



Education Policy Perspectives: Michigan COVID Learning Recovery and Teacher Workforce Studies

**Education Policy Leadership Program
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THE EPIC APPROACH

Our State and district-level partners drive what we research. In **close collaboration** with our partners, we establish a **comprehensive research agenda**. We then pursue a series of coordinated projects within the structure of a policy lab, not simply as a stand-alone research project. As a policy lab, we examine a fuller array of interrelated questions and look at educational issues from multiple angles.

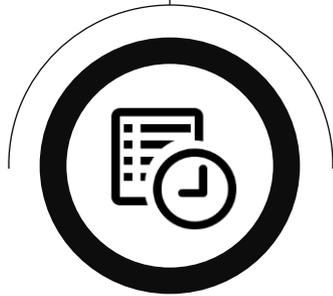
This approach requires a **team of experts** who work carefully and precisely, integrating multiple methods. As a university-based center, we are also **training the next generation of talented researchers** to provide rigorous research that informs and strengthens evidence-based decision-making.



Together with our partners, we are ultimately working to **improve educational outcomes for all kids**, providing **objective and actionable research** to inform decisions that affect students, teachers, and school leaders in urban, rural, and historically underresourced communities.



Agenda



01

Michigan's 2023-24 Benchmark Assessments

K-8 student achievement and growth on tests administered to meet "Return to Learn" requirements, fall 2020 through spring 2024

Tara Kilbride, Wei-Chu Chen, & Erin Conley

02

Michigan Teacher Shortage Study: 2025 Report

Teacher vacancies, retention, and initial certification trends, 2012-13 through 2023-24

*Tara Kilbride, Salem Rogers,
Jennifer Moriarty, & Tyler Powell*

03

Research in the Education Policymaking Process

How EPIC supports the use of research evidence in policymaking and education reform

Madeline Mavrogordato

BACKGROUND

Legislatively-mandated benchmark assessment and teacher shortage research report series



BENCHMARK ASSESSMENTS

Mandated by: “Return to Learn” law (2020) & subsequent extensions

Motivation: COVID-19 disruptions to student learning and recovery efforts

Requirements: Districts choose and administer a benchmark assessment at beginning and end of each year, EPIC compiles and analyzes district-provided achievement and growth data

Annual report: Nov. 15th



TEACHER SHORTAGES

Mandated by: MCL 380.1531i(7) (2020-PA-316)

Motivation: Monitor teacher labor market conditions and inform efforts to address ongoing shortages

Requirements: Initial year data overview/recommendations, analyses of educator vacancies, retention, preparation, and highest-need regions

Annual report: Jan. 1st

DATA SOURCES

These studies combine data from state databases, local districts, and publicly available resources.



Student Assessments

MAP Growth, i-Ready, Star 360, Smarter Balanced, & Michigan K-2 benchmark assessments (MiDataHub)

Comparisons with M-STEP, NAEP, SEDA, national trends on benchmark assessments



Registry of Educational Personnel (REP)

Employment status, duration, location, job assignment, mobility, retention/attrition



Michigan Student Data System (MSDS)

Student enrollment & demographics (General Collection)

Courses taught as “teacher of record” (TSDL)

Districts where teachers completed high school (GAD)



Michigan Online Educator Certification System (MOECS)

Initial teaching certificates, added endorsements, temporary teaching credentials, prep institution, certification pathway



Mode of Instruction

Extended Continuity of Learning plans (2020-21)

Individual students’ learning modality in later years (MiDataHub)



Publicly Available Data Sources

Assessment manuals & norming studies

Teacher prep program enrollment & completion data (Title II)

Educator preparation provider types (CAP/AACTE)



PIC-UIC Crosswalk

Connect teachers’ initial job placements to the locations of their hometowns & prep programs



Michigan's 2023-24 Benchmark Assessments

Tara Kilbride, Wei-Chu Chen, & Erin Conley



CONTEXT & CONSIDERATIONS

Benchmark assessments can provide different types of insights about academic performance than the M-STEP or NAEP, but there are caveats

- **Strengths:** more frequent testing than M-STEP/NAEP, no gaps during COVID-related school closures, includes lower elementary grades (K-2), vertical scale
- **Caveats:** data from multiple assessments and in multiple formats; begins in fall 2020, so there is no pre-pandemic baseline; declining participation as benchmark assessments are optional for districts after 2022-23

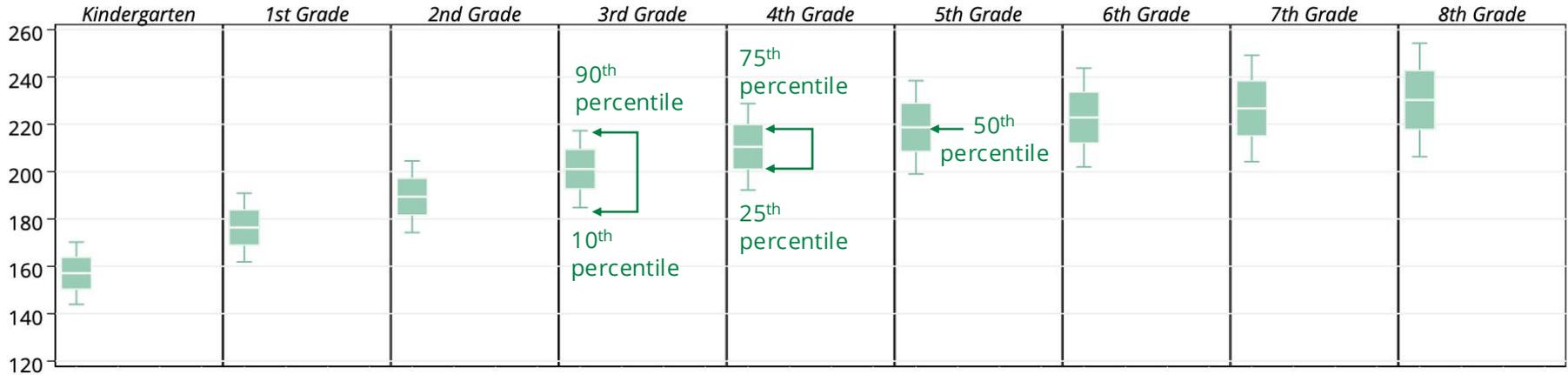
Our task is to synthesize and translate the data in ways that are meaningful across tests and contexts

- To anchor and contextualize the data, we incorporate **comparison points** from:
 - Nationally-representative pre-pandemic achievement & growth norms
 - Equivalencies between benchmark scores and state proficiency standards
 - Analyses with different sample restrictions (more representative vs stable over time)
 - Results from other assessments and contexts

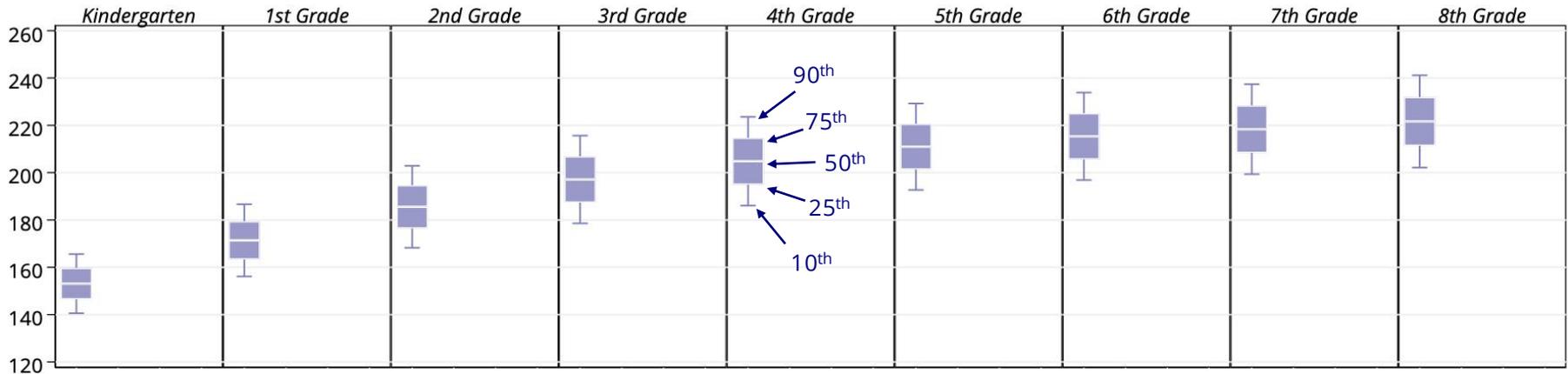
NATIONAL NORMS

Distribution of student achievement

MAP Growth Math



MAP Growth Reading



We use pre-pandemic **percentile norms** as comparison points to help interpret the extent of variation in MI students' achievement.

DISTRIBUTION OF STUDENT ACHIEVEMENT

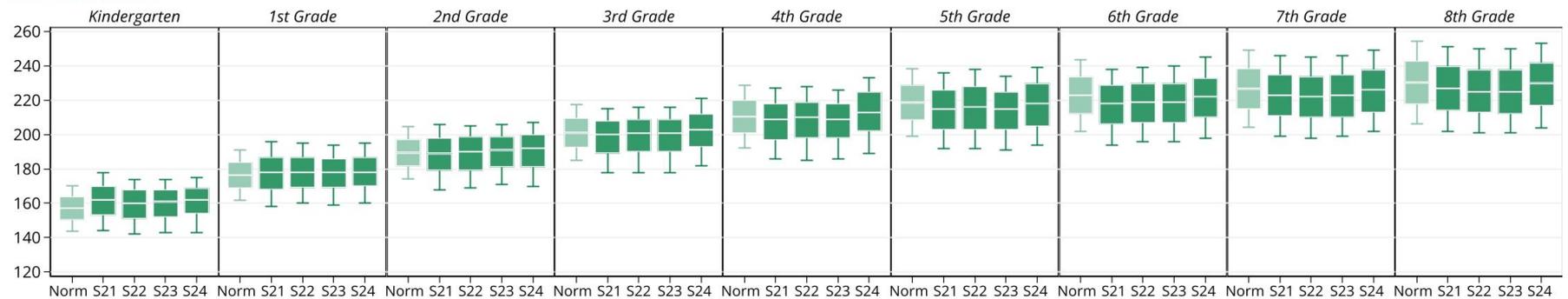
There is more variation in student achievement now than before the pandemic, though gaps between high- and low-performing readers improved in 2023-24

Math: improvements in '23-'24 for middle 50% of K-2 students, 3rd-8th grade students at all levels

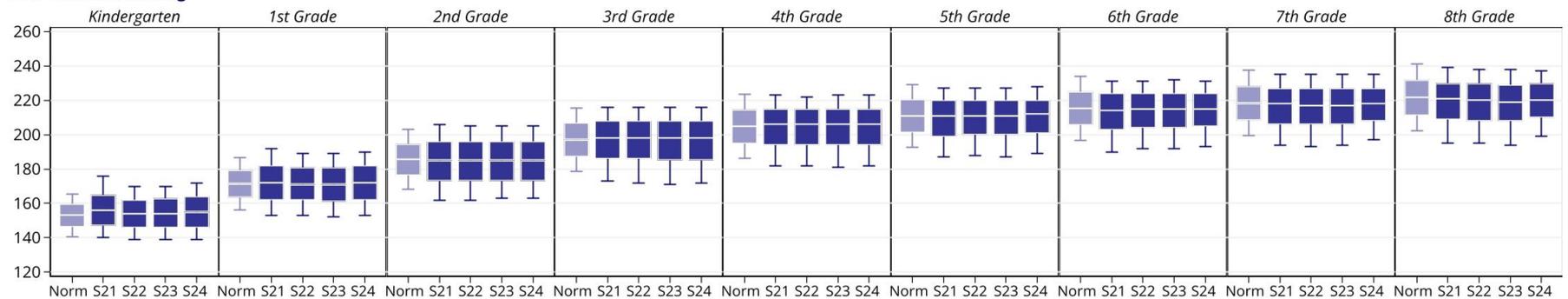
Reading: improvements concentrated among low-performing students, esp. at middle school level

Similar patterns on i-Ready, little change on Star 360

MAP Growth Math



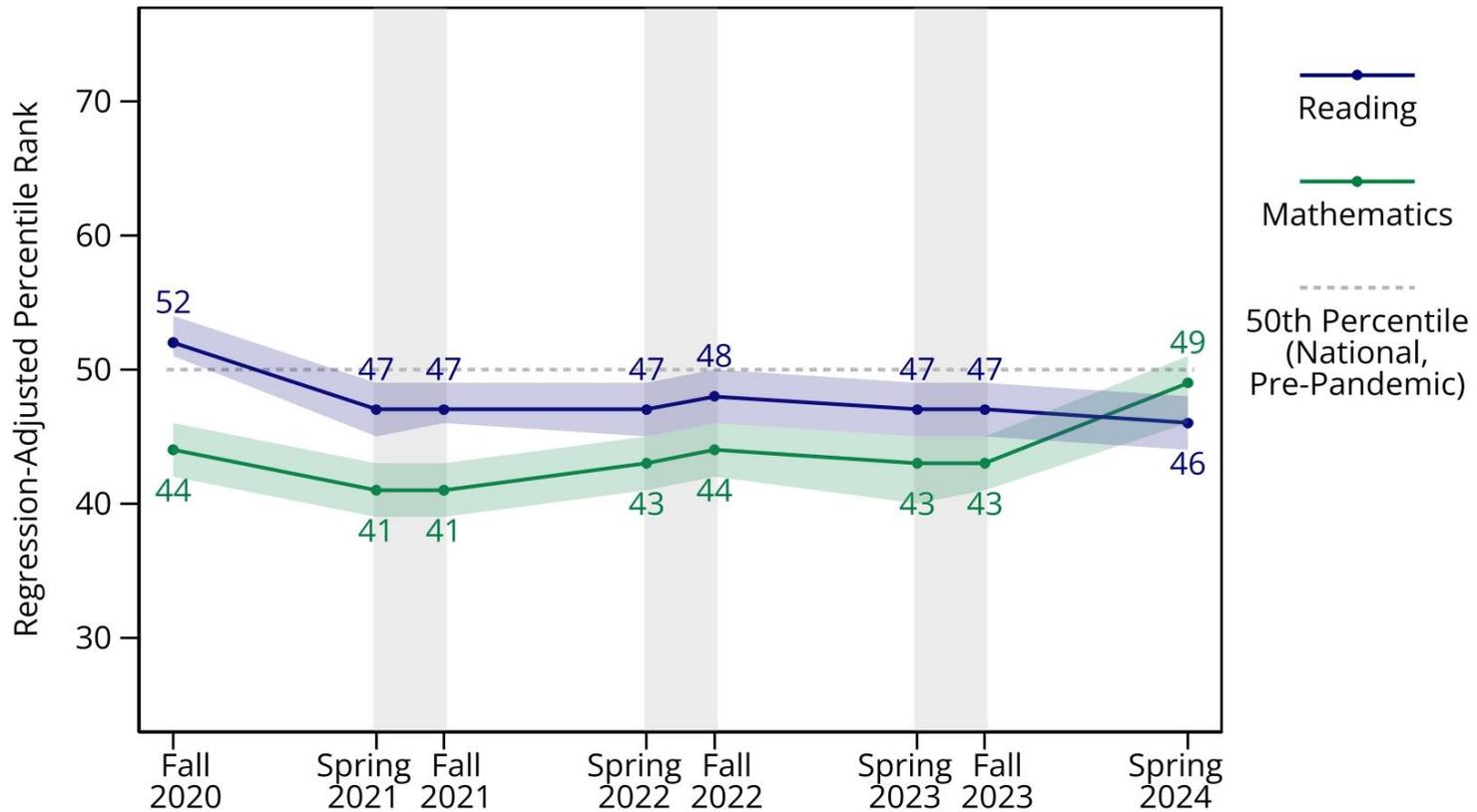
MAP Growth Reading



Notes: the bottom, middle, and top of each rectangle represent the 25th, 50th, and 75th percentiles; the bottom and top "whiskers" represent the 10th and 90th percentiles. Darker shades represent MI students, lighter shades show pre-COVID national norm. (Full sample)

REGRESSION-ADJUSTED PERCENTILE RANKS

After accounting for differences between grades, vendors, and districts, we find evidence of some recovery from initial math declines but little change in reading



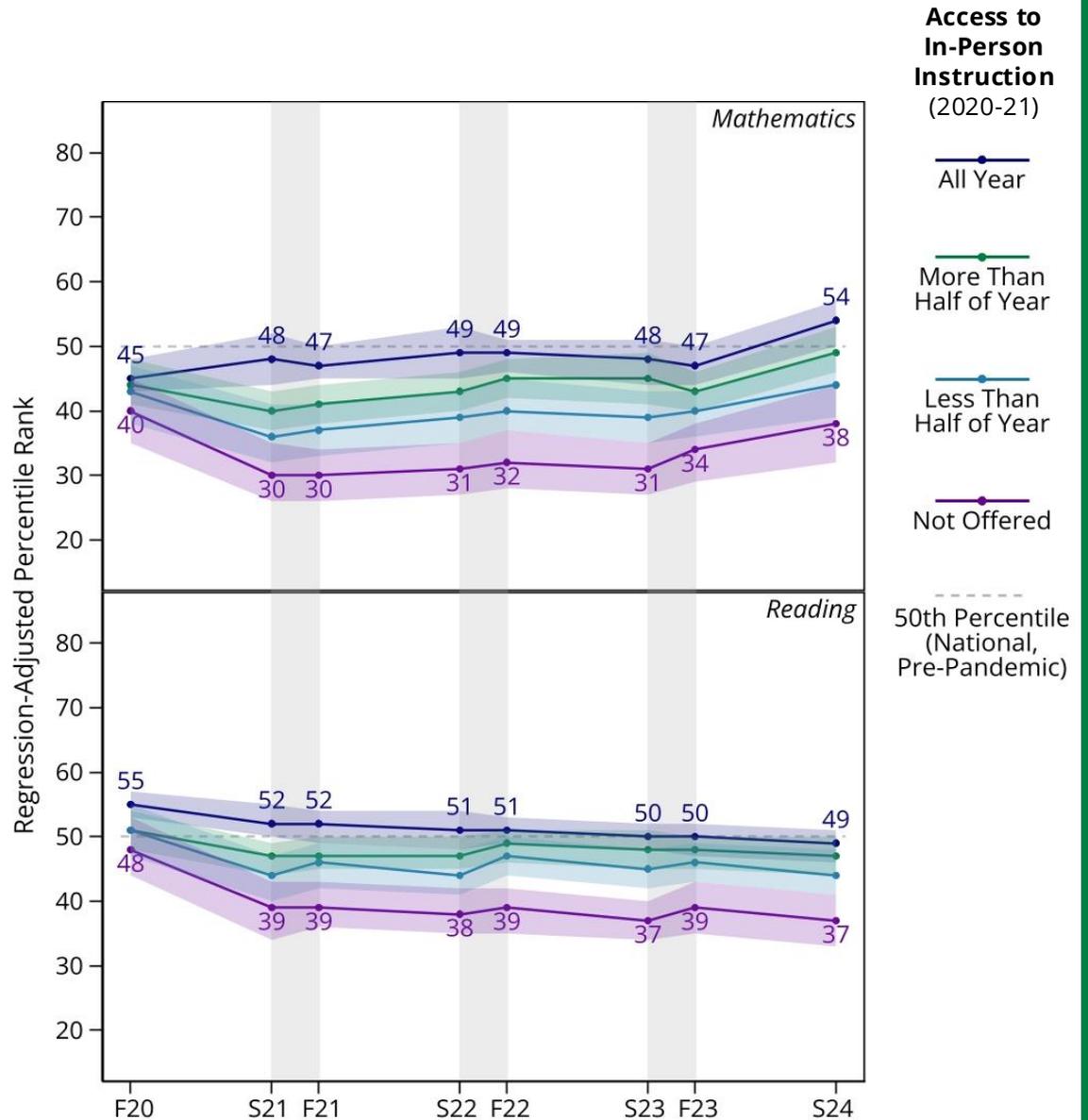
Notes: Blue/green shaded regions represent 95% confidence intervals. Regression analyses include 3rd-8th grade NWEA and i-Ready assessments. (Longitudinal growth sample)

SUBGROUP DIFFERENCES

Large disparities across districts offering different instructional modalities emerged in 2020-21 and persisted through at least 2023-24

Socioeconomic and racial/ethnic achievement gaps also worsened in 2020-21; reading gaps have improved since but math gaps remain larger than in fall 2020

Notes: Shaded areas represent 95% confidence intervals. Regression analyses include 3rd-8th grade NWEA and i-Ready assessments. (Longitudinal growth sample)



Key Takeaways & Policy Implications

STRONG PROGRESS IN MATH

Michigan students made **substantial recovery in math** on their 2023-24 benchmark assessments. Other assessments show similar patterns: math proficiency rates increased on the 2024 & 2025 M-STEP, recent NAEP data show 4th grade **math recovery in MI is above the national average**.

FOCUS ON EARLY LITERACY

Average reading scores have changed relatively little since declining in 2020-21. While gaps in reading achievement have improved in higher grade levels, **elementary-level reading remains a top concern**.

VARIED LEARNING NEEDS

With a **wider range of skill levels and learning needs** in Michigan schools and classrooms, teachers will need appropriate **instructional resources and support** to meet their students where they are.

Michigan Teacher Shortage Study: 2025 Report

Tara Kilbride, Salem Rogers,
Jennifer Moriarty, & Tyler Powell



CONTEXT & CONSIDERATIONS

Michigan's educator data and data systems are imperfect but gradually improving

- **Educator roles, staffing practices, and labor market conditions have evolved in the years since the state's current educator data systems were developed**
 - Example: teachers employed in several districts simultaneously (e.g., teachers of virtual courses)
 - Ongoing improvements to the current data system to better capture certain aspects of today's reality
 - New "modernized" system in development, years from implementation
- **We cannot always separate changes in *reporting practices* from true changes in educator staffing and shortage conditions**
 - Examples: vacant positions, exit reasons, temporary credentials

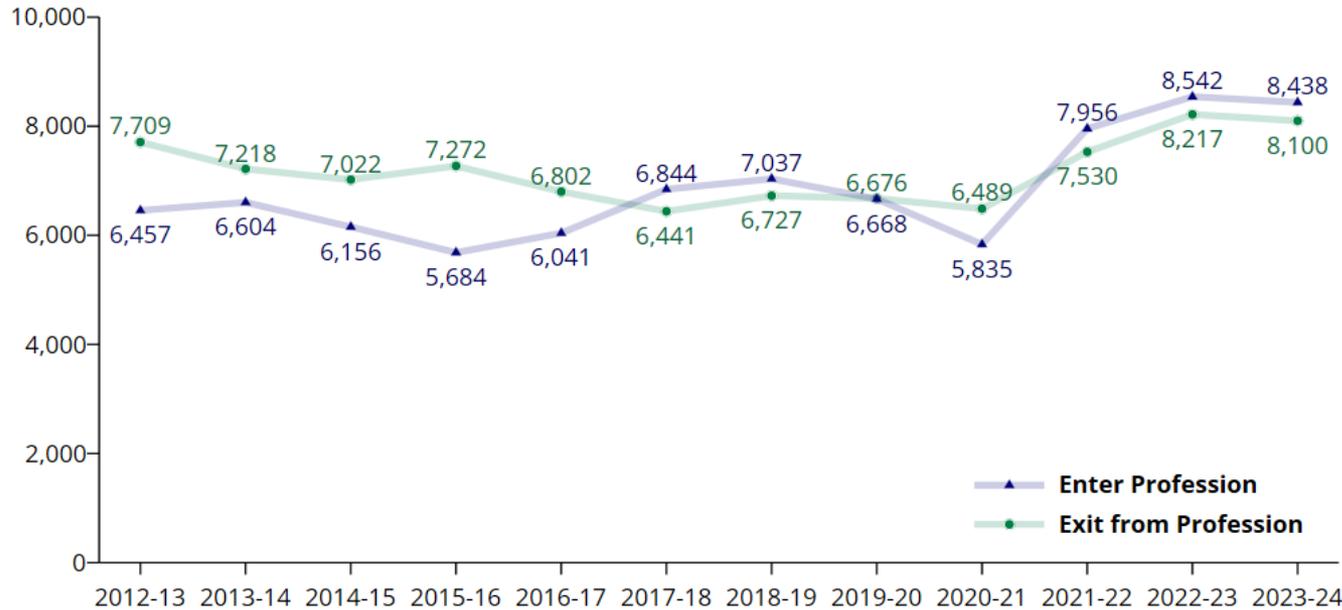
SIZE AND STABILITY OF WORKFORCE

In each of the last 3 years, new teachers entering the profession out-numbered those leaving

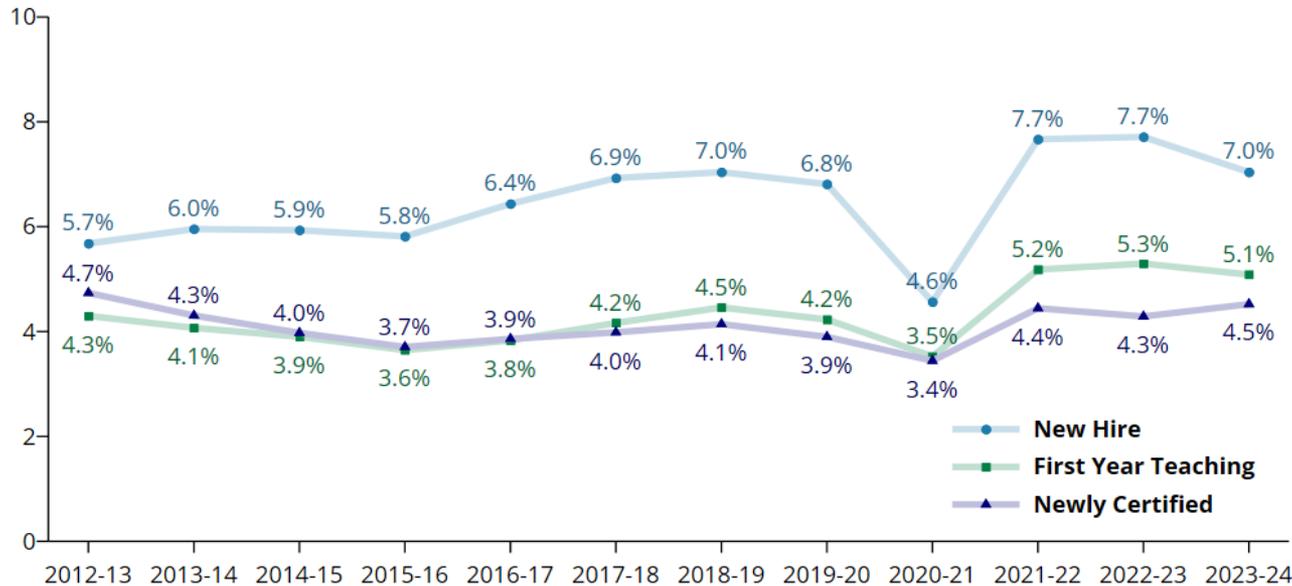
The workforce has been growing larger but facing unusually high rates of turnover

New teachers make up a larger share of the workforce than ever before

Number of Teachers



Percent of Teachers



VACANCIES

Vacancy rates are higher for special education than any other type of teaching position

Not all districts reported vacancies. Of those that did, many indicated >10% of special education positions were vacant

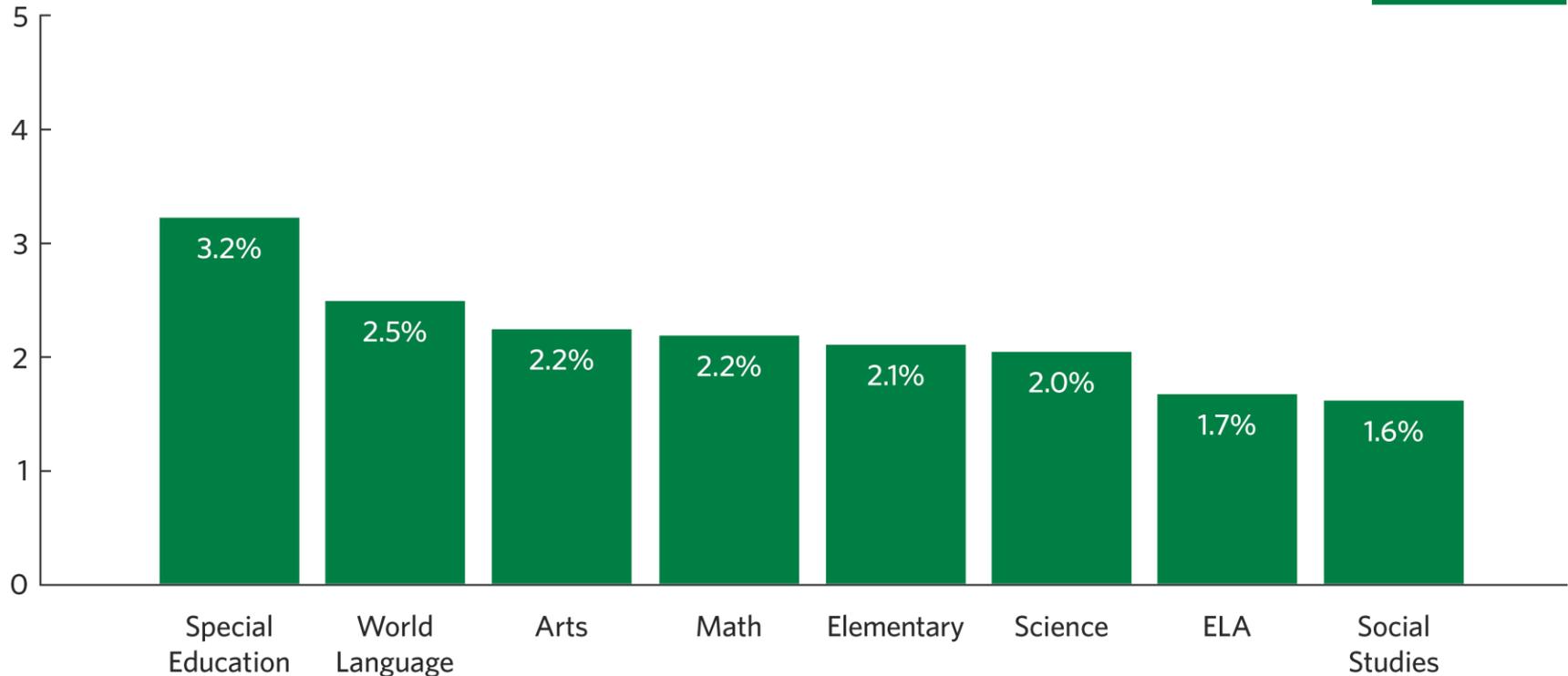
High turnover and reliance on under-credentialed teachers are also high for special education positions.

Declines in initial certification lasted longer for special education than many other endorsement areas

District-Reported Vacancies by Subject Area (Fall 2023)

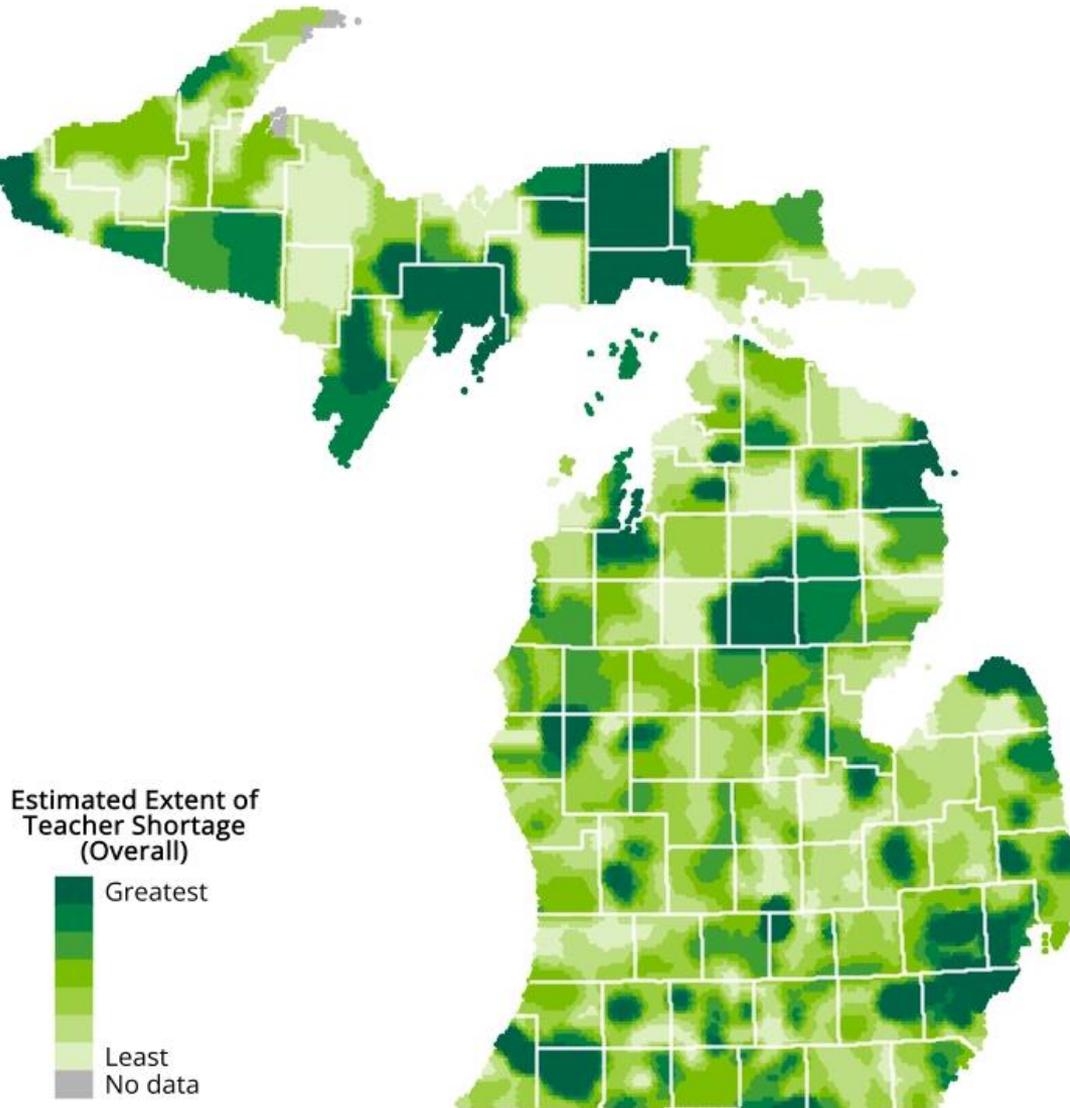


Vacancy Rate (Percent of Total FTEs)



LOCAL & REGIONAL SHORTAGES

Teachers are not distributed equitably across school districts; close neighboring districts often face very different shortage conditions.



The 20% of districts with the most severe teacher shortages...

Serve more diverse student populations:

- On average, **students of color** make up 52% of the students in these districts, compared to 24% for the average MI district.
- 74% of students in these districts are **economically disadvantaged**, compared to 55% for the average MI district.

Are in communities with large charter sectors:

- 21% of students who live in high-shortage districts **attend charter schools**, compared to 6% in the average MI district.

ACCESS TO PREPARATION PROGRAMS

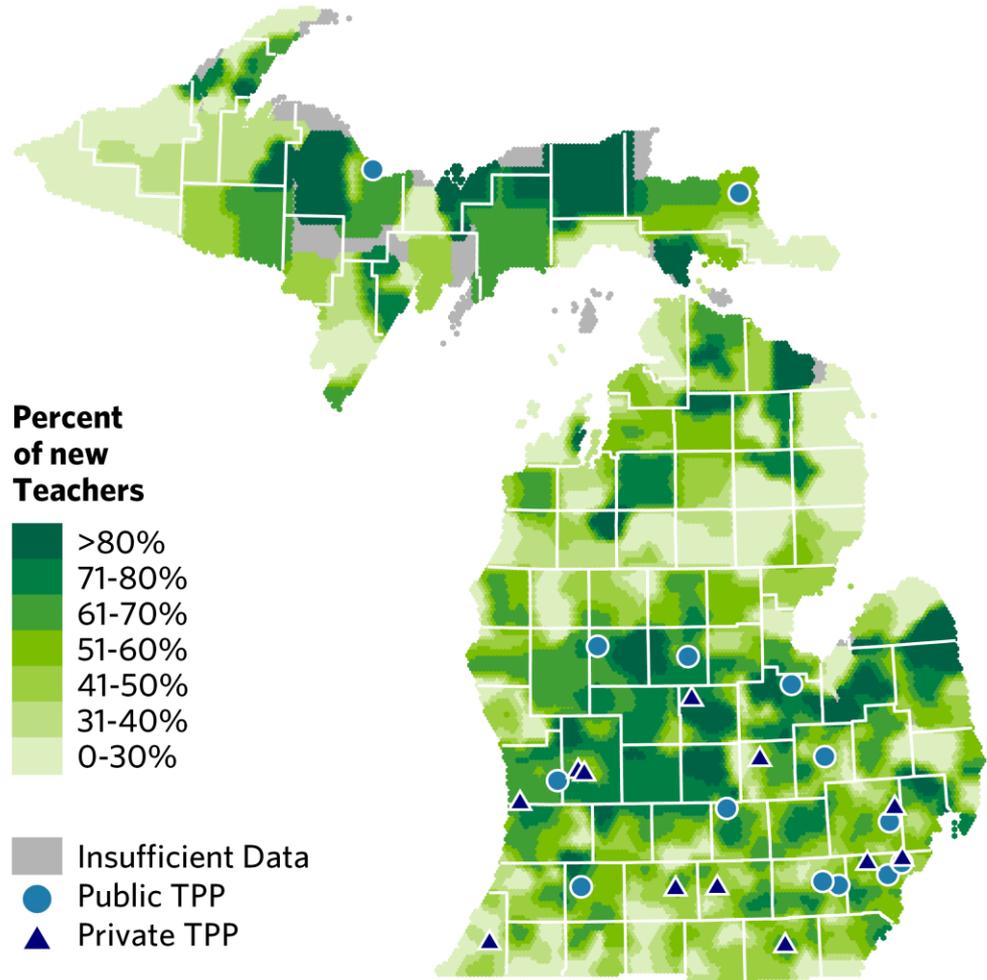
Distance from preparation institutions can present barriers for both prospective teachers and school districts recruiting new teachers

Most teachers complete their preparation training and begin their careers in districts that are near and/or similar to the districts they attended

Early-career teachers who switch districts typically move closer to their hometowns. This “draw of home” is especially strong in rural areas

Percent of New Teachers From Traditional In-State Preparation Programs, 2019-20 to 2023-24

Note: District shares are calculated based on the number of newly hired teachers who were certified at a traditional teacher preparation program no more than five years prior to their initial count date divided by the total number of new teachers hired between 2019-20 and 2023-24 in that district. “Insufficient data” indicates that a school district hired too few newly certified teachers within the timeframe of interest.



EDUCATOR DIVERSITY

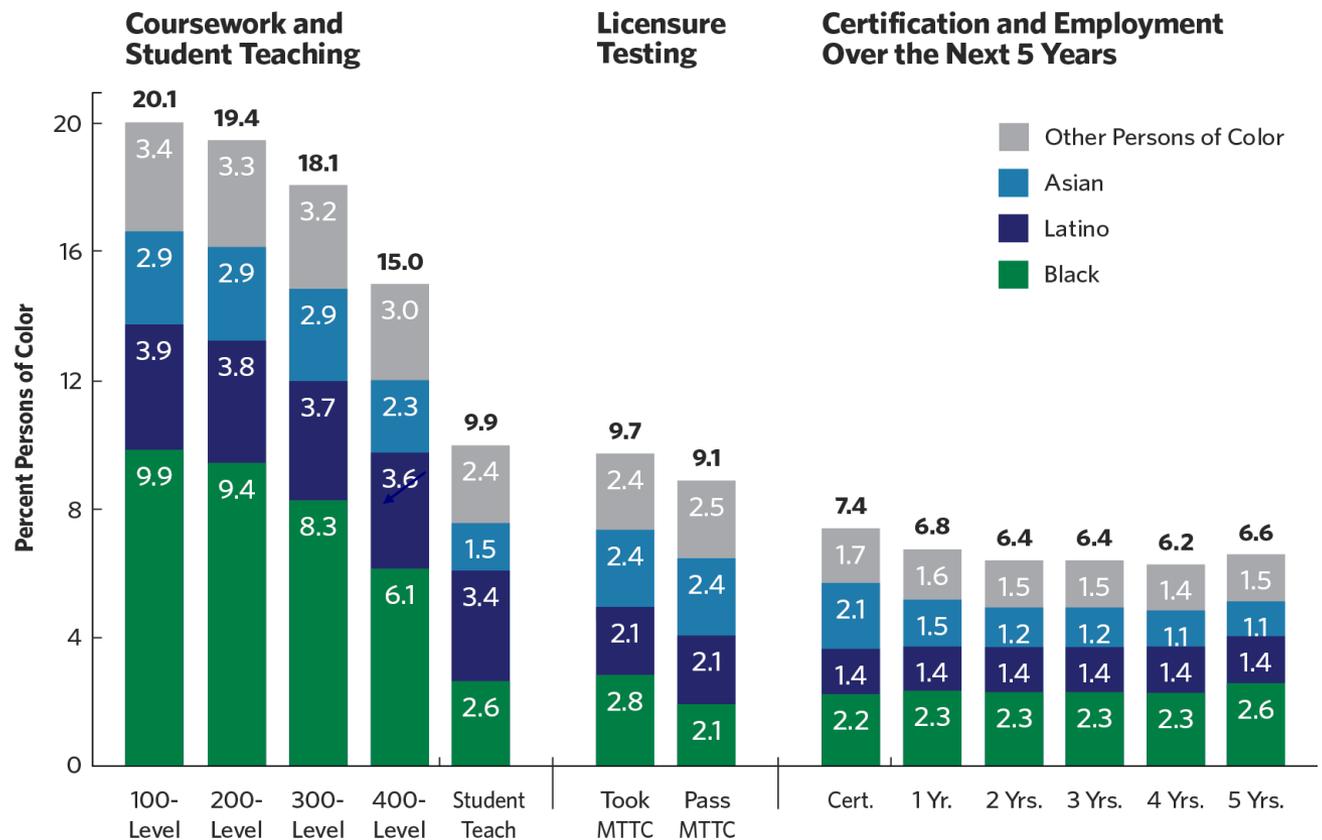
Teachers of color are underrepresented in Michigan. Stark losses of diversity at key teacher preparation and licensure milestones contribute to this problem.

Michigan has about **44 Black students for every 1 Black teacher**

This **44:1** ratio is nearly three times as high as the state's overall student-teacher ratio (**15:1**)

It is nearly 50% higher than the national ratio of Black students to Black teachers (**30:1**)

Source: *The Black Teacher Collaborative*, <https://blackteachercollaborative.org/stats/>



Key Takeaways & Policy Implications

EARLY-CAREER TEACHERS

With teachers entering *and* leaving the profession at record-high rates, new teachers make up a larger part of the workforce than ever before. **Focusing on supporting and retaining these teachers will be critical in the coming years.**

MEETING LOCAL NEEDS

Teachers tend to work in communities near or like their own hometowns, student teaching placements, and preparation institutions. **Target recruitment efforts, clinical placements, and university partnerships to bring teachers to the communities that need them most.**

ASPIRING TEACHERS OF COLOR

The most acute losses of diversity from MI's teacher pipeline happen during candidates' postsecondary education. **Continue to identify and remove barriers that prevent or deter students of color from becoming teachers.**

REFLECTIONS

Reactions

What resonated with you or surprised you?

Perspectives

How do the data connect—or conflict—with your experiences?

Policy solutions

Are there pressing needs or gaps that existing policies aren't addressing?

Actionable steps

Where do we go from here—individually, locally, or systemically?

Research in the Education Policymaking Process

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HOW DOES EPIC SUPPORT THE USE OF RESEARCH IN THE POLICYMAKING PROCESS?

- We strive to:
 - Be partner-driven
 - Conduct research that is both rigorous and relevant
 - Be independent and objective
 - Communicate with purpose

PARTNER-DRIVEN: TAILORED RESEARCH AGENDA

Our tailored research agenda focuses on issues that, while critical to Michigan's school improvement efforts, will also **inform actions taken across the nation.**



COVID-19 EDUCATION POLICY

The COVID-19 pandemic has changed nearly every facet of our lives, including public schooling. In support of our partners in policy and practice, EPIC is focusing our efforts on understanding how education policy decisions in the face of the pandemic are affecting students, educators and the broader community.



PARTNERSHIP MODEL

The Partnership Model focuses on building capacity to improve student outcomes by asking districts to assess their needs and challenges and then develop context-specific solutions in collaboration with partners from the Michigan Department of Education (MDE), intermediate school districts, and local communities.



READ BY GRADE THREE

EPIC has partnered with the Michigan Department of Education (MDE) and the Center for Educational Performance and Information (CEPI) to study how Michigan's early literacy law is being implemented across the state and its impacts on students and educators.



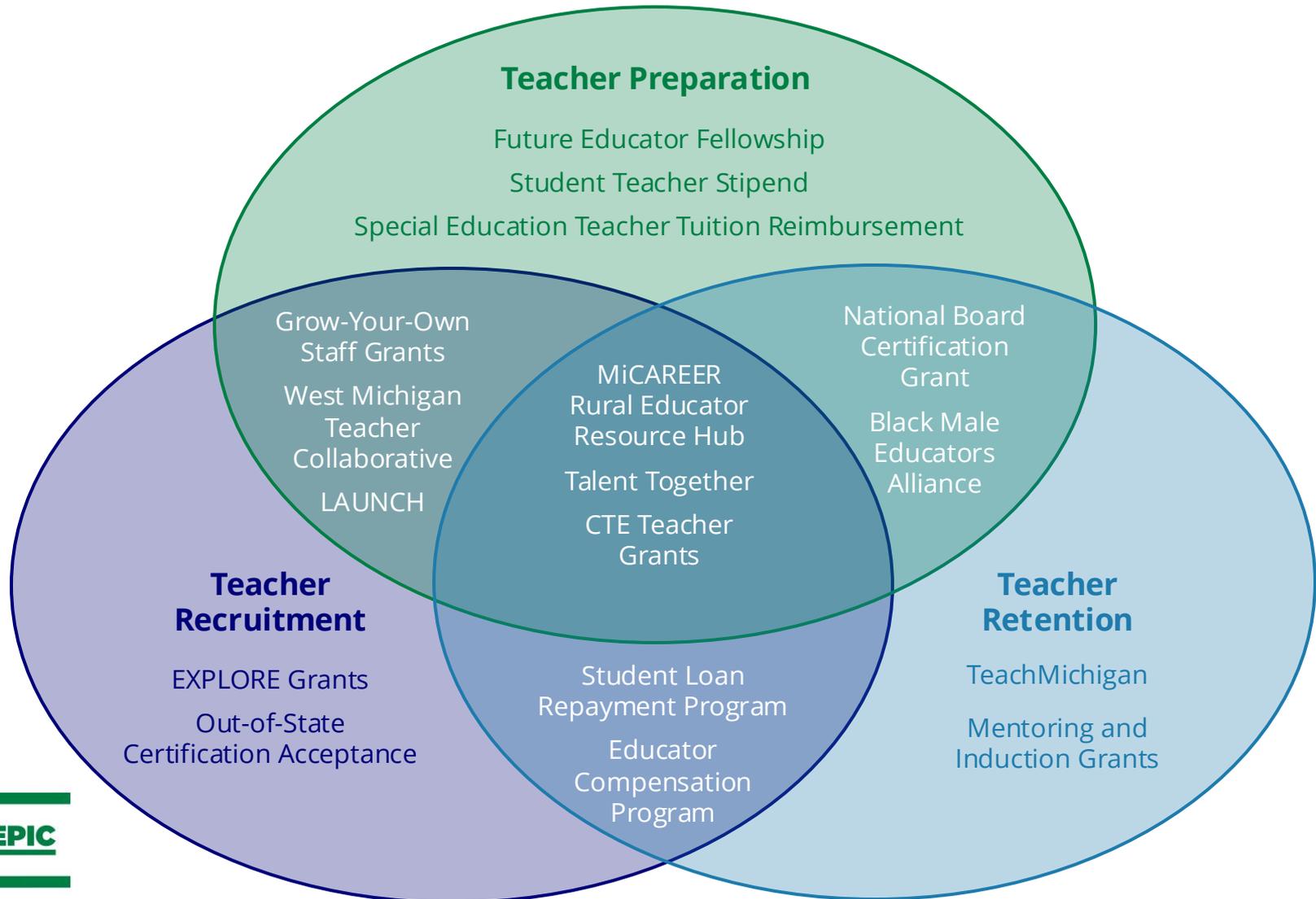
TEACHER WORKFORCE

Teachers are at the center of each student's educational experience. EPIC has partnered with the Center for Educational Performance and Information (CEPI) to better understand how policies affect educators and address gaps in Michigan's teacher pipeline as schools rebuild in the wake of the COVID-19 pandemic.



STATE-FUNDED INITIATIVES

Since 2020, the State of Michigan has invested over 1 billion dollars toward strengthening the teacher pipeline



EPIC RESEARCH PRACTICES: PROTECTING THE IDENTITIES OF INDIVIDUALS AND DISTRICTS IN OUR RESEARCH

The **Education Policy Innovation Collaborative (EPIC)** strives to build collaborative relationships with our research partners. As part of that effort, we take seriously the responsibility of protecting the identities of students, educators, and districts involved in our research. This memo describes how we work with data and report results in a way that protects participants.

HOW WE WORK WITH DIFFERENT TYPES OF DATA

We routinely work with both publicly available data and more restricted data sources, including district-provided records, survey responses, interview data, and files from the Michigan Department of Education. While we are careful with all data, our approach is calibrated to the sensitivity and potential risks associated with each type.

RESTRICTED DATA

Restricted data are handled with great care due to their sensitivity. Restricted data are individual-level records provided by districts or the state, as well as interviews, focus groups, or surveys we conduct. This includes student demographics, data on teacher job assignments, student-level assessment data, individual level teacher evaluation data, and transcripts of interviews we conduct, among others.

The heightened standard of care for restricted data begins with how we receive and store it and continues through to how we analyze it and report on our findings.

Our data management begins with strong technical safeguards. We store restricted data on a secure, access-controlled server and limit access to approved research staff. All team members are trained in the responsible conduct of research through Michigan State University, and receive additional training in FERPA, the federal law governing the confidentiality of protected student records. Before analyzing restricted data, we remove identifiers such as names or UICs to prevent identifying information from being included in any analyses. We then retain restricted data under the terms of the data sharing agreement that grants us access to that data, which may specify how long it can be retained along with when it must be destroyed.

STANDARD CARE FOR RESTRICTED DATA

1

Data is stored on a secure, access-controlled server.

2

Team members receive data management training through MSU and FERPA.

3

Researchers remove ALL identifying data before any analysis begins.

RIGOROUS AND RELEVANT RESEARCH

- We employ a **robust set of research methods** that allows us to answer many different types of research questions with appropriate rigor and depth.
- We use a **wide range of techniques**, including econometric modeling, representative surveys, interviews, and case study approaches, **to produce timely insights** that will strengthen evidence-based decision-making.
- While our methods are sophisticated, we ensure **our research approaches are accessible and relevant** to our research partners and their stakeholders

INDEPENDENT AND OBJECTIVE

- We are firmly **grounded in the research evidence** space rather than the advocacy space
- We engage with and are responsive to **policymakers from both sides of the aisle**
- We are **clear about the limitations of our research** and careful to describe what our research can and cannot conclude

COMMUNICATE WITH PURPOSE

- We cater to different audiences using different research products
 - Research partners
 - Policymakers
 - Researchers
 - Public
- We are on call to testify in Lansing and review proposed legislative language

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All of these pieces help us build **trust** and **rapport**.

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