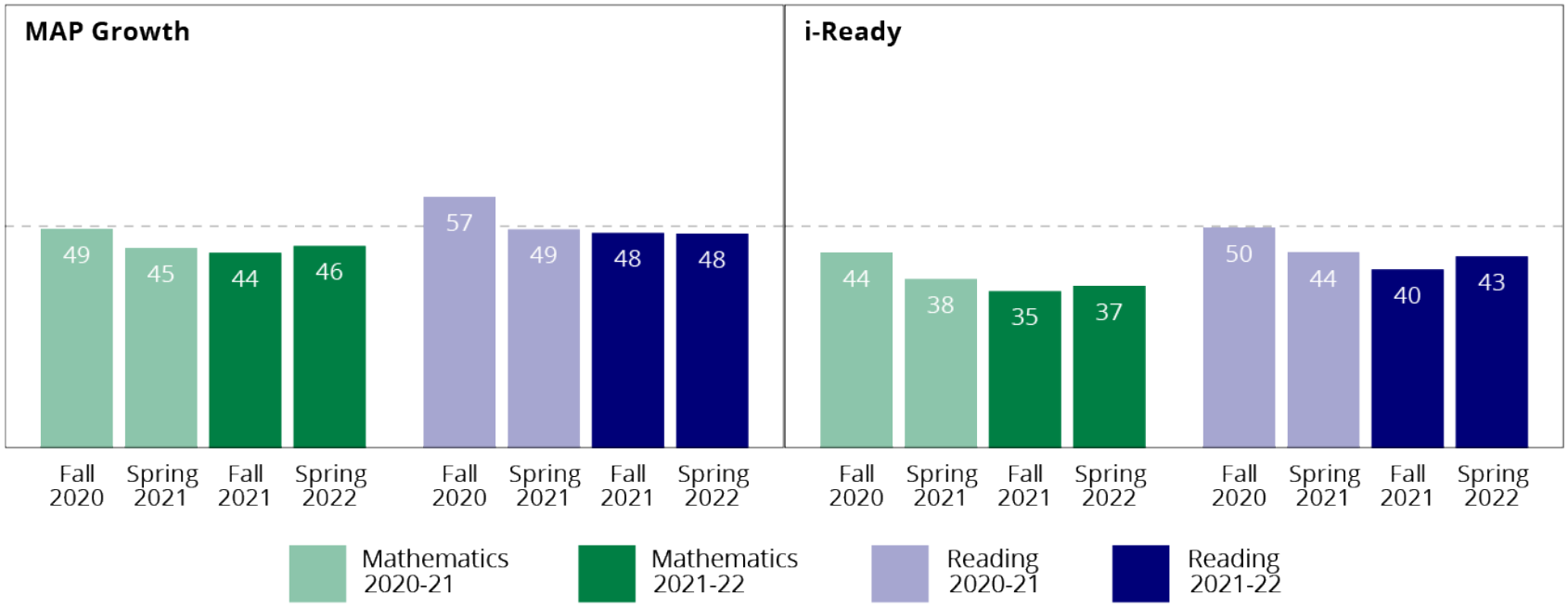
HOW MANY STUDENTS SCORED AT/ABOVE PRE-PANDEMIC NORMS?

Fewer Students Scored at or Above Pre-pandemic National Averages for Their Grade Level After Fall 2020



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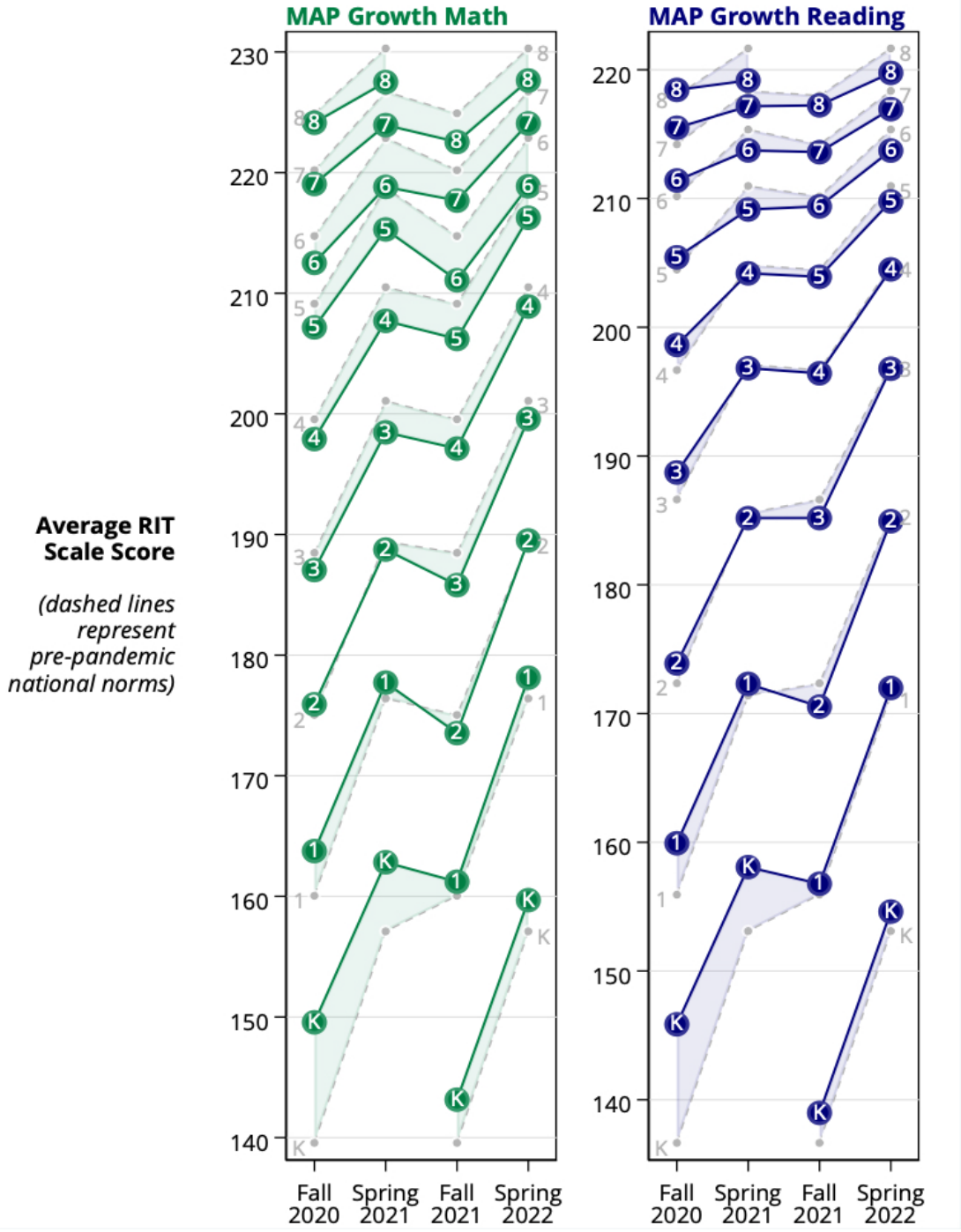
HOW FAR ABOVE/BELOW THE NORMS WERE THEY?

Students in most grades fell further below national norms in 2020-21, remained below norms in 2021-22

Scores for lower elementary grades raise questions about at-home testing



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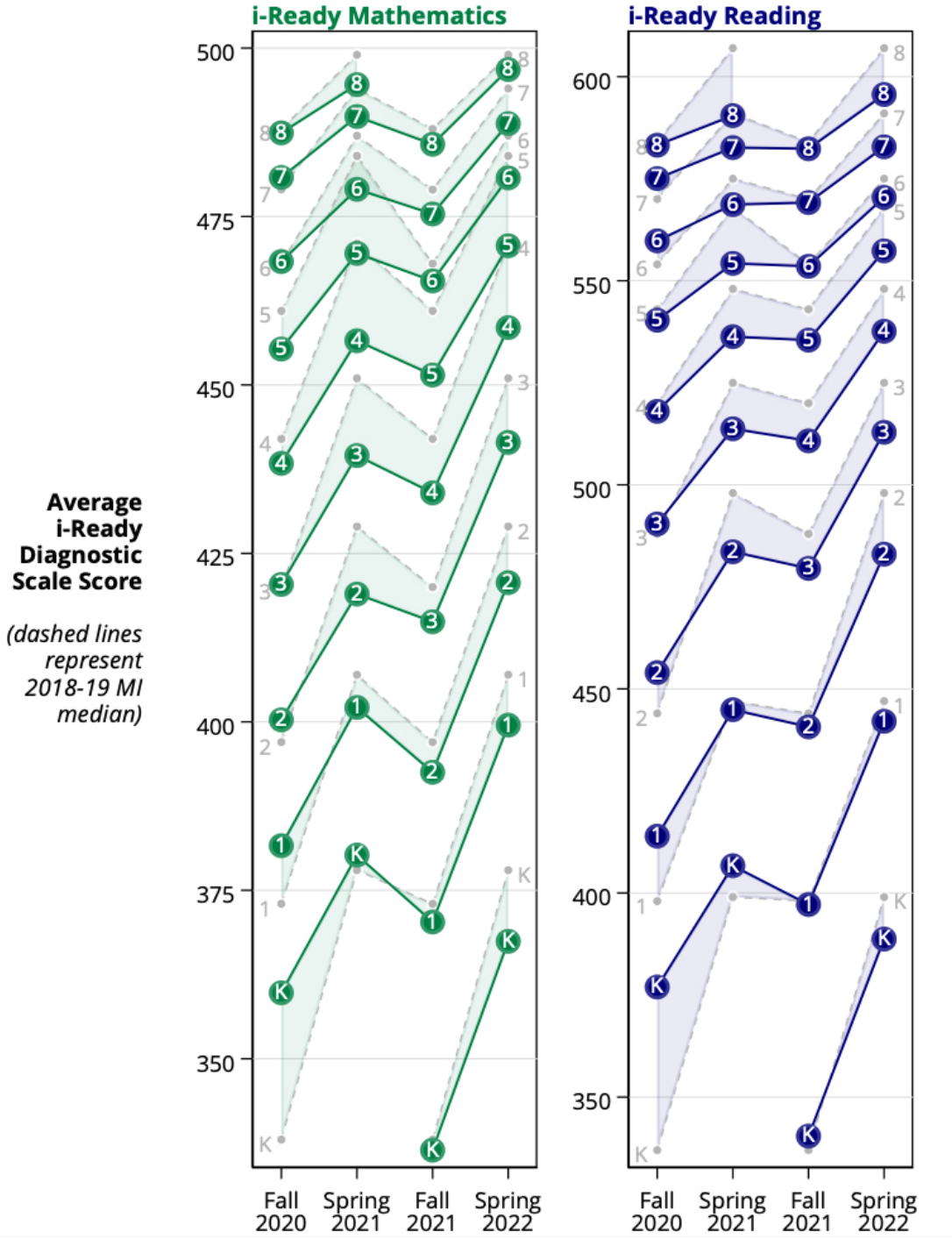
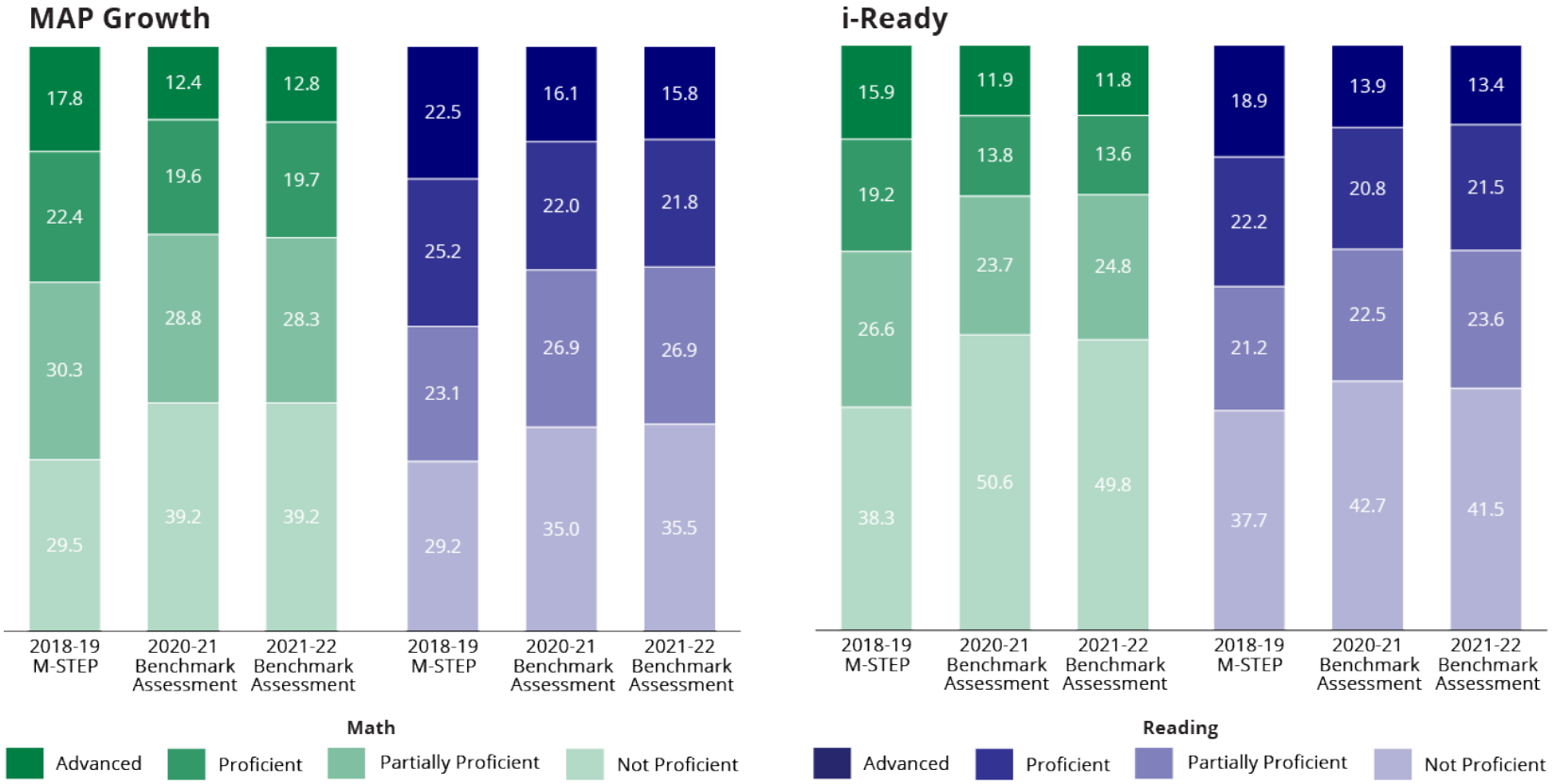


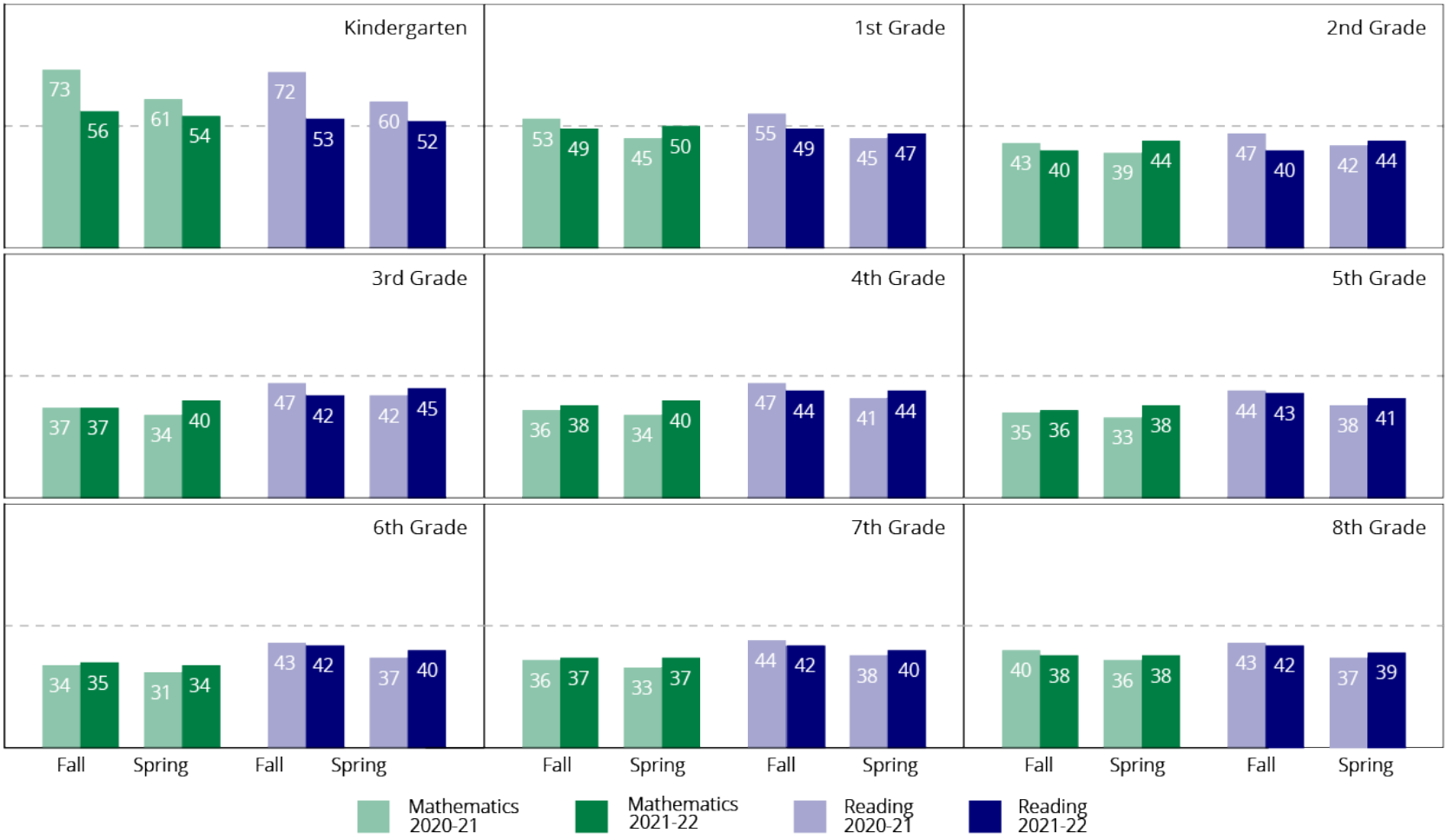
WHAT DOES THIS MEAN IN TERMS OF MICHIGAN PROFICIENCY STANDARDS?

Based on Vendor-Defined Links Between Benchmark Scores and M-STEP Proficiency Levels, Students Fared Worse During Both Pandemic Years Compared to the 2018-19 M-STEP, With Little Change From 2020-21 to 2021-22



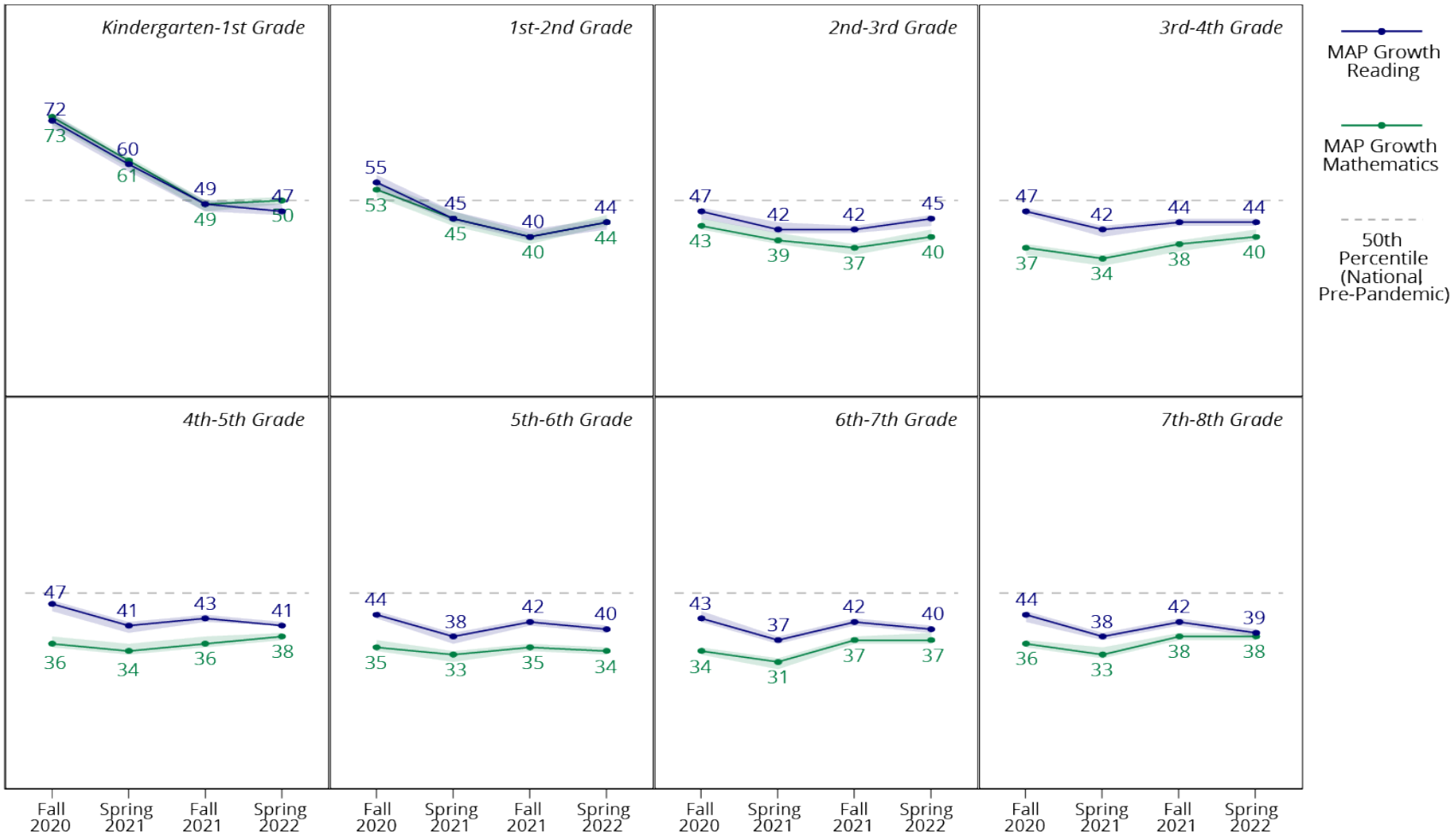
HOW DID STUDENT ACHIEVEMENT IN 2021-22 COMPARE TO 2020-21?

Students in 2021-22 Started the Year Behind and Ended the Year Ahead of Same-Grade Students in 2020-21



HOW DID STUDENT ACHIEVEMENT IN 2021-22 COMPARE TO 2020-21?

Achievement Decreased in 2020-21 but Varied by Grade Level and Subject in 2021-22



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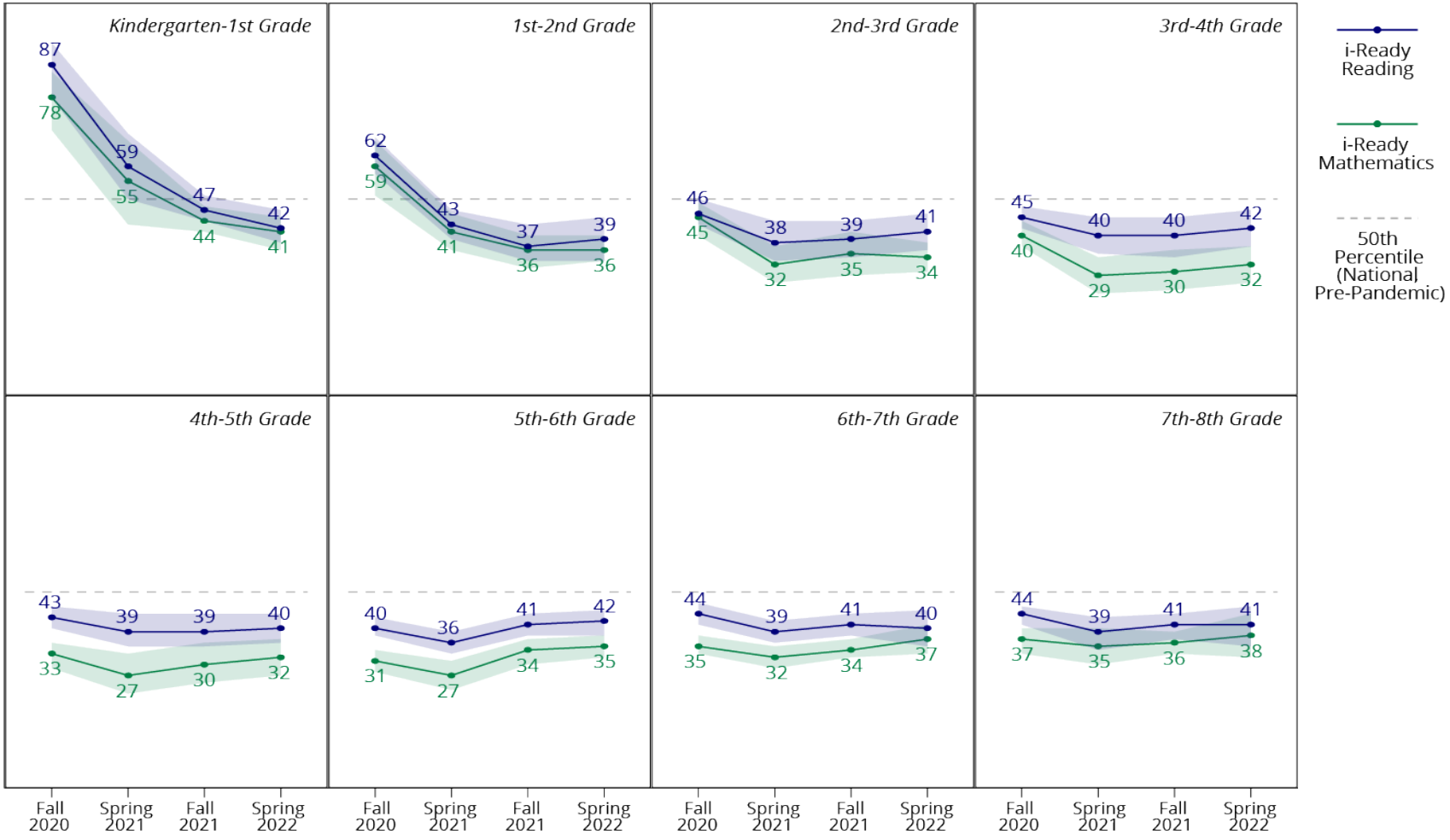
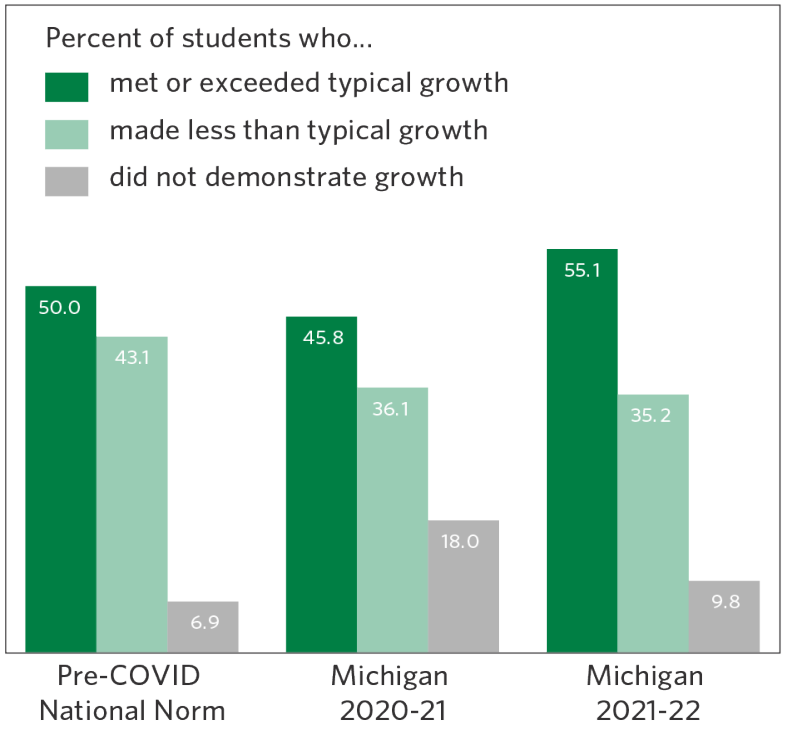


How did student achievement growth in 2020-21 and 2021-22 compare to typical year-to-year growth before the pandemic?

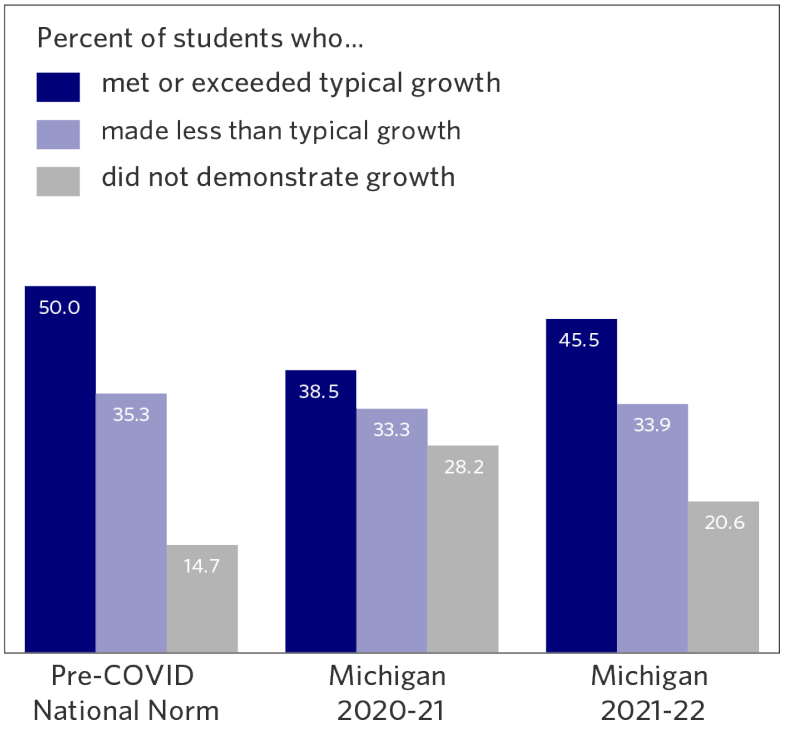
HOW DID STUDENTS' GROWTH COMPARE TO TYPICAL GROWTH BEFORE THE PANDEMIC?

Students Were More Likely to Achieve Typical Yearly Growth in 2021-22 than 2020-21, but There Were Still Many Students Who Did Not Demonstrate Any Growth at All

MAP Growth Mathematics

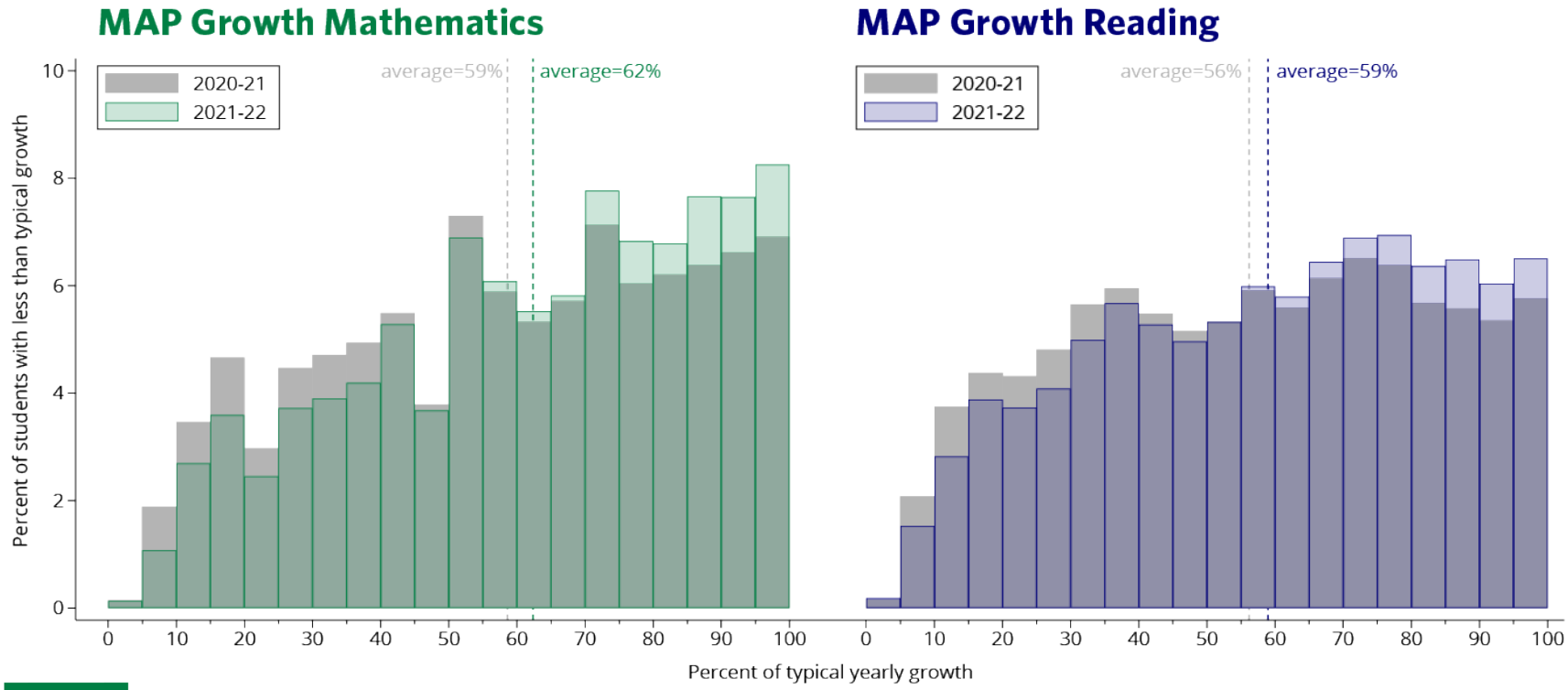


MAP Growth Reading



HOW MUCH PROGRESS DID STUDENTS MAKE TOWARDS A TYPICAL YEAR'S GROWTH?

Of the Students Who Achieved Less Than Typical Growth, Average Gains Were Greater in 2021-22 Than in 2020-21



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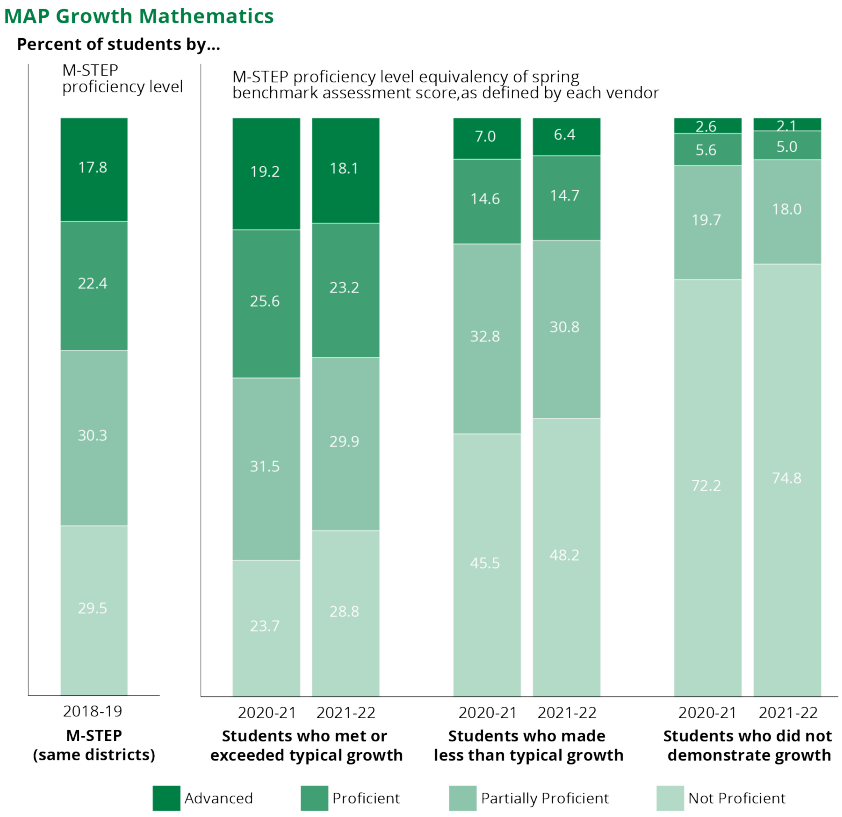
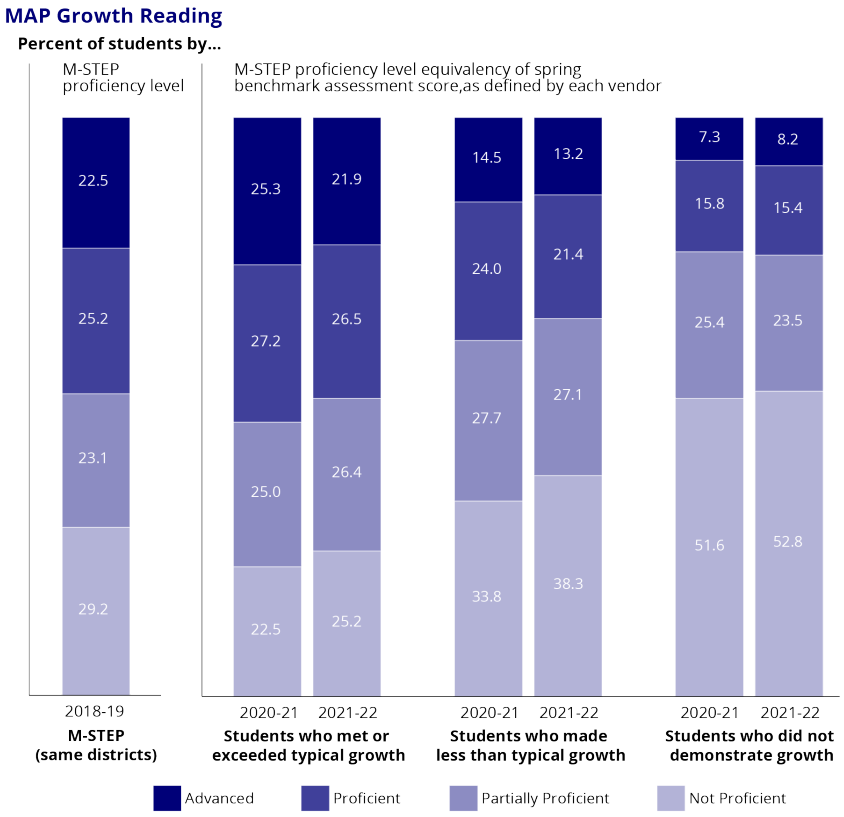
WHICH STUDENTS DEMONSTRATED GROWTH?

The Students Who Did Not Achieve a Typical Year's Growth Were Unlikely to be Proficient (i.e., it isn't just a "ceiling effect")





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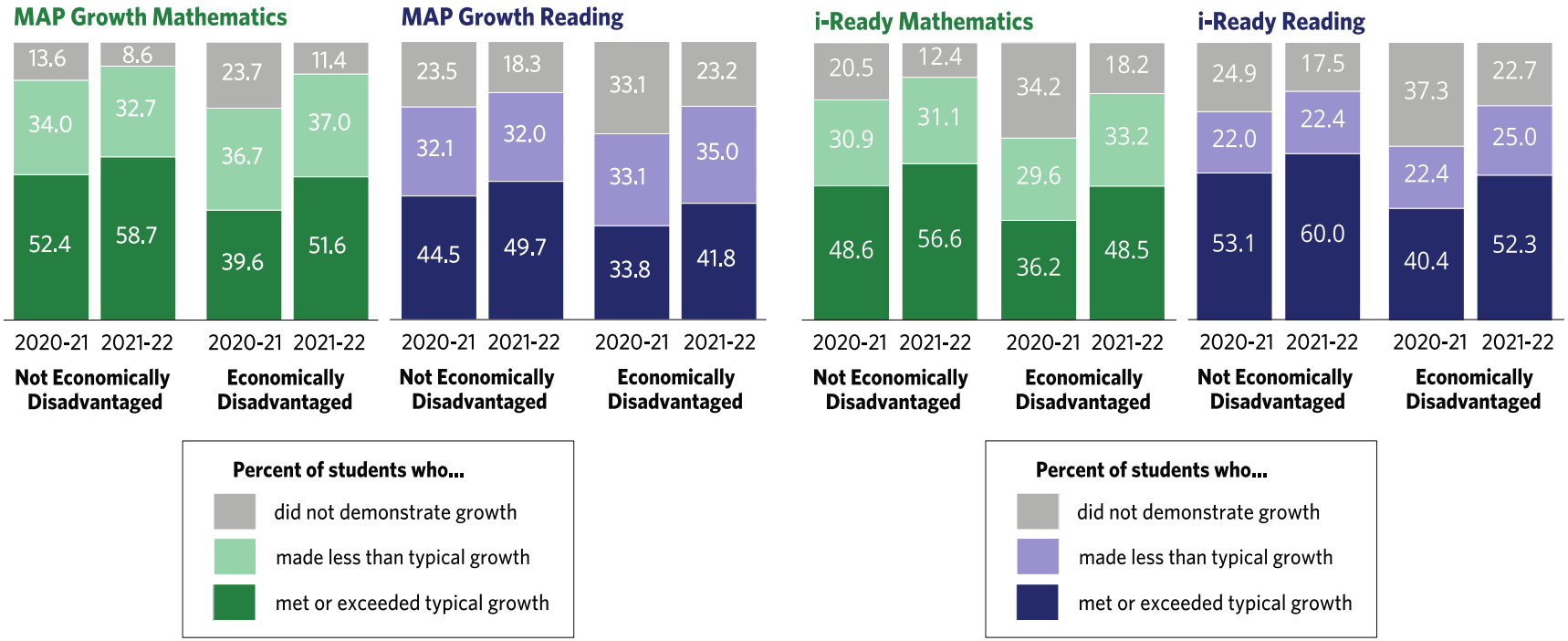
How did achievement differ across subgroups of students?

WHILE LOW-INCOME STUDENTS REMAINED LESS LIKELY TO MEET TYPICAL GROWTH, DISPARITIES DECREASED IN 2021-22

Yearly Growth by Economically Disadvantaged Status



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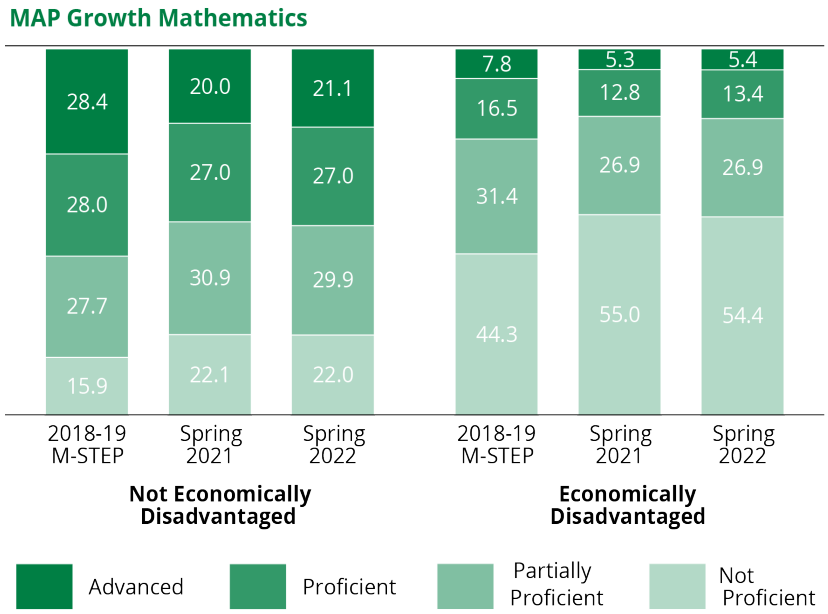
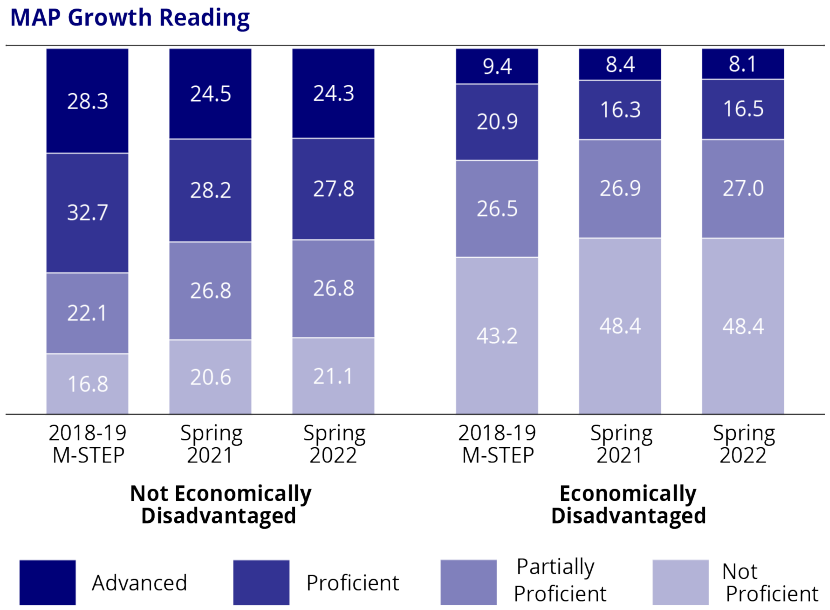
LOW-INCOME STUDENTS WERE MORE LIKELY TO SCORE NOT PROFICIENT, BUT GAPS DIDN'T GROW DURING PANDEMIC

M-STEP Proficiency Levels and Equivalencies by Economic Disadvantage Status, NWEA MAP Growth





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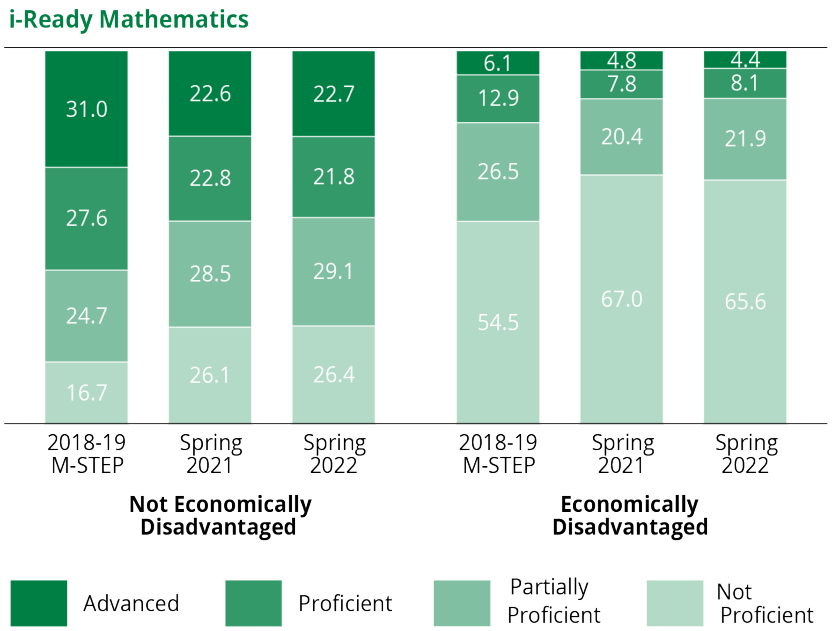
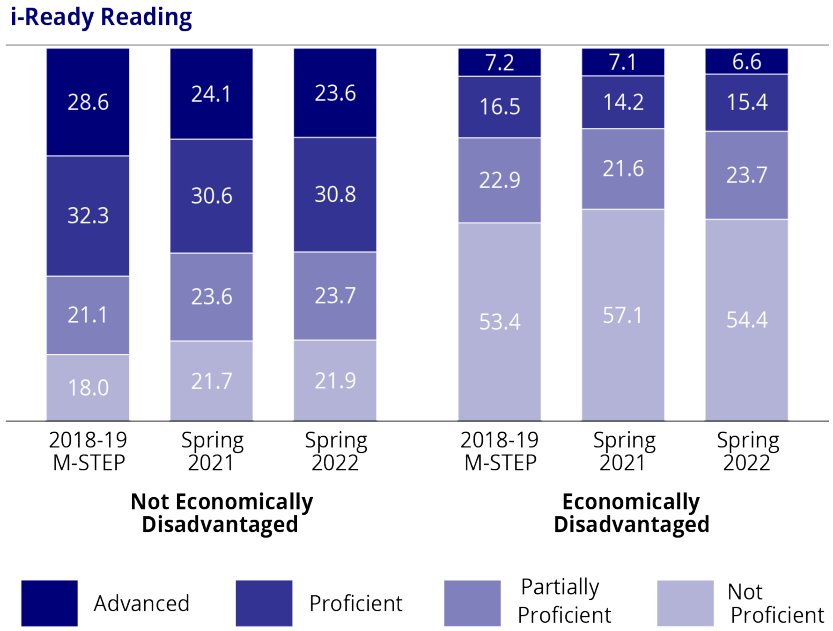
M-STEP Proficiency Levels and Equivalencies by Economic Disadvantage Status, i-Ready





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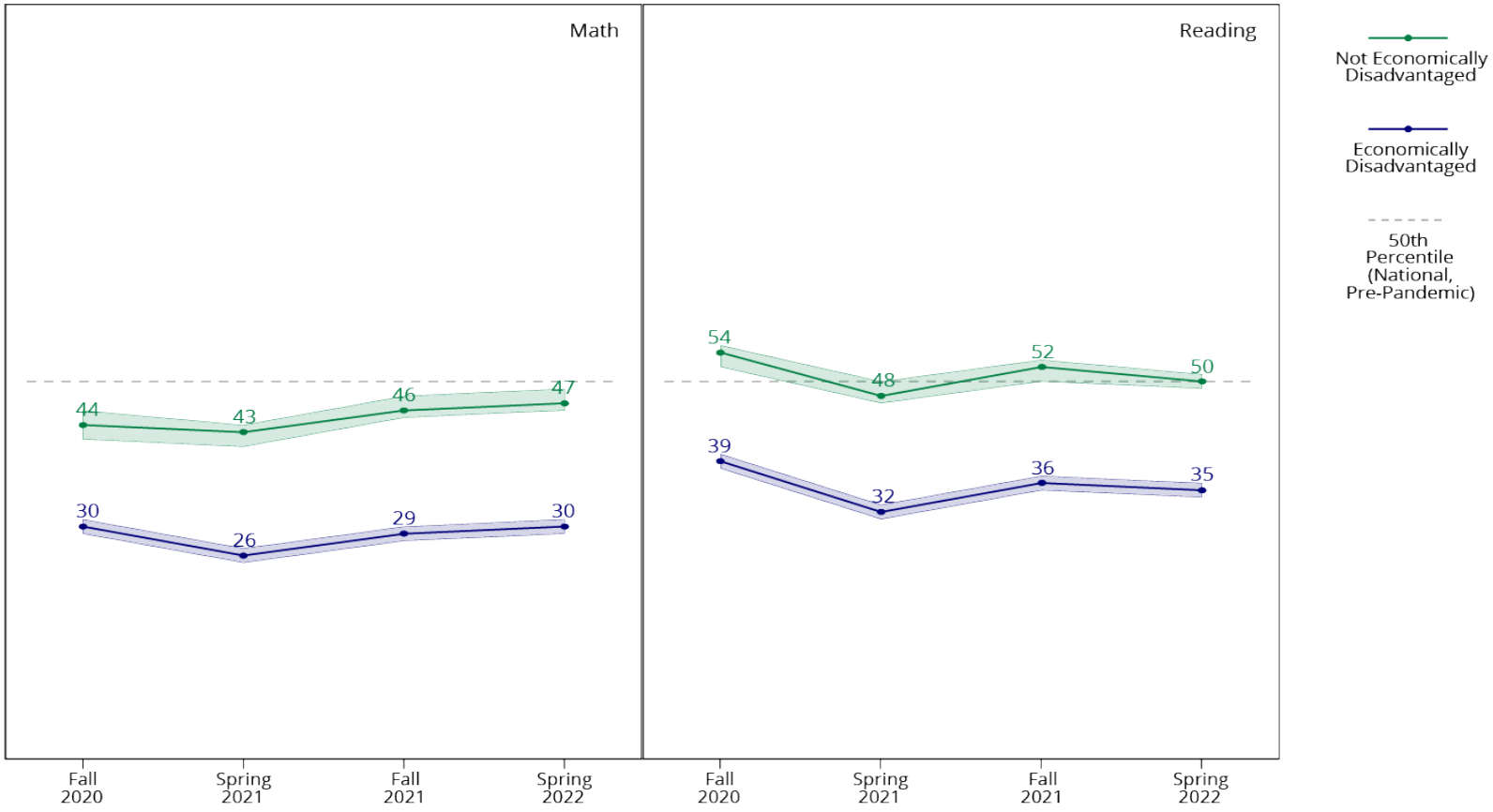
MATH ACHIEVEMENT GAPS BETWEEN LOW-INCOME AND WEALTHIER PEERS INCREASED DURING THE PANDEMIC

Regression-Adjusted Percentile Ranks by Economic Disadvantage, NWEA MAP Growth



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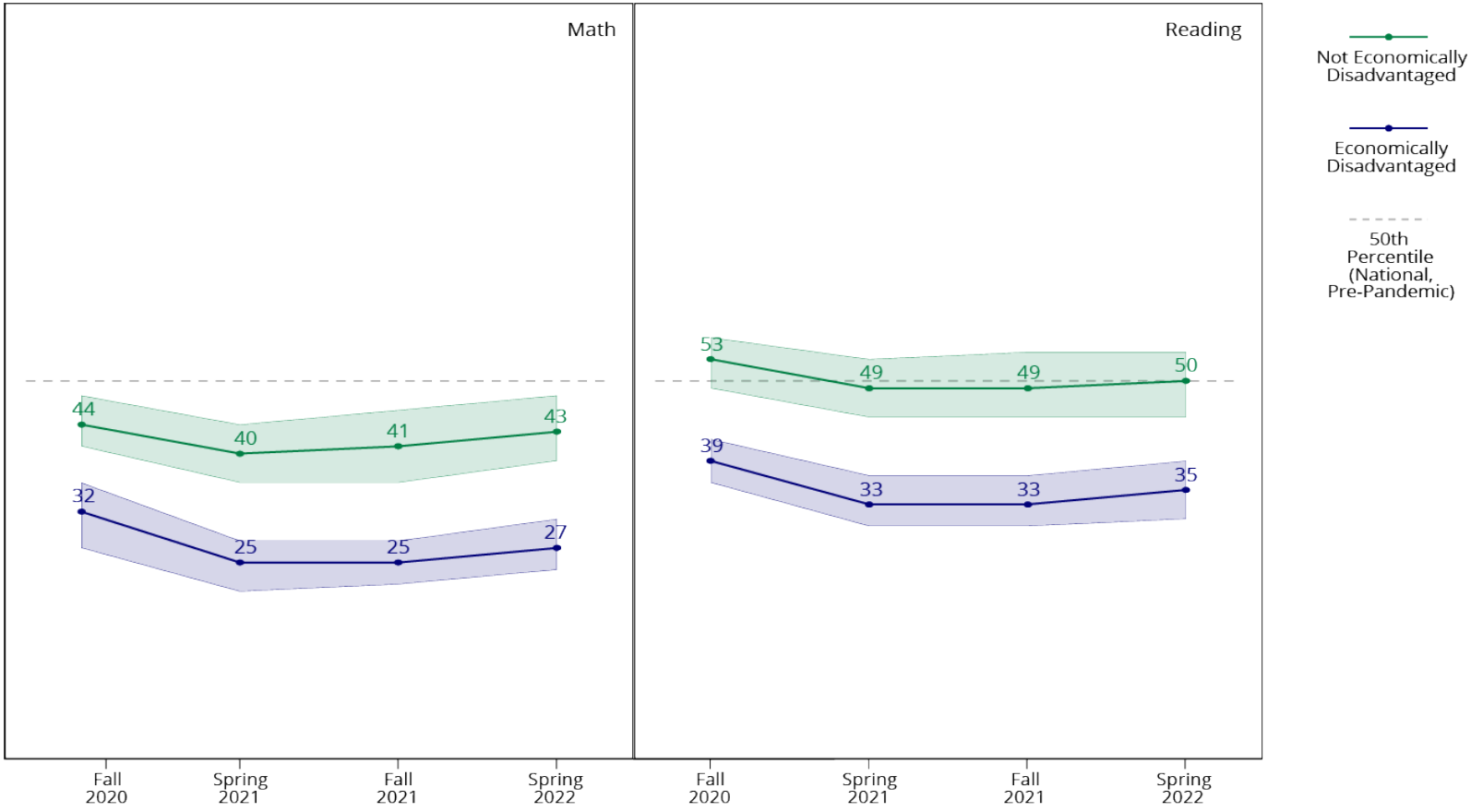
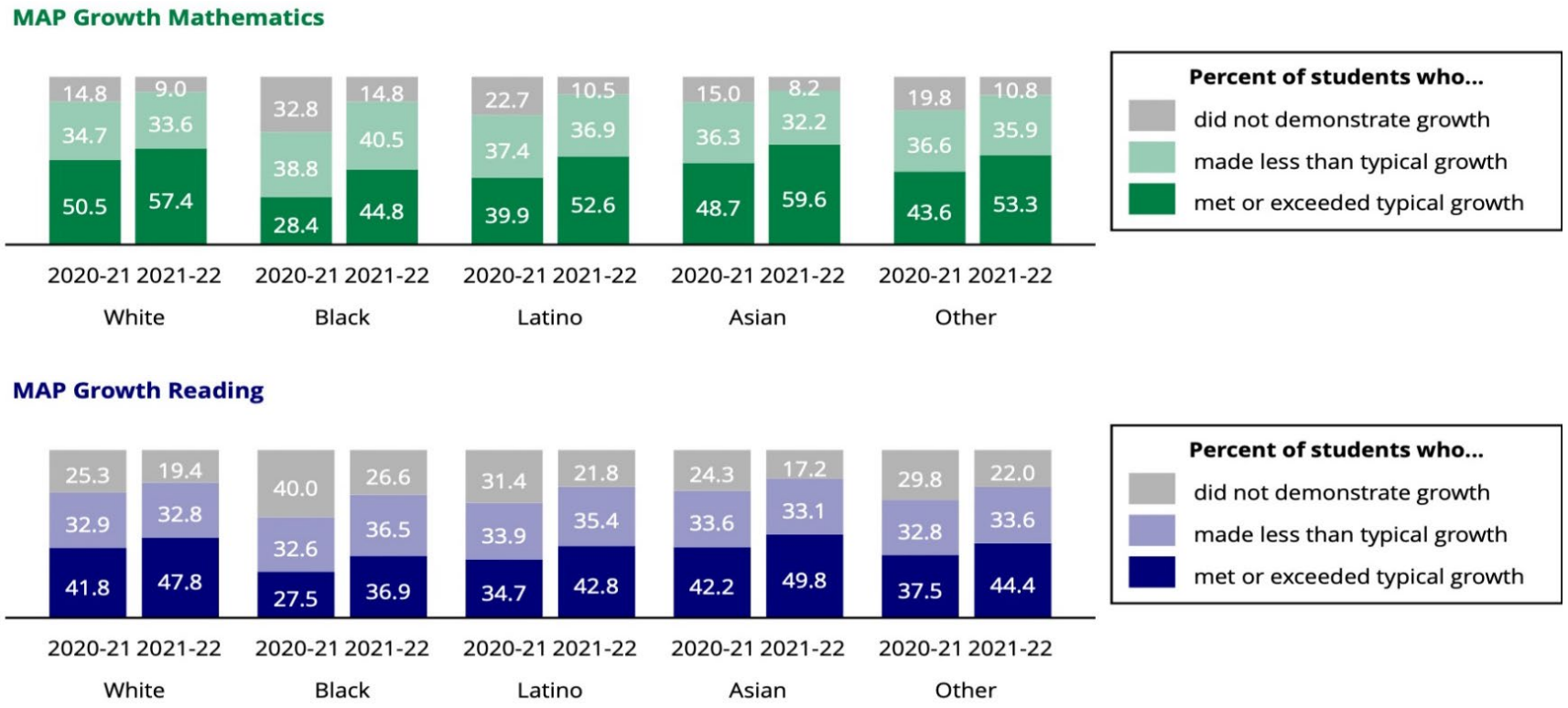


WHILE BLACK AND LATINO STUDENTS REMAINED LESS LIKELY TO MEET TYPICAL GROWTH, DISPARITIES DECREASED IN 2021-22

Yearly Growth by Race/Ethnicity, NWEA MAP Growth



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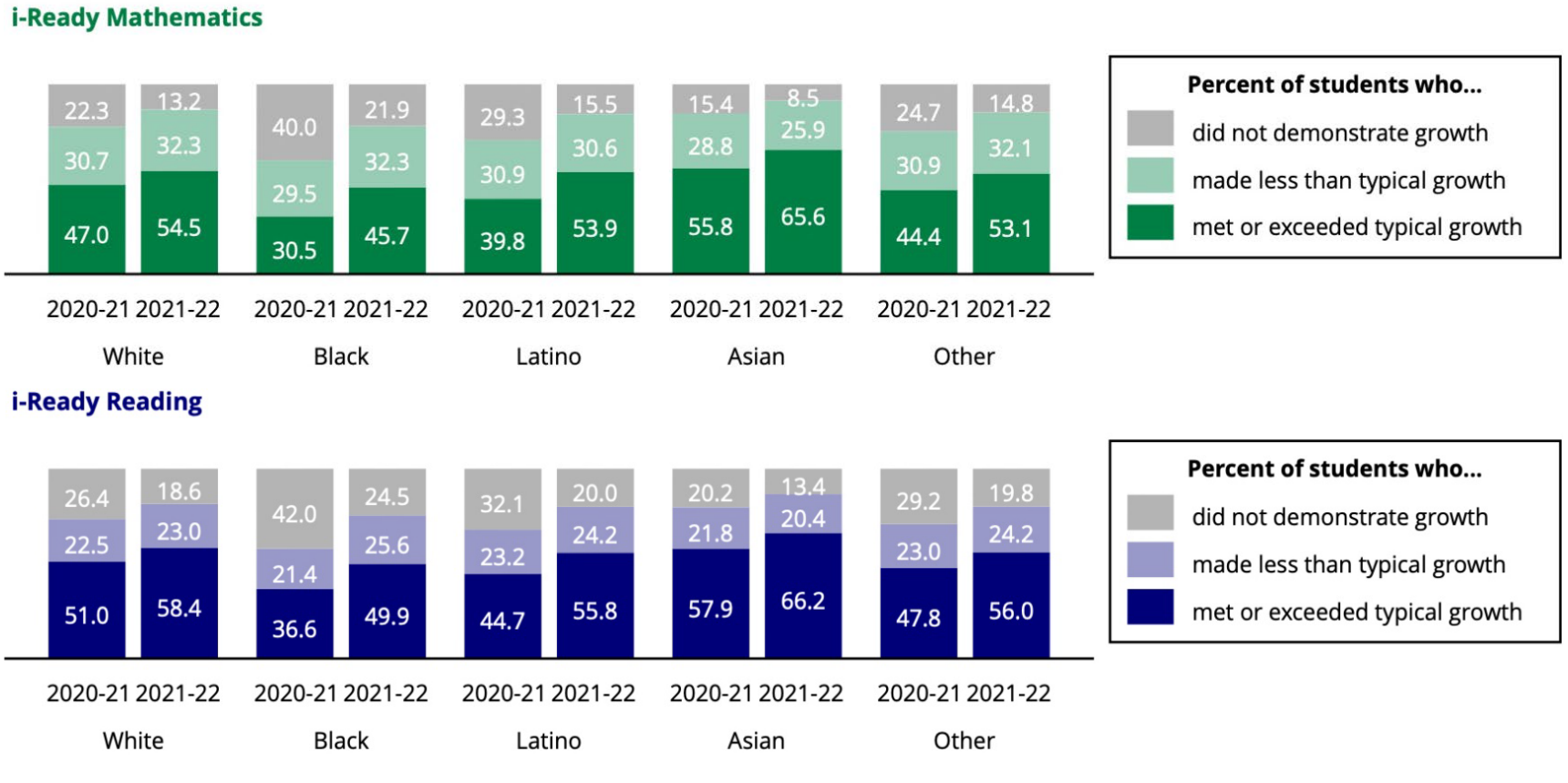
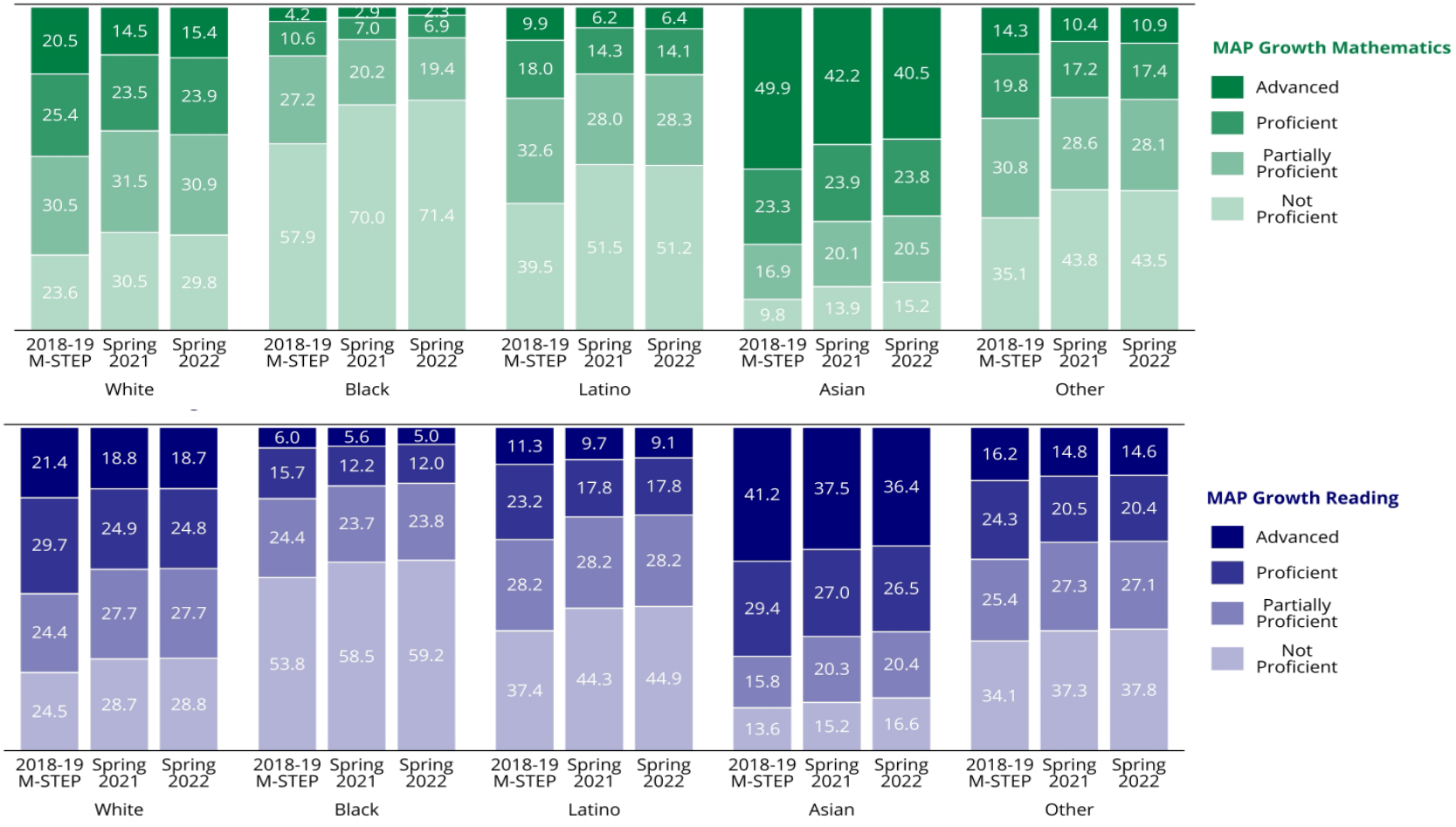
Yearly Growth by Economically Disadvantaged Status, i-Ready



WHITE STUDENTS WERE MORE LIKELY TO SCORE PROFICIENT +, BUT GAPS DIDN'T GROW DURING PANDEMIC

Proficiency Levels and Equivalencies by Race/Ethnicity, NWEA



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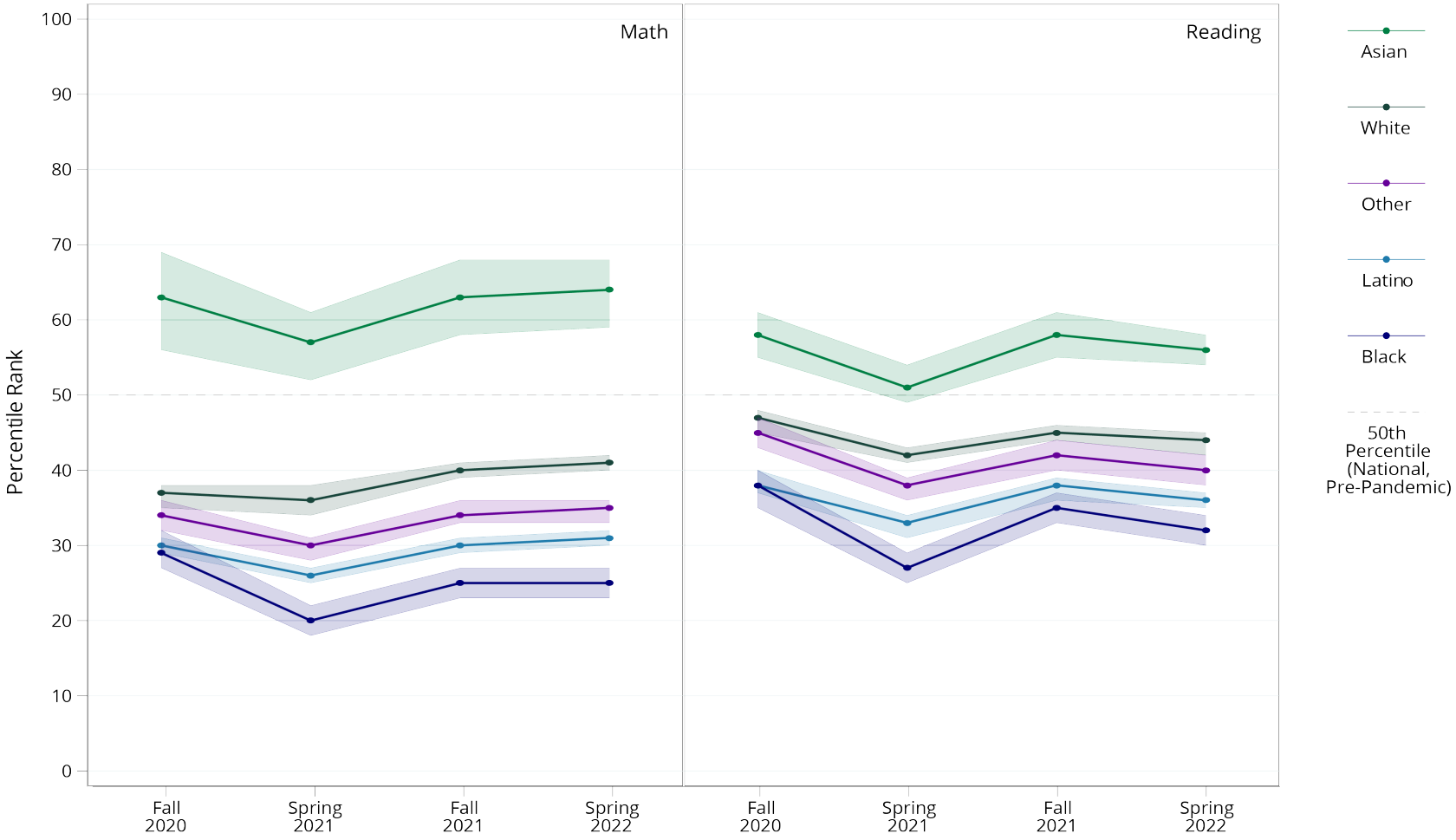
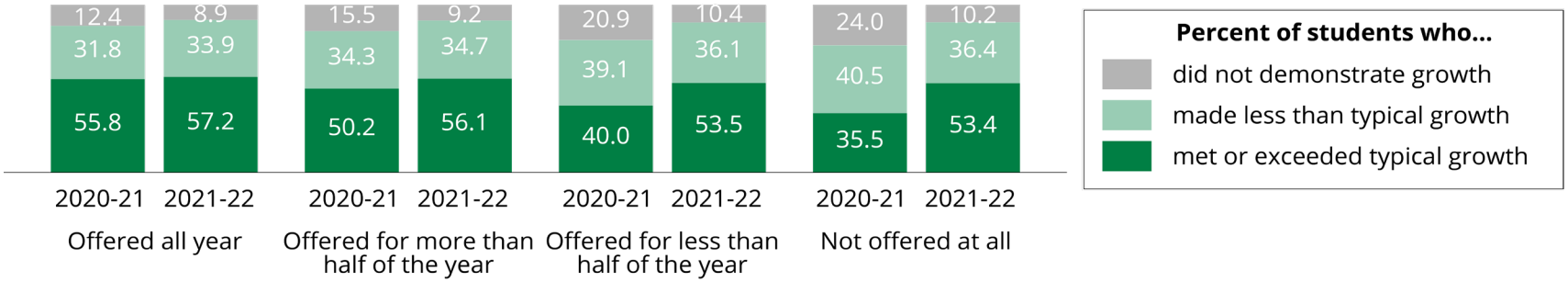


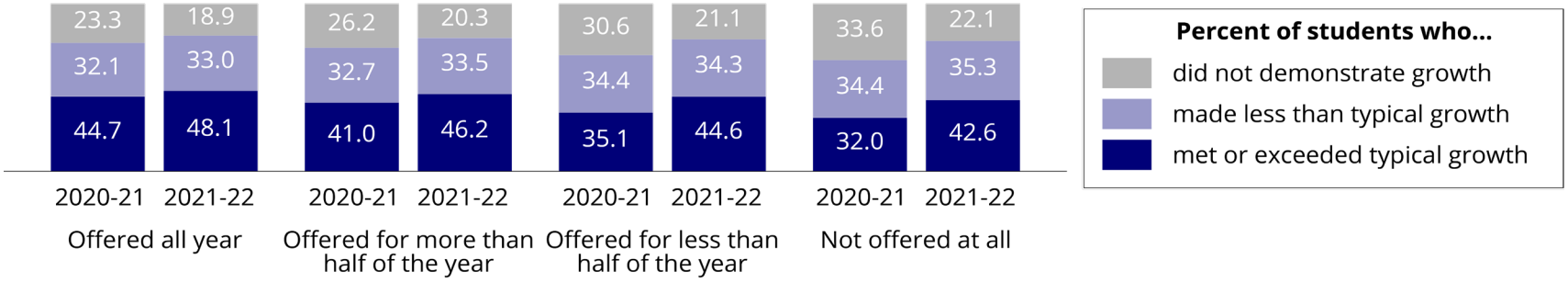
STUDENTS WITH LESS ACCESS TO IN-PERSON INSTRUCTION IN 2020-21 SAW INCREASING ACHIEVEMENT GROWTH IN 2021-22

Yearly Growth by Access to In-Person Instruction in 2020-21, NWEA MAP Growth

MAP Growth Mathematics



MAP Growth Reading



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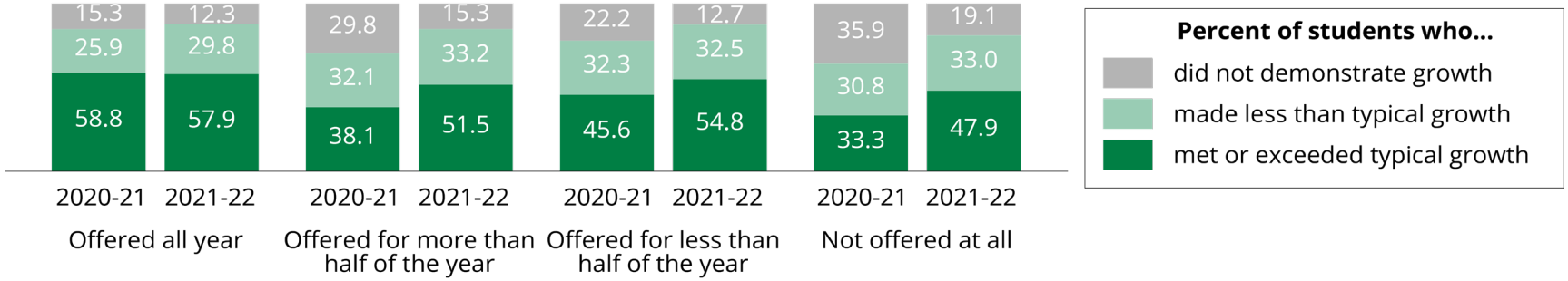
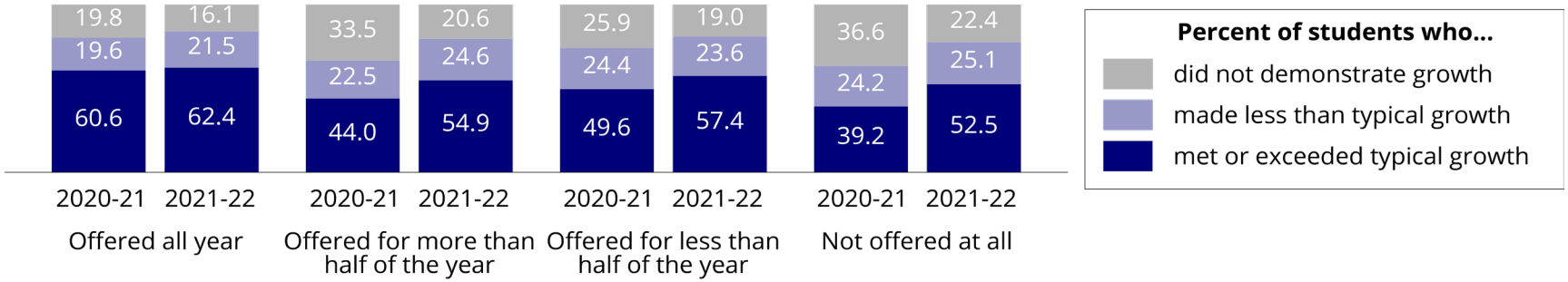


i-Ready Reading



ACCESS TO INSTRUCTION IN 2020-21 INCREASED STUDENT ACHIEVEMENT IN BOTH 2020-21 AND 2021-22

Achievement Gains for Each Month a District Offered In-Person Instruction in 2020-21				
	Change in Average Standardized Scores		Increase in Percentage of a Typical Year's Growth	
Assessment	Math	Reading	Math	Reading
MAP Growth				
Spring 2021	0.011	0.012	2.58%	3.50%
Spring 2022	0.014	0.011	2.29%	1.89%
i-Ready				
Spring 2021	0.026	0.022	4.97%	5.59%
Spring 2022	0.034	0.034	5.34%	6.77%

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ACCESS TO INSTRUCTION IN 2020-21 INCREASED STUDENT ACHIEVEMENT IN BOTH 2020-21 AND 2021-22

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How did districts that performed better than predicted in 2020-21 support student learning?

"SUCCESSFUL" DISTRICTS HAD EXISTING STRUCTURES AND CAPACITIES THAT MADE THEM MORE "READY" TO NAVIGATE CRISIS

- **Dedicated school staff** were ready to go above and beyond to support student learning
- **Skilled district-level leaders** had experience building relationships inside and outside of schools
- **Strong relationships with families** helped districts understand student needs and provide tailored supports
- **Existing curricula and instructional resources & tools** provided a foundation for new instructional approaches

> *"Our families are great. We have teachers that teach because they care and they want their kids to do well. That makes [the pandemic] so much easier to navigate through."*
>
> ***– School Principal***

COLLABORATION ENABLED TRANSPARENT AND EQUITABLE RESPONSE EFFORTS

- **Community and data-informed decision-making** promoted attentiveness to a range of stakeholder needs
- **Two-way communication with families** supported family involvement and helped schools to meet families' needs
- **Increased collaboration across staff roles** enabled instructional planning and tiered supports for students
- Increased awareness of students' home lives strengthened leaders' **commitment to educational equity**

> *"No plan or decision was made without involving all of our stakeholders."*
>
> ***– School Principal***

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LEADERS FOCUSED ON SOCIAL-EMOTIONAL LEARNING AND INDIVIDUALIZED STUDENT SUPPORTS

- Prioritizing **students' connection with peers and educators** served as a foundation for academic learning
- **Individualizing support** through tiered intervention-based models helped to address students' unique needs
- In remote and hybrid districts, **building upon existing resources to develop new approaches** for scheduling and support from specialized staff promoted student learning

> *"We are a community that serves the needs of all of our students [...] It is the connection that we have to each other that ultimately is a win for students."*
>
> ***– School Leader***

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DESPITE SUCCESSES, LEADERS DESCRIBED THE 2020-21 SCHOOL YEAR AS CHALLENGING AND COMPLEX

- Decisions about instructional modality were complicated by **tensions between prioritizing health and safety and delivering high quality learning experiences** to students
- Regardless of primary modality, all districts experienced **challenges effectively implementing remote instruction** and promoting student engagement
- Leaders and educators experienced **heightened stress and burnout,** with many feeling overworked

> *"[Educators] did an amazing job keeping afloat but they were tired. They were tired at the end of the year, for sure."*
>
> ***– School Leader***

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LEADERS' PRIORITIES FOR PANDEMIC RECOVERY INCLUDE ACCELERATED AND SOCIAL EMOTIONAL LEARNING

- **Accelerating student learning** will include tiered and diagnostic-based interventions, tutoring, and learning labs
- Leaders remain committed to **integrating social-emotional learning** in educational programming
- A consistent priority is to **maintain appropriate staffing** in districts and schools to support academic recovery

> *"We're going to lift the student up to the grade level.... That can only happen through the acceleration of learning. Acceleration meaning that you increase the scaffold instead of decreasing the level."*
>
> ***– District Leader***

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Where do we go from here?

KEY TAKEAWAYS

Academic recovery is happening in Michigan.

- On average, students in 2021-22 started the year behind but ended the year ahead of students who were in the same grade levels in 2020-21.
- Students were more likely to demonstrate growth and meet growth targets in 2021-22 relative to 2020-21.

But not fast enough to counteract the effects of unfinished learning in '20-21.

- While math and reading scores increased at a faster rate in 2021-22 than the year prior, they often still lagged behind pre-pandemic growth rates.
- Overall, fewer Michigan students scored above pre-pandemic national averages in 2021-22 than in 2020-21.

The pandemic had differential impacts on students by achievement level, income, race/ethnicity, and access to in-person instruction.

- More students made no or only partial progress towards a typical year's growth during both years relative to pre-pandemic norms.
- The far majority of students who made no progress on their benchmark assessments in 2021-22 were among the lowest-performing in the state.
- Access to in-person instruction in 2020-21 was associated with greater achievement growth in *both* 2020-21 and 2021-22
- Demographic gaps in growth diminished in 2021-22, but achievement gaps remained.

KEY TAKEAWAYS

Districts that were relatively successful during the 2020-21 school year…

- Had existing capacities and structures set up that could support them and, in some instances, could be translated into the pandemic context.
- Increased collaboration and communication across staff roles, with families, and with communities.
- Focused on data-informed decision-making.
- Prioritized students' connections with peers and educators.
- Individualized support to address students' unique needs.

These "successful" districts have several priorities for pandemic recovery:

- Accelerating student learning via tiered and diagnostic-based interventions and 1:1 or small-group tutoring.
- Integrating social-emotional learning into education programming.
- Maintaining appropriate staffing to support recovery efforts.

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RECOMMENDATIONS

- Maintain and enhance fiscal and legislative support for K12 education in Michigan. Money matters – now more than ever.
- Prioritize long-term investments in educator & staff pipelines.
- Provide funding, capacity, and structures for programs that 1) extend the time students' have learning with qualified educators and 2) enable individualized, differentiated supports.
- Develop and tailor educational programs and supports to address students' individual needs, including social-emotional learning.
- Develop policies and process that incentivize and facilitate school-family partnerships and joint decision-making.
- Expand access to the internet and devices, as well as training and support for leaders and educators on using technology.
- Continue monitoring learning outcomes – and inputs – for all students. Especially for groups that were disproportionately impacted by the pandemic.

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