

# Better School Counselors, Better Outcomes

QUALITY VARIES, AND CAN MATTER AS MUCH AS WITH TEACHERS

**TEENAGERS ARE NOT KNOWN** for their cool-headed decision-making, yet they face hundreds of choices with significant long-term consequences. In school, they must decide which courses to take, how much effort to invest, and whether and where to enroll in college. Many understandably lack the information and capacity needed to navigate such complex options.

Enter the school counselor. High-school counselors can communicate the benefits of doing well in school, help with college applications, and recommend courses of study to prepare students for the careers of their choice. Belief in a counselor's potential to boost college success has drawn national attention and inspired policy changes, such as former First Lady Michelle Obama's "Reach Higher" initiative and the expansion of counselor hiring in Colorado and New York City.

Yet there has been no quantitative evidence to date showing how high-school counselors affect student outcomes—or even confirming that they matter at all. In this study, I aim to close that research gap. I focus on Massachusetts, where a quasi-random assignment process is used to assign many high-school students to counselors based on the student's last name. I look at the outcomes of each counselor's students to determine individual effectiveness, as well as at counselors' experience, educational background, and other characteristics to identify the attributes of those who are most effective.

As with teachers, counselors vary significantly in their effects on student outcomes. For example, improving counselor effectiveness by one standard deviation, which is equivalent to having a counselor at the 84th percentile of effectiveness rather than at the

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50th percentile, makes students 2.0 percentage points more likely to graduate high school and 1.7 percentage points more likely to enroll in a four-year college. Unlike teachers, however, counselors' impacts are most strongly connected to their providing information and assistance to students, rather than building students' cognitive skills. Their effects are most pronounced among low-achieving and low-income students; low achievers, for example, are 3.4 percentage points more likely to graduate if assigned to an effective counselor. I also find that students benefit from being matched to a counselor of the same race and having a counselor who attended a local college.

High-school counselors' large caseloads of nearly 250 students, on average, are often a cause for concern. However, my analysis indicates that students would gain more from being assigned to a more effective counselor

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and many high-school counselors receive little, or no, training on college advising. Counselors are an often-overlooked engine of educational improvement, and policymakers would do well to devote more time and attention to improving access to effective counselors.

### What Do High-School Counselors Do?

Counselors are a common feature at most U.S. high schools, though the nature of the job can vary considerably across schools. In general, high-school counselors spend most of their time on course scheduling, college and career advising, and general student support, according to a 2018 survey of college-admissions counselors nationwide. The responsibilities reported in the survey suggest that there are four main ways in which counselors are likely to influence student outcomes: helping students build cognitive and non-cognitive skills and providing students with information and direct assistance.

Counselors may influence students' cognitive skills by placing them in, or removing them from, particular classes. Most counselors are responsible for course scheduling, so they may direct students toward or away from effective teachers and advanced classes, as well as help students gain access to specialized services for English-language learners or students with disabilities. They may also work on improving students' non-cognitive skills, such as behavior and engagement with school, through mental-health counseling, disciplinary actions, and general support.

In addition, counselors may provide information that many students lack about postsecondary education and labor-market options. This could include the costs and benefits of different options, as well as the steps to apply and enroll in college. Counselors can also influence what students do after high school by assisting them directly, such as by obtaining SAT fee waivers, writing letters of recommendation, and helping students complete forms and sign up for services. They



*Michelle Obama: Her "Reach Higher" initiative aimed to encourage more students to pursue post-secondary education.*

than to a counselor with a moderately smaller caseload. I estimate that hiring a new counselor in every Massachusetts high school would lead to smaller gains in educational attainment than increasing the average counselor's effectiveness by one standard deviation.

In short, boosting counselor effectiveness can be an important school-improvement strategy. It may also be a more cost-effective means of improvement than boosting teacher effectiveness, because counselors serve more students, there are far fewer counselors than teachers,

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also may help students with college or job applications.

In Massachusetts, the focus of my study, there are no regulations dictating counselor caseloads or professional duties, though the state requires counselors to be licensed and hold a master’s degree. It also requires that all schools have a “school adjustment” counselor who primarily supports the mental health, social, and emotional needs of students, which may free up time for guidance counselors to focus more on academic support. Massachusetts provides a recommended counseling model, which consists of suggested guidelines on how to provide services, and has a formal evaluation process for counselors.

### A Range of Influence

I use student-level data from the Massachusetts Department of Elementary and Secondary Education, including student demographics, courses, grades, attendance, discipline, and standardized-test scores, as well as human-resources data on counselor employment, education, and demographics. I link these data to National Student Clearinghouse records on postsecondary enrollment and persistence for students projected to graduate high school between 2008 and 2017.

About one-third of public high schools in the state match students to counselors based on the beginning letters of the student’s last name. This process approximates random assignment. I identify 143 schools that post information about their last-name assignment policies on their websites, which yields a sample of 723 counselors serving about 155,000 students. To estimate individual counselor effects, I focus on the 131 schools for which I can link counselors to students in at least two different cohorts with at least 20 students in each cohort, for a sample of 510 counselors serving 142,000 students.

This sample and assignment process enable me to identify the causal impact of individual counselors on student outcomes. In particular, I compare the outcomes of students who attend the same school but who are assigned to different counselors because of the student’s last name. In making these comparisons, I control for students’ 8th-grade test scores, demographic characteristics, and indicators of services

received in 8th grade. Consistent with the assignment process being quasi-random, however, I find no evidence that students are sorted to counselors based on these characteristics.

I use this approach to estimate counselors’ effects on a range of student outcomes, which I organize into five domains (see Figure 1). Cognitive and non-cognitive skills correspond to two of the four channels by which counselors may influence student outcomes. College readiness and selectivity, in turn, may capture the other two channels—the provision of information and direct assistance in the college application process. The fifth domain captures counselors’ longer-term effects on educational attainment.

I estimate counselors’ effectiveness within each of these domains, as well as their overall effectiveness across all

### The Potential Effects of a Guidance Counselor (Figure 1)

*High-school counselors can influence a range of student outcomes, from their overall skill levels to likelihood of graduating on time and attending a selective college.*

#### Student Outcomes by Category

NON-COGNITIVE SKILLS	COGNITIVE SKILLS	COLLEGE READINESS	COLLEGE SELECTIVITY	EDUCATIONAL ATTAINMENT
Days absent	High school GPA	Took SAT	Attend a selective college	Graduate high school
Days truant	Number of classes failed	SAT Score	Attend a highly selective college	Attend college
Days suspended	10th-grade math test	Took AP Test	Graduation rate of college attended	Attend four-year college
High school dropout	10th-grade reading test		Mean income of graduates of college attended	

SOURCE: Author

five. The latter estimate serves as my summary measure of a counselor’s effectiveness in supporting student success.

### Counselor Effectiveness and Student Success

Having an effective counselor matters for a wide range of student outcomes. Let’s start with educational attainment, which many see as an important long-term measure of student success. Students assigned to counselors who are one standard deviation more effective than the median are 2 percentage points more likely to graduate

high school, 1.7 percentage points more likely to attend a four-year college, and 1.4 percentage points more likely to persist in college into a second year (see Figure 2). The graduation rates of the colleges students choose to attend are also 1.3 percentage points higher, suggesting that they also may be more likely to earn a degree.

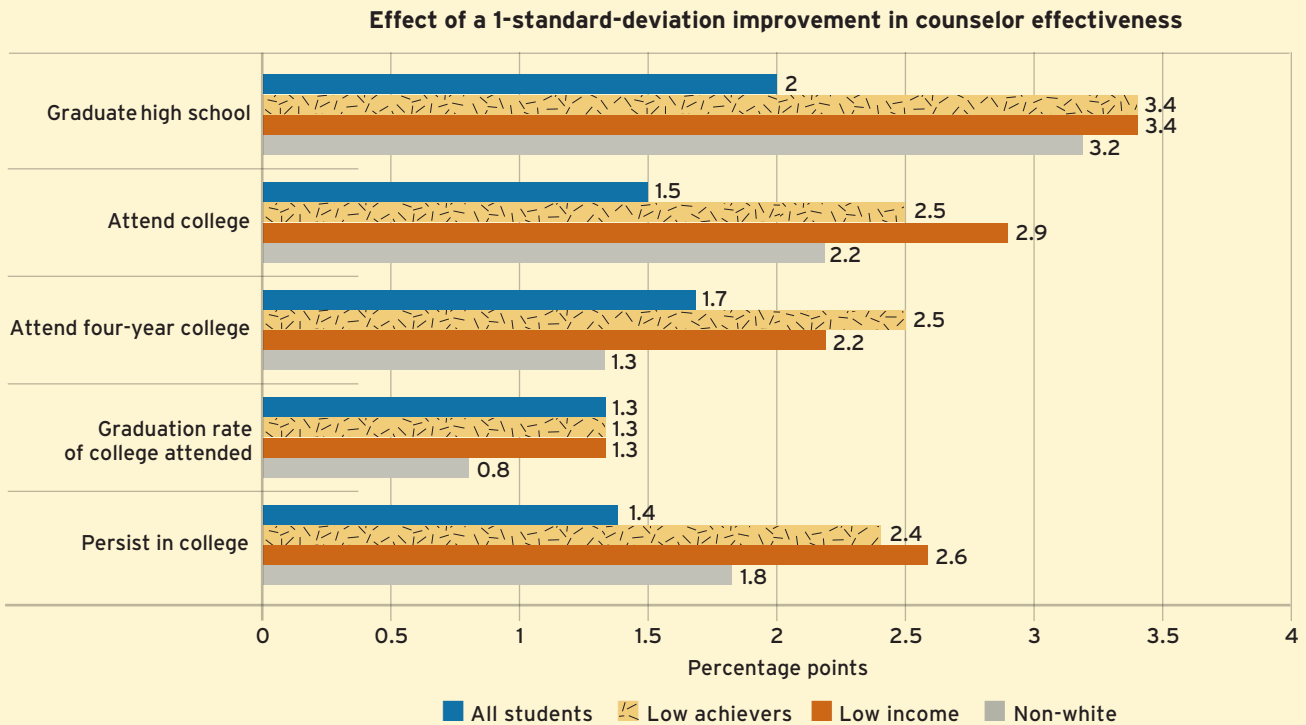
These impacts are generally larger for students who are not white, scored below average on the state test in 8th grade, or are from low-income families. For example, a minority student assigned to an effective counselor is 3.2 percentage points more likely to graduate high school and 2.2 percentage points more likely to attend college. Low-achieving students assigned to an effective counselor are 3.4 percentage points more likely to graduate and 2.5 percentage points more likely to attend college. These results indicate that counselors may be an important resource for closing racial and economic gaps in college completion.

How do effective counselors boost educational attainment? It does not appear to be a result of building students' cognitive skills, as I find little evidence that counselors vary in their effects on 10th-grade test scores and course grades. Counselors do vary in their impact on student suspensions, but I find no significant variation in effects on attendance or unexcused absences—and counselors' effectiveness in improving these proxies for non-cognitive skills is unrelated to their effectiveness in increasing attainment.

In contrast, counselors have large effects on my measures of college readiness and selectivity. They cause students to be more (or less) likely to take the SAT, to earn a higher SAT score, and take AP tests and also play a major role in whether students enroll in a college that is selective or has a high graduation rate. Moreover, their effectiveness within these two domains is strongly

### More Effective High-School Counselors Boost Their Students' Success (Figure 2)

Students with more effective high-school counselors are more likely to graduate high school and enroll and persist in college compared to similar classmates assigned to less effective counselors.



NOTE: All effects are statistically significant at the 90 percent confidence level or greater. Data are from the Massachusetts Department of Education, 2008-2017.

SOURCE: Author's analysis

related to their impact on educational attainment.

These results imply that counselors influence educational attainment by doing more than just influencing students' cognitive and non-cognitive skills. Their effects on educational attainment must run through other channels, such as by providing information or direct assistance to their students. For instance, counselors may have large

## Boosting counselor effectiveness can be an important school-improvement strategy.

effects on SAT taking because they provide information about when to take the test or obtain fee waivers for students. More broadly, these results indicate that educators of all kinds can have important impacts on students' long-term outcomes by providing them information or helping them access opportunities.

### Specialization

To better understand counselor effectiveness, I consider the complexity of their responsibilities. They are assigned a diverse set of students and are charged with achieving many results, ranging from setting course schedules to boosting high-school graduation and supporting college enrollment. They are also expected to influence many intermediate outcomes, and it may be difficult for them to attain all desired outcomes given their large caseloads and limited training. Do counselors opt to specialize and focus their energies on certain domains? Or are especially effective counselors better in all aspects of their work? To answer these questions, I estimate counselor effects on specific outcomes and look for commonalities.

In general, the counselors who are effective at improving high-school graduation are also effective at increasing college attendance. This may not be surprising since students must graduate high school in order to attend college. If, however, we expect that the marginal student induced by a counselor to graduate high school is unlikely to be a college attendee, it suggests that counselors who are particularly effective in boosting educational attainment are able to do so for different kinds of students.

In contrast, I find that counselors who improve indicators of non-cognitive skills, such as students' attendance and behavior while in high school, tend to differ from those who improve educational attainment and, in particular, from those who boost attendance at highly selective

colleges. The pattern confirms that even good counselors are typically not good at everything. Some counselors appear to specialize in increasing educational attainment, others at improving non-cognitive skills, and still others at increasing the selectivity of the college a student attends.

### Attributes of Effective Counselors

What distinguishes those counselors who are most effective in supporting student success? Advocates seeking to expand access to high-school counseling tend to focus on caseloads, assuming that counselors are more effective when they work with fewer students. I find only a modest relationship, however, between caseload size and students' educational attainment. Similarly, counselor experience is not related to student outcomes. Instead, students appear to benefit from being matched with a counselor of the same racial group and with a counselor who attended a local college or university.

Students assigned to a same-race counselor—defined here as a white counselor for white students and a non-white counselor for students who are not white—are about two percentage points more likely to graduate high school, attend college, and persist in college compared to their peers who are assigned to a counselor of a different race (see Figure 3). These effects are largest for non-white students, who are 3.8 percentage points more likely to graduate high school and to attend college if matched to a non-white counselor. There is no detectable benefit from matching students to counselors based on their gender.

Minority students may benefit from being matched to a minority counselor if these counselors have a better understanding of students' experiences and needs. Or a race-matched counselor could have different expectations for students based on their race, a pattern documented among teachers (see "The Power of Teacher Expectations," *research*, Winter 2018). Unlike most research on teachers, however, I find that white students also benefit from same-race matches, and white students typically have many potential role models in schools.

These patterns could also be explained by how much students trust their counselor. There is often considerable discretion on both the student and counselor side in how they interact with one another. Students may be more willing to reach out to counselors if they share a salient characteristic such as race.

Counselors' knowledge of the local higher-education context may also matter for students' success. Students assigned to counselors who received their bachelor's degree in Massachusetts are 2.5 percentage points more likely to graduate high school than those assigned to a counselor who earned a degree outside of the state. They are also more likely to attend college and enroll in colleges with higher

graduation rates. It may be that these counselors better understand the local college options, the needs of local students, or state graduation requirements than counselors educated elsewhere. However, having a counselor who completed his or her master's degree in Massachusetts is not associated with higher student educational attainment.

I find no evidence that counselors who attended more selective undergraduate or master's institutions are more effective than their peers, but there is some evidence that counselors guide students to attend colleges that are similar to those they attended. For example, students with a counselor who attended an elite college are about 2 percentage points more likely to attend an elite college. Counselors who attended a public college also shift attendance to public colleges, and those who attended large undergraduate institutions increase student attendance at large institutions. Thus, counselors may use their own college experiences to guide the recommendations they provide to students.

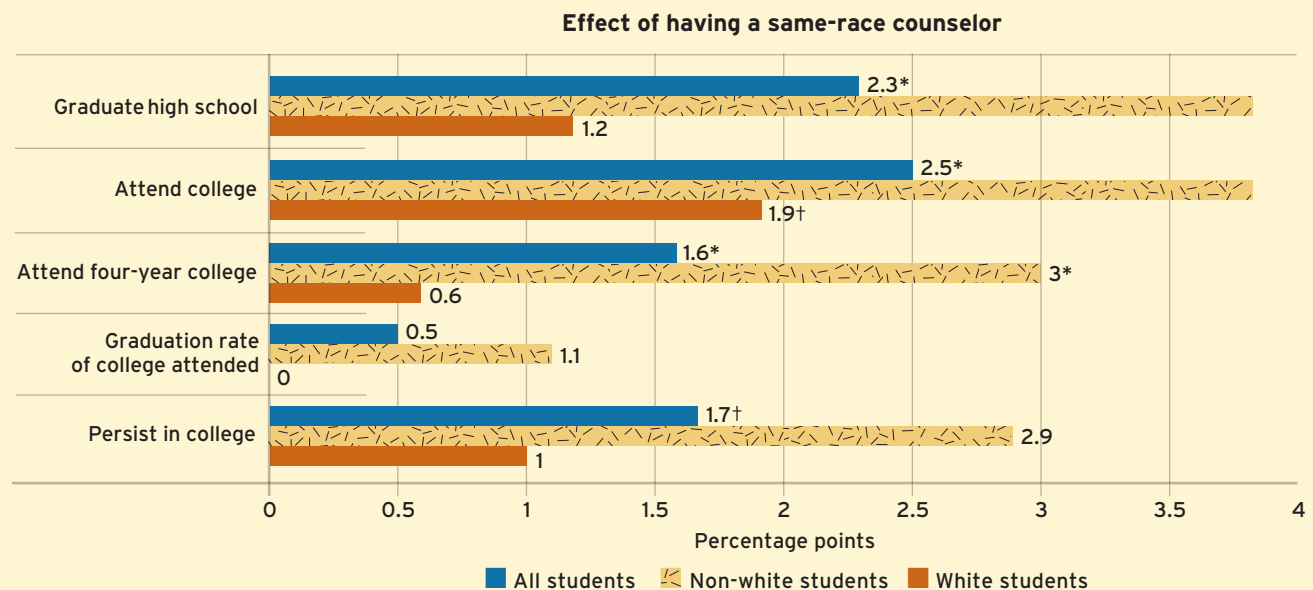
Most measures of counselor experience, including the number of years they have spent in the role, are not positively related to student outcomes. In addition, counselors who hold teaching licenses are less effective in terms of rates of high-school graduation than their peers without a license. It may be that the skills required to be an effective teacher and an effective counselor differ, or counseling may be a path selected by ineffective teachers when they leave the profession. Either way, school administrators should not consider teaching experience a plus when hiring counselors.

### Quantity vs. Quality: The Role of Caseloads

Given the time-intensive nature of advising, one might expect caseload sizes to influence how well counselors serve students. If, however, counselors have found ways to serve many students efficiently, such as with group sessions or by using technology to provide individualized guidance at scale, caseloads may not

### Larger Impacts for Same-Race Counselors (Figure 3)

*Having a counselor of the same race has large positive effects on student outcomes. Non-white students are 3.8 percentage points more likely to graduate high school and to attend college if matched to a non-white counselor, while white students are 2 percentage points more likely.*



NOTE: \* indicates statistical significance at the 95% confidence level.

† indicates statistical significance at the 90% confidence level.

Data are from the Massachusetts Department of Education, 2008-2017.

SOURCE: Author's analysis

have large impacts on student success.

Counselor caseloads are difficult to study because they present a chicken-and-the-egg conundrum. Schools in high-income areas with high-achieving students and ample resources typically have the smallest caseloads—indeed, I find that four-year college enrollment rates are highest at schools with smaller caseloads. But is that a function of those counselors' effectiveness? In fact, when

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I adjust that figure to take baseline student achievement and demographics into account, the relationship becomes statistically insignificant.

To learn more, I perform several analyses to nail down the causal relationship between caseloads and educational attainment. For example, I study what happens to high-school graduation and college attendance rates within a school when caseloads increase or decrease due to changes in enrollment. I also examine how these outcomes change when a school hires an additional counselor or loses an existing one.

Taken as a whole, these approaches tell a consistent story: larger counselor caseloads are probably bad for educational attainment, but this relationship is quite small. The largest estimate I obtain indicates that increasing caseloads by 100 students per counselor is associated with a decrease of 1.1 percentage points in high-school graduation and a decrease of 1 percentage point in four-year college attendance. This is roughly half as much as increasing counselor effectiveness by one standard deviation. On average, hiring a new counselor in a Massachusetts high school would reduce full caseloads by 74 students.

In short, my results suggest that we should not expect large returns to hiring one additional counselor in each Massachusetts high school. It remains possible that very large swings in caseloads—larger than those I am able to study in Massachusetts—would lead to larger changes in student outcomes. Caseloads may also matter for other outcomes, such as mental health, that I cannot measure with my data. However, to improve educational attainment, increasing counselor quality is probably a more promising approach.

## An Overlooked Opportunity

High-school counselors matter—but some matter more than others. The information and assistance an effective counselor provides can have considerable and long-lasting benefits for his or her students, boosting college outcomes years after they graduate high school. Schools and districts can help students do better not just by improving teacher performance, but by supporting more effective counseling, as well.

Moreover, improving access to effective counselors may be a simpler and more cost-effective way to increase educational attainment than improving access to effective teachers. There are far fewer counselors than teachers, so it is probably cheaper, and possibly easier, to deliver training to them. Counselors' limited (and often nonexistent) training on college advising means that even basic training may have large effects on postsecondary outcomes. And because counselors already work in nearly every U.S. high school, improving their effectiveness may be a more attainable goal than increasing student access to highly personalized (and often expensive) interventions aimed at improving college access.

While advocacy groups often focus on reducing counselor caseloads as a means of boosting their impact, my study suggests that making counselors more effective may be a better goal. That assumes there is a straightforward way to improve effectiveness, which is admittedly a matter for future research. There is one simple and inexpensive way to put these findings to work right away, however: increase the diversity of the counselor workforce, especially in schools serving large numbers of minority students.

In sum, high-school counselors have significant potential to sway the choices and outcomes of the students they serve. Future efforts to improve student behavior, high-school completion, and college enrollment may benefit from leveraging the positions of school counselors and increasing their effectiveness. Efforts to improve school counseling or expand access to the type of guidance provided by the most effective counselors may also have important social and economic benefits. Counselors are and should be considered an important resource for addressing educational inequities and increasing educational attainment.

*Christine Mulhern is a doctoral candidate in public policy at Harvard University. This research was supported, in part, by the Institute of Education Sciences, U.S. Department of Education. The opinions expressed are those of the author and do not represent the views of the Institute or the U.S. Department of Education.*