



CHRONIC ABSENTEEISM AND STUDENT ATTENDANCE





AUTHORS

Sarah Winchell Lenhoff

Ben Pogodzinski

Jeremy Singer

Walter Cook

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RESEARCH NOTE

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WE WANT TO HEAR FROM YOU

This report provides an overview of student exit, mobility, and absenteeism in Detroit. Our future reports will go deeper into these issues to explore questions that community members need answered to contribute to educational improvement in Detroit. We will provide our interpretation of this research, based on data, studies from other cities, and the historical and contemporary Detroit context. But we are not the only experts. Detroit students, parents, educators, and advocates are in the best position to help us understand what our findings mean and how to act on them in policy and practice. To that end, we want to hear from you. Please go to <http://tinyurl.com/WSU-education-research-survey> to give us your feedback.

REFERENCE FOR THIS REPORT

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Research has shown that chronic absenteeism, or missing 10% or more days of school, is associated with lower student academic achievement and graduation rates at the student level (Allensworth & Easton, 2007; Gershenson, Jackowitz, & Brannegan, 2017; Gottfried, 2014; London, Sanchez, & Castrechini, 2016; Romero & Lee, 2007), and chronic absenteeism disrupts the learning environment at the classroom level impacting the outcomes of students who are not chronically absent (Balfanz & Byrnes, 2013; Epstein & Sheldon, 2002; Foy, 2005; Gottfried, 2014; Hartman, 2002). Furthermore, school systems risk losing funding when daily attendance drops below a specific level. Reducing chronic absenteeism is paramount not only in order improve educational and life outcomes for students, but because it is now part of the State accountability system in compliance with the federal Every Student Succeeds Act. Therefore, schools that fail to effectively address chronic absenteeism face possible State interventions.

We conceptualize the predictors of chronic absenteeism as encompassing an intersection between student-, school-, and community-level factors. In addition to structural issues related to family poverty (e.g., access to stable housing or transportation), student-level factors such as family structure (e.g., single family homes), parental engagement in a student's academic life, and cognitive ability and social development have been found to be associated with chronic absenteeism (Alexander, Entwisle, & Horsey, 1997; Bimler & Kirkland, 2001; Catsambis & Beveridge, 2001; Corville-Smith, Ryan, Adams, & Dalicandro, 1998; Dahl, 2016; Jeynes, 2003; Reschly & Christenson, 2006; Romero & Lee, 2008; Sheldon, 2007). School-level factors such as the effectiveness of teachers and leaders can directly influence student attendance (Bryk, Sebring, Allensworth, Easton, & Luppescu, 2010; Gershenson, 2016), while other factors can mediate student- or environmental-level factors, such as providing school-based transportation (Gottfried, 2017) or school-based health services (Tinkelman & Schwartz, 2004). Community or environmental factors contribute to chronic absenteeism primarily through their association with student- and school-level factors, and often relate to public safety, public transportation, health care, and other factors associated with poverty (e.g., housing) (Bell, Rosen, & Dynlacht, 1994; Epstein & Sheldon, 2002).



METHODOLOGY

Leveraging our data set which contains student-level administrative data from the State of Michigan, combined with publicly available data regarding community characteristics, we sought to describe the extent and distribution of student chronic absence across schools in the City of Detroit during the 2017-18 school year. Through t-tests and nonparametric tests of differences in means, we first sought to identify variation in student chronic absence across various student and school classifications. Given the hierarchical nature of the data (students nested within schools), we then estimated a series of multi-level logistic regressions to further identify these associations while controlling for other variables. The first model that we estimated included all students (K-12) enrolled in any school in Detroit (charter or DPSCD) during the 2017-18 school year. Because the second model included an indicator for students' prior year chronic absence, it only includes students who were enrolled in a Detroit school during 2016-17 and 2017-18. Our final model included the school-level average math achievement z-score, thus reducing the sample to only include students and schools that took the M-STEP/MME during the 2017-18 school year.

Figure 1: Chronic Absenteeism in Metro Detroit, 2010-11 to 2017-18

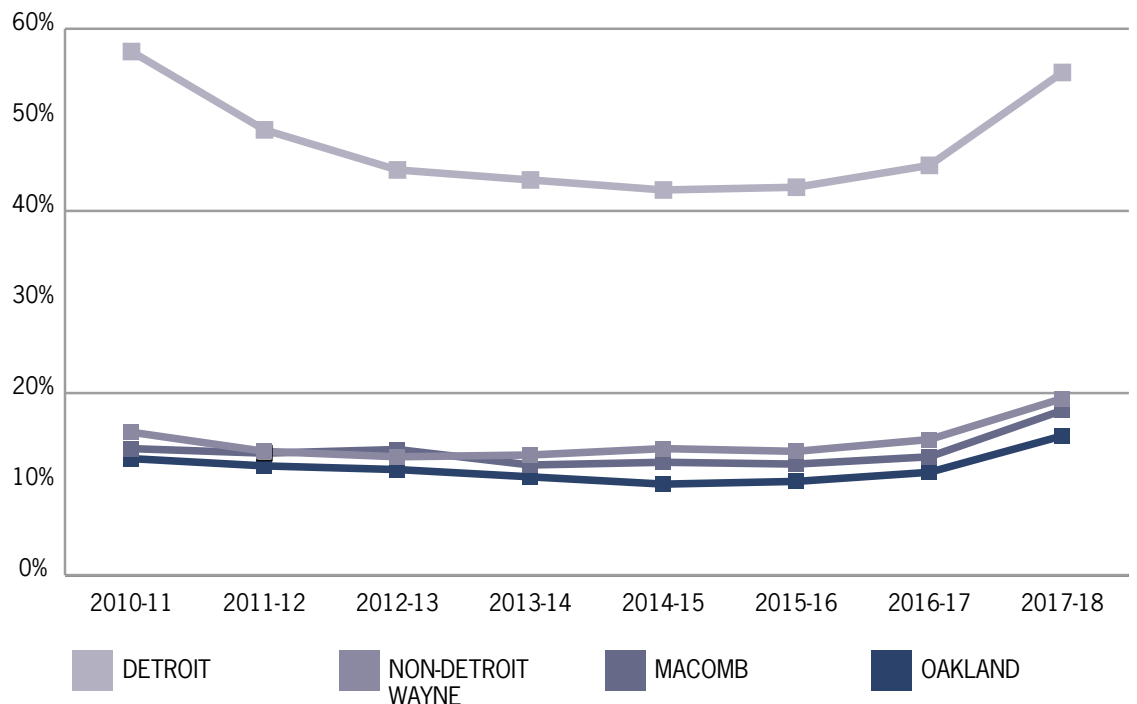
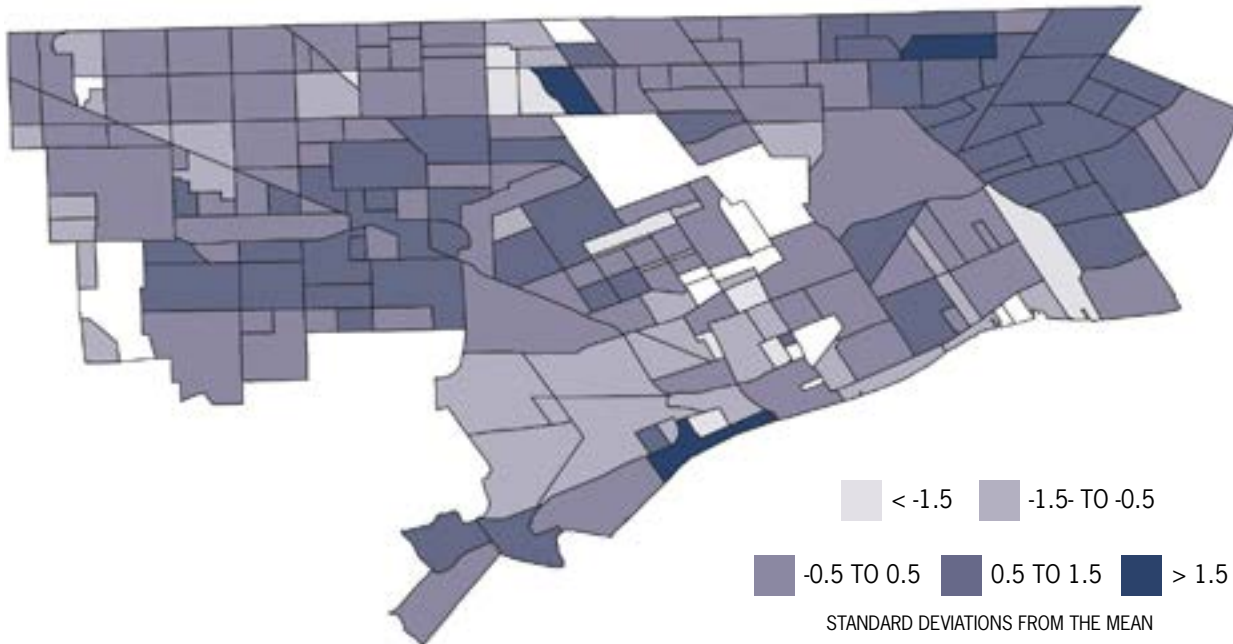




Figure 2: Percentage of Chronically Absent Students by Neighborhood



CHRONIC ABSENTEEISM IN DETROIT

The chronic absence rates across schools in Detroit are some of the highest in the country (Office of Civil Rights, 2016), contributing to poor academic outcomes and disrupted learning environments across schools in the city. Over 40% of students in Detroit schools were classified as chronically absent in each of the eight years of our analysis, and in 2017-18 just over 55% of Detroit school students were chronically absent. Additionally, the chronic absence rate for students in Detroit was nearly 30 percentage points higher than for suburban school students.

Similar to student mobility rates within Detroit, chronic absence was more prevalent in certain sections of the city. For example, the neighborhoods of Pulaski and Mount Olivet in the northeast part of the city had a combined student population of 1,054, and approximately 67% of those students were chronically absent in 2017-18. Conversely, in the Southwest Detroit neighborhood of Springwells, 39% of the nearly 3,000 students were chronically absent.

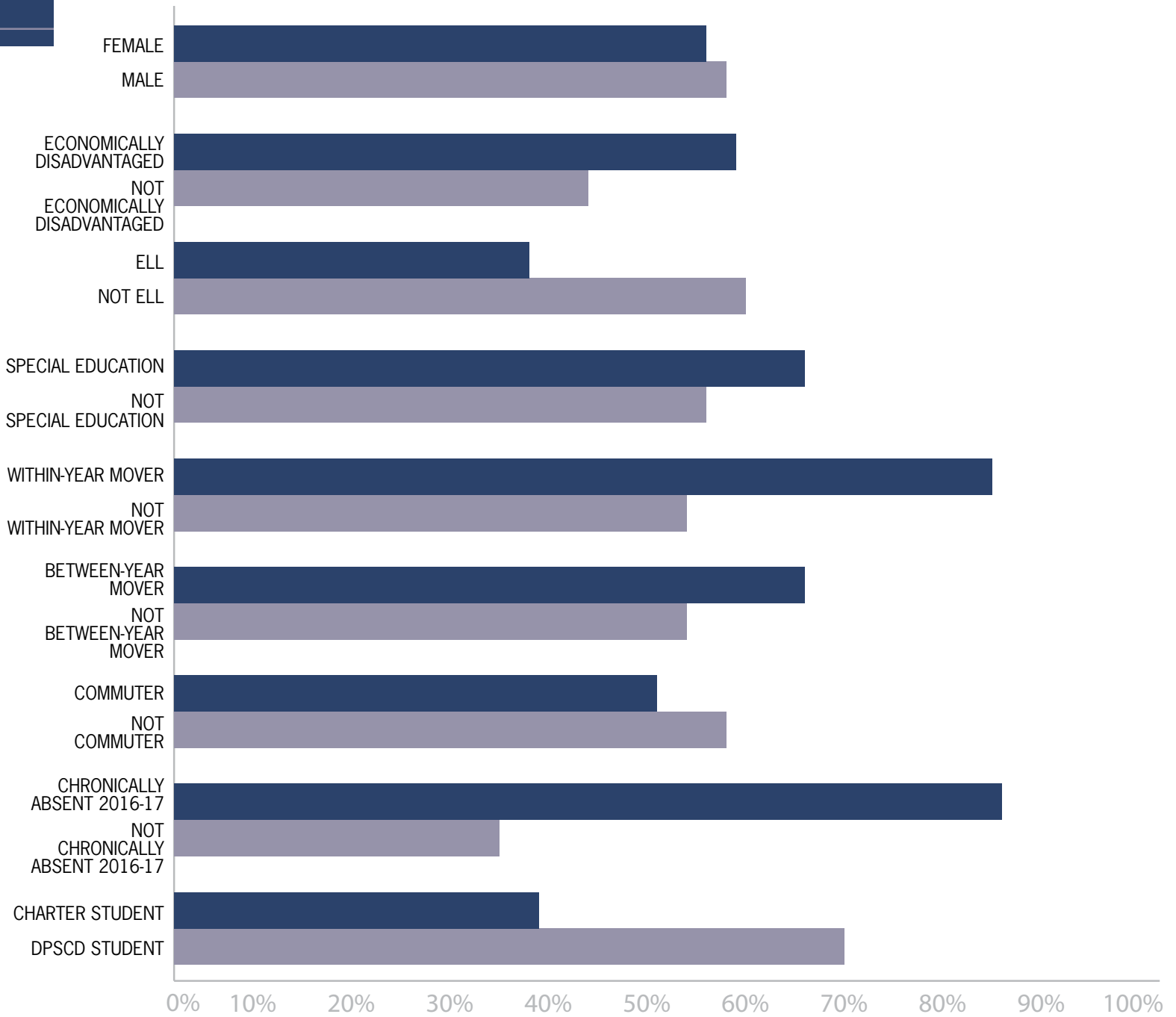
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FACTORS ASSOCIATED WITH CHRONIC ABSENCE

Student chronic absence varied across students based on specific characteristics, though chronic absence was high for all groups. For



Figure 3: Percentage of Students Who Were Chronically Absent by Group

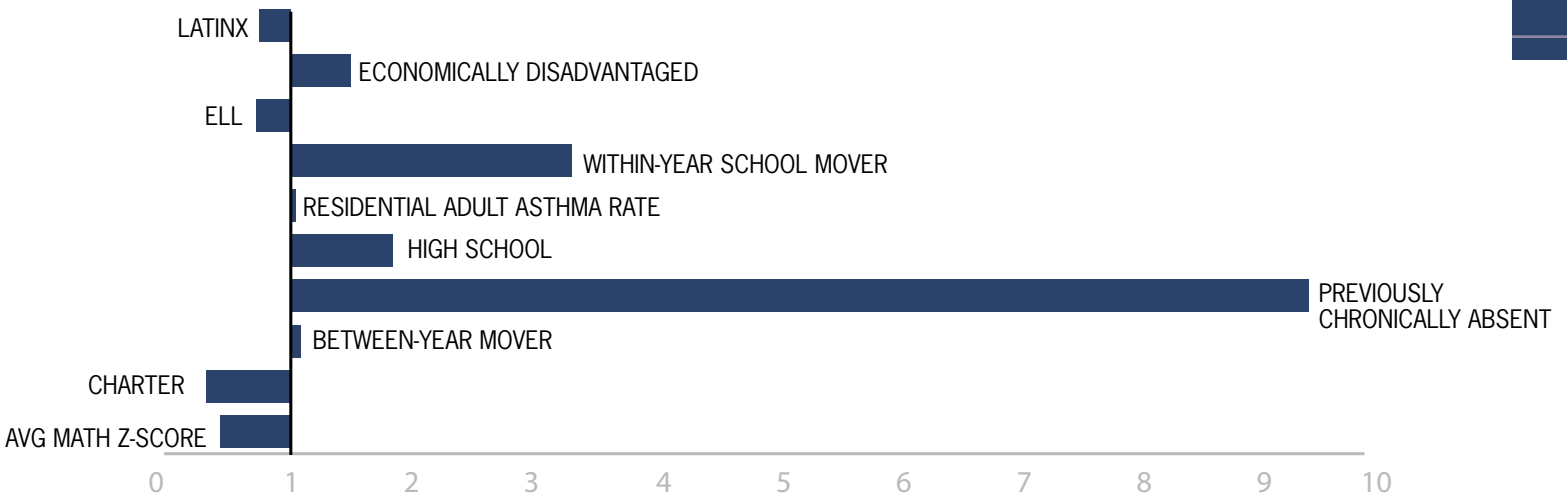


All group differences were statistically significant.

example, 58% of Black students were chronically absent in 2017-18, statistically significantly higher than all other racial/ethnic groups except Asians. Although all the differences were statistically significant across other student classifications, a few specifically stand out given the magnitude of the difference. Eighty-three percent of students who changed schools during the school year were chronically absent, while 52% of students who



Figure 4: Odds Ratios for Chronic Absence



Note. This is a graphical representation of the odds ratios for being chronically absent in 2017-18. Only the statistically significant variables ($p < 0.05$) from Model 3 are displayed. Full regression output for Models 1, 2, and 3 can be found in the technical appendix. Race variables are in comparison to Black students.

were not mobile during the year were chronically absent. Additionally, the chronic absence rate for students who were chronically absent the previous year (2016-17) was 51 percentage points higher than those that were not chronically absent in the previous year. Finally, 68% of DPSCD students were chronically absent, compared to 37% of students who were enrolled in a charter school.

Controlling for other variables through regression analysis, Latinx students were 1.4 times less likely to be chronically absent compared to Black students. While economically disadvantaged students and special education students were more likely to be chronically absent, ELL students were less likely to be chronically absent. Notably, students who changed schools during the school year (i.e., within-year school mover) were over 3.5 times more likely to be chronically absent. Although a smaller association, moving to the school between years (i.e., between-year-mover) was associated with 1.07 higher odds of being chronically absent. Additionally, students who were “commuters” (i.e., traveled greater than 2.5 miles to school if in elementary/ junior high or greater than 3.5 miles for high school) were slightly more likely to be chronically absent.

Students who lived in communities with higher rates of asthma had slightly higher odds of chronic absence compared to students in communities with lower rates of asthma. Grade level also showed interesting associations with chronic absence - upper elementary (grades 3-5) and junior high (grades



6-8) students had lower odds of being chronically absent compared to lower elementary students (K-2), while the odds of a high school student being chronically absent was 1.2 times that of a lower elementary student. Finally, if a student was chronically absent in 2016-17, it was associated with 9.5 times higher odds that a student was chronically absent in 2017-18.

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At the school level, higher rates of school stability (i.e., low rates of student transfers) was associated with a much lower likelihood of student-level chronic absence. Additionally, on average, a student in a charter school was nearly 6 times less likely to be chronically absent compared to a student in a DPSCD school, holding all other variables constant. When including school-level math achievement in the model, higher average student achievement was associated with a lower likelihood of student-level chronic absence.

ATTENDANCE RATE

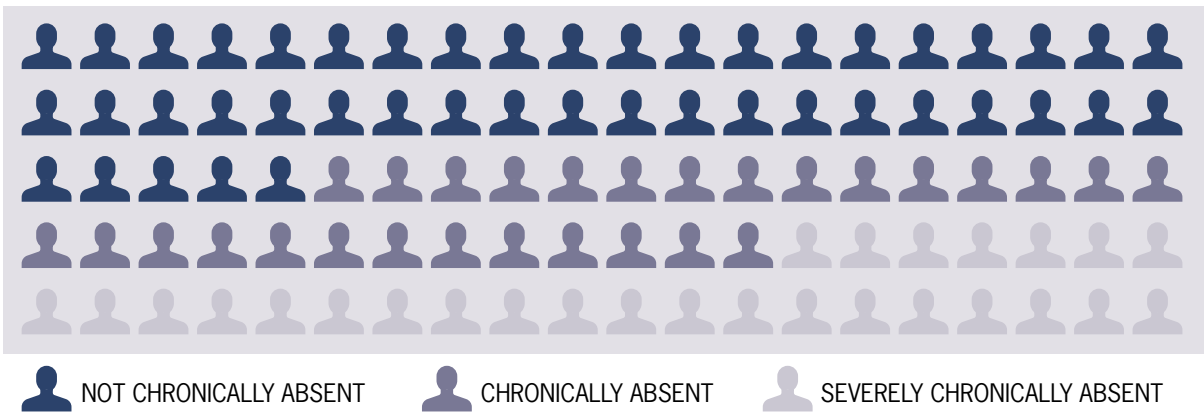
It is important to note that although students are categorized as being chronically absent if they miss at least 10% of possible school days, there was a wide range of missed days beyond the 10% minimum threshold. For example, approximately 27% of Detroit school students attended 80% or fewer days, with nearly 7% (~5,700 student) only attending school 60% or fewer of the possible days. Student attendance was also not evenly distributed across schools. For example, only about 30% of schools had a student attendance rate of 90% or better. Conversely, nearly 10% of schools had a student attendance rate of 70% or lower. Forty-five percent of students had attendance rates above 90%, but 28% of Detroit students had attendance rates between 80 and 90%, making them chronically absent, and 27% had attendance rates lower than 89%, making them severely chronically absent, as shown in Figure 5.

Table 1: Student and Average School Attendance Rates

Attendance Rate (% Days Attended)	Students in Attendance Rate Range N (% of total)	Schools in Average Attendance Rate Range N (% of total)
90+	36,963 (44.91%)	55 (29.57%)
80-90	22,983 (27.93%)	81 (43.55%)
70-80	11,075 (13.46%)	32 (17.20%)
60-70	5,523 (6.71%)	10 (5.38%)
50-60	2,639 (3.21%)	5 (2.69%)
Under 50	3,119 (3.79%)	3 (1.61%)



Figure 5: Percentage of Students Chronically Absent



SUMMARY

Chronic absence has been a persistent problem for students across schools in Detroit, and this report sought to identify the extent of chronic absence across the city and identify student and school factors associated with chronic absence. Our analysis has shown that in addition to specific student-level predictors of chronic absenteeism (e.g., Black, special education, and lower achieving students were more likely to be chronically absent), there are key school and community factors which were associated with student chronic absence. At the same time, such findings suggest the need for greater attention to school-level factors which mediate student- and community-level influences on student attendance. Below we offer the key takeaways, policy implications, and direction for future research.

KEY TAKEAWAYS



- Approximately 27% of Detroit students attended 80% or fewer days of school.
- Rates of student chronic absence varied significantly across geographic communities in Detroit.
- Students who were new to a school either through within-year or between-year mobility were more likely to be chronically absent.
- School factors matter - a student was less likely to be chronically absent if they attended a school with less student mobility and higher average math scores.



POLICY IMPLICATIONS

- In addition to broad measures aimed at reducing chronic absence, continued attention to students with lower attendance rates is warranted, as large percentages of students missed significantly more days than the 10% threshold to be classified as chronically absent.
- In addition to school-level interventions, community based interventions should be explored to address wide discrepancies in the distribution of student attendance across geographic sections of the city.
- Such community based interventions should consider the structural and social dynamics of communities which contribute to student chronic absence; such as health factors, transportation, school location, and community cohesion.
- Chronic absence is related to other structural issues across schools in Detroit, such as the high rates of student mobility in the city. Comprehensive strategies should be developed and implemented to reduce student mobility and improve the schooling experience for all students, and schools should make a plan to support new students early, to prevent chronic absenteeism.



FUTURE RESEARCH

- What are the associations between community characteristics and the characteristics of schools in those communities which may jointly mediate student attendance?
- How do the associations between student-, school-, and community characteristics and student attendance vary by tiers of student attendance?
- What is the association between various indicators of school quality and student attendance?