

Policy Brief

Wisconsin Institute for Law & Liberty

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Two Madisons: The Education and Opportunity Gap in Wisconsin's Fastest Growing City

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Executive Summary

Background

Madison is the second largest, and fastest growing community in the state of Wisconsin. Bolstered by a growing tech sector,¹ the rate of growth in Dane County is more than double that of any other county in the state. It is also home to the second largest school district in the state, the Madison Metropolitan School District (MMSD), which serves about 27,000 students. This district spans all of Madison and several suburbs including all or part of Fitchburg, Maple Bluff, Shorewood Hills and Burke.

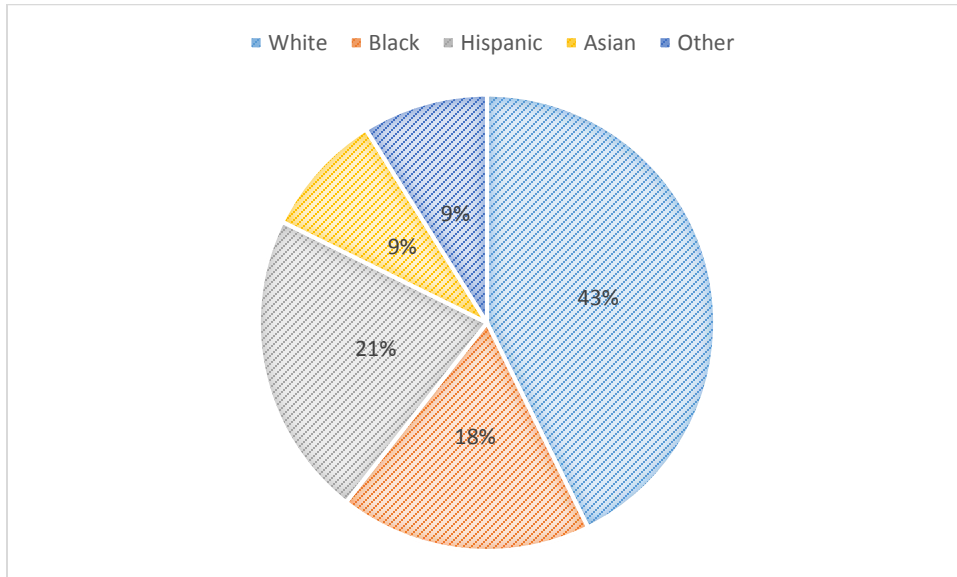
MMSD must meet the needs of a diverse set of students from a variety of different socioeconomic backgrounds. Figure 1 highlights the racial and

Takeaways:

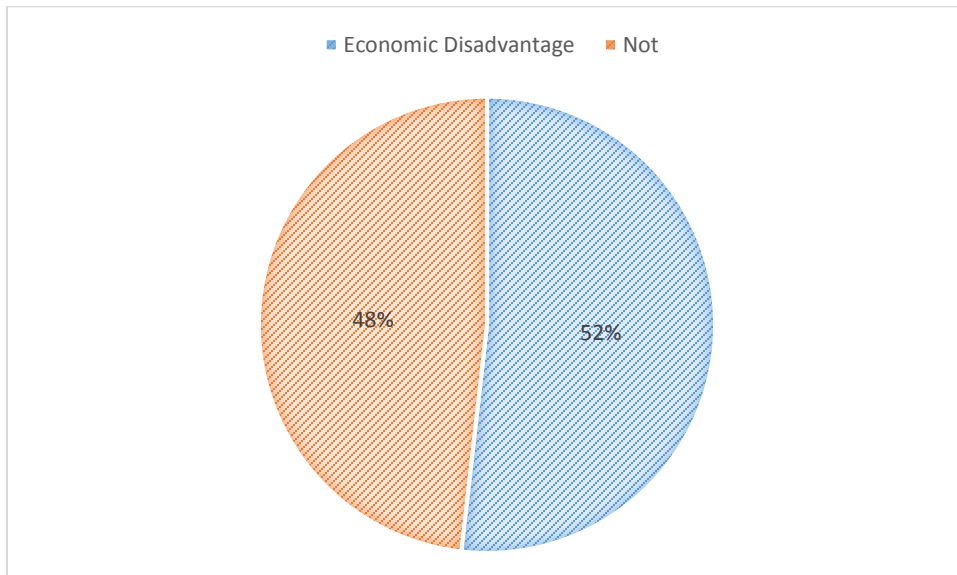
- At Madison Metropolitan School District (MMSD), there exist two distinct school systems.
- Despite its economic growth, low-income families in Madison are more likely to stay poor for their entire lives.
- While 60% of white students at MMSD are proficient or higher on the Forward exam, only 9.8% of African Americans are proficient. This achievement gap is worse than Milwaukee Public Schools.
- While Hispanic proficiency is higher than that for African Americans, large gaps remain.
- 21% of African Americans and 18% of Hispanic students in MMSD do not graduate from high school within five years compared to just 6% of white students.
- African American and low-income students are more likely to be in schools with significantly higher numbers of police calls.
- Due to caps and restrictions, school choice is very limited in Madison. Unless your family has money. More than 4,300 children attend 31 private schools in Madison, primarily outside of the voucher program.

economic background of MMSD students. Approximately 43% of students in Madison are white. The largest minority is Hispanic students, composing 21% of the students. Black students are about 18% of the population.

Figure 1. Racial & Economic Breakdown of MMSD Students, 2018-19



Nearly one out of every two students in MMSD—about 48%—comes from economically disadvantaged families. This means that the family is eligible for free or reduced price lunch.



“Big city” problems like persistent poverty, a racial achievement gap, and failing and unsafe schools, are pervasive and growing problems in the state’s most liberal city. We make the case that, in reality, there are two Madisons: one of the high-income, predominantly white class that attend safe, high quality, public and private schools, and one of the low-income, predominantly minority class, stuck in unsafe public schools that are not meeting their educational needs.

This policy brief explores some of these problems, and offers a solution that has been tested and proven successful for more than two decades in Milwaukee: wide-spread school choice.

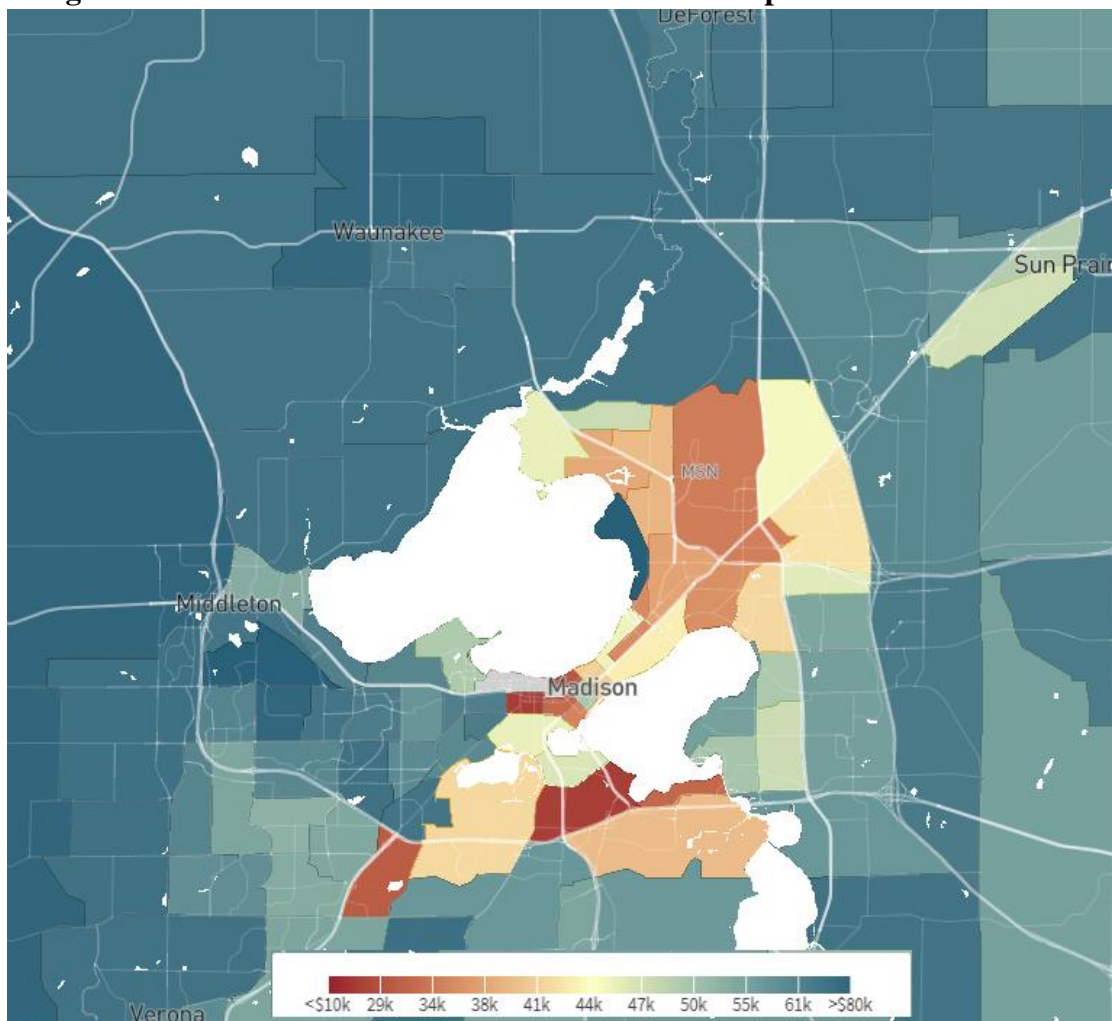
Trapped in a Cycle of Poverty

The persistence and lack of mobility for the urban poor in Madison doesn’t look much different than the more familiar story of larger cities like Milwaukee or Chicago. The Opportunity Atlas Projectⁱⁱ brings together data from a panel dataset of the United States census bureau that covers “virtually the entire American population from 1989 to 2015.” The Atlas is designed to allow researchers to determine which communities in the United States are experiencing upward and downward mobility, as well as whether or not people in the community are earning more (or less) than their parents did.

Sadly, in Madison, for individuals with low income parents, the likelihood is high that they will be in the same position.

When one looks at the household income of individuals who grew up in various census tracts around the state of Wisconsin, two areas show up as a stark contrast to the rest of the state: Milwaukee and Madison. Wisconsin residents who grew up in and around Madison earn significantly less in adulthood than individuals from other, surrounding parts of the state. Figure 2 below shows this contrast. Darker reds are indicative of lower household income in adulthood, while greens are indicative of higher.

Figure 2. Household Income of Children who Grew up in Each Census Tract

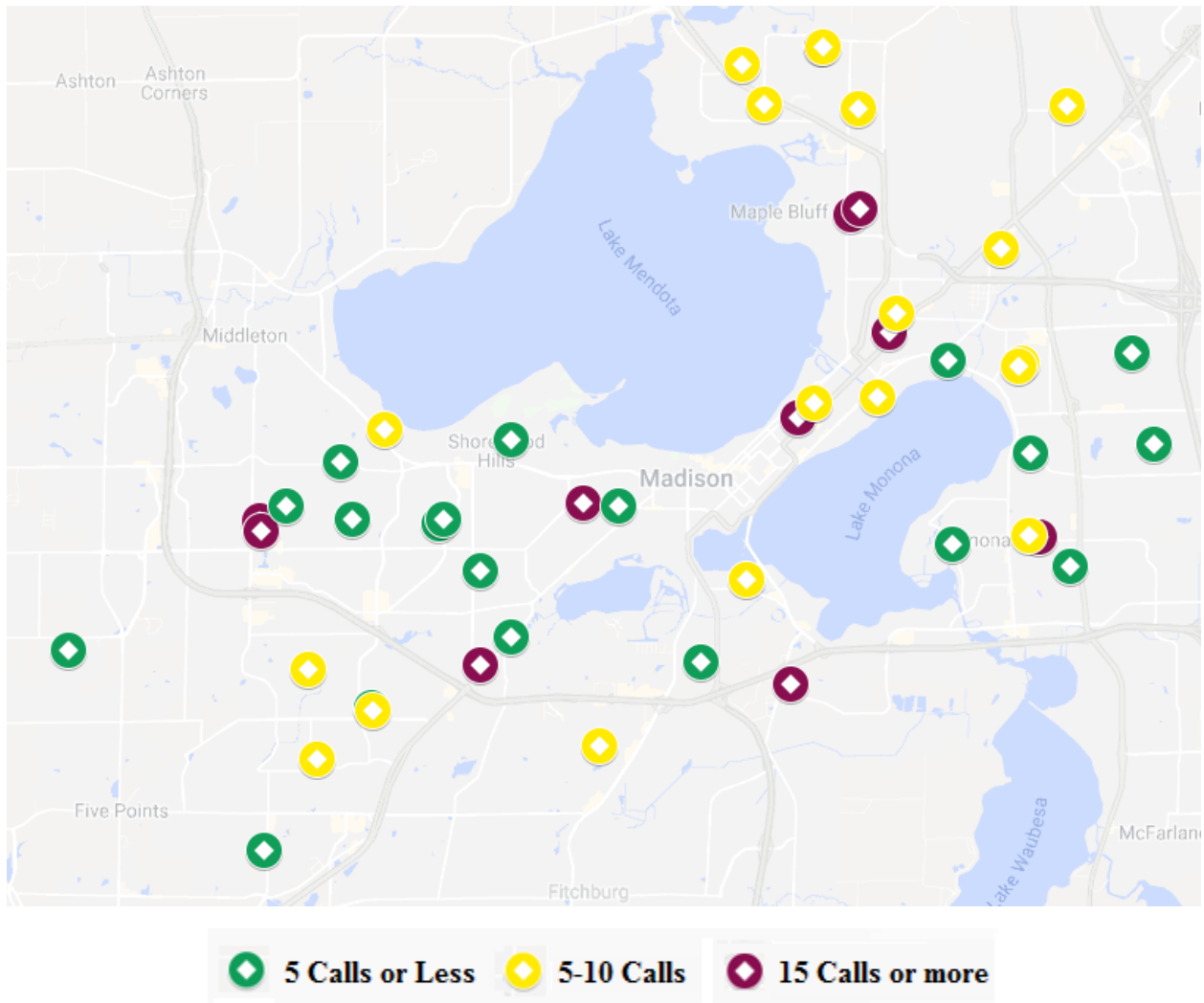


School Safety Data

School safety has been an issue of increasing focus, both in Madison and around the country. However, with school systems intentionally lowering suspension and expulsion numbers even in the absence of improved behavior,ⁱⁱⁱ alternative measures are needed to determine which schools are and are not providing a safe learning environment for students. In order to gain leverage on this question, WILL requested data from the Madison Police Department on the number of 911 calls to each Madison Metropolitan district school over the last seven school years (August 2012 to May 2019). We removed categories that had little to do with student safety in the school (such as traffic stops) as well as accidental calls to arrive at the number of 911 calls per 100 students per year.

The map below depicts schools with less than 5 (green), 5-10 (yellow), and 10 or more (red) 911 calls on average. While there are some exceptions, particularly among high schools, one can see that in general the most dangerous schools tend to fall along the peninsula and northwest of the city.

Figure 3. 911 Calls per 100 Students 2012-2019, Madison



At the low end of the spectrum are three schools that have fewer than 1 incident (911 call) per 100 students. These are Shorewood Elementary, Nuestro Mundo and Van Hise Elementary. An additional twelve schools have incident rates under 5. These are primarily elementary schools, though Hamilton Middle School appears as well.

At the other end of the spectrum are primarily high schools, though the highest reported incident rate is actually at a middle school—Badger Middle. This school averaged 25 incidents per 100 kids—meaning that a 911 call occurred for about 1 in 4 students in the school. It is worth noting

that, despite the variation in crime rates, reports are still significantly lower on average than those reported in Milwaukee. According to a 2018 WILL Study, Milwaukee schools average more than 55 911 calls per 100 students.

Table 1. 911 Calls per 100 Students, Madison

Lowest Calls		Highest Calls	
School Name	Incident Rate	School Name	Incident Rate
Shorewood Hills Elementary	0.18276	La Follette High	15.20088
Nuestro Mundo	0.189215	East High	18.72348
Van Hise Elementary	0.683371	Memorial High	18.94521
Stephens Elementary	2.199793	Shabazz High	19.32773
Muir Elementary	2.423469	Badger Rock Middle	25.04202

The safety variation uncovered in this data is supported by a number of stories detailing persistent problems in Madison schools^{iv}. What factors are predictive of unsafe educational environments? To answer that question, we combine the information above with data from DPI on the sociodemographic characteristics of each Madison school. Safety is then regressed against each of these potential explanations in the table below.

Table 2. Relationship between 911 Calls and School/Student Characteristics

VARIABLES	(1) Per Capita 911 Calls
African American	22.76** (10.89)
Hispanic	1.422 (6.525)
Economic Status	-5.470 (7.591)
High School	9.845*** (2.124)
Enrollment	-0.00184 (0.00149)
Disabled Share	62.22*** (10.40)
Constant	-2.772* (1.617)
Observations	48
R-squared	0.790

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

African American students appear to be disproportionately likely to attend less safe schools. Aside from the relationship with a school being a high school that was noted from general observation of the data, the strongest finding is with relationship to the share of students that are disabled. The coefficient here means that a hypothetical school where all students had a disability would be expected to have 62 more 911 calls per 100 students than a school with no disabled students.

State Testing & Attainment

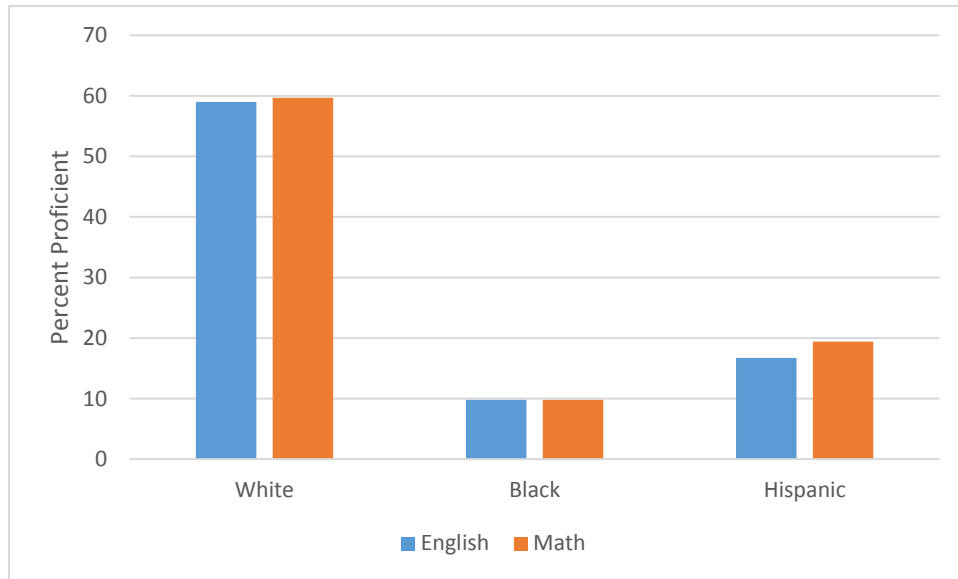
Forward Exam

Proficiency in many MMSD schools is woeful. At the district level, proficiency rates lag behind the state as a whole. For example, 42.6% of students in Wisconsin were proficient in English on the most recent Forward Exam, compared with 36.6% in MMSD. But while this gap is not enormous, much more disturbing is the gap when one looks at African American students. Of the more than 1,880 African American students in the district, only 13.0% were proficient or higher in English on the Exam, compared with 50% of white students. Similarly in math, 9.8% of African American students were proficient or higher compared with 59.7% of white students. This staggering 50-point achievement gap is even larger than that found at Milwaukee Public Schools.¹ While Hispanics are doing slightly better, the gaps are still astonishing. 16.7% of Hispanic students were proficient in English, and only 19.4% were proficient in math.

The Madison disparity is all the more unique because white students in the district fall significantly above the average performance of white students in the state, while African American students in Madison fall below their statewide proficiency averages. This supports the narrative that the education system in the city is not geared toward providing minority students with the best possible opportunity at success.

¹ Though note that white students only make up a small percentage of the students in Milwaukee.

Figure 4. Proficiency among White, Black and Hispanic Students, Madison



To answer the question of the factors beyond race that effect academic achievement in MMSD, we conduct the same analysis as in Table X using proficiency in math and English as the dependent variables. The factors affecting proficiency in each subject have some similarities and differences. In both subjects, economic status is an important predictor. A school with 100% of students identified as economically disadvantaged would be expected to have a proficiency rate 83.5% lower than a school with no economically disadvantaged students. The prediction is for 51% lower proficiency rates in English under the same scenario.

What is perhaps more interesting is that there is no difference in proficiency for black and Hispanic students in math once economic status is taken into account. It is likely that the high level of correlation between these two variables explains the lack of an effect. In English, an all-African American school would be expected to have proficiency rates 70.8% lower than a school with no African Americans. An all-Hispanic school would be predicted to have proficiency 29.7% lower.

Table 3. Relationship Between School/Student Characteristics and Proficiency

VARIABLES	(1) Math Proficiency	(2) ELA Proficiency
Black	-0.350 (0.283)	-0.708** (0.265)
Hispanic	-0.0419 (0.167)	-0.297* (0.157)
Economic Status	-0.835*** (0.207)	-0.510** (0.193)
High School	-0.128** (0.0495)	0.00839 (0.0463)
Enrollment	6.05e-05* (3.59e-05)	1.75e-05 (3.36e-05)
Disabled Share	-0.236 (0.310)	-0.0651 (0.290)
Constant	0.889*** (0.0489)	0.830*** (0.0457)
Observations	47	47
R-squared	0.859	0.849

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Note that in both models there is no effect of the share of students that is disabled. This is again likely due to the high correlation between disability status and African American students in the district.

In the final models below, we add our 911 calls per capita variable back in. Columns 1 and 3 show a relationship between crime and proficiency in the expected direction—more 911 calls leading to significantly lower proficiency rates. However, these columns have omitted the African American and economic status variables, which are unfortunately highly correlated with reported crime. While a dangerous environment has indeed been found in other research to make learning more difficult,^v the phenomenon of “two Madisons” that we have identified in this paper makes it difficult to identify here.²

² Also, note the small sample size of 45 schools makes the identification of such relationships more challenging that may in fact exist.

Table 4. Relationship of School/Student Characteristics and 911 Calls/Economic Status

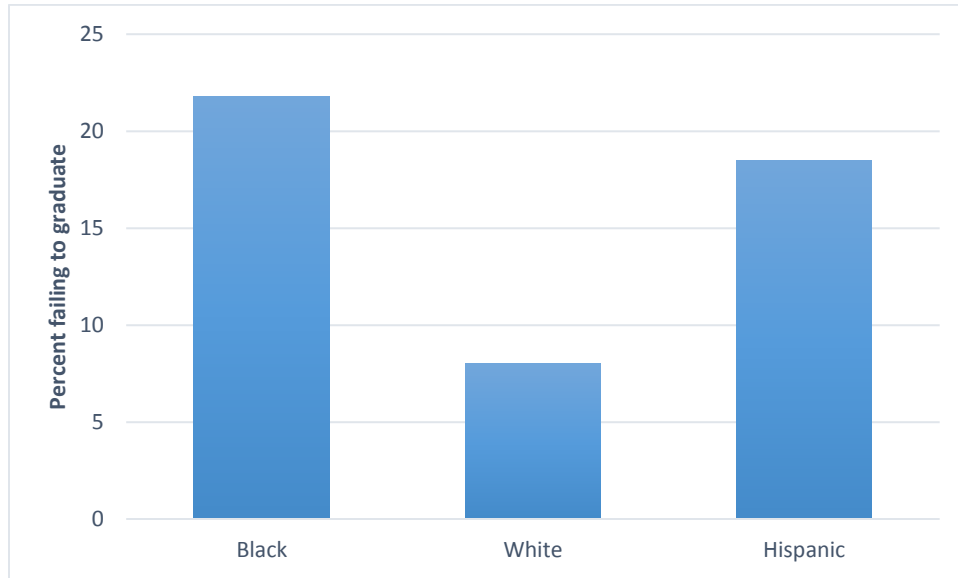
VARIABLES	(1) Proficiency ELA	(2) Proficiency ELA	(3) Proficiency Math	(4) Proficiency Math
911 Calls	-0.0145** (0.00676)	0.000880 (0.00448)	-0.0185** (0.00754)	-0.00263 (0.00507)
Enrollment	-4.79e-05 (6.42e-05)	-1.65e-05 (3.95e-05)	4.39e-05 (7.17e-05)	6.82e-05 (4.47e-05)
High School	0.284** (0.107)	0.0599 (0.0698)	0.115 (0.119)	-0.116 (0.0790)
Disability Status	-0.163 (0.664)	-0.120 (0.413)	-0.221 (0.741)	-0.0507 (0.467)
Hispanic	-0.696*** (0.163)	-0.279 (0.170)	-0.691*** (0.182)	-0.115 (0.193)
African American		-0.591* (0.308)		-0.394 (0.349)
Economic Status		-0.565*** (0.202)		-0.789*** (0.228)
Constant	0.674*** (0.0756)	0.846*** (0.0482)	0.687*** (0.0844)	0.878*** (0.0546)
Observations	45	45	45	45
R-squared	0.538	0.851	0.535	0.846

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Graduation Rates

Even beyond proficiency on state exams, the attainment gap of students in MMSD is cause for concern. According to the most recent data from DPI, 20.9% of African American students don't earn their high school diploma within five years of starting high school, compared to just 6.8% of white students. This attainment deficit may go a long way in explaining the low income of those that remain in the city, as few factors are more important in predicting later-life success as high school graduation.

Figure 5. Graduation Failure Rate within 5 Years by Race



Best and Worst Performing Schools

WILL’s annual Apples to Apples study includes a “School Value Added” measure that takes into account the characteristics of the students in a school, to estimate the expected academic performance of that school. Schools with more challenging student populations—such as schools with more minority or low income students—are given more ‘credit’ in the model for the same level of performance. In the charts below, we rank the top and bottom five schools in Madison on this accountability measure. The Value Added measure can be interpreted as the extent to which proficiency on the state exam in the school in math and ELA was higher or lower than would be expected based on the composition of the students.

Under this model, the highest performing school in Madison is Van Hise Elementary. Proficiency in this school is 24.15% higher than would be expected. This is in stark contrast to schools at other end of the spectrum. Proficiency rates at Leopold Elementary were 15.91% lower than would be expected. A full map of schools in Madison and the rest of the state will soon be made available on our website.

Table 6. School Value Added-Top and Bottom Madison Schools.

School Name	School Value Added	DPI Accountability Score
Van Hise Elementary	24.15%	Significantly Exceeds Expectations
Shorewood Hills Elementary	21.15%	Significantly Exceeds Expectations
Memorial High	18.53%	Exceeds Expectations
West High	16.47%	Exceeds Expectations
Marquette Elementary	16.37%	Significantly Exceeds Expectations

School Name	School Value Added	DPI Accountability Score
Leopold Elementary	-15.91%	Meets Expectations
Lake View Elementary	-15.55%	Meets Few Expectations
Allis Elementary	-15.01%	Meets Few Expectations
Schenk Elementary	-13.57%	Meets Expectations
Sandburg Elementary	-10.97%	Meets Few Expectations

Of 47 schools for which we have sufficient data, 18 schools have Value Added numbers below zero—meaning students in the school did worse than would be predicted by the model. The remaining 29 schools have positive Value Added.

Few Affordable Options in MMSD

Wisconsin Parental Choice Program & Charter Schools

The story in Madison, in terms of generational poverty and kids being stuck in failing schools, is very similar to the situation that existed in Milwaukee in the 1980s. Yet there is one big difference: Since 1990, Milwaukee students now have access to an extensive network of choice and charter schools that research has found provide better opportunities for success in both academics and life, while school choice in Madison has been non-existent until recently.

For many years, it was impossible for private schools in Madison to participate in a school choice program, as the program was limited to the boundaries of Milwaukee. But with the creation of the Wisconsin Parental Choice Program (WPCP) in 2013, Madison families now at least have the possibility of new alternatives to traditional public schools.

At least, in theory.

The case that such schools can offer a viable alternative to stagnating public schools is bolstered by a continual and growing stream of research. Choice students outperform public school students on state standardized tests when the playing field is leveled by accounting for sociodemographic characteristics^{vi}. Recent studies have found that students who participate in

school choice in Milwaukee are less likely to be convicted of a crime (DeAngelis and Wolf 2018), less likely to become involved in paternity suits (DeAngelis and Wolf 2019), and more likely to enroll in and graduate from college.^{vii} All of these life outcomes are strongly related to the likelihood of success later in life, and breaking the cycle of poverty. A study by Flanders and DeAngelis^{viii} estimated that these successes will lead to nearly \$500 million in economic benefits to Wisconsin in the next twenty years.

But while the evidence is there for both the need for school choice and the potential impact, due to restrictions on schools that limit supply and enrollment caps on students, few schools have opened their doors to WPCP vouchers thus far. As of the most recent list from the Department of Public Instruction (DPI), only 136 students are enrolled in private schools under the WPCP.³

Under current state law, only 4% of students in a district will be eligible to enroll into a choice school in the WPCP. This means that in Madison only about 1,075 kids are potentially eligible for the WPCP, making it very difficult for schools tailored to choice students to open in the city.

Private schools in the MPCP are extremely common in Milwaukee. While data is only available for schools that choose to have a report card for all students, at least 48 schools in Milwaukee of the 133 participating have more than 75% of students in the school utilizing a voucher.^{ix} Because the program is primarily for low income students, it is very unlikely that these schools would be able to exist in the absence of the voucher program, because most families would be unable to pay. Such schools *will* become more possible in Madison over time. The caps are set to increase in future years, increasing by 1% each year until they come off in the 2025-26 school year, meaning that the viability of such a school increases with the passage of time.

Charter schools do not represent a viable option for most families either, as only two charters operate within the city. These instrumentality charters (Badger Rock Middle and Nuestro Mundo) only serve about 400 students.^x

Demand for Options

There is evidence that families in Madison are desperate for alternatives. According to the most recent data available from the Legislative Fiscal Bureau^{xi}, Madison is a net loser of more than 800 students via the state's Open Enrollment Program—one of the only viable paths for alternative schools in the absence of private school choice for low and middle income families. The McFarland School District, located just to the east of Madison, is the largest receiver of open enrollment students in the entire state, with more than 2,800 students electing to attend school there instead of nearby home districts.

³ Only four schools are currently participating. One school, Guidance Christian, has multiple locations outside of Milwaukee. However, the other schools are located close to Milwaukee, so the 9 students listed as WPCP students were included in this count.

Table 7. In and Out Open Enrollment, Madison

District	Open Enrollment In	Open Enrollment Out	Net
Madison Metro	442	1,246	-804
McFarland	2,829	26	+2,803

In addition, those with sufficient means appear to be leaving behind this failing school system en masse. More than 4,300 children attend 31 private schools in Madison, primarily outside of the voucher program. This represents about 13.4% of children in the MMSD making a different choice about where to attend school. But because the voucher program is so limited, private schools generally exacerbate the “two Madisons” reality.

Conclusion

Much like their larger and more often discussed neighbor to the east, Madison faces the problems of enduring poverty and an underserved minority community that finds it extremely difficult to escape those conditions. While the overall performance of Madison schools is relatively positive, non-white students in the city are in desperate need of alternatives that have not been offered by the traditional education system. It is time to bring widespread educational choice and its proven track record of success down I-94 from Milwaukee. This is one of the best ways to ensure that the educational opportunities for these families in Madison aren’t constrained by the accident of a ZIP code.

ⁱ Hess, Corrine. 2019. “Wisconsin’s Population Growing, While Milwaukee’s Continues to Decline.” Wisconsin Public Radio. <https://www.wpr.org/wisconsins-population-growing-while-milwaukee-continues-decline>

ⁱⁱ Chetty, Raj. John Friedman, Nathaniel Hendren, Maggie Jones and Sonya Porter. 2018. “The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility.” *Working Paper*. <https://www.opportunityatlas.org/>

ⁱⁱⁱ Eden, Max. 2017. “Suspension Reform is Tormenting Schools.” *City Journal*. <https://www.city-journal.org/html/suspension-reform-tormenting-schools-15613.html>

^{iv} Capital Times Editorial Board. 2019 “Editorial: Madison Schools Need to Get Serious About School Safety.” https://madison.com/ct/opinion/editorial/editorial-madison-schools-need-to-get-serious-about-school-safety/article_0829aa77-5470-5243-a21a-7e5ec051a94a.html

^v Kutsyuruba, Benjamin, Don Klinger and Alicia Hussain. “Relationships among School Climate, School Safety, Student Achievement and Well Being: A Review of the Literature.” *Review of Education* 3: 103-135 <https://onlinelibrary.wiley.com/doi/abs/10.1002/rev3.3043>

^{vi} Flanders, Will. 2019. “Apples to Apples III” *WILL Policy Report* <http://www.will-law.org/wp-content/uploads/2019/06/applestoapplesstudyiii.pdf>

^{vii}Chingos, Matthew, Daniel Juehn, Tomas Monarrez, Patrick Wolf, John Witte and Brian Kisida. 2019. “The Effects of Means Tests Private School Choice Programs on College Enrollment and Graduation.” *Urban Institute*. <https://www.urban.org/research/publication/effects-means-tested-private-school-choice-programs-college-enrollment-and-graduation>

^{viii}Flanders, Will and Corey DeAngelis. 2018. “The Economic Benefits of School Choice in Milwaukee.” *Journal of School System Reform Studies*. <http://www.will-law.org/wp-content/uploads/2016/12/EBSC-MPCP.pdf>

^{ix}Wisconsin Department of Public Instruction Report Cards: Private Schools 2017-18 School Year. <https://apps2.dpi.wi.gov/reportcards/home>

^xKava, Russ. 2019. “Information Paper 27: Charter Schools.” Legislative Fiscal Bureau. https://docs.legis.wisconsin.gov/misc/lfb/informational_papers/january_2019/0027_charter_schools_informational_paper_27.pdf

^{xi}Kava, Russ. 2019. “Information Paper 26: Open Enrollment Program.” *Legislative Fiscal Bureau*. https://docs.legis.wisconsin.gov/misc/lfb/informational_papers/january_2019/0026_open_enrollment_program_informational_paper_26.pdf