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DISTRICT FINDINGS: FINAL REPORT



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Executive Summary

This report analyzes measurable student outcomes for the Advancement Via Individual Determination (AVID) Teens of Promise (TOPS) programs during the 2013-2014 school year, including high school graduation rates and grade-point averages. Research questions guiding these analyses include:

1. How does the achievement of high school AVID/TOPS students compare to academically and demographically similar non-AVID/TOPS peers?
2. What effect does AVID/TOPS have on students over time? Do students who receive a full dosage of the AVID/TOPS program have better outcomes than students receiving a partial dosage?
3. How does the achievement of middle school AVID students compare to academically and demographically similar non-AVID peers?

Estimates of program effects are computed using propensity score analysis. This approach compares AVID/TOPS students to non-AVID/TOPS students who were matched based on similar academic, attendance, and behavioral records prior to high school, attendance at the same high school, and demographic and family characteristics.

Both the AVID/TOPS population and the sample used in the analysis are approximately two-thirds low-income, 20% non-Hispanic White, 30% African American, 30% Hispanic, and 20% students of another race. Less than half the students are male, more than one third would be the first in their family to attend college and 40% are English language learners. As determined by AVID/TOPS selection, students come from the academic middle, with an average 3.0 grade-point average (GPA) in eighth grade. We estimate impacts of the high school program on outcomes of interest. Program success is measured by a series of student outcomes: cumulative GPA; GPA in core courses; enrollment in and GPA for Advanced Placement/Honors (AP/Honors) courses; attendance rates; behavioral events; senior year cumulative GPA; and high school graduation.

The impacts of AVID/TOPS for high school students during the 2013-2014 school year are broadly similar

to those for the 2012-2013 school year. Over time, the methodological rigor of the evaluation has improved, but the clear and evident positive association of the program with student outcomes persists.

1. AVID/TOPS increases the cumulative and core GPAs of high school students, particularly for low-income students, African-American students, low-income students of color, and male students of color. Core GPA is the grade-point average for core academic subjects: math, English, science, and social studies.
2. AVID/TOPS increases rates of enrollment in AP/Honors courses for some students, including all focal subgroups. The program also increases the grades low-income students earn in those courses.
3. The AVID/TOPS program improves high school students' attendance records and reduces the number of days they miss school. The fraction of students receiving behavioral events is also reduced.
4. Positive impacts of the AVID/TOPS program are mainly felt by students who receive a full dosage of AVID/TOPS, meaning that they participate in the program for all 4 years of high school. A full dosage of AVID/TOPS increases 12th-grade cumulative GPA, and the impact is most pronounced for male students of color, who improved their GPA from 2.2 to 2.6. High school graduation rates also improved from 89% to 97% on average. Impacts are not detectable for students receiving only a partial dosage of AVID/TOPS.
5. Because the AVID program for middle school students is in its early stage of implementation, there are not clear detectable impacts.

Overview of AVID

Advancement Via Individual Determination (AVID) is a national college readiness system consisting of two interrelated components designed to increase academic achievement, college preparation, and postsecondary educational access and degree attainment for underrepresented students in the academic middle:

1. An elective class aimed at preparing a select group of students for entrance and enrollment in post-secondary education. AVID aims to serve students in the academic middle (2.0–3.5 grade-point average) who may be first generation, low-income, historically underrepresented in post-secondary education, and/or have special circumstances.
2. Best-practice instructional and student strategies implemented schoolwide designed to help all students access high-quality curriculum and become independent learners on a pathway to college, career, and community success.

The elective class includes a curriculum that focuses on developing students' writing, inquiry, organization, and reading skills to help students become college ready. Additionally, students develop critical reasoning and thinking skills through work in small, collaborative tutorial groups. The purpose of the elective class is for students to gain the skills and receive the support to enroll and graduate from a post-secondary institution.

All schools adhere to the 11 AVID Essentials that the national AVID College Readiness System requires.

Essential 1: Student Selection – AVID student selection must focus on students in the academic middle, with academic potential, who would benefit from AVID support to improve their academic records and begin college preparation.

Essential 2: Voluntary Participation – AVID program participants, both students and staff, must choose to participate in the program.

Essential 3: Scheduling – The school must commit to fully implementing AVID by providing and enrolling students in the AVID yearlong elective classes offered within the regular school day.

Essential 4: College Readiness – AVID students must concurrently enroll in a rigorous course of study that will enable them to meet the requirements for university enrollment.

Essential 5: Organization – The AVID elective class must provide instruction aimed at developing students' organizational skills to promote their academic self-management.

Essential 6: Reading and Writing – The AVID elective class must rely on strong, relevant writing and reading curriculum as its basis for instruction.

Essential 7: Inquiry and Collaboration – The AVID elective class must promote critical thinking through inquiry and collaboration.

Essential 8: Tutorial – The program must provide a sufficient number of tutors in the AVID classroom to facilitate student access to a college-preparatory curriculum. Tutors should be enrolled in college and universities, be able to mentor students and facilitate tutorials, and they must be trained to implement AVID methodologies with students.

Essential 9: Data Use – AVID program implementation and student progress must be monitored through the AVID data entry system, and, to ensure student success, progress monitoring must inform instruction.

Essential 10: Professional Learning – The school or district must implement the AVID Essentials, participate in the annual AVID certification process, and provide ongoing AVID professional development for both AVID and non-AVID teachers.

Essential 11: Site Teams – The school must support an active, interdisciplinary AVID site team that collaborates to help students access and succeed in rigorous college preparatory courses.

History of AVID and the Partnership with the Madison Metropolitan School District and Boys and Girls Club of Dane County

The Madison Metropolitan School District (MMSD) piloted the AVID program at East High School in 2007. In 2008, MMSD and Boys and Girls Club of Dane County (BGCDC) collaborated to create the AVID/Teens of Promise partnership to extend and deepen the supports and opportunities for students in AVID. The program was designed so that all high school AVID students receive TOPS support through their AVID affiliation.

In 2009, MMSD expanded the AVID/TOPS system to include the AVID elective class and schoolwide strategies at the district's four comprehensive high schools. The first districtwide freshman cohort graduated 84 students in 2013. In 2012, MMSD implemented AVID for seventh- and eighth-graders in 11 MMSD middle schools. Additionally, MMSD and BGCDC established AVID/College Club to expand their partnership to Cherokee and Wright middle schools. Like the high school TOPS program, College Club middle schoolers receive additional afterschool tutoring, mentoring, Saturday activities, and summer academic enrichment programming. In addition, these schools receive BGCDC financial and personnel support.

School-based AVID teams, including a designated administrator, AVID coordinators, and AVID elective teachers, maintain the school-level AVID/TOPS program and work with students directly and behind the scenes to foster student growth.

BGCDC operates TOPS in and out of school by enhancing the AVID program for high school students enrolled in the AVID elective class. BGCDC provides each high school with two full-time TOPS coordinators who work closely with students enrolled in AVID and their AVID elective teachers. TOPS coordinators support the AVID-required, in-class tutors and tutorials. In 2013-2014, they also coordinated and chaperoned 56 college field trips for students in Grades 9-12, scheduled and hosted 92 community speakers, matched and managed 83 mentor and mentee relationships with community members, and operated the summer career exploration/internship programs for 62 rising juniors and seniors. The presence of the coordinators in each school allows

for a natural division of labor between the elective teachers and the coordinators who can each work deeply on a narrowed range of tasks. This arrangement ensures that students have the best possible chance of maintaining and improving their grades, developing the necessary skills to foster critical thinking, engaging in more rigorous coursework, and learning how to succeed within the school system. In addition to staffing support by the TOPS coordinators, BGCDC funds the AVID tutors and extends Boys and Girls Club membership to AVID/TOPS students. Students can access the programs offered there, including competing for the annual Youth of the Year Scholarship.

The TOPS College Continuation program provides additional support for graduating seniors by following them from high school through college completion. The program funds three full-time staff. One assists with the college pipeline and the other two provide support during college. The pipeline position maintains relationships with college-going students after high school graduation to address any personal issues that may impede the student's ability to enroll in college and assists with college applications, financial aid, and scholarship processes. The TOPS staff co-organizes the Senior Celebration for graduated seniors with the MMSD AVID coordinators. They hold a summer transition workshop for all graduated seniors to address summer melt (the loss of college plans during the summer following high school graduation) and provide assistance for the final steps of college enrollment. Ninety-four AVID/TOPS students received support through their senior year in 2013-2014. Of those, 85 (90%) enrolled in college the Fall semester immediately following high school graduation. They joined 113 other AVID/TOPS college enrolled students. Two TOPS college continuation staff continue to guide students enrolled in college by tracking their course-taking each semester, providing 1-on-1 coaching on their college campuses, and organizing AVID/TOPS alumni activities. Financially, TOPS created 20 paid college internships for AVID/TOPS alumni during the summer of 2014 and funded \$107,800 in scholarships in the 2013-2014 academic year.

AVID National Certification

The national AVID Center monitors the AVID elective class and schoolwide strategies through an extensive certification process encompassing the 11 AVID Essentials. The Essentials focus on student selection into the program, the use of AVID strategies, student access to rigorous course work, and effective site team practices. Compliance requires schools to show evidence of using AVID strategies beyond the AVID elective classroom. The certification process provides an opportunity for each school's participating staff members to reflect on their current implementation status, and receive feedback from the AVID Center on strengths and areas of growth. Schools that implement the AVID elective class and schoolwide strategies with a high degree of fidelity, as measured through the certification process, often have greater student outcomes. Schools can receive overall ratings of certified, highly certified, AVID School-wide Site of Distinction, or AVID Demonstration School.

Schools holding a "certified" designation have implemented AVID for at least 2 years and scored a 1 or higher on a 0 to 3-point scale for each of the 11 Essentials by providing evidence through classroom observations, student work, and school visits. Schools implementing AVID with fidelity should experience student and program growth through the certification process. Schools within the first 3 years of AVID implementation should score in the 1 (meets AVID expectations) to 2 (routine use) range. Schools implementing AVID for 3 or more years should begin to move toward implementation scores to a level 3 (institutionalized).

In Spring 2014, La Follette, Memorial, and West high schools were deemed highly certified sites by the AVID Center. Each high school met certification standards and received a rating of 2 (routine use) or 3 (institutionalization) on six of the 11 Essentials. East High School received ratings of 2 (routine use) or higher on all 11 Essentials and maintained its designation as a National Demonstration School. As

such, East High School is annually certified by an external AVID Demonstration Validation Team and validated as a school that implements AVID strategies schoolwide and serves as an exemplar to visiting educators looking to implement AVID in their districts.

MMSD high school implementation reflects expansion in AVID implementation since 2009, with schools moving toward routine use (2) and institutionalization (3). Overall, MMSD high schools averaged scores of 2 or higher in the areas of student selection, voluntary participation, scheduling of the AVID elective class, tutorial implementation, data use, and site team implementation. Areas of growth included: (a) enrollment and performance in advanced placement courses, (b) reading and writing curriculum schoolwide, (c) collaboration and inquiry schoolwide, and (d) the development of a long-term AVID professional learning plan at the school level. Figure 1 shows the average score for MMSD high schools by each AVID Essential.

MMSD middle schools are in the early phases of implementation, with all schools reaching certification during their 2nd year in Spring 2014. Each middle school received a 1 (meets certification) in all 11 Essentials. MMSD aligns with national trends for 2nd-year implementation. Districtwide, middle school areas of strength included student selection and course scheduling. Areas for improvement for middle school included further development of AVID Writing, Inquiry, Collaboration, Organization, Reading (WICOR) strategies within the AVID elective class and schoolwide, increased use of data, stronger AVID tutorials, and greater access to advanced coursework. Figure 2 shows average middle school certification scores for MMSD by Essential.

FIGURE 1: Average MMSD High School Certification Scores by the 11 AVID Essentials*

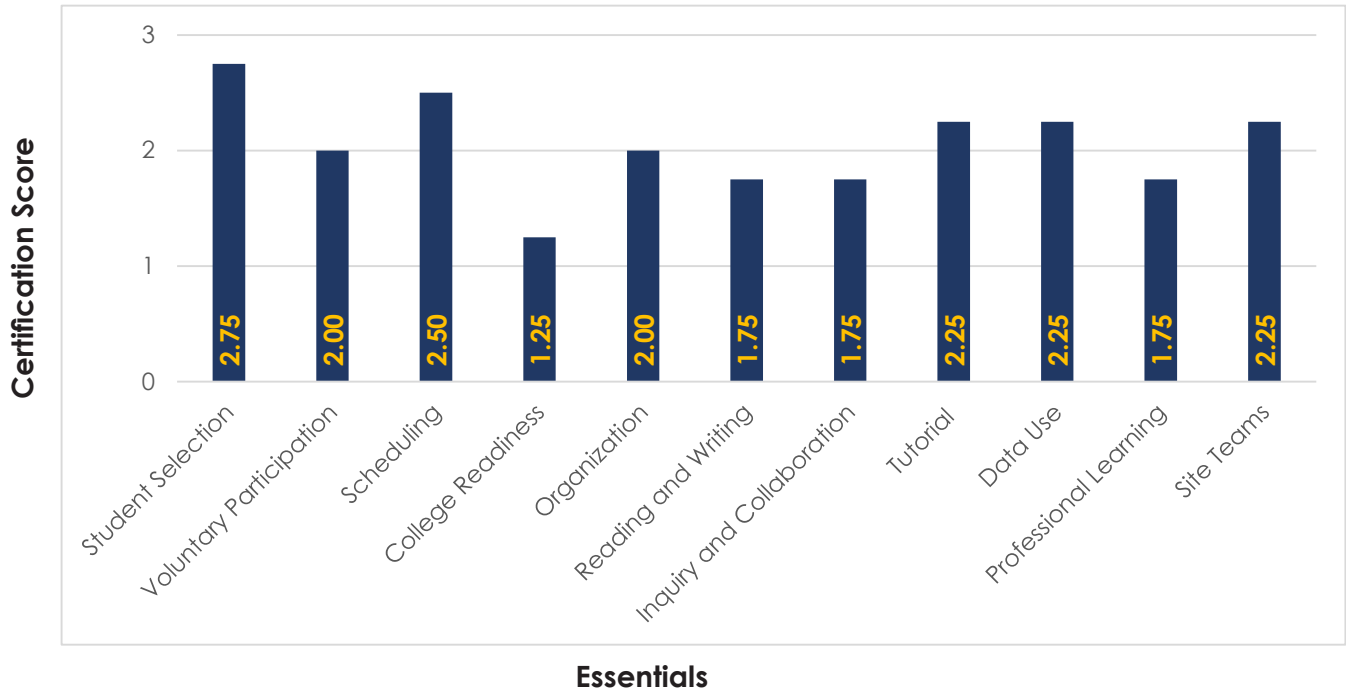
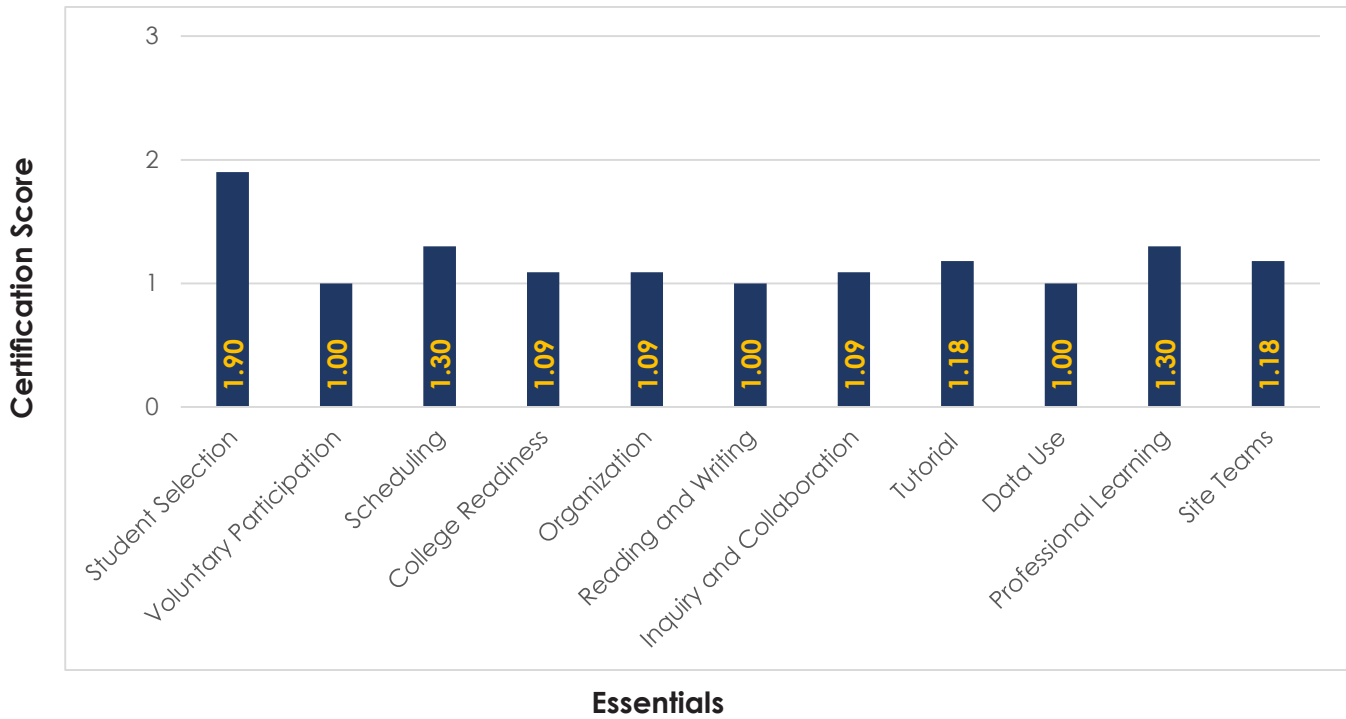


FIGURE 2: Average MMSD Middle School Certification by the 11 AVID Essentials*



Note: *Each Essential can receive a maximum score of 3. Figure provided by MMSD.

AVID Implementation

During the 2013-2014 school year, MMSD offered 58 sections of AVID in Grades 7 through 12, serving 1,188 students (Table 1). Generally one class per grade was offered in middle school. At the high school level, two or three freshman elective classes and two sophomore classes were offered. High schools maintained enrollment for one or two classes during students' junior and senior years. The smaller upperclassman cohort size is partly due to schools not adding students to AVID after the first semesters of their junior years.

AVID and AVID/TOPS served approximately 10% of MMSD's seventh- through 12th-grade student population. Seventy percent of AVID and AVID/TOPS students were eligible for free or reduced price lunch, 55% were female (Table 2a). While the district is 19% African American and 16% Hispanic, these groups represent 30% and 30% of the AVID population respectively (Table 2b). Following the national trend, boys (45%) are underenrolled in AVID. From the 2012-2013 academic year to the 2013-2014 academic year, enrollment in the high school AVID program increased for African Americans from 28% to 30%.

TABLE 1: Number of AVID Course Sections Offered and Total AVID Enrollment by Grade

Grade Level	Enrollment*	Number of Sections
7	231	13
8	309	14
9	242	10
10	162	8
11	143	6
12	101	6
Total	1,188	57

TABLE 2a: 2013-2014 Middle School and High School AVID Enrollment by Grade, Income, and Gender

	Total AVID Enrollment*	Low Income	Non-Low Income	English Language Learner	Special Education	Female	Male
Grade 7	231	70%	30%	37%	6.4%	55%	45%
Grade 8	309	73%	27%	38%	9%	54%	46%
Total MS	540	71.5%	28.5%	37.5%	7.7%	54.5%	45.5%
Grade 9	242	72%	28%	38%	12%	57%	43%
Grade 10	162	68%	32%	37%	8%	56%	44%
Grade 11	143	63%	37%	35%	6%	53%	48%
Grade 12	101	66%	33%	43%	3%	59%	41%
Total HS	648	67%	33%	39%	7%	56%	44%

Note: *Enrollment based on 3rd Friday September counts. Table provided by MMSD.

TABLE 2b: 2013-2014 Middle School and High School AVID Enrollment by Grade and Race

	Total AVID Enrollment*	Multiracial	African American	Hispanic	Asian American	White	Native American
Grade 7	231	8	23%	32%	9%	27%	**
Grade 8	309	**	28%	27%	11%	24%	**
Total MS	540	0	25.5%	29.5%	10%	25.5%	0
Grade 9	242	**	34%	30%	6%	20%	**
Grade 10	162	**	25%	35%	7%	22%	**
Grade 11	143	**	30%	24%	10%	25%	**
Grade 12	101	**	31%	30%	13%	17%	**
Total HS	648	**	30%	30%	9%	21%	**

Notes: Table 2a and Table 2b provided by MMSD. Percentages may not add to 100% due to rounding.

*Enrollment based on 3rd Friday September counts.

**Due to small sample size, numbers have been suppressed per district standards.

Program Retention

All AVID/TOPS and AVID/College Club programs seek to retain all students who enroll in the AVID elective class. Each school-based AVID site team identifies and closely monitors academically struggling AVID and AVID/TOPS students. Table 3 shows retention data. Student attrition typically occurs through three avenues:

1. they leave the district or transfer to a district school that does not offer AVID programming, such as Badger Rock Charter Middle School, Shabazz Alternative High School, or Innovative and Alternative Education;
2. they voluntarily drop the AVID elective class; or
3. they are asked to exit the program because their cumulative grade-point average dropped below the 2.0 bar for at least two semesters.

Ninety-six percent of middle school students and 89% of high school students who participated in AVID/TOPS during the 2013-14 school year remained in the program for the entire year. Compared to 2012-2013, overall program retention rates improved by 2% in 2013-2014.

Among the small number of middle school students who left the program, 99% did so because they transferred to a school outside of MMSD. For the 11% of high school students who exited (77 students), 17% moved from the district or transferred

to other schools within the district that did not have AVID/TOPS, 45% of students voluntarily dropped the program from their schedule, and 38% of students were removed because their cumulative grade-point averages dropped below 2.0 for at least two semesters.

Asian American, Hispanic, and students for whom English is a second language had higher rates of retention than other students. Students in special education had the lowest retention rate at 83%.

91% of AVID/TOPS students were retained in the program in 2013-2014

TABLE 3: Retention in the AVID/TOPS Program

MMSD Data Categories	AVID Enrollment*	Number of Students Who Exited AVID during 2013-2014**	Percentage of Students Retained in AVID during 2013-2014
Total	1,188	101	91
Grade 7	231	9***	96
Grade 8	309	15***	95
Grade 9	242	28 (6 moved, 10 self-exited, and 12 exited)	88
Grade 10	162	22 (5 moved, 9 self-exited, 8 exited)	86
Grade 11	143	20 (6 moved, 14 self-exited/exited)	86
Grade 12	101	7 (2 moved, 5 self-exited)	93
Male	535	54	90
Female	653	47	93
Asian American	106	5	95
African American	345	34	91
Hispanic	356	23	94
Multi-racial	118	13	89
White	261	26	90
Low Income	831	63	92
Non-Low Income	357	38	89
English Language Learners	451	29	94
Non-English Language Learners	737	72	94
Special Education	95	16	83
Non-Special Education	1093	85	92

Notes: Table 3 provided by MMSD.

*Enrollment based on counts as of 3rd Friday of September 2013.

**Students who moved from the district, dropped the elective, or were removed from AVID during the 2013-2014 academic year. Due to small population size, some racial categories are suppressed per district standards.

*** The majority moved out of the district. Due to small population size, values have been suppressed per districts standards.

Another important form of retention is continuity between middle school AVID and high school AVID/TOPS. Of the students enrolled in AVID in eighth grade, 68% applied for and were accepted into the high school AVID/TOPS program.

Finally, as students graduate from high school, AVID/TOPS aims for them to make successful transitions to college. Table 4 shows the rates of college enrollment and persistence to the 2nd year of college for students in the cohort graduating from 2010 to 2014.

TABLE 4: College Enrollment and Persistence Rates, Cohorts of 2010-2014

Graduation Year	Number of AVID/TOPS Graduates	Percentage of Graduates Enrolling in College	Percentage of College Entrants Retained after 1 year
2010*	10	90	100
2011*	21	95	86
2012*	18	100	94
2013	84	93	88
2014	93	91	-

Notes: * Graduates of East High School only. 2013 and 2014 capture districtwide AVID/TOPS graduates. Enrollment includes students at all institutions (public, private, and for-profit schools). Enrollment in college is by the Fall following Spring high school graduation. Data provided by National Student Clearinghouse. Table provided by BG CDC.

Wisconsin HOPE Lab Evaluation of Student Outcomes

Since 2009, MMSD and BGCDC have partnered with the University of Wisconsin–Madison to conduct an annual assessment of the AVID/TOPS system. Since 2012, Sara Goldrick-Rab has served as principal investigator. In 2014, Dr. Goldrick-Rab's affiliation within the University of Wisconsin–Madison changed, and the Wisconsin Harvesting Opportunities for Postsecondary Education (HOPE) Lab conducted the evaluation.

The report analyzes measurable student outcomes for the AVID and AVID/TOPS programs. Research questions include:

1. How does the achievement of high school AVID/TOPS students compare to academically and demographically similar non-AVID/TOPS peers?
2. What effect does AVID/TOPS have on students over time? Do students who receive a full dosage of the AVID/TOPS program have better outcomes than students receiving a partial dosage?
3. How does the achievement of middle school AVID students compare to academically and demographically similar non-AVID peers?

Methodology

High School Estimates

Estimates of high school program effects were calculated using propensity score analysis. This approach compares AVID/TOPS students to similar non-AVID/TOPS who were matched based on similar academic, attendance, and behavioral records prior to high school, attendance at the same high school, and demographic and family background characteristics (e.g., gender, race/ethnicity, low income status, English language learner status, special education status, and Wisconsin Knowledge and Concepts Examination (WKCE) scores in math and reading). High school AVID/TOPS students were not identified based on their possible middle school involvement, therefore AVID/TOPS students could or could not have participated in AVID in middle school. Non-AVID students were never exposed to AVID in middle or high school. Districtwide, a match could not be identified for 12 of the 645 AVID/TOPS students identified in the data. These students were removed from the analysis. Thus, we cannot say if the results apply to the 12 non-comparable students.

This method matches students using a composite score computed for each student within each school and race category (e.g., a score is computed for each Hispanic student at West High School, for each African-American student at East High School, etc. and then matches are made within those categories). This approach pairs each AVID/TOPS student to a single non-AVID/TOPS student. The pairing is done based on student characteristics that are measured from the district's administrative records. Students cannot be matched on other important but unobservable characteristics not present in the administrative records. It is possible that differences among AVID/TOPS and non-AVID/TOPS students on

these other characteristics could explain observed differences in their outcomes, instead of the difference stemming from program effects. The analysis bears this risk given that no alternative strategies for estimating program effects are available.

We estimate impacts of the high school program on outcomes of interest. For the 2013-2014 analysis, program success was measured by a series of student outcomes: cumulative grade-point average (GPA), GPA in core courses, enrollment in and GPA for Advanced Placement/Honors (AP/Honors) courses, attendance rates, and behavioral events. Behavioral events are recorded at the student level for infractions outlined in the 2013-14 Student Code of Conduct. To learn if the amount of time spent in AVID/TOPS has an impact on student outcomes, we measure the cumulative GPA and graduation rate for the cohorts of students that graduated in 2013 and 2014; students who could have experienced AVID/TOPS for all 4 years.

Middle School Estimates

The method for evaluating the 2013-2014 middle school AVID program was very similar to that used for the high school analysis that compared AVID students and their matched non-AVID students based on their sixth-grade pre-program characteristics, including attendance, academic, and behavioral records within racial categories and middle schools that had the same demographic and family background characteristics (e.g., gender, race/ethnicity, low income status, English language learner status, special education status).

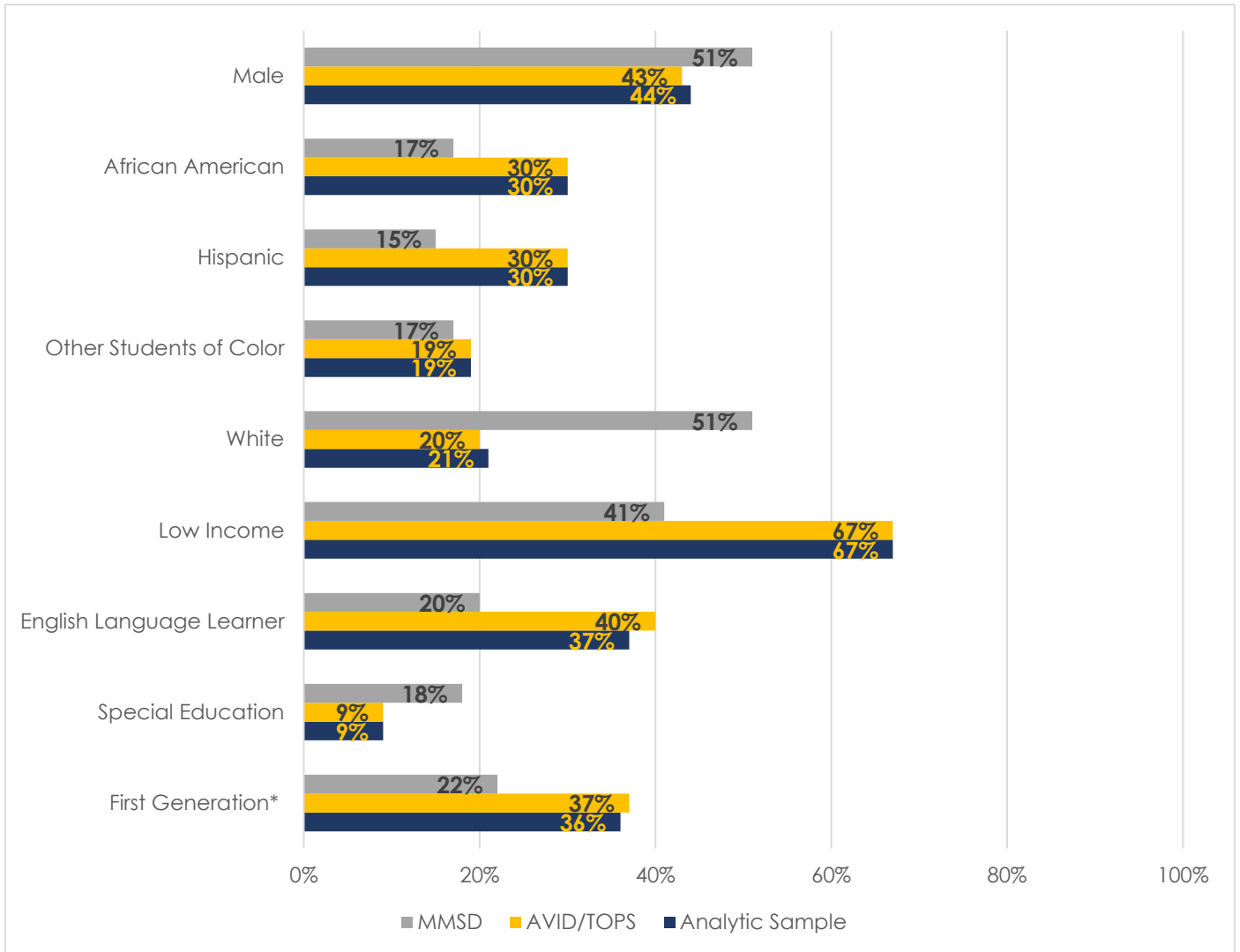
We estimate impacts of the middle school program on focal outcomes of interest measured in eighth grade: cumulative GPA, ACT Explore tests of college readiness, attendance rates, and behavioral events.

High School Sample

Overall, the AVID/TOPS population and the combined AVID/TOPS and comparison group analytic sample used in the analysis were approximately two-thirds low-income, 20% non-Hispanic White, 30% African American, 30% Hispanic, and 20% students of another race (Figure 3). Less than half of each sample was male; more than one third would be the first in their family to attend college; and 40% were English language learners. As determined by AVID/TOPS selection, students came from the ac-

ademic middle, with an average 3.0 GPA in eighth grade. Figure 3 shows the similarity among the demographic characteristics of MMSD high school students, AVID/TOPS students, and the analytic sample. Overall, Table 5 (on the next page) shows that the analytic sample looks very similar to the total AVID/TOPS population with a few exceptions: there are significant differences between English language learners, attendance rates, and WKCE scores. Even with these differences, the matches suggest that findings hold for the average AVID/TOPS student.

FIGURE 3: Demographic Characteristics of High School Students in MMSD, AVID/TOPS, and Analytic Sample



Note: *First generation is defined as students whose parents indicated never receiving post-secondary education.

As Table 5 indicates, the matching process produced similar sample and comparison groups. The few remaining differences would likely produce smaller impact estimates as evidenced by slightly higher English language learner and lower eighth-

grade outcomes. That is, the high school matching procedure should underestimate the returns to the AVID/TOPS system, suggesting that findings described are conservative estimates.

TABLE 5: Demographic Characteristics of the High School AVID/TOPS Sample and Matched Comparison Group

	AVID/TOPS Sample	Comparison Group
Male	44%	43%
African American	29%	29%
Hispanic	30%	30%
Other Students of Color	19%	19%
White	21%	21%
Low Income	67%	66%
English Language Learners	40%	34%
Special Education	9%	9%
Male Students of Color	33%	34%
Low Income Students of Color	61%	60%
Low Income Male Students	26%	28%
Eighth-Grade GPA	3.02	3.02
Eighth-Grade Attendance Rate	96.44%	96.23%
Eighth-Grade Behavior Referrals	1.07	1.09
Eighth-Grade WKCE Math Score	2.51	2.59
Eighth-Grade WKCE Reading Score	2.71	2.76

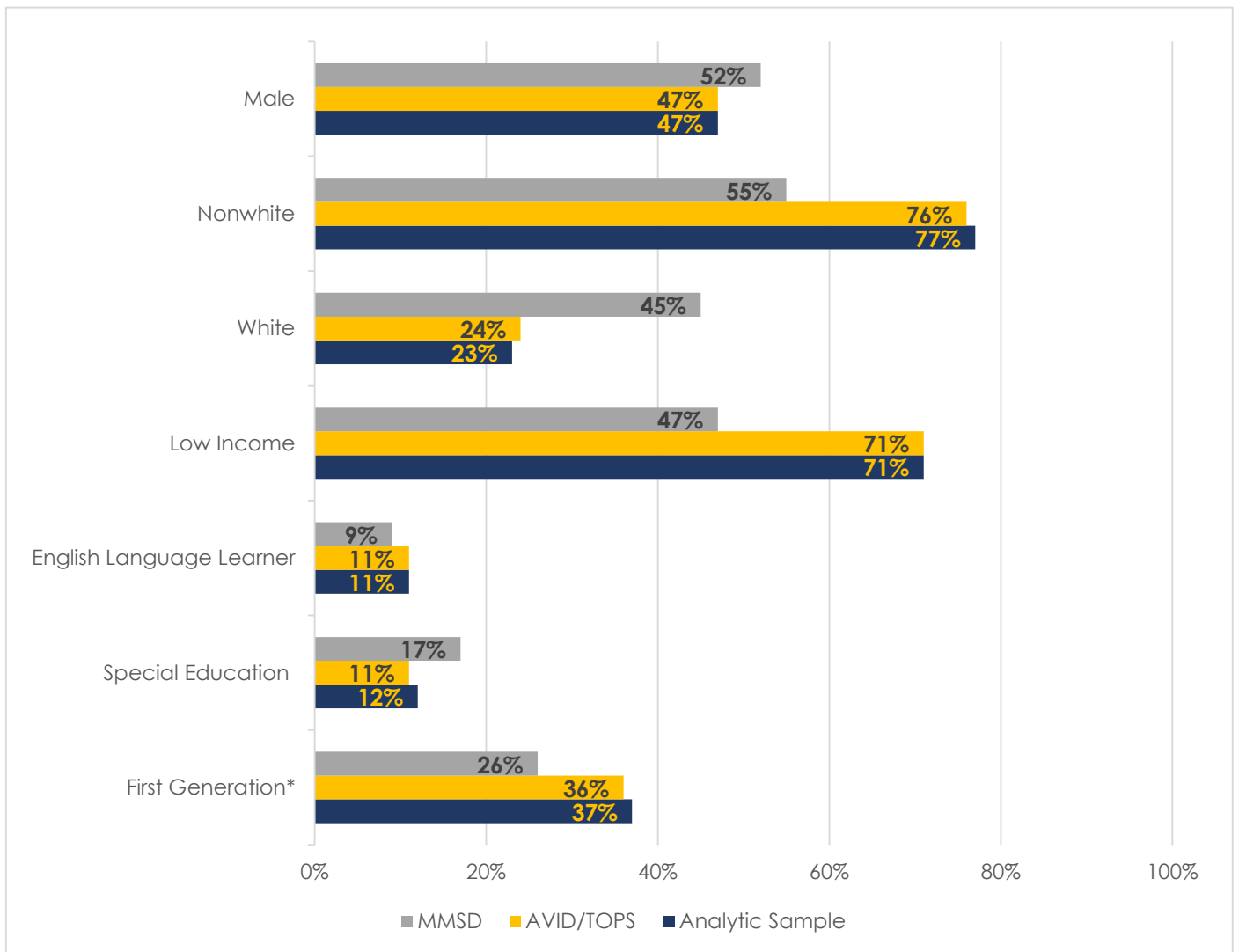
Notes: Samples are statistically equivalent across all metric except the following: English language learner status, eighth-grade behavior referrals, and eighth-grade WKCE scores. Students in the comparison group were never exposed to AVID. High school AVID students are not selected for their participation in middle school AVID, therefore students could or could not have participated in AVID in middle school.

Middle School Sample

Overall, the middle school AVID population and the combined AVID and comparison group sample used in the analysis were very similar. Students were matched based upon their grade prior to entry into AVID: sixth or seventh grade. Slightly more than two-thirds of students were low-income, and three-quarters were nonwhite. Due to small sample sizes, students could not be matched within racial categories. Less than half of the students were male

and 64% of students in the AVID sample were low-income students of color. Eleven percent of students were English language learners. As determined by AVID selection, students came from the academic middle, with an average 2.0-3.5 GPA in their entering year. Figure 4 and Table 6 show the similarities between the demographic characteristics of MMSD middle school students, AVID students, and the total analytic sample. Student WKCE scores, behavior, and attendance were also similar at baseline within grade level bands.

FIGURE 4: Demographic Characteristics of Middle School Students in MMSD, AVID, and Analytic Sample



Note: *First generation is defined as students whose parents indicated never receiving post-secondary education.

TABLE 6: Demographic Characteristics of the AVID Middle School Sample and Matched Comparison Group

	AVID Sample	Comparison Group
Male	47%	48%
Nonwhite	77%	77%
Low Income	72%	69%
English Language Learner	11%	12%
Special Education	11%	13%
Male Students of Color	33%	36%
Low Income Students of Color	64%	60%
Low Income Male Students	30%	31%
Sixth- Grade GPA	2.99	2.92
Seventh-Grade GPA	2.90	2.82
Sixth-Grade Attendance Rate	96.42%	96.08%
Seventh-Grade Attendance Rate	96.22%	95.99%
Sixth-Grade Behavior Referrals	1.00	0.96
Seventh-Grade Behavior Referrals	1.37	1.54
Sixth-WKCE Math	2.73	2.64
Seventh-WKCE Math	2.07	2.02
Sixth-WKCE Reading	3.09	2.99
Seventh-WKCE Reading	1.93	1.85

Notes: Samples are statistically equivalent except for the following: low income students of color, male students of color, sixth- and seventh-grade attendance, sixth- and seventh-grade GPA, sixth- and seventh-grade WKCE scores.

Middle school students were matched to students based upon district feeder patterns, with students paired with like students who would attend the same high school (Table 7).

TABLE 7: Feeder Middle Schools

High School	Middle Schools
East	Blackhawk; O’Keeffe; Sherman
La Follette	Badger Rock Charter; Sennett; Whitehorse
Memorial	Jefferson; Spring Harbor; Toki
West	Cherokee; Hamilton; Wright

High School Impacts

The results suggest that the AVID/TOPS program is positively associated with markers of college readiness for high school students, markers believed to increase these students’ ability, and their desire to attend college and experience success there. These qualities include increased cumulative GPAs, higher levels of participation in AP/Honors courses, stronger class attendance, and fewer behavioral referrals, as well as higher chances of graduating from high school. Importantly, the impacts of AVID/TOPS for the 2013-2014 school year are broadly similar to those for the 2012-2013 school year.

IMPACT #1

Legend



AVID/TOPS



COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

IMPACT 1: Grade-Point Average

The results (displayed in Figures 5 and 6) indicate that AVID/TOPS increases the cumulative and core GPAs of high school students, particularly for low-income students, African-American students, low-income students of color, and male students of color. For example, low-income students in AVID/TOPS earned an average 2.61 cumulative GPA compared to a 2.39 GPA for comparison group students (Figure 5). In the core courses of math, English, science, and social studies, African-American students in AVID/TOPS averaged a 2.29 GPA compared to a 2.07 GPA for comparison group African-American students (Figure 6).

FIGURE 5: Impacts of AVID/TOPS High School Program on Cumulative GPA

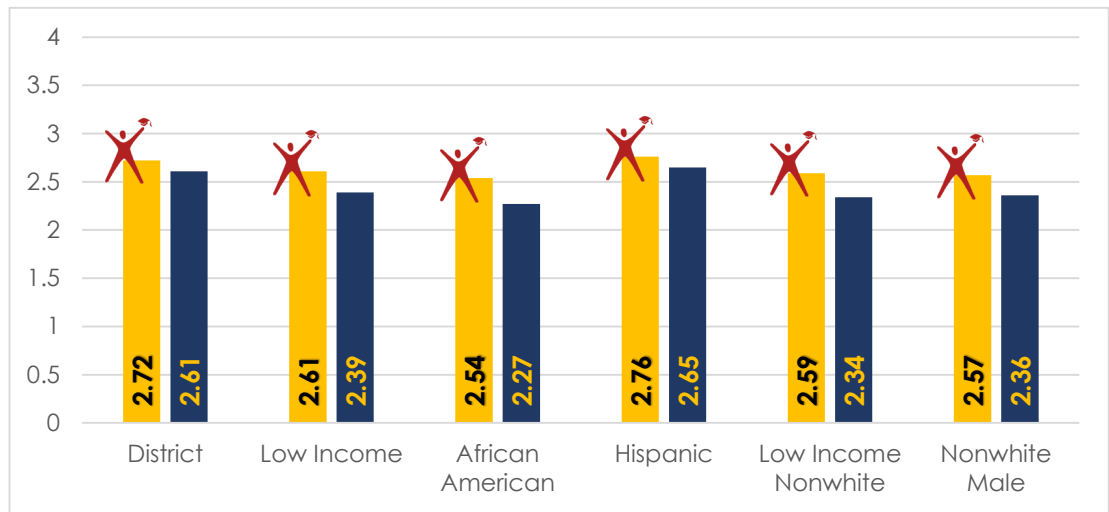
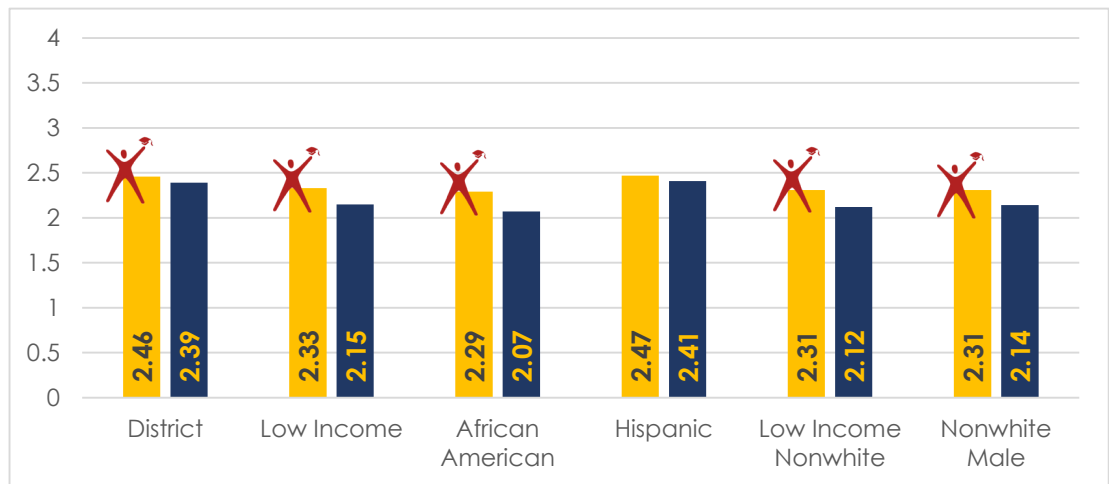


FIGURE 6: Impacts of AVID/TOPS High School Program on GPA in Core Courses



IMPACT #2

Legend



AVID/TOPS



COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

IMPACT 2: AP/Honors Course-taking

AVID/TOPS increases rates of enrollment in AP/Honors courses for some students, including all focal subgroups. The program also increases the grades low-income students earn in those courses (see Figures 7 and 8). For example, the AP/Honors enrollment rate in AVID/TOPS was 50% for low-income students, 53% for African-American students, and 58% student for Hispanic students—far higher than the rates for comparison group students (37%, 32%, and 47% respectively).

These program impacts are important for two reasons. First, the program seems to encourage students to engage in challenging coursework. Second, the increased enrollment in that more difficult coursework might explain why (on average) AVID/TOPS students' GPAs are only slightly higher than their comparison group peers. But it is worth noting that low-income students in AVID/TOPS participated in AP/Honors courses at higher rates and earned better GPAs than comparison group students.

FIGURE 7: Impacts of AVID/TOPS High School Program on AP/Honors Enrollment

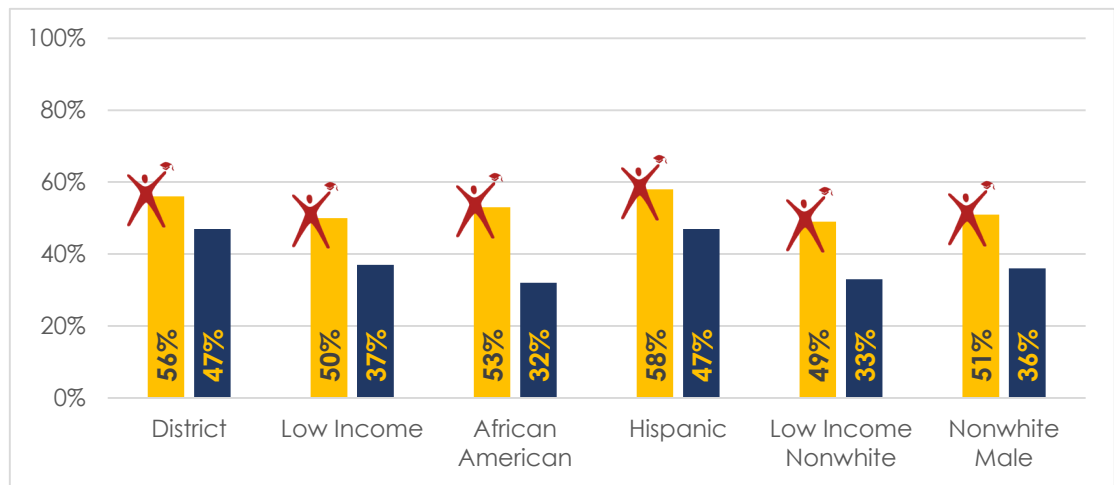
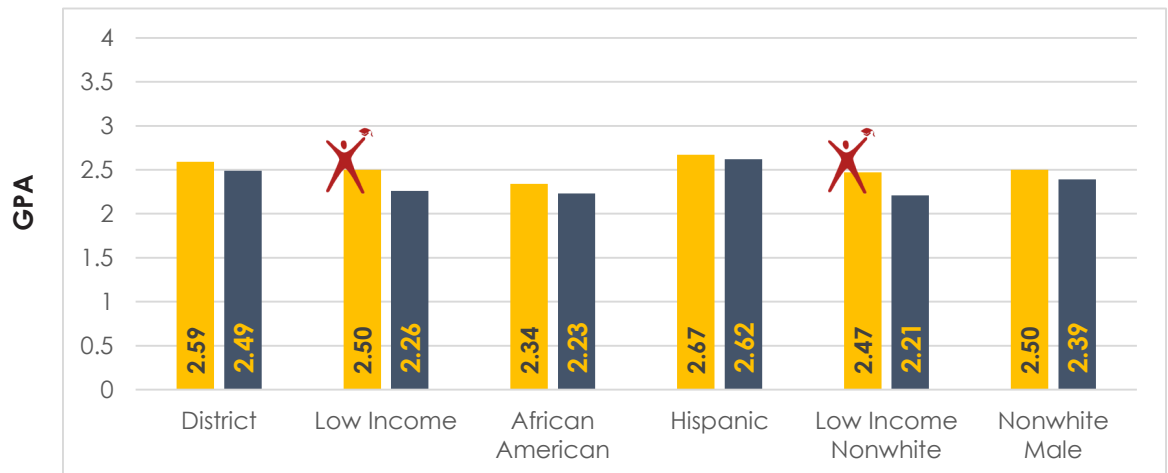


FIGURE 8: Impacts of AVID/TOPS High School Program on AP/Honors GPA



IMPACT #3

Legend



AVID/TOPS



COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

*Note: Percentage with behavioral events identifies the percentage of students who experienced any behavior event. It does not account for severity or number of events.

IMPACT 3: Attendance and Behavior

The AVID/TOPS program reduces the number of days students miss school (Figure 9). The fraction of students with behavioral events is also reduced (Figure 10). On average, AVID/TOPS students missed two fewer days of school than comparison group students; the impact was larger for low-income and African-American students (3 days) as well as low-income and/or male students of color (3.5 days). Just more than one in four African-American students in AVID/TOPS had a behavioral event, compared to almost 34% of comparison group students.

FIGURE 9: Impacts of AVID/TOPS High School Program on Number of Days Absent

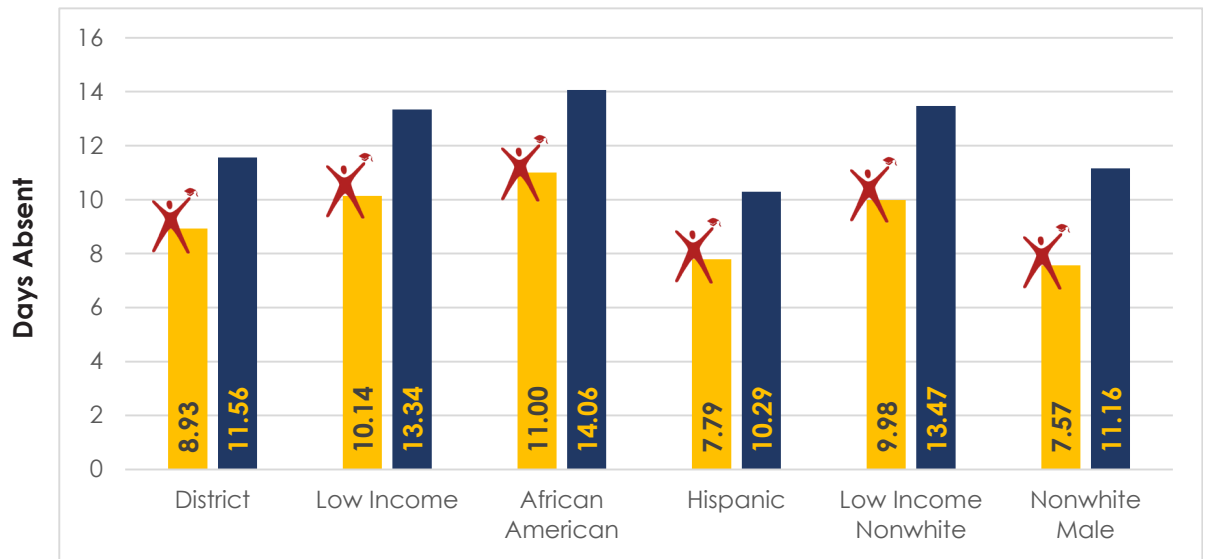
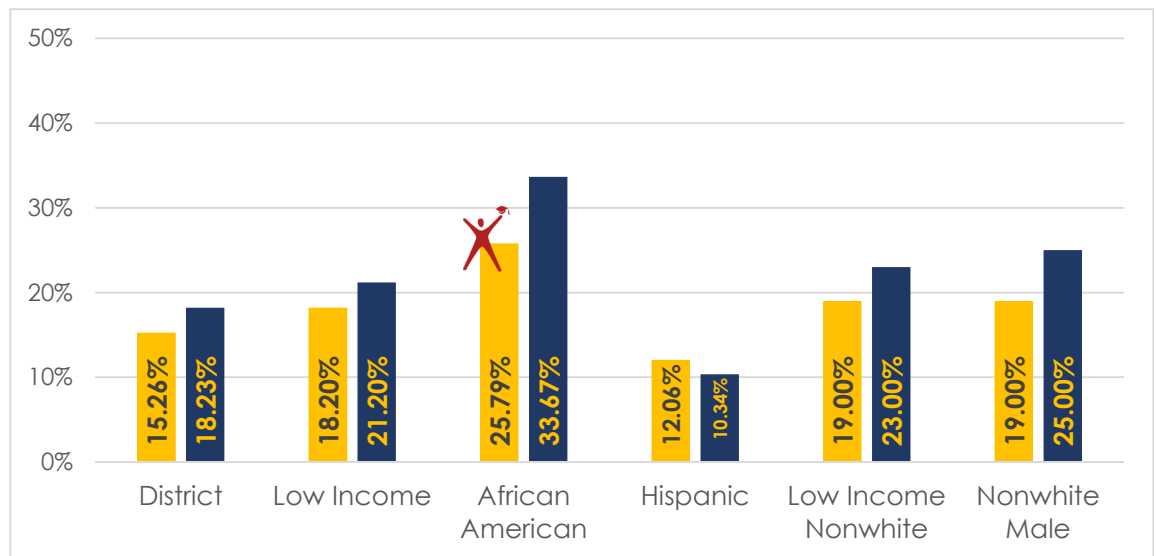


FIGURE 10: Impacts of AVID TOPS High School Program on Percentage of Students with Behavior Events*



IMPACT #4

Legend



AVID/TOPS



COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

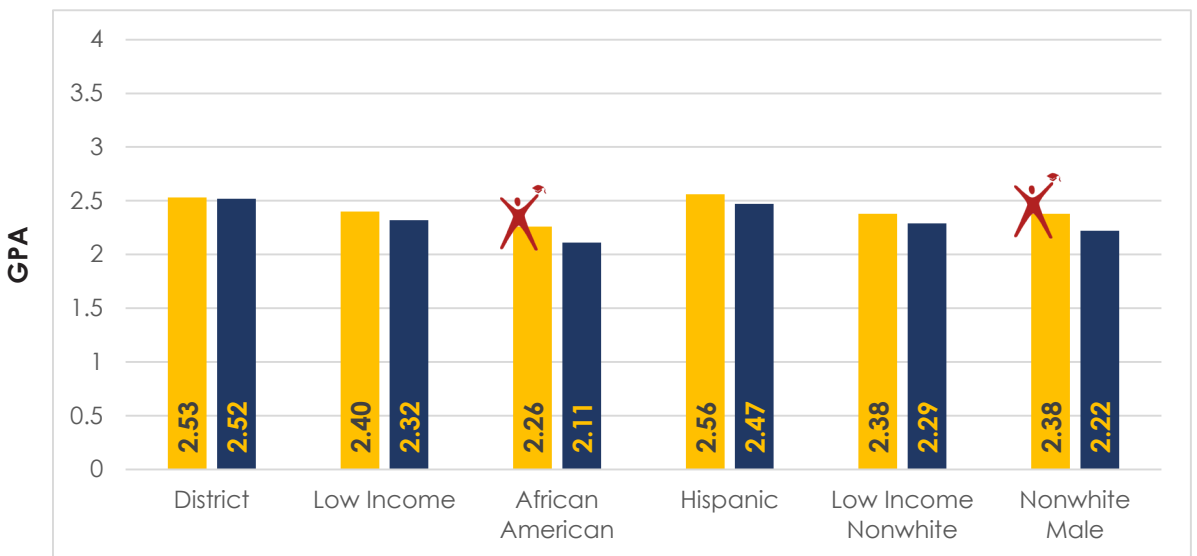
IMPACT 4: Dosage

AVID/TOPS is a voluntary program with requirements for continued participation. As such students who are offered the chance to participate may spend only a limited amount of time in the program. Because some AVID/TOPS students leave the program each year, program impacts may vary, such that average effects may conceal significant differences between effects for students who spend all 4 years of high school in the program and those who participate less than 4 years.

To examine these relationships, we group students who were offered AVID/TOPS in their ninth-grade year by their final “dosage”—a full treatment of AVID/TOPS over 4 years or a partial dosage. Students obtained a full dosage of AVID/TOPS by remaining in the program all 4 years of high school. Students who experienced a partial dosage entered AVID/TOPS in their freshman year, but they left the program before graduation for any of the three reasons previously described. We collect these two disparate groups into an “any” category, which encompasses students who experienced AVID/TOPS in any capacity while in high school. This overarching category explains the “average” effect of AVID/TOPS. We then estimate impacts on 12th-grade GPA and high school graduation prospects. We do this only for students who remain in the school district for all years of high school; they are the only students who could experience 4 years of AVID/TOPS. Students entering high school in 2009 and 2010 are used for this analysis.

We find that there are positive impacts of AVID/TOPS on 12th-grade GPA (Figure 11a) and high school graduation rates, on average. However, as Figures 11b and 11c indicate, this finding conceals differences in impact based on dosage—students who receive a full dosage of AVID/TOPS respond favorably on both outcomes, while impacts are not detectable for students receiving only a partial dosage. The program may have short-term impacts for these students, but the analysis is unable to establish lasting changes.

FIGURE 11a: Impacts of Any AVID/TOPS High School Program Exposure on 12th-Grade Cumulative GPA, Classes of 2013 and 2014



IMPACT #4

Legend



AVID/TOPS



COMPARISON GROUP

FIGURE 11b: Impacts of Partial Dosage AVID/TOPS High School Program on 12th-Grade Cumulative GPA, Classes of 2013 and 2014

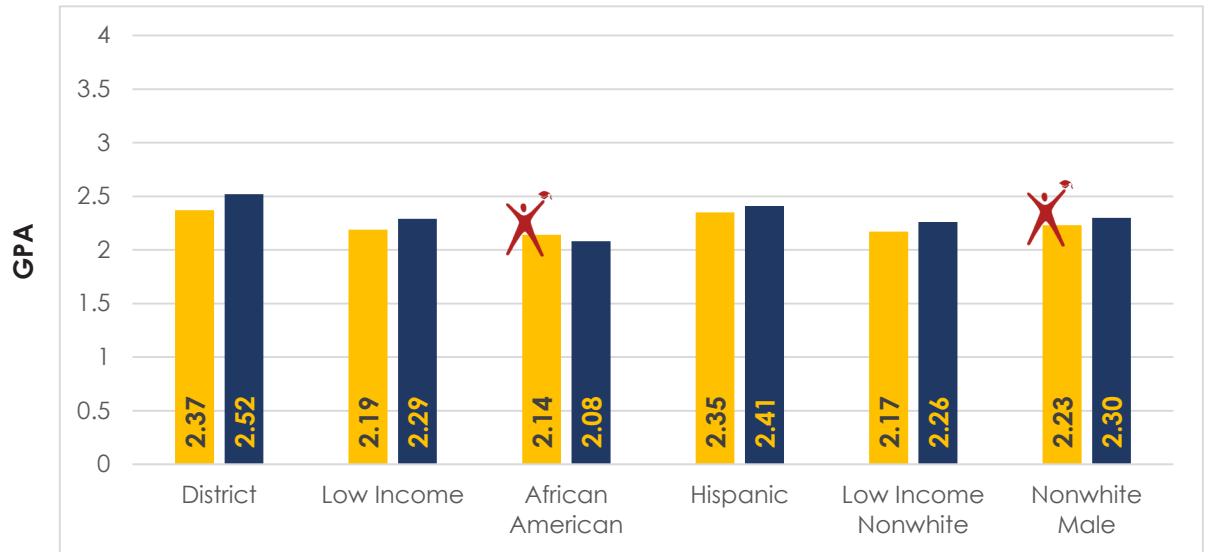
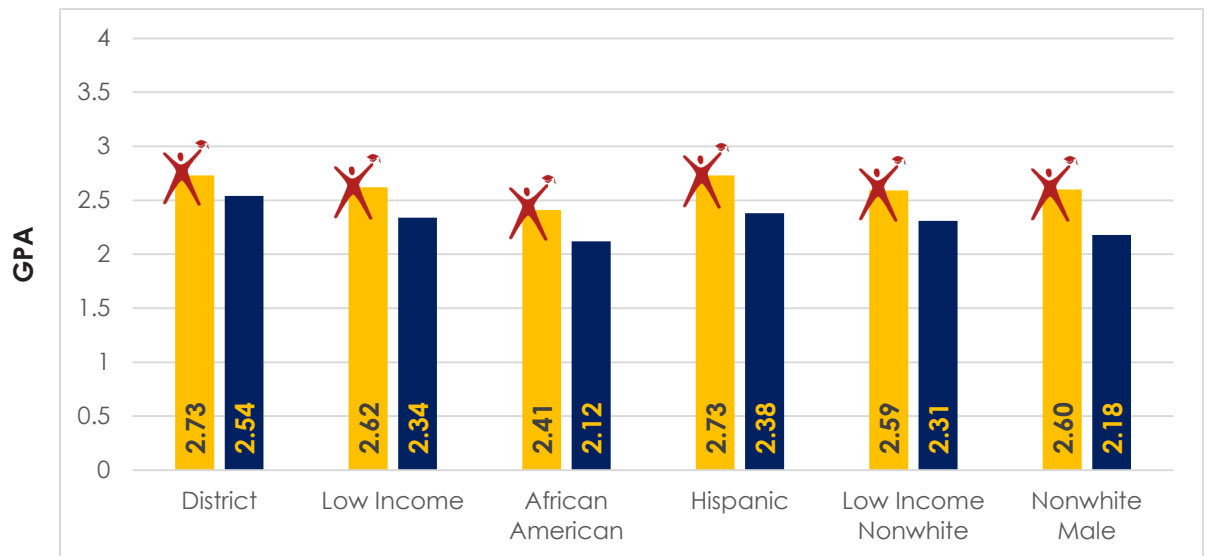


FIGURE 11c: Impacts of Full Dosage AVID/TOPS High School Program on 12th-Grade Cumulative GPA, Classes of 2013 and 2014



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL



IMPACT #4

Legend



AVID/TOPS



COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

A full dosage of AVID/TOPS increases 12th-grade cumulative GPA, and the impact is most pronounced for male students of color, for whom GPA improves from 2.2 to 2.6.

When focusing on students who remain in MMSD throughout high school, a full dosage of AVID/TOPS improves high school graduation rates from 89% to 97% on average, with similar impacts observed for low-income students and male students of color (Figures 12a-c).

FIGURE 12a: Impacts of Any AVID/TOPS High School Program Exposure on High School Graduation Rate, Classes of 2013 and 2014

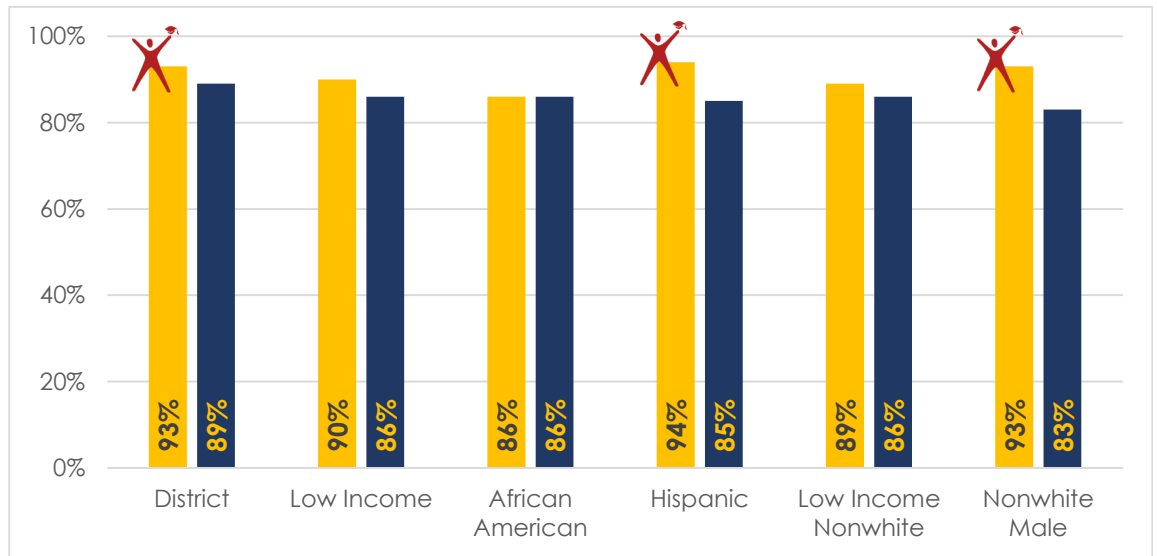


FIGURE 12b: Impacts of Partial Dosage AVID/TOPS High School Program Exposure on High School Graduation Rate, Classes of 2013 and 2014

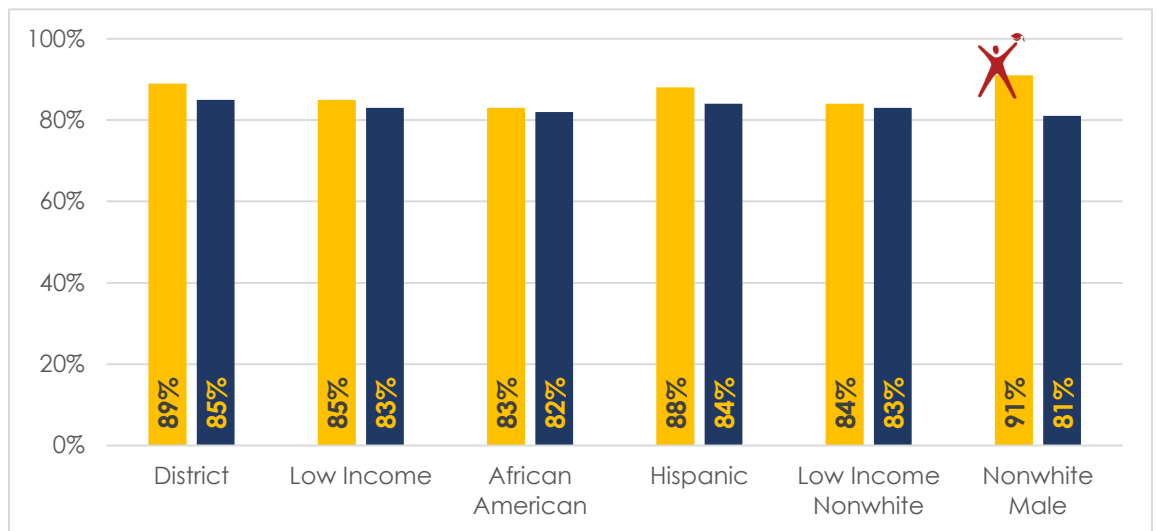


FIGURE 12c: Impacts of Full Dosage AVID/TOPS High School Program Exposure on High School Graduation Rate, Classes of 2013 and 2014

IMPACT #4

Legend



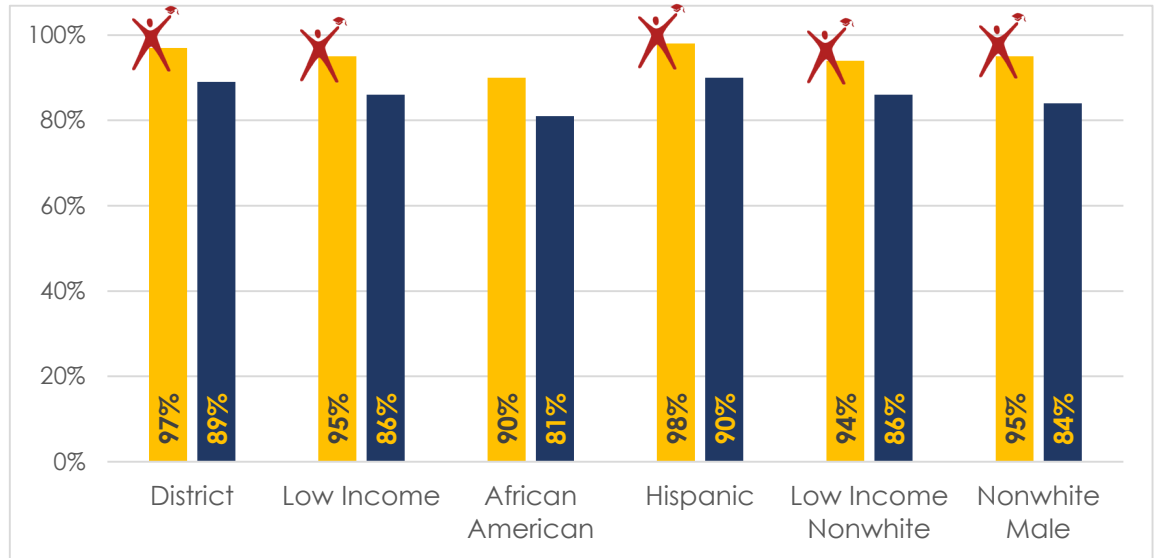
AVID/TOPS



COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL



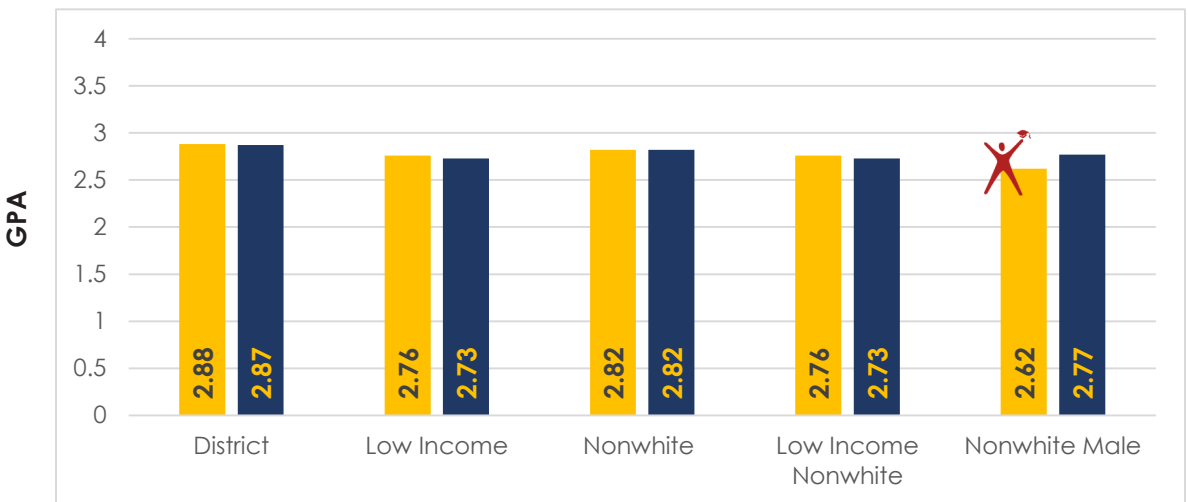
Middle School Impacts

The assessment of the middle school AVID program is based on eighth-grade outcomes. Students entered the program in seventh or eighth grade. Because the middle school AVID program is only in its second year of implementation in the district, it is unsurprising that few program impacts are detected at this time. Analyses show no significant impacts on grade-point average, attendance, and behavior. AVID student EXPLORE scores are significantly but not practically lower than their control group peers. This effect holds across subgroups. Due to small sample sizes, students cannot be parsed out by racial subgroups.

Grade-Point Average and EXPLORE Test Scores

AVID students have very similar GPAs to comparison group students; no statistically significant program impacts are revealed in Figure 13. Figures 14 and 15 illustrate similar results for eighth-grade test scores.

FIGURE 13: Impact of AVID Middle School Program on Eighth-Grade GPA



Legend



AVID

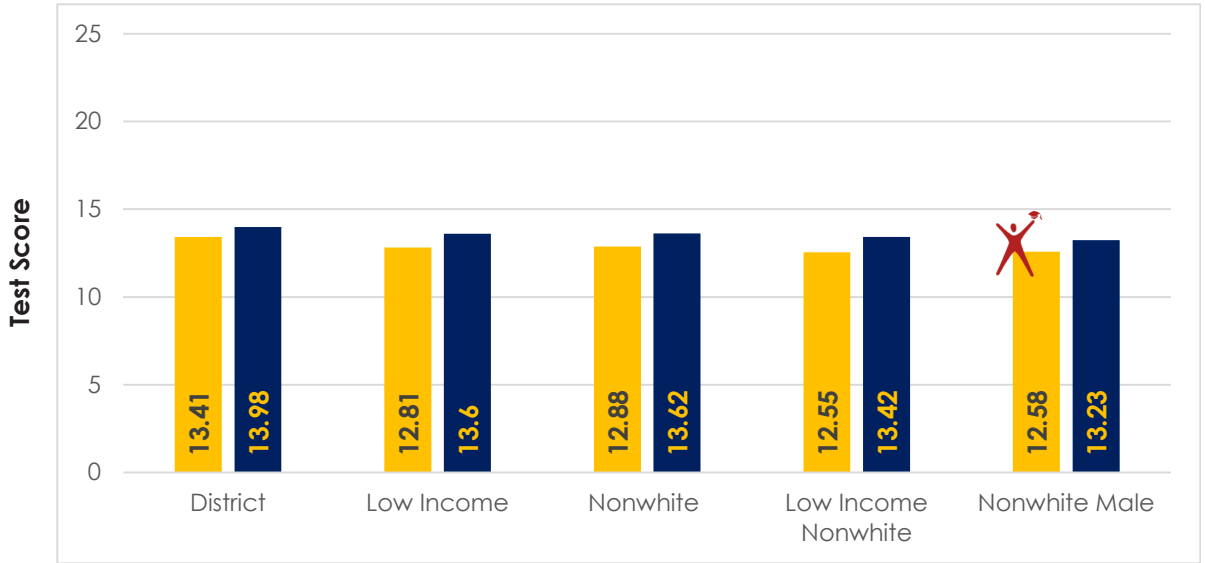


COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

FIGURE 14: Impact of AVID Middle School Program on Eighth-Grade Reading EXPLORE Test Scores



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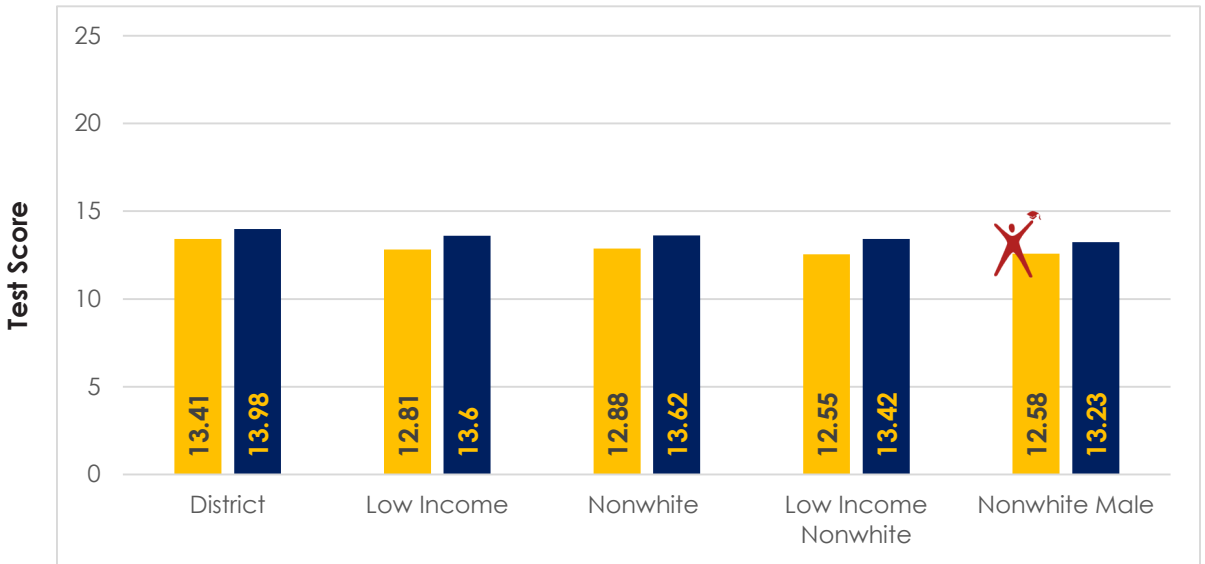


AVID



COMPARISON GROUP

FIGURE 15: Impact of AVID Middle School Program on Eighth-Grade Math EXPLORE Test Scores



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

Attendance and Behavior

Students in the AVID program and the comparison group attended school 95% of the time (Figure 16). Non-white student results followed the district patterns with a 95% attendance rate. There were no significant differences in referral rates between AVID and comparison group students. Thirty-six percent of AVID students had one or more behavioral events, 41% of the low income AVID students had behavioral events, and 36% of the nonwhite students had referrals (Figure 17).

Legend



AVID



COMPARISON GROUP



DIFFERENCE IS STATISTICALLY SIGNIFICANT AT THE 90% LEVEL

FIGURE 16: Impact of AVID Middle School Program on Eighth-Grade Number of Days Absent

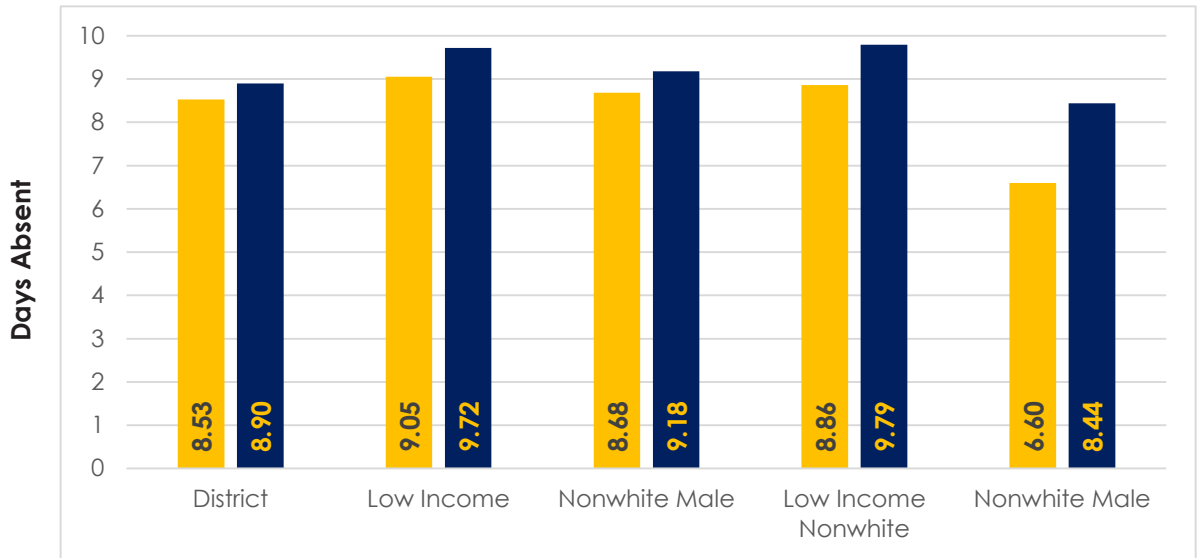
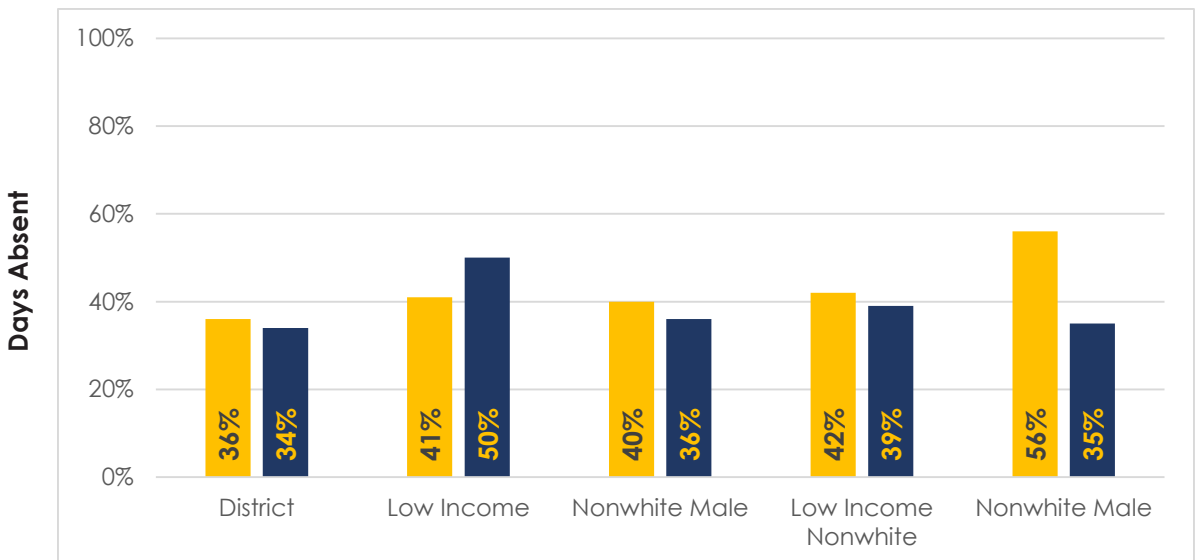


FIGURE 17: Impact of AVID Middle School Program on Percentage of Behavioral Events in Eighth Grade



Summary

The results presented in this evaluation indicate that the AVID/TOPS program appears to have positive impacts on high school students' academic performance by improving grades, rigorous course-taking, and attendance rates. The findings persist across subgroups of interest and are especially strong for low-income students and students of color. Moreover, the results suggest that it is important to keep

students in AVID/TOPS throughout their high school careers to maximize program impacts.

The high school analysis is now in its 5th year. Trends suggest stability in program impacts, with positive outcomes observed, particularly for low-income and minority students.

The middle school implementation of AVID is progressing, but at this time there is no evidence of impact.

The Wisconsin HOPE Lab Mission

The Wisconsin HOPE Lab was established in 2013 on the University of Wisconsin–Madison campus to engage in translational research aimed at improving equitable outcomes in postsecondary education. The center is housed in the School of Education and led by Founding Director Dr. Sara Goldrick-Rab. For more information see wihopelab.com

For more information about this report, please contact Rachel Strauch-Nelson, MMSD director of media and government relations, at rmstrauchnel@madison.k12.wi.us.



A Boys & Girls Club and Madison
Metropolitan School District Partnership



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