

October 2012



MICHIGAN CONSORTIUM FOR
**EDUCATIONAL
RESEARCH**

A PARTNERSHIP FOR EDUCATION RESEARCH AMONG THE STATE OF MICHIGAN, UNIVERSITY OF MICHIGAN, AND MICHIGAN STATE UNIVERSITY

The Michigan Context: High School Attainment and College Enrollment Across the State

AUTHORS:

Susan M. Dynarski

University of Michigan

Kenneth Frank

Michigan State University

Brian A. Jacob

University of Michigan

Barbara Schneider

Michigan State University



Introduction and Purpose

In order to understand the educational landscape in which the Michigan Merit Curriculum (MMC) was enacted, we examine the attainment trajectory of high school students in Michigan. These findings will provide a baseline against which we can interpret any impacts of the MMC. We use state administrative data describing students who began high school in the academic years 2004-2005 through 2007-2008.¹

Findings

In the graphs below, we tell a story of differential outcomes for students of different socio-economic and racial/ethnic groups. We also provide insight into the relative contribution of different school districts to these aggregate differences in educational attainment.

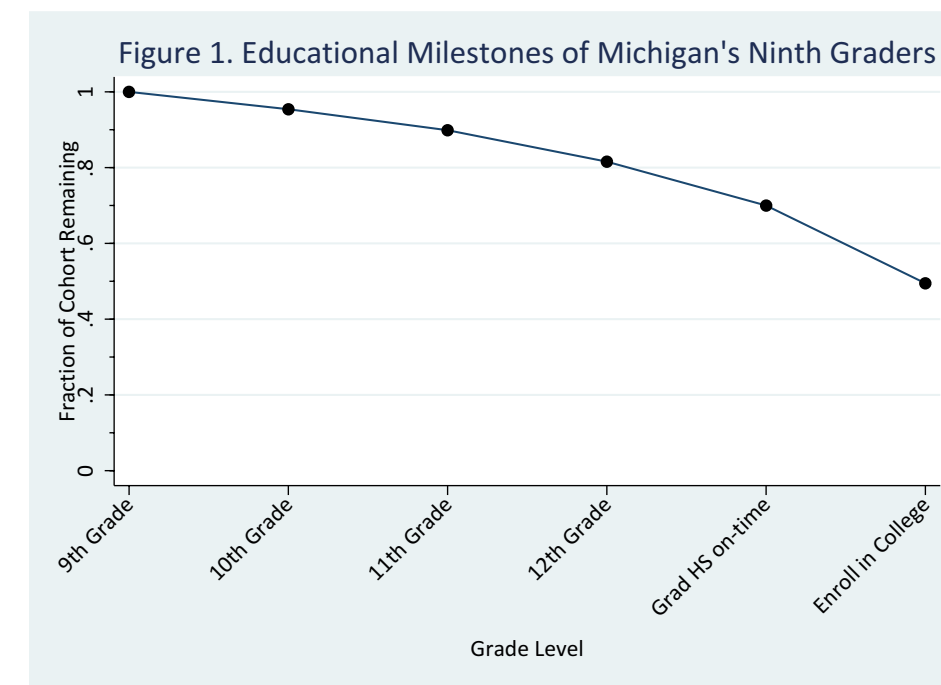


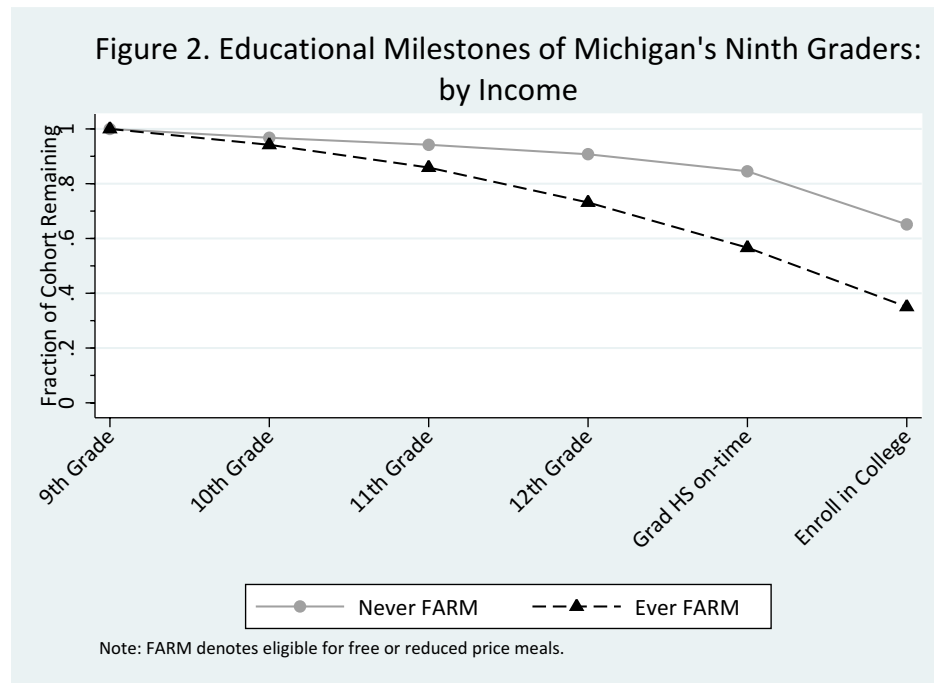
Figure 1 depicts the educational pathway of Michigan's ninth graders.² Each point indicates the share of ninth graders who make it to the milestone listed. Eighty percent of Michigan freshmen make it to the twelfth grade. Seventy percent graduate within four years of entering high school (74 percent graduate within five years, not shown on graph).

The last milestone on this graph is college. About 46 percent of all high school freshmen have entered college five years later (a year after they would have been expected to graduate from high school). If we look at just those who graduate high school, and not all high school freshmen, the college attendance rate is substantially higher: 65 percent.

As the graph makes clear, Michigan loses students at each point along the pipeline, not just at college entry. If we were able to get all Michigan public school students to graduate high school with the same degree of college readiness as today's graduates, the college enrollment rate of our young people would be 65 percent instead of 46 percent.

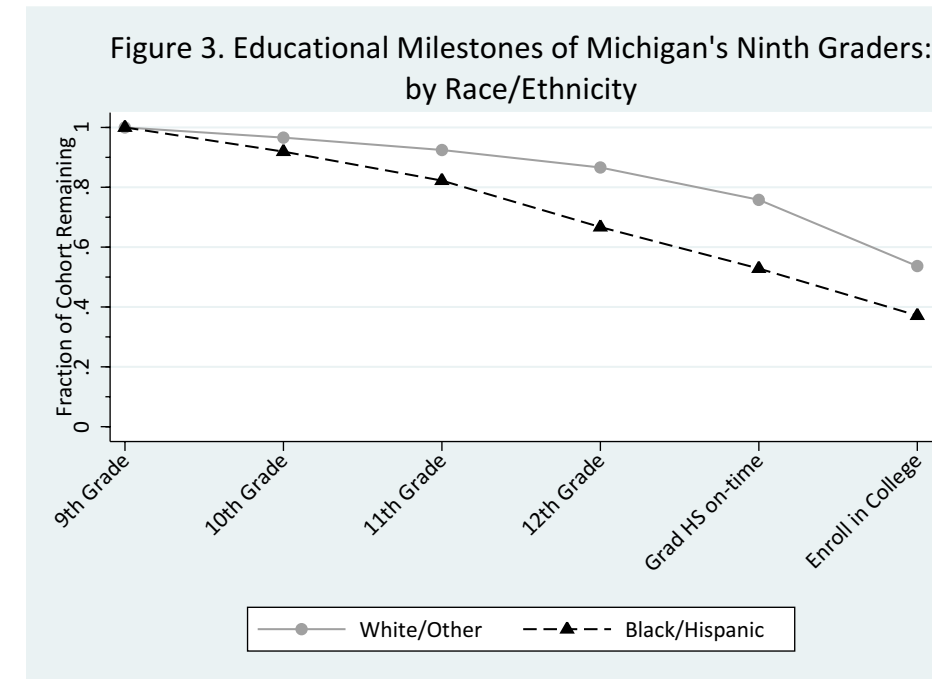


Findings (continued)



The high school graduation and college enrollment averages mask sharp differences across income groups in progress toward college. In Figure 2, we show these pictures separately for students who were ever eligible for a subsidized lunch during high school and those who were never eligible. About half of high school students are eligible for a subsidized lunch at some point during secondary school. As is standard in educational research, we use this eligibility for subsidized meals as a proxy for student poverty.³

Low-income high school freshmen fall off the path to college at much higher rates than their peers: 31 percent of these students go to college, compared to 61 percent of middle- and upper-income students. This 30-point gap in college attendance is the product of gaps at two key transitions: high school graduation and college entry. Low-income students are less likely than their more advantaged peers to complete high school on time (57 percent vs. 85 percent). Moreover, even when these students do graduate, they are less likely to continue on to college (55 percent vs. 72 percent).



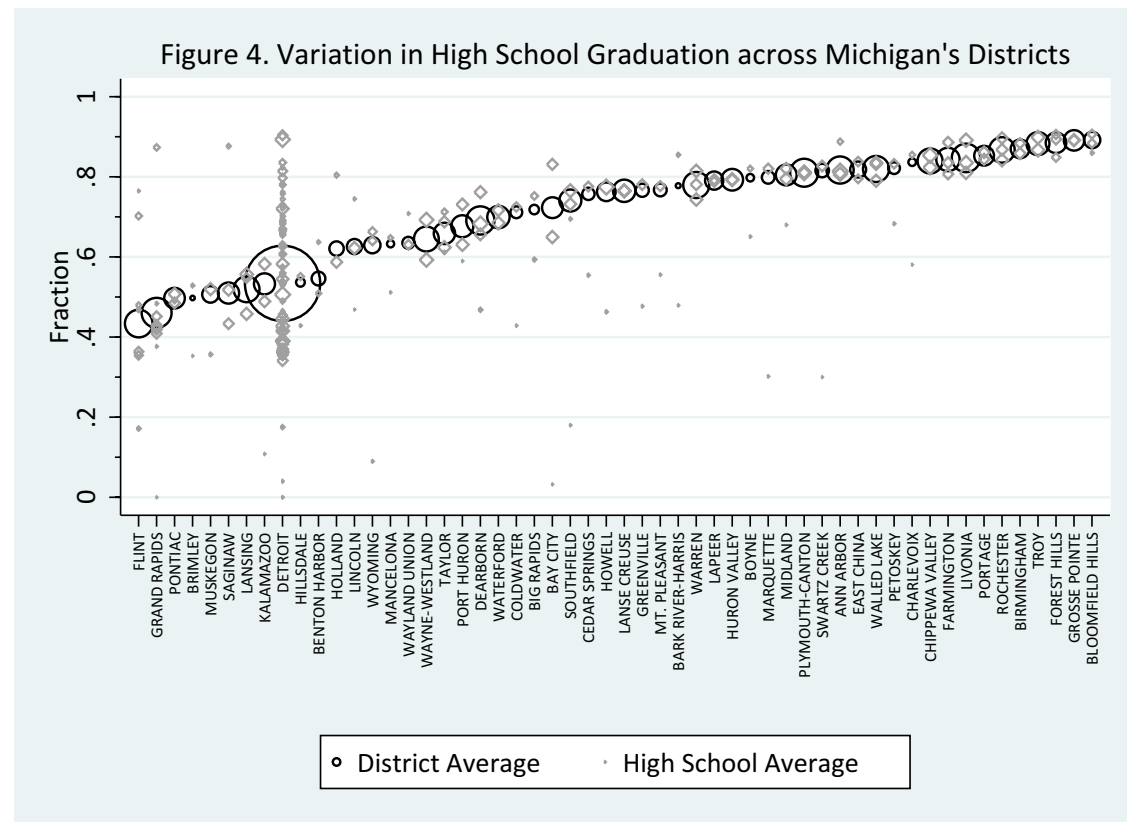
Gaps by race and ethnicity are similar to the income gaps just described, though less pronounced. To see these differences, we divide students into two groups, consisting of Blacks and Hispanics on the one hand, and non-Hispanic Whites and students of other races (predominantly Asians) on the other.

Fifty-three percent of Black or Hispanic ninth graders graduate from high school within four years (the rate rises to 58 percent within five years). The four-year graduation rate for other students is substantially higher, at 76 percent (79 percent within five years). Just 32 percent of Black/Hispanic students end up in college within a year of on-time high school graduation, as compared to 50 percent of other students.

Among on-time high school graduates, racial differences in college attendance are fairly small (66 percent of Whites/Asians vs. 60 percent of Blacks/Hispanics), especially compared to the income differences described earlier (72 percent for non-poor vs. 55 percent for poor).



Findings (continued)



The previous analysis used data from all of Michigan's high schools. We now show that there is considerable variation both across and within Michigan districts in the rate at which students move through the educational pipeline. In Figure 4 we display data from the largest districts in Michigan (specifically, those that contain more than one high school), which enroll 85 percent of the state's high school students.⁴

This picture shows the on-time high school graduation rate for each district (dark circles) as well as for each high school (lighter circles). The size of the circles reflects the number of students represented. The high school graduation rate of ninth graders varies considerably across districts, from 50 percent to 90 percent. Even within districts, there is substantial variation across high schools in the rate at which students graduate.

This variation in high school graduation across schools and districts may reflect differences in characteristics of entering students, but it may also reflect differences in the effectiveness of schools and districts in moving similar students along the pipeline. We can try to untangle these two explanations by focusing on similar populations and seeing if the variation is diminished, which we do below, in Figure 5.

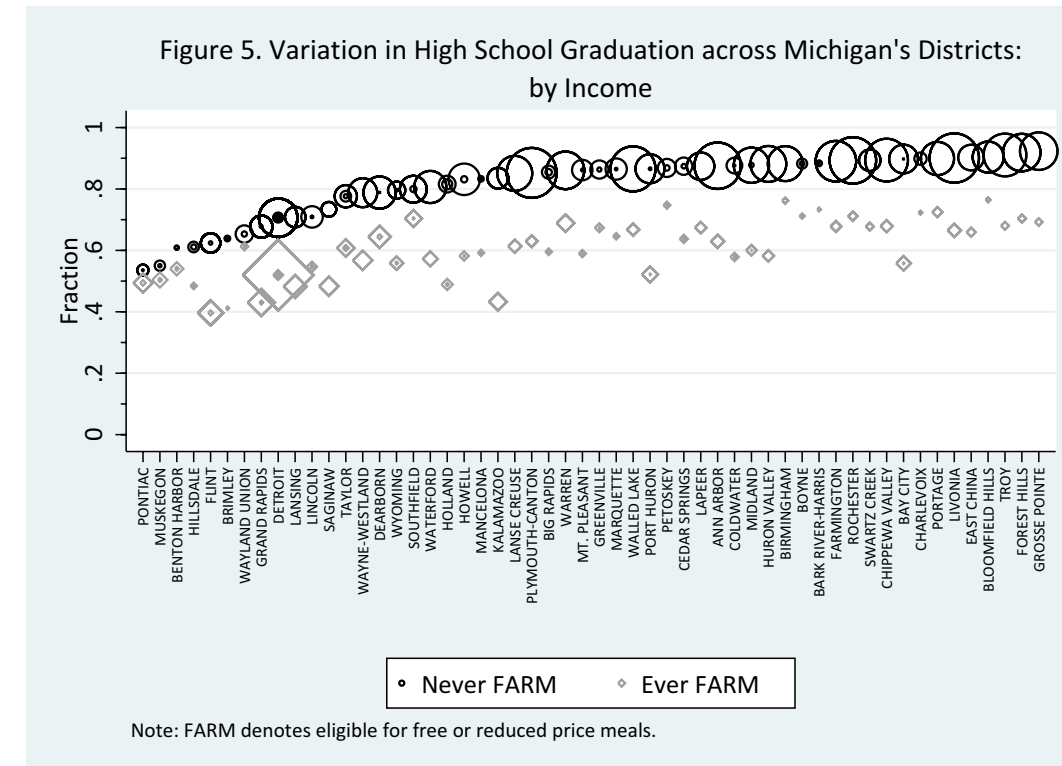
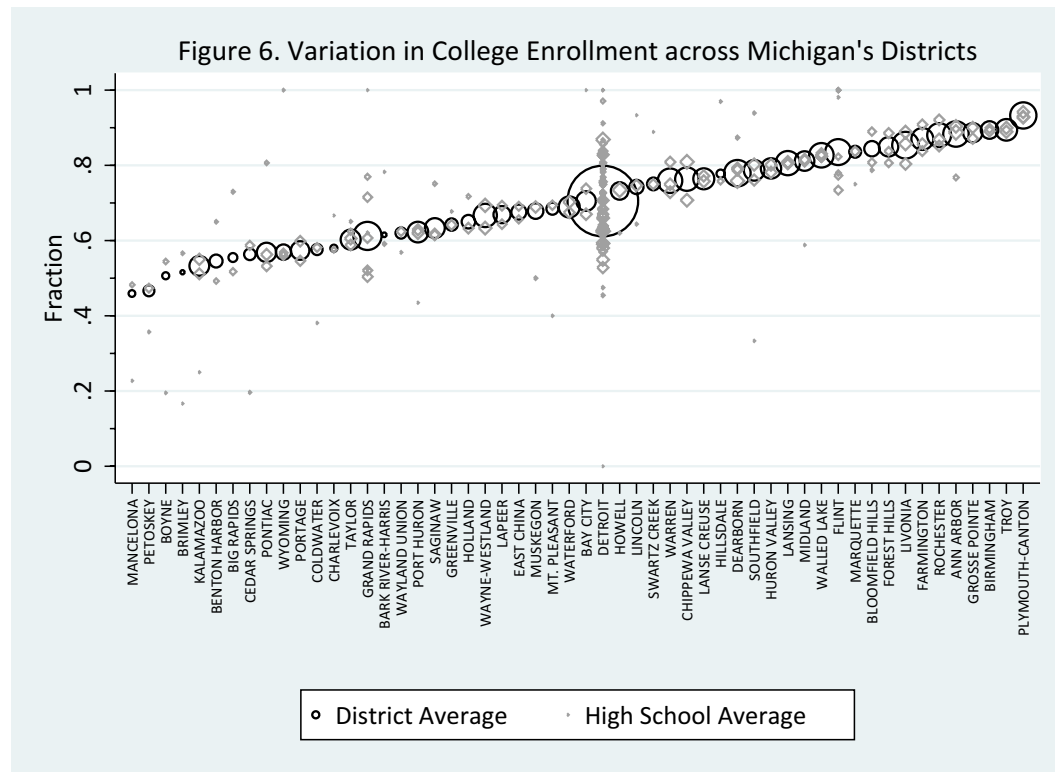


Figure 5 shows the graduation rate separately for students who have ever or never been eligible for subsidized lunch. The districts are sorted by the graduation rate of non-eligible students (circles). As we showed earlier, lunch-eligible students are much less likely to graduate high school within four years (diamonds). But in some districts the graduation rate for these students is 40-50 percent (Flint, Kalamazoo, Grand Rapids) while in others it is closer to 70 percent (Southfield, Dearborn). There is similar variation for non-eligible students, whose four-year graduation rate ranges from less than 60 percent (Pontiac) to around 90 percent (Grosse Pointe).

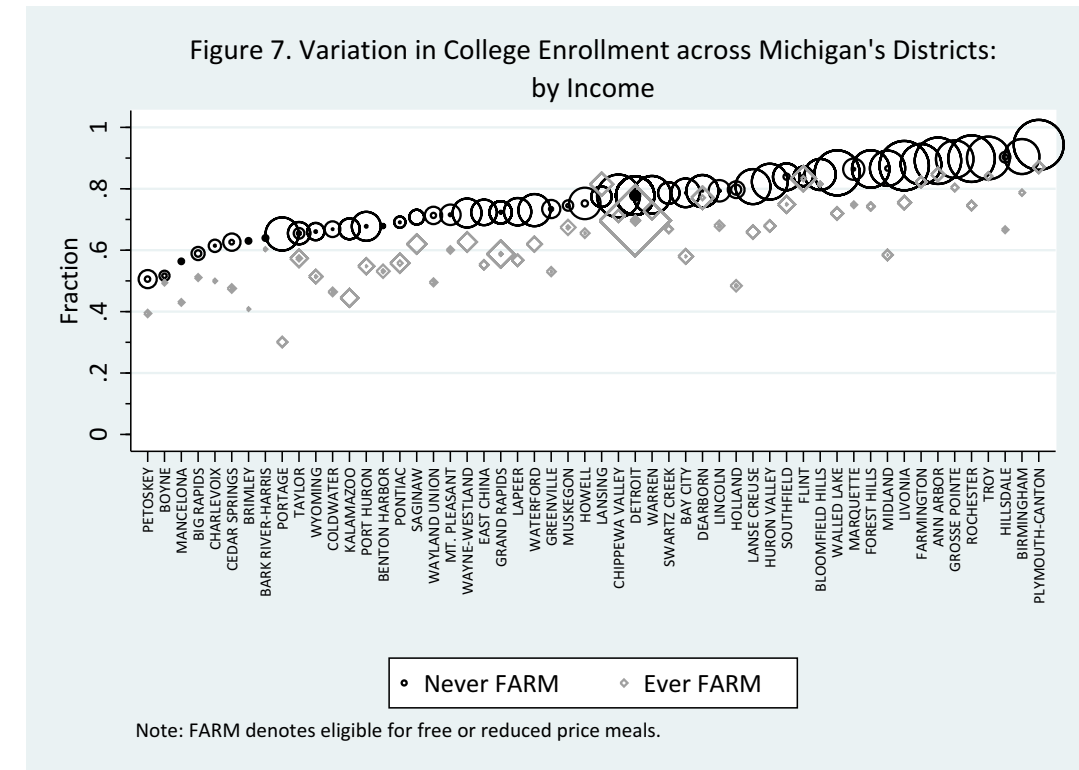
The income gap in high school graduation (distance between circles and diamonds) varies substantially across districts. Statewide, the gap is 18 percentage points (57 percent vs. 75 percent). But the gap ranges from just a few percentage points in some districts (Southfield) to nearly 40 points in others (Port Huron, Kalamazoo). We plan to explore this variation in greater depth in future briefs.



Findings (continued)



Districts also vary substantially in the rate at which their on-time high school graduates attend college (Figure 6). The rate varies from 50 percent in some districts (Kalamazoo) to over 90 percent in others (Troy, Plymouth-Canton). Again, this may reflect variation in either the characteristics of students entering these schools (e.g., family income) or in the effectiveness of these schools in moving graduates on to college.



When we plot the college enrollment statistics separately for lunch-eligible and non-lunch eligible students, we again see substantial variation across districts in the rate at which similar students move along the educational attainment pipeline. The rate at which non-lunch-eligible high school graduates (circles) go on to college varies from 50 percent (Petoskey, Boyne) to nearly 100 percent (Plymouth-Canton). The gap between these students and their less-advantaged classmates is relatively small in some districts, and larger in others. We plan to examine factors that drive such differences in future policy briefs.



Conclusions and Next Steps

These graphs paint a picture of the educational environment in which the Michigan Merit Curriculum was enacted. We see a state in which fewer than half of all ninth graders ever enroll in college, and where large gaps in educational attainment exist between students of different socio-economic backgrounds. Furthermore, we see a state in which differences in outcomes between students of different backgrounds vary quite a bit across different school districts. A key goal of our ongoing research is to identify the characteristics of school districts in Michigan that move a high proportion of low-income students through high school and into postsecondary education.

The MMC set state-wide standards for high school graduation requirements. Our future work will explore whether this more uniform and rigorous set of requirements for all students serves to close gaps in the educational attainment of the socio-demographic groups studied here, as well as raise attainment levels across the board.

¹ For more detailed information about our base analytic sample, please consult the Technical Appendix (a separate document). This document provides means for all of our student outcomes by ninth grade cohort and academic readiness quartile.

² We include students who were first-time ninth graders in spring 2005 to 2008. These students would have been scheduled to graduate from high school in spring 2008 to 2011.

³ We use students' eligibility for subsidized lunches as a proxy for general poverty status. Students whose family is within 130 percent of the national poverty level (\$29,965 for a family of four) are eligible for free school meals. Students from families within 185 percent of the federal poverty level (\$42,643 for a family of four) are eligible to receive reduced-price meals.

⁴ Charter schools are not included in these figures, since each one of them is technically its own district and the graph would be unreadable if each was included as a separate district.



MICHIGAN CONSORTIUM FOR
**EDUCATIONAL
RESEARCH**

A PARTNERSHIP FOR EDUCATION RESEARCH AMONG THE STATE OF MICHIGAN, UNIVERSITY OF MICHIGAN, AND MICHIGAN STATE UNIVERSITY

We thank Steven W. Hemelt and Rachel B. Rosen for being contributing authors of this paper.

We thank the following researchers for their outstanding contributions to these analyses: Monica Bhatt, Quentin Brummet, Paul Burkander, Hassan Enayati, Monica Hernandez, Jonathan Hershaff, Emily House, Joshua Hyman, Tamara Linkow, Elizabeth Quin, Nathaniel Schwartz, and Christopher Zbrozek.

We thank our partners at the Michigan Department of Education (MDE) and Michigan's Center for Educational Performance and Information (CEPI) for providing the data used in these analyses: Thomas Howell, Venessa Keesler, and Joseph Martineau. We are also grateful to these data analysts for answering numerous questions and providing outstanding assistance: Trina Anderson, Rod Bernosky, Melissa Bisson, Laurie Campbell, Oren Christmas, Karen Conroy, Mike House, Carol Jones, and Mike McGroarty.

Finally, we thank Christina Mazuca and Julie Monteiro de Castro for excellent project management.

The research reported here is supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305E100008 to the University of Michigan. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.