

# What do alumni of Detroit high schools struggle with in college?

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## Introduction

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Today, more and more, a college degree is the best guarantee of a successful career and stable, family-supporting income. Yet Detroit's high school graduates attend college at rates significantly lower than their whiter, more affluent peers, and struggle to persist through graduation.

Why is that? With what do our best and brightest Detroit high school graduates, many of whom go on to enroll at a four-year university, struggle?

With the support of the Berman Foundation, Michigan Future Inc. worked with three Detroit high schools—two charter and one public—to administer a “book scholarship” program for alumni to try to learn about what barriers these students face. The high school's alumni received \$100 in the spring of 2019 if they (1) sent a copy of their transcript to their high school, and (2) completed an online survey about their college experience. Each high school reviewed transcripts and survey responses, and analyzed how their alumni were faring. In addition, we provided a central analysis of certain data about the students and compared their high school and college performance. This report summarizes the trends that emerged across the 133 students that participated in the book scholarship across all three high schools.

We learned important things about how high schools can help their students be better prepared for college, and how any youth-serving organization (a school, or a youth development group) could consider supporting Detroit's high school alumni for successful college careers. Overall, this experience also emphasized the

importance of having access to data about how alumni are doing; an institution designed to care about how their students do at the next stage is better able to learn how to improve.

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## Description of the Data

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For the spring of 2018, we have data from 133 students who graduated high school in the years 2014-2017: 15 alumni who graduated in 2014, 25 who graduated in 2015, 37 who graduated in 2016, and 56 who graduated in 2017.

These students performed higher than Detroit averages while in high school. The average high school GPA for the entire sample was 3.23 and the average ACT score was 18.9. (ACT defines 21 as college-ready.) It's important to emphasize that this report does not include students who have dropped out of college.

They are currently enrolled in—or have graduated from—primarily four-year colleges. Two students are attending career/technical education programs, 14 are enrolled in two-year colleges, and the remaining 117 are at four-year institutions. Five students from the class of 2014 have graduated: two from Alma, one from Paul Quinn, and two from the University of Michigan—Ann Arbor.

The qualitative survey that students completed asked questions about their college study habits (how often did they work with other students, how many hours a week did they study, e.g.), engagement on campus (have they attended a social or cultural event on campus, have they met with a faculty member to talk about their courses, e.g.), and other obligations (work on or off-campus, e.g.) and ways they spent their time. The survey also asked students to reflect on their

college experience—whether they feel they belong, whether they feel supported, what successes or challenges have they had—and on whether their high school experience prepared them for college. The survey questions were designed to probe at areas where research suggests students struggle. (For an overview of that research and what it means for high school design, see our [College Success](#) handbook.)

The high schools provided GPA and test score data from high school to MFI, alongside GPA and credit accumulation data from college. In addition, each high school gave each one of their alumni an “agency” score, on a scale of 1-4. This agency score is a qualitative assessment of the student’s character, mindsets, and habits—in other words, a guess of the high school’s confidence that the student “has what it takes” to persist in college. This qualitative score was not always assigned at the point of the student’s high school graduation (for students who graduated in previous years, schools were instructed to think back and assign one retroactively). Given the likelihood that the agency score was not assigned in real time, it’s not a scientific measure by any means—but still interesting.

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## What High Schools Can Do Differently

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In surveys, students reported that they needed additional support in four primary areas:

- More rigorous coursework in high school to prepare for college-level work.
- Support developing successful academic habits.
- Training in financial literacy, especially—but not only—in understanding financial aid.
- Better cultural preparation, especially for non-white students matriculating to predominantly white institutions.

While overall, the students who participated in this book scholarship program are doing well in

college, they do show slow rates of credit accumulation. This should be a big concern to high schools, colleges, and other organizations that support young people. Taking too long to finish college can increase the risks that scholarship loss and of non-completion.

### Rigor

All three high schools report that their students wish high school had been “harder.” One student quoted wrote, “no more worksheets.” Almost all reported not feeling prepared for the significant jump not just in the amount of work, but in the intellectual challenge that they would be expected to participate in in college. Students surveyed suggested that schools structure their classes more like college classes.

From an in-depth look at transcripts, one school noted that their students are struggling with math in particular. It was Michigan Future’s observation that none of our high schools were doing enough—simply by volume, before even talking about quality—reading and writing, a trend that the student surveys seem to confirm.

### Academic Habits

Every school reported that its students are engaging in some important academic behaviors—seeking help, participating in class, studying with peers—but across the board, students are not studying enough. Students’ self-reported studying and class preparation time—which research suggests should equal about 30 hours a week—fell far below those recommendations. Students report spending closer to ten hours doing classwork outside of class. While this may be partly to do with students’ outside responsibilities, such as working or caring for dependents, the lack of studying likely plays a big part in any nonsuccess they’re having. Many graduates are doing less than ten hours of work outside of class a week, and report only spending an hour preparing for class. Many students often going to class with reading or assignments incomplete.

One high school compared transcript data to survey results and report that the students who self-report the best academic habits (studying, seeking help, using office hours, working with peers, etc.) have the strongest GPAs.

In addition, one high school specifically reported that their students need help changing their practices around email. Most of them are not in the habit of checking it daily, and aren't naturally adjusting to the fact that it's a primary communication tool in college, for assignments, class info, and college-related announcements.

In their reports, schools recommend a range of ways they can help students, from the creation of "help centers" in high school that would mimic tutoring labs provided by colleges, to changing grading practices so that late work is accepted in early grades but not in senior year, to partnering with internships or other programs that can help teach these skills.

### Financial Literacy

Students across the board report being underprepared for managing their financial lives. This naturally includes understanding how their financial aid can be spent, when loan repayments will start, what out-of-pocket costs to anticipate, and what could risk losing a grant, but also includes basic financial literacy for anyone new to living independently. Students need help understanding how to set themselves up and act responsibly with bank accounts, credit cards, and understanding taxes. As one student suggested, "It's gonna always be about money and financial support, but specifically help me to understand all of the ins and outs of financial aid offers and what every little cent goes towards specifically."

It's difficult to assess to what extent this is affecting student performance, but it certainly creating student stress, and significant evidence shows that financial barriers can contribute to drop-out.

### Cultural Preparation

While students are not doing uniformly well at historically black colleges and universities (in a later section, we show that some HBCUs are serving these students well, while others are not), students do report struggling to adapt to a predominantly white environment. Schools can do a better job helping to realistically prepare students for this adjustment, by building their confidence and talking about the issue directly. But as importantly, high schools can also work with colleges to ensure that pre-college visits and tours respond to student needs, helping them understand the resources and options on campus. For instance, high schools can ensure that college multicultural offices and black student associations are involved in a college tour, or arrange other opportunities for their students to learn about the resources they may need, and spaces where they can feel comfortable.

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## Student Agency

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We asked schools to provide an entirely qualitative score to each student based on their impression of the student's "agency." We describe this as including behaviors that show a student has developed internal motivation, goal orientation, persistence, self-advocacy skills, and other behaviors that suggest they are able to "do what it takes" to overcome hurdles. If the score was not assigned at the time of high school graduation, schools assigned it retroactively.

*Table 1. College performance based on high-school assigned "agency" score.*

	Avg. College GPA	On-Track for 5-Year Graduation	On-Track for 4-Year Graduation
<b>Overall</b>	<b>2.61</b>	<b>48%</b>	<b>18%</b>
<b>2</b> 29 sts.	2.42	41%	7%
<b>3</b> 52 sts.	2.60	52%	13%
<b>4</b> 51 sts.	2.80	76%	43%

Not surprisingly, displays of the type of character and habits that might lead to a higher agency assessment are also likely to be tied to academic performance in high school (high school GPA and ACT also tend to rise with agency scores). It's impossible to entirely disentangle these factors, but as shown in *Table 1*, above, certainly the agency score seems to be a meaningful predictor of college performance.

In *Table 1* and the tables that follow, whether a student is “on-track” for four- or five-year graduation is based on two measures: whether the student has a GPA of 2.0 or higher, and has completed an average of 15 credits a semester for four-year graduation, or 12 credits a semester for five-year graduation.

## High School Performance and College Readiness

As we turn now to student performance data, attempting to understand what matters for student success in college, we will be looking at high school GPA, ACT score, and a college-readiness score that can be generated for each student that combines GPA and ACT.

### GPA

Research suggests that by serving as a reflection of a student’s academic behaviors—participating in class, submitting homework, studying, and other displays of effort and engagement—GPA is the most predictive indicator of a student’s ability to persist in college.

Other research has shown GPA is a strong predictor of college persistence—the strongest of the quantitative measures of high school performance. As high school GPAs rise (*Table 2*), we see higher and higher college GPAs and on-track rates of credit accumulation.

*Table 2. College performance based on high school GPA.*

	Avg. College GPA	On-Track for 5-Year Graduation	On-Track for 4-Year Graduation
<b>Overall</b>	<b>2.61</b>	<b>48%</b>	<b>18%</b>
<b>&lt; 2.50</b> 10 sts.	2.23	40%	0%
<b>2.50-2.99</b> 27 sts.	2.32	37%	7%
<b>3.00-3.49</b> 51 sts.	2.68	61%	24%
<b>3.50 or +</b> 45 sts.	2.86	76%	38%

In addition, we see a strong correlation factor between high school and college GPA (0.4).

### ACT

Of course, if students lack basic content knowledge, college becomes increasingly difficult. We include the student’s best ACT (or SAT converted to ACT) score in our analysis. The average ACT score for our sample was 19.

*Table 3. College performance based on students’ highest ACT scores while in high school.*

	Avg. College GPA	On-Track for 5-Year Graduation	On-Track for 4-Year Graduation
<b>Overall</b>	<b>2.61</b>	<b>48%</b>	<b>18%</b>
<b>&lt; 17</b> 36 sts.	2.35	42%	8%
<b>17-18</b> 34 sts.	2.52	53%	24%
<b>19-20</b> 20 sts.	2.72	65%	20%
<b>21-23</b> 26 sts.	2.91	81%	31%
<b>24 or +</b> 16 sts.	2.96	69%	50%

Given the relatively strong correlation between high school GPA and ACT scores (at schools designed to prioritize test-taking), it is not surprising that some of the same effects are observed between ACT and college performance

and GPA and college performance. That said, the correlation between ACT and college GPA is lower than that between high school GPA and college GPA.

While GPA is the stronger predictor of college performance, ACT does indicate some content readiness, and students below a certain threshold struggle more to succeed.

### College Readiness Score

In addition to looking at GPA and ACT independently, we use a college-readiness score whose formula was provided to us by Alma College (they use this formula in their admissions process). Their formula essentially gives equal weight to a standardized test score and high school GPA. They find that a score of over 65 tends to lead to college persistence.

Table 4. College performance based on Alma college-readiness score (a combined look at GPA and ACT).

	Avg. College GPA	On-Track for 5-Year Graduation	On-Track for 4-Year Graduation
<b>Overall</b>	<b>2.61</b>	<b>48%</b>	<b>18%</b>
< 55 15 sts.	2.21	33%	7%
55-60 20 sts.	2.48	40%	10%
60-65 22 sts.	2.32	36%	5%
65-70 24 sts.	2.73	63%	21%
70-75 28 sts.	2.83	86%	39%
> 75 24 sts.	3.01	75%	46%

The Alma score that we first used when assessing high school progress with our former program, Michigan Future Schools, continues to be relevant today. The above table shows that college GPAs generally (though not perfectly) trend upward with Alma score, and that students below a 65 in their Alma score have a large drop in on-track credit accumulation rates. Above an

Alma score of 70, we see high rates of on-track college performance.

## Differences Between Colleges

In this data, we have students attending 38 different post-secondary institutions. There are 14 schools being attended by three or more students in the data set. For those students, we can see some clear trends (Table 5). Generally, this data demonstrates the importance of avoiding undermatching—attending a less selective school than one is qualified for—whenever possible. Higher selectivity schools have higher rates of both five-year and four-year “on-track” graduation rates, indicating that students there are achieving a minimum GPA of 2.0 and making sufficient credit progress.

To take three schools, by way of example, Wayne State University, Western Michigan University, and the University of Michigan—Ann Arbor each have seven or eight students that participated in the book scholarship program. At Wayne, no students are on-track to graduate in four years, and 57.1 percent are on-track to graduate in five years. At Western, 20 percent may graduate in four years, but a total of 71.4 percent are on-track to graduate in five years. At U of M, 62.5 percent of students are on-track to graduate in four years, and 87.5 are on track to graduate in five years. As high schools have more experience with sending their students to college, they should continue to learn which schools are providing the right environment and support to help students be successful.

For the most part, there is not a huge difference in student GPAs, which suggests that students aren’t *failing* more at one school than another. Rather, how colleges help students enroll in and complete the right credits makes the difference. An interesting future question would be to layer these results against data about persistence at these colleges. Again, the students sampled herein are still enrolled and so provide only one lens for considering how the colleges are doing.

Table 5. Student performance at those colleges with three or more students in the sample.

	Average Cumulative GPA	On-Track for 5- Year Grad	On-Track for 4- Year Grad.
<b>Alabama A &amp; M University</b> <i>3 students</i>	3.28	100.0%	33.3%
<b>Albion</b> <i>13 students</i>	2.27	61.5%	15.4%
<b>Alma</b> <i>5 students</i>	2.96	100.0%	80.0%
<b>Central State Univ.</b> <i>5 students</i>	2.93	80.0%	40.0%
<b>Central Michigan Univ.</b> <i>10 students</i>	2.62	40.0%	20.0%
<b>Eastern Michigan Univ.</b> <i>3 students</i>	2.41	66.7%	33.3%
<b>Ferris State</b> <i>3 students</i>	2.38	66.7%	0.0%
<b>Grand Valley</b> <i>3 students</i>	2.21	33.3%	0.0%
<b>Michigan State</b> <i>27 students</i>	2.50	48.1%	14.8%
<b>Univ. of Michigan-Ann Arbor</b> <i>8 students</i>	2.78	87.5%	62.5%
<b>Wayne State Univ.</b> <i>7 students</i>	2.91	57.1%	0.0%
<b>Western Michigan Univ.</b> <i>7 students</i>	2.98	71.4%	20.0%

## Conclusion

From this data sample, the greatest risk for this tier of alumni seems to be ensuring higher rates of credit accumulation, ensuring they can graduate before financial aid is lost. To that end, a next research question for schools is to explore the tie between studying and class preparation habits, course rigor, and course completion. Understanding why students aren't completing a full course load and helping them to do so seems like a high priority for preventing students from failing to earn a degree after five years in school.

The fact that getting alumni to complete the book scholarship was a larger lift for high schools

than anticipated suggests, again, that the students reflected in this sample are performing at the top end of their graduates. There may be other interventions necessary for students who have additional barriers or were less prepared. But understanding the challenges that the *best*-prepared alumni face in college persistence and completion is worth doing. High schools can use this data both to inform the design of their high school, helping kids to build the skills that they will need for college success, and to better counsel students about their college pathway. Whether in a form like this “book scholarship” or some other mechanism, keeping in touch with alumni—and having access to transcript data about how they are doing—is a vital learning strategy for high schools.



MICHIGAN FUTURE INC.

A Catalyst for Prosperity

Michigan Future, Inc. is a non-partisan, non-profit organization. Our mission is to be a source of new ideas on how Michigan can succeed as a world class community in a knowledge-driven economy. Our goal is to be a catalyst for recreating a high prosperity Michigan. From 2009-2016, Michigan Future ran Michigan Future Schools, a high school accelerator whose goal was to substantially increase the proportion of Detroit students graduating from high school prepared to persist through college and achieve a college degree.

MFI established as its primary metric our 85/85/85 goal: 85 percent of students at its high schools will graduate from high school, of those graduates at least 85 percent will enroll in college, and of those who enroll at least 85 percent will earn a college degree. From inception to wind-down, MFS held this high bar for its schools.



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