

POLICY BRIEF

Who Chooses? Charter and Non-Resident School Enrollment in Michigan

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DISCLAIMER

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Who Chooses?

Charter and Non-Resident School Enrollment in Michigan

By Danielle Sanderson Edwards, Joshua M. Cowen

OVERVIEW

This policy brief examines patterns of public school choice by students in Michigan. Various forms of school choice have existed in this state since 1993, when charter schools (officially called Public School Academies) were first permitted. Under the current law, there are no strict caps on the number of charter schools (as of 2018-2019 there are 377 schools operating statewide, representing nearly 10% of Michigan public schools). Charter schools can be new schools, conversions from other public schools, and virtual schools.¹ Charter authorizers include public universities, community colleges, local school boards, and intermediate school districts (essentially collections of local districts by county). Approximately four out of every five charter schools are run out of contract between one of these authorizers and a charter management company. In 2018-19, 146,736 (or 10%) Michigan public school students attended a charter school.

Meanwhile, another 187,551 students (12%) attended a public school outside of the geographic district in which they live. This “interdistrict choice” is permitted under the Michigan Schools of Choice system, which allows but does not require local education agencies (LEAs, the formal name for districts) to participate.² Under Section 105 of the State School Aid Act, non-resident parents may choose to enroll their children in a participating local district within the same intermediate school district (ISD) as their resident district; under Section 105c, parents may choose to enroll their children within a different intermediate school district altogether if the choice district shares a border with the resident ISD. Each participating district determines specific provisions, including:

caps on non-resident enrollment; which schools and grades are eligible to receive non-residents; whether specific academic programs are available to non-residents; and the timeline for applying for enrollment. In addition to the Schools of Choice program authorized at the state level, districts may establish local cooperative agreements to permit other forms of student transfers between their borders.

KEY FINDINGS INCLUDE:

The patterns we examine in this brief are: the overall rates of school choice participation in Michigan and the geographic breakdown of that participation statewide; differences in the characteristics of students attending charter schools, a non-resident district, or the district in which they live; summary statistics of student achievement on Michigan's M-STEP exam; and the extent to which charter or non-resident students remain in their schools.

- Overall, approximately **22% of Michigan students** attend either a charter school or a school district in which they do not live.
- Charter and non-resident district enrollment occurs across the state, but **charter enrollment is more common in southeast Michigan**, in and around Detroit, while the highest rates of non-resident district enrollment are found in south-central, central, and northern Michigan.
- Charter students are **disproportionately** Black and Economically Disadvantaged; students using Schools of Choice and other local non-resident district choice programs have similar demographics to those attending school in their resident district.
- Outside of Detroit, Black students are especially more likely to use charters when they live in districts where more students are not Black; they are less likely to use non-resident choice in resident districts where more students are also Black.
- White students are more likely to enroll in non-resident districts when their home districts have majority populations of students of color.
- About **60% of students** who attended a charter or non-resident school in kindergarten or 1st grade, attended a charter or non-resident district school for the next four years of elementary school as well. Of those who leave a charter or non-resident district, most return to their resident districts for school.
- Students who transfer into a non-resident district and, especially, students who transfer into charters had lower average M-STEP scores than those who remained in their resident districts prior to transferring. This is especially true in districts with high average M-STEP scores.

DATA AND DEFINITIONS:

DATA:

This brief uses student level enrollment and achievement data from the 2012-13 to the 2016-17 school years for Michigan public school students provided by the Center of Educational Performance Information (CEPI) and the Michigan Department of Education (MDE).³ The main sample used for the **analyses includes 7,349,598 student-year observations** representing **2,083,456 unique students**.⁴ For analyses that use a single year of data, observations come from the 2016-17 school year.

DEFINITIONS:

Resident - Student attending any school in his or her district of residence. A student's resident district is determined by his or her geocoded address.⁵

Non-Resident - Student attending any LEA school outside of his or her resident district. This includes but is not limited to students participating in Michigan's Schools of Choice Program.

Charter Student - Student attending any Public School Academy (PSA) regardless of its location.

Economically Disadvantaged - A student is considered Economically Disadvantaged by CEPI and MDE if at least one of the following conditions is met: the student receives free or reduced price lunch; he or she lives in a household receiving food (SNAP) or cash assistance (TANF); he or she is either a homeless, migrant, or in foster care.

Student with Disability (SWD) - student is eligible to receive special education services.

ANALYSIS:

SCHOOL CHOICE ENROLLMENT DEMOGRAPHICS

Figure 1 reports annual rates of enrollment in charters or non-resident districts from 2012-13 through 2016-17. In the most recent year of data, about 13% of students attended a charter school, and 9% attended school in a non-resident district either through Schools of Choice or a local enrollment agreement.

Among these students, those who attend a non-resident district have largely similar demographic characteristics to those who remain in their resident districts. However, as Figure 2 indicates, those attending charter schools are disproportionately Black

Figure 1: Student Enrollment in Resident and Non-Resident Districts 2012-2016

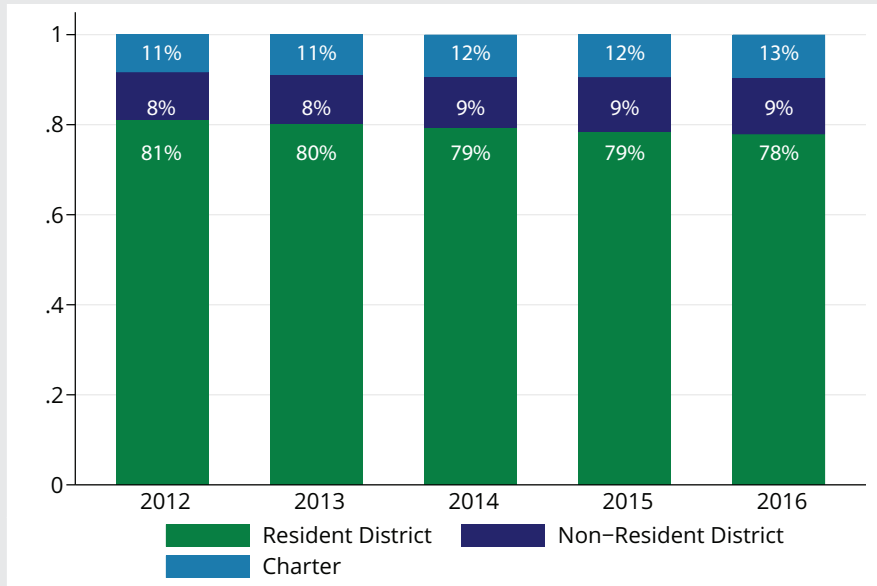
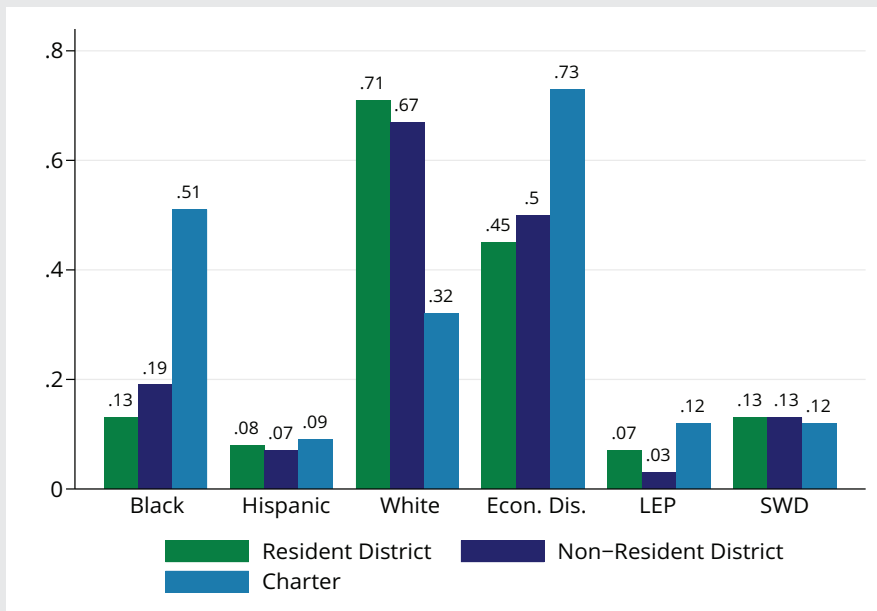


Figure 2: Student Characteristics by Enrollment Type



Note: The sample is statewide student enrollment from the 2016-17 school year. Bars indicate the share of students with the characteristics of the students attending that particular district type. For example, 13% of resident students are Black.

and Economically Disadvantaged: more than 50% of students attending a charter school are Black, and nearly 3 out of every 4 students attending charters are Economically Disadvantaged. Charter schools also have higher rates of students with limited English proficiency (LEP), while the share of LEP students in non-resident district is less than half the share of LEP students in their home districts.

STATEWIDE DISTRIBUTION OF STUDENTS USING SCHOOL CHOICE

Figures 3 and 4 depict the geographic dispersion of charter and non-resident district students, respectively, from districts across the state. On these maps, the darker the district is shaded, the greater the proportion of students who live in that district are attending either a charter (Figure 3) or a non-resident district through Schools of Choice or similar programs (Figure 4). As these figures indicate, students in districts across Michigan use both forms of choice. However, districts in the Detroit area are especially likely to see their students leave for charters, while some of the highest rates of exit for non-resident districts are found in resident districts in southern Michigan, mid-Michigan, and the northern and western parts of the state. The latter pattern is underscored by Figure 5, which shows the share of students attending school in each district who are enrolling there as non-resident students. As Figure 5 shows, districts in the south-central and northwestern parts of the state have the highest rates of non-resident students attending school within them.

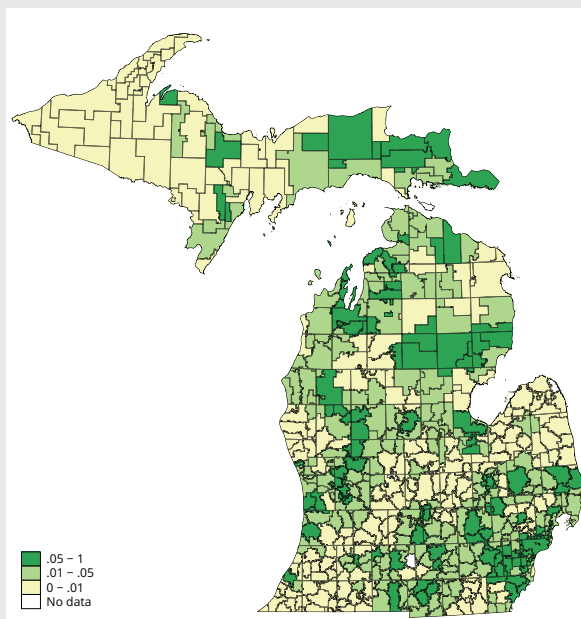


Figure 3: Proportion of Students Attending Charter Schools by Resident District

Note: Proportions created by dividing the number of charter students living within an resident district by the number of total residents.

Figure 4: Proportion of Students Attending a School Outside Resident District

Note: Proportions created by dividing the number of non-resident students living within a resident district by the number of total residents (including charter students).

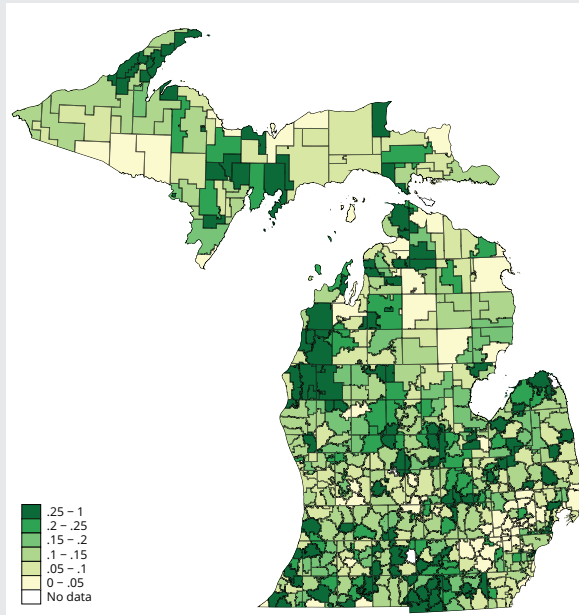
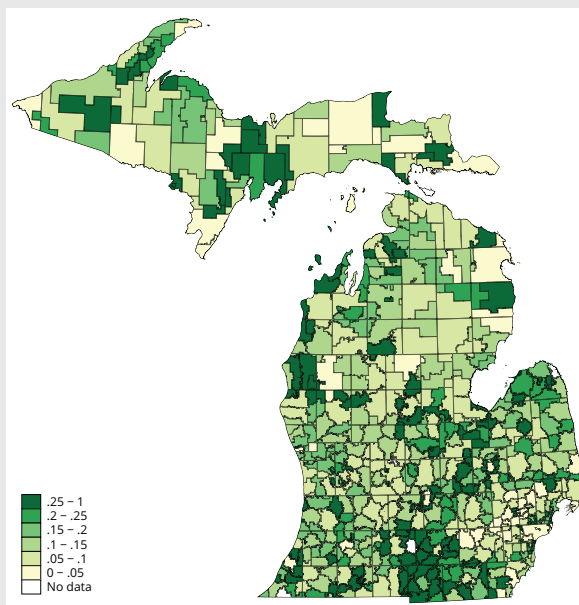


Figure 5: Proportion Non-Resident District Enrollment by District

Note: Proportions created by dividing the number of non-resident students attending a district by the district's total enrollment. This map excludes charter school students.



NET ENROLLMENT CHANGES DUE TO SCHOOL CHOICE

The patterns of school choice shown in Figures 3 through 5 imply that some resident districts lose enrollment due to students exiting from them—whether to attend another district beyond where they live, or to attend a charter school—and some districts gain enrollment due to non-resident students traveling to attend school there.

Figure 6 shows which districts gain students and which lose students due to charter enrollment and non-resident choice. Redder districts have greater enrollment loss, while greener districts gain students. Figure 7 shows a similar distribution, except focuses on net gains and losses due to non-resident choice only. In both Figures 6 and 7, the prevalence of lightly shaded orange, yellow or green districts indicates that for districts in Michigan, charter or non-resident enrollment only modestly affects enrollment. There are, however, a substantial number of districts that realize very large enrollment increases or enrollment declines.

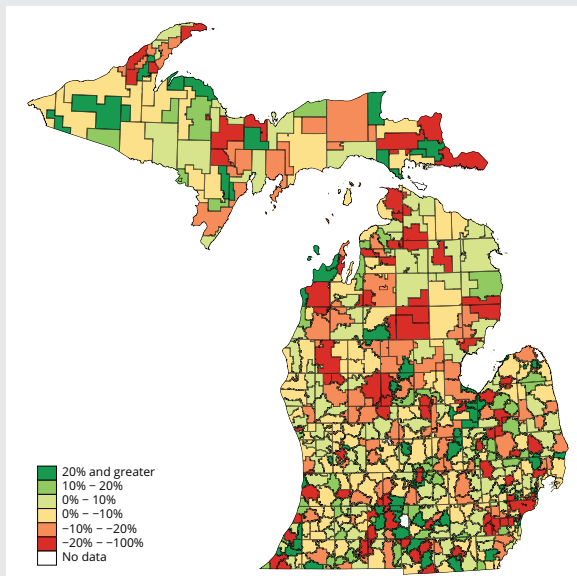


Figure 6: Net Gains and Losses in Overall Enrollment Due to Choice

Note: Choice includes enrollment in charter schools as well as interdistrict choice. Gains and losses are created by subtracting the number of district residents from the total number of students attending the district, then dividing that number by the total number of district residents.

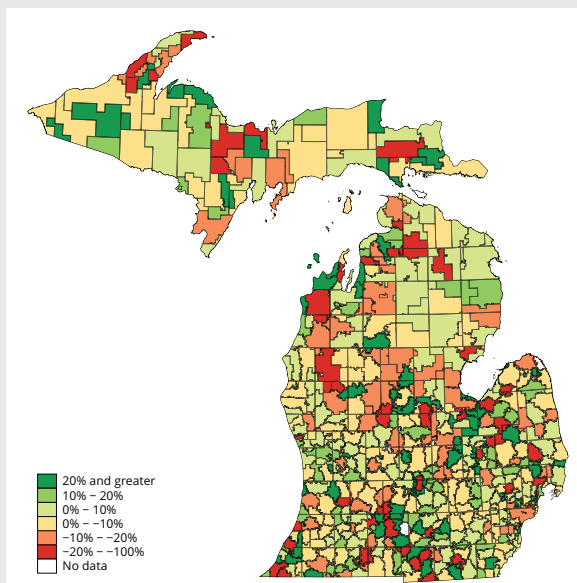


Figure 7: Net Gains and Losses in Enrollment Due to Non-Resident Choice

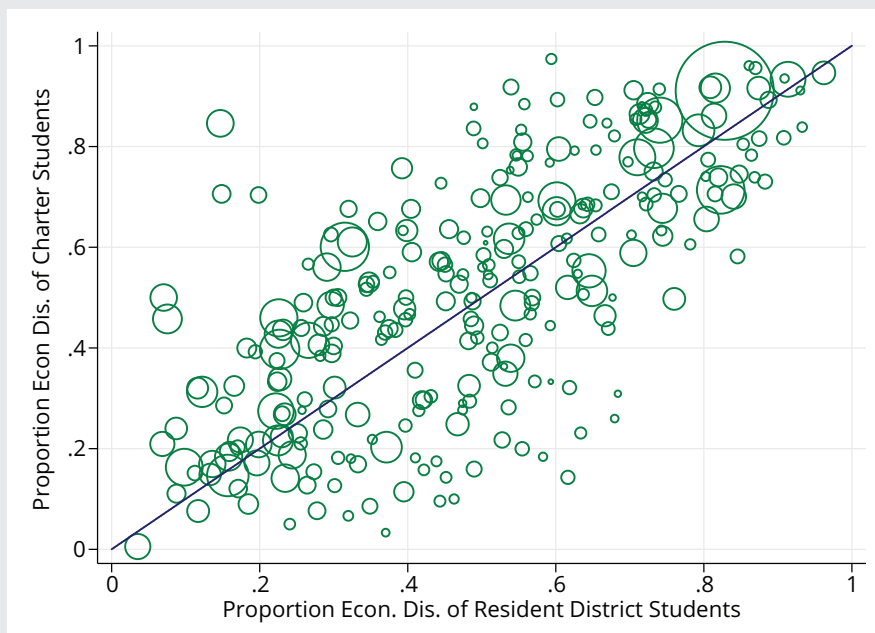
Note: Gains and losses are created by subtracting the number of non-district residents attending the district from the number of district residents attending a school in another district divided by the total number of district residents.

PEER DIFFERENCES WITHIN AND BETWEEN DISTRICTS FOR STUDENTS WHO CHOOSE

Figure 2 provides statewide differences in student characteristics between those who use school choice and those who do not, and Figures 3 through 7 show differences between districts in the overall distribution of enrollment in these programs. However, these figures collectively provide no information on how students differ within their resident districts between those who use school choice and those who remain in their residential school. Figures 8 through 13 provide this information for students based on whether they are Economically Disadvantaged or whether they are White or African American students. We focus on these two sets of student characteristics in this brief to consider the possibility that school choice programs in Michigan are related to segregation on either race or income.

Figure 8 shows how charter school students with the state’s Economically Disadvantaged indicator differ from those in their resident districts. The horizontal axis represents the proportion of students attending school in their resident district

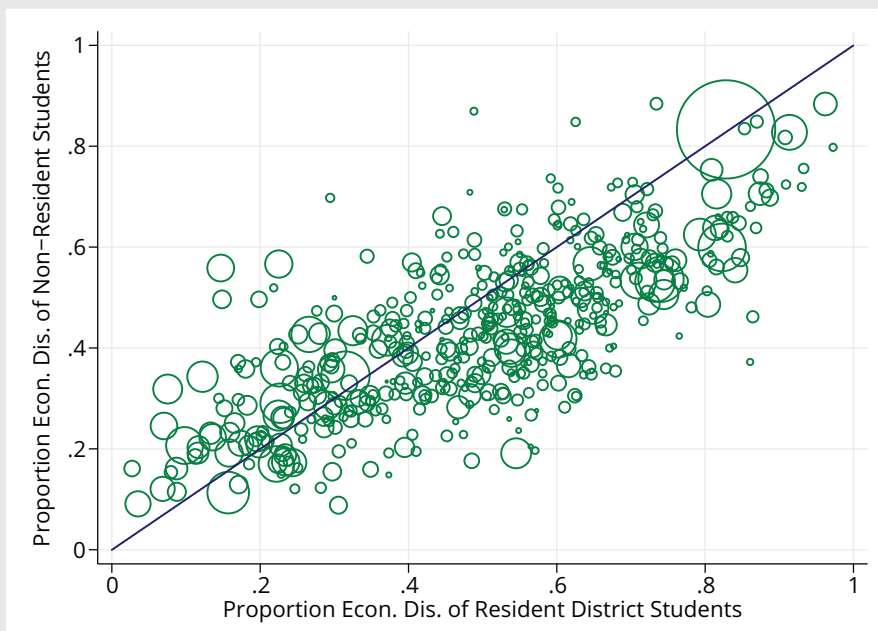
Figure 8: Differences in Proportion Economically Disadvantaged Students in Charter and Resident District Schools by Resident District



Note: Each circle represents one of 279 resident districts with at least 20 resident students and at least 20 residents attending charter schools. The size of the circles are proportional to the number of students that reside within a district's boundaries. Circles above the 45 degree line represent districts with a higher proportion of economically disadvantaged residents attending charters than attending resident district schools.

who are Economically Disadvantaged, while the vertical axis shows the proportion of charter students from that resident district who are Economically Disadvantaged. The size of each circle corresponds to total number of students residing within the district. If a greater share of charter students from a given district are Economically Disadvantaged than the share of students in that district who remain in their resident schools, that district is plotted above the blue line on the graph. Conversely, if students who remain in the resident district are more likely to be Economically Disadvantaged than those who leave that district to attend charters, that district is plotted below the blue line. In Figure 8, the relatively even distribution of districts on either side of the red line indicates that, while some charters serve a disproportionately high amount of Economically Disadvantaged students relative to the resident district that sends them, other charters serve comparably fewer Economically Disadvantaged students than resident districts, and charters across Michigan are serving these students at approximately similar rates to the sending resident districts.

Figure 9: Differences in Proportion Economically Disadvantaged Students in Non-Resident and Resident District Schools by Resident District

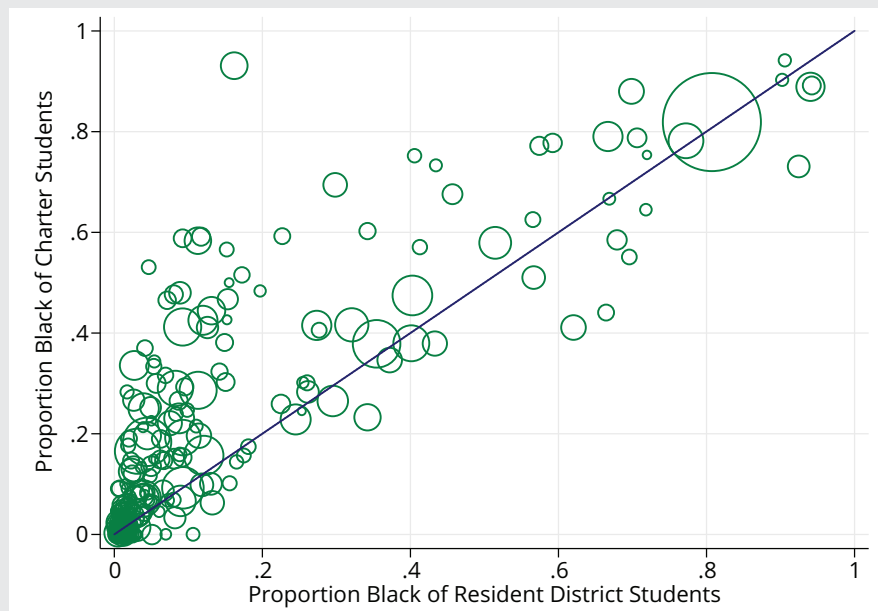


Note: Each circle represents one of 501 resident districts with at least 20 resident students and at least 20 residents attending school in a non-resident district. The size of the circles are proportional to the number of students that reside within a district's boundaries. Circles above the 45 degree line represent districts with a higher proportion of economically disadvantaged residents attending non-resident schools than attending resident district schools.

Figure 9 tells a different story. In Figure 9, the vertical axis is changed to indicate students leaving their resident district to attend a non-resident district. Here, the modest bunching of circles below the blue line indicates that across most Michigan districts, students who remain in their resident district are somewhat more likely to be Economically Disadvantaged than those who leave those districts for a non-resident choice. Moreover, because this bunching below the blue line is tilted toward the right side of the graph, where districts with especially high rates (above 40%) of Economically Disadvantaged students are plotted, this indicates that students who are not Economically Disadvantaged are especially more likely to leave their resident districts to attend school elsewhere when their home districts are particularly poor.

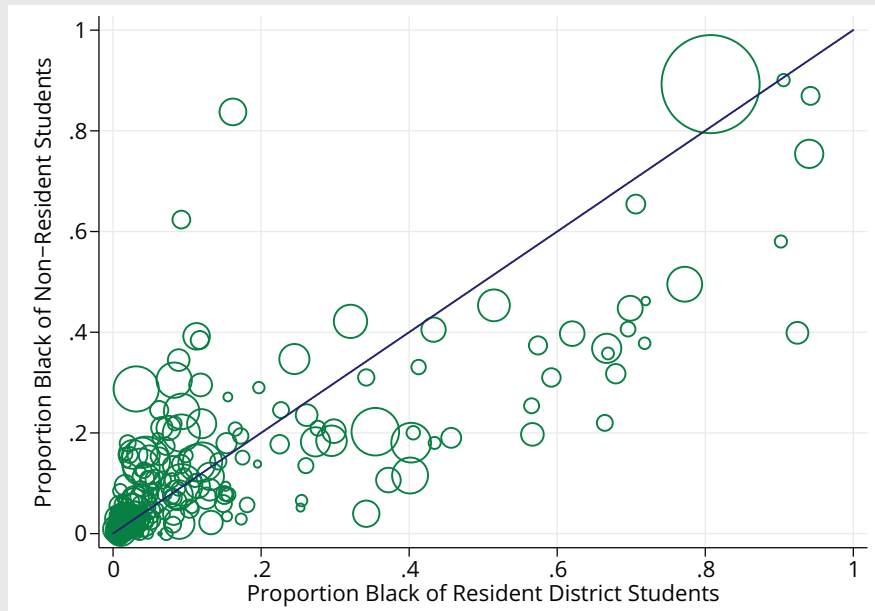
Figures 10 and 11 depict the distribution of Black students using charter schools and non-resident interdistrict choice. Most districts in Michigan have only small numbers of Black students enrolled, but as the horizontal access of both figures shows, there are some districts (those far to the right on the horizontal axis in both figures) that predominantly enroll Black students. Students in Detroit, for example, represented by the largest circle in the figures, are more than 80% African American. We have

Figure 10: Differences in Proportion Black Students in Charter and Resident District Schools by Resident District



Note: Each circle represents one of 276 resident districts with at least 20 resident students, at least 20 residents enrolled in charter schools and at least one Black student. The size of the circles are proportional to the number of students that reside within a district's boundaries. Circles above the 45 degree line represent districts with a higher proportion of Black residents attending charters than attending resident district schools.

Figure 11: Differences in Proportion Black Students in Non-Resident and Resident District Schools by Resident District

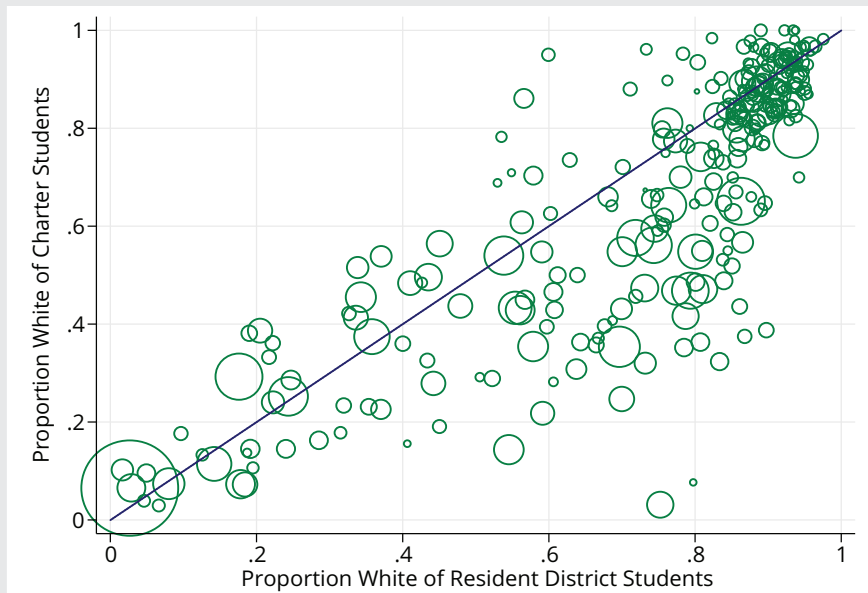


Note: Each circle represents one of 485 resident districts with at least 20 resident students, at least 20 residents attending school in a non-resident district, and at least one Black student. The size of the circles are proportional to the number of students that reside within a district's boundaries. Circles above the 45 degree line represent districts with a higher proportion of Black residents attending non-resident schools than attending resident district schools.

already shown in Figure 2 that charter schools disproportionately enroll Black students, but as the large clustering of districts above the blue line and to the left hand side in Figure 10 show, the high rate of Black student enrollment in Michigan charters is especially stark in districts where most students who live there are not Black. On the other hand, as Figure 11 shows, in districts where African American residents are the majority, they are less likely to exit their resident districts for non-resident district schools.

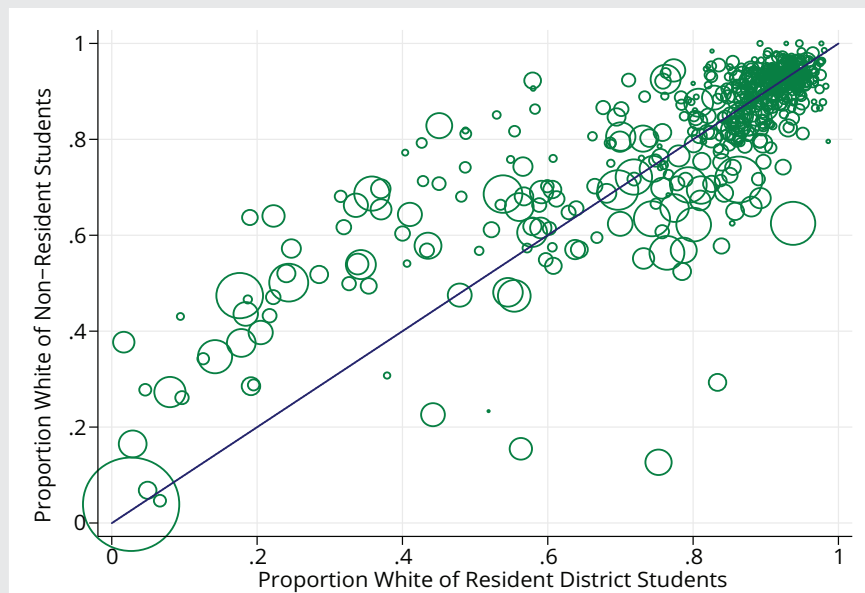
There is also evidence that White student sorting across school types is related to the racial composition of their home district. In Figure 12, the large number of districts clustered below the blue line on the right-hand side of the graph indicates that students in predominantly White residential districts are less likely to attend charter schools. Similarly, as Figure 13 indicates, where White students live in districts with fewer other White students—and especially where White students are a minority in the district—White students are more likely to attend school in a non-resident district nearby.

Figure 12: Differences in Proportion White Students in Charter and Resident District Schools by Resident District



Note: Each circle represents one of 279 resident districts with at least 20 resident students and at least 20 residents attending charter schools. The size of the circles are proportional to the number of students that reside within a district's boundaries. Circles above the 45 degree line represent districts with a higher proportion of White residents attending charters than attending resident district schools.

Figure 13: Differences in Proportion White Students in Non-Resident and Resident District Schools by Resident District



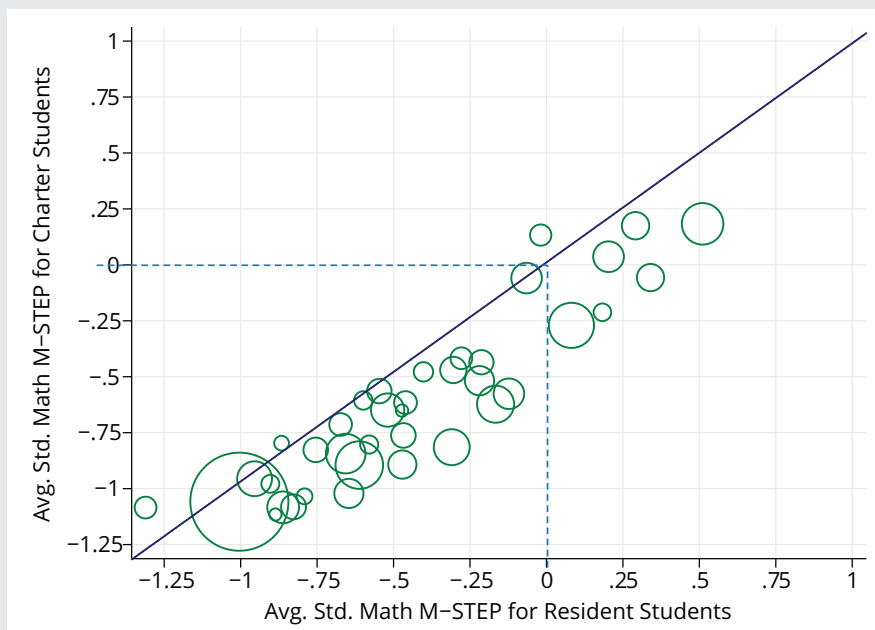
Note: Each circle represents one of 501 resident districts with at least 20 resident students and at least 20 residents attending school in a non-resident district. The size of the circles are proportional to the number of students that reside within a district's boundaries. Circles above the 45 degree line represent districts with a higher proportion of White residents attending non-resident schools than attending resident district schools.

PRIOR M-STEP DIFFERENCES IN CHARTER AND NON-RESIDENT DISTRICT TRANSFER

Next we report charter and non-resident enrollment patterns for students taking Michigan’s M-STEP exam. We note from the outset that it is not possible in this particular analysis to consider the effect that attending a charter or non-resident district has on future M-STEP performance because families may make a school choice for reasons that are also related to student achievement. Researchers typically solve such a confounding problem by focusing on cases where random assignment to schools—such as via a lottery—or techniques mimicking random assignment are possible. In the absence of such assignment mechanisms here,⁶ we focus on a different question: how students who transfer into charter or non-resident schools are scoring on M-STEP prior to transferring.

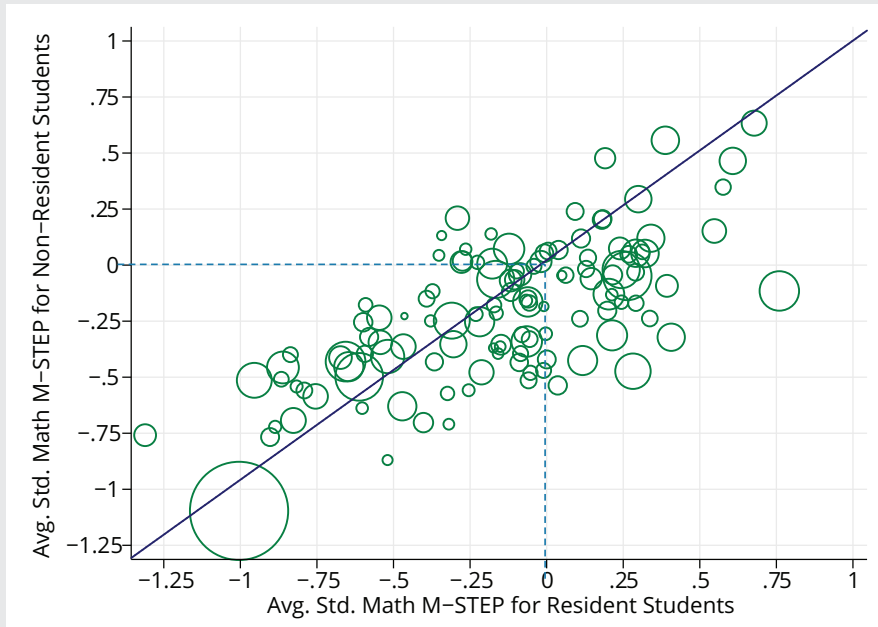
Figures 14 and 15 depict M-STEP averages for students in the last year prior to transferring into a choice school. These figures are interpretable in a manner similar to those above, except that instead of proportions of students in each resident

Figure 14: Differences in Average Standardized Math M-STEP Achievement in Charter and Resident District Schools by Resident District



Note: Each circle represents one of 80 resident districts with at least 20 resident students with valid Math M-STEP scores and at least 20 of those students enrolled in charter schools. The size of the circles are proportional to the number of students with valid M-STEP math scores that reside within a district’s boundaries. Circles above the 45 degree line represent districts in which residents in charter schools have higher average math M-STEP scores than residents who attend school in a resident district school.

Figure 15: Differences in Average Standardized Math M-STEP Achievement in Non-Resident and Resident District Schools by Resident District



Note: Each circle represents one of 133 resident districts with at least 20 resident students with valid Math M-STEP scores and at least 20 of those students enrolled in non-resident district schools. The size of the circles are proportional to the number of students with valid M-STEP math scores that reside within a district's boundaries. Circles above the 45 degree line represent districts in which residents attending non-resident schools have higher average math M-STEP scores than residents who attend school in a resident district school.

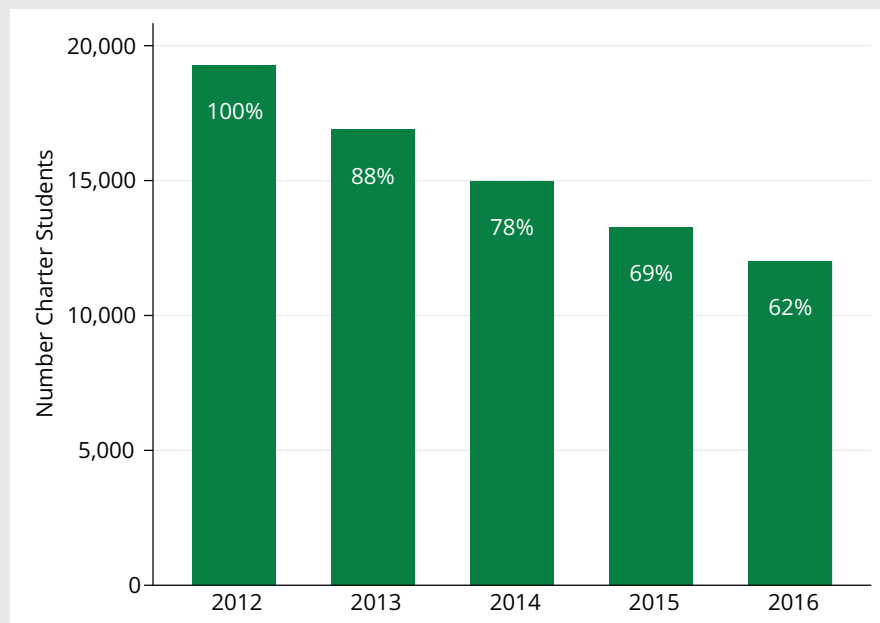
district who are Black or low-income, the axes of the graphs report standardized Mathematics M-STEP scores averaged to the resident district level.⁷ Districts are once again represented by circles, with the larger circles representing districts with higher numbers of students who live within them. In Figure 14, we show differences in average M-STEP scores for resident students who transfer to a charter school compared to students who remain in each district. In districts below the blue line, students who remain in the district have, on average, higher M-STEP scores than those who stay. Districts above the blue line lose higher scoring students to charter schools. However, the substantial clustering of districts below the blue line in Figure 14 indicates that in most Michigan districts, students who transfer into charter schools score lower on pre-transfer M-STEP exams than those who remain. In addition, the fact that most districts are clustered not only below the blue line but also to the far left and bottom of the graph indicates that most charter transfers come from districts whose students score lower than statewide averages. Students who move to Michigan charter schools tend to not only score lower on M-STEP than their counterparts who do not, they also live in districts with lower average M-STEP scores in the first place.

Figure 15 shows how students who transfer into a non-resident district compare on M-STEP to those who remain in the resident districts. The pattern in Figure 15 is less stark than the charter transfer patterns in Figure 14, but the overall result is the same: students who transfer into non-resident districts tend to be scoring lower on M-STEP than those who remain in the district, particularly true in districts with relatively high M-STEP scores. On the other hand, the small cluster of districts above the blue line on the far left part of the graph (left of -0.5) indicates that in districts with relatively low M-STEP scores, the students who transfer into non-resident districts are slightly higher performing.

DURATION IN CHARTER OR NON-RESIDENT SCHOOLS

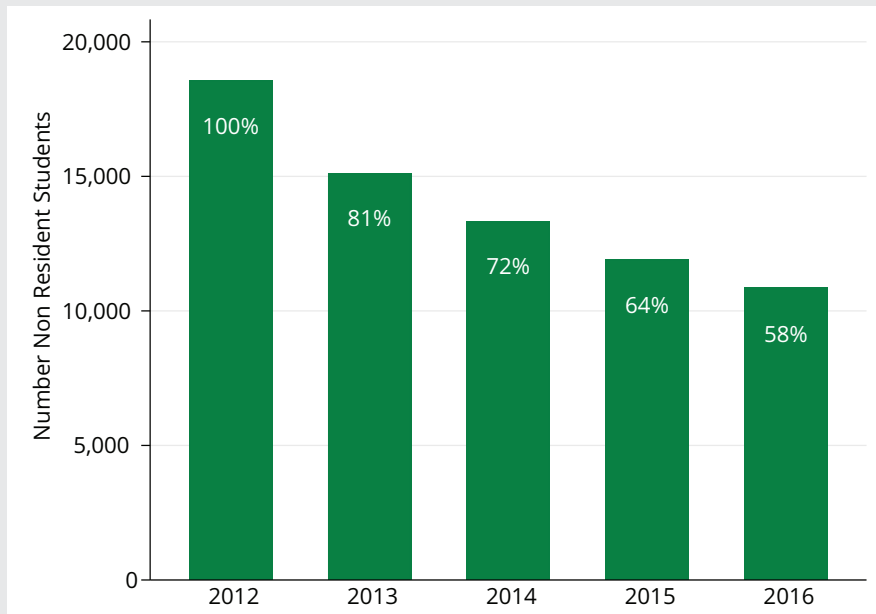
Finally, we report the extent to which students in a charter school or non-resident district remain in those schools over time. For illustrative purposes, we focus on students who begin in a charter school or non-resident district in Kindergarten or 1st grade, and calculate how many remain in each year through 4th or 5th grade.⁸ Figures 16 and 17 show that between 6% and 19% of students who began in a charter or non-

Figure 16: Number of 2012-13 Charter Students Remaining in Charter Schools by Year



Note: Sample includes students who were in Kindergarten or 1st grade and attending a charter school during the 2012-13 school year and enrolled in a Michigan public school during the 2016-17 school year. A student remains as a charter student regardless of whether he or she switches to another charter school. Once a student leaves the charter sector, he or she leaves our analysis.

Figure 17: Number of 2012-13 Non-Resident Students Remaining in Non-Resident LEA Schools by Year



Note: Sample includes students who were in Kindergarten or 1st grade and attending a non-resident school during the 2012-13 school year and enrolled in a Michigan public school during the 2016-17 school year. A student remains as a non-resident student regardless of whether he or she switches to another non-resident school. Once a student is no longer attending a non-resident school, he or she leaves our analysis.

resident school in kindergarten transfer out each year, with more students leaving earlier than later. Roughly three out of every five students (approximately 60%) who started kindergarten or 1st grade remain in a charter or non-resident district by 4th or 5th grade. The students who leave either option tend to enroll or re-enroll in their resident districts. Across all grades, 16% of charter students transfer out of the charter sector by the next school year and 14% of non-resident students no longer attend a non-resident district next school year.

SUMMARY

When examining School of Choice in Michigan, we found that students use charter and non-resident choice programs across the state, though the use of charter schools is particularly common in southeast Michigan and in other urban areas, while non-resident enrollment is also heavy in some of the state’s more rural areas. Charter students are disproportionately Black and Economically Disadvantaged, but who uses either form of school choice option depends in part on where students actually reside. There is

some evidence that students might sort locally at least in part on the basis of income or, especially, race: higher income students are more likely to leave their resident districts for a non-resident school when their resident districts are lower income; both Black and White students tend to remain in their resident districts if those resident districts have higher numbers of students of the same race. We caution that these patterns—while stark for race—do not by themselves support a conclusion that school choice in Michigan causes segregation. For such a conclusion, we would have to analyze a counterfactual scenario in which we observed rates of segregation in the absence of any school choice, which we are unable to do with our current data. Finally, we note that students transferring into charter or non-resident choice schools tend to have lower scores on M-STEP prior to transfer, though this does not imply that school choice causes lower (or higher) M-STEP scores.

These limitations aside, this brief does provide an important summary view of school choice use in Michigan. Different students attend charter schools or non-resident districts depending on where in Michigan they live. Many students stay in choice schools for many years, but a significant number—about 12% each year, leave to enroll or return to the districts in which they live. Thus a major conclusion from this brief is that Michigan’s system of school choice is less one statewide system, but a set of highly local systems of choice dependent on the context of who students are, and where they live.

REFERENCES

¹ See <http://www.publiccharters.org/get-the-facts/law-database/states/MI/> for a detailed summary of Michigan's charter school authorization laws. See http://www.michigan.gov/documents/PSAQA_54517_7.pdf for an additional overview.

² Michigan State School Aid Act [MCL 388.1705; 388.1705c; Sections 105, 105c]; Michigan Department of Education (2013; http://mi.gov/documents/mde/choice1_279579_7.pdf)

³ Enrollment data include the students' demographic characteristics, school attended, and geocoded address. Standardized scores on the M-STEP Math and ELA exams for students in grades 3-8 are used as measures of achievement.

⁴ The sample is restricted to K-12 students attending an LEA or PSA school offering general education. Additionally, students attending full time virtual schools, juvenile detention facilities, treatment centers, and boarding schools are excluded. Also, students who do not have an LEA school offering their grade within their residential district are excluded (students living in all charter districts; high school students living in the boundaries of K-8 school districts). Finally, students who live in census blocks outside of any district boundaries are excluded. If a student has multiple enrollments, the most primary enrollment, determined by CEPI and MDE is used. If a student has multiple residences, the residence used for analysis is chosen at random.

⁵ Geocoded addresses are the population weighted centroids of the census blocks of the students' residences. A student's district of residence is the district which the population weighted centroid of the census block of the student's residence is located. District boundaries are the boundaries at the time of the 2010 census.

⁶ In Michigan, where there are more charter or non-resident district applicants than seats available, lottery assignment is required. We do not however have lottery information at present in the data available.

⁷ Researchers typically convert scale scores on exams like M-STEP to standardized scores that allow straightforward interpretation relative to a average of zero. Scores higher than zero are higher than averages for each grade or year; scores below zero are lower than average. We focus on math scores for illustrative purposes. The patterns we report here are similar for M-STEP ELA scores.

⁸ We focus on elementary school students because students typically transfer schools after 5th and 8th grade regardless of which choice option they exercise.



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