

# HOW SOCIAL BELONGING IMPACTS RETENTION AT BROAD-ACCESS COLLEGES

## THE UPSHOT

The vast majority of college students in the United States, including most first-generation and racial-ethnic minority students, attend broad-access public colleges. These schools are the backbone of our higher education system, offering fewer barriers to entry and greater affordability than more selective institutions—and opening the door to postsecondary opportunity for many who would not otherwise enroll in college. Yet broad-access colleges also often grapple with low rates of persistence and degree attainment. As the federal government begins to invest targeted resources in college retention and completion, it is critical to understand how broad-access institutions can implement effective interventions that will improve student outcomes.

In our study, published in [Science Advances](#), we asked whether worries about belonging among first-year students play a role in their college persistence and whether institutions can support students by dispelling these concerns and offering strategies for belonging through a structured in-class reading and writing assignment. Worries about belonging are common among racial-minority and first-generation college students and can lead students to perceive some typical challenges they experience in college—like struggling to find a friend group or earning a low grade in a class—as indicators that they do not belong there, which can in turn contribute to disengagement from their education. Our randomized, controlled intervention increased the likelihood of retention for these student populations, suggesting that efforts to mitigate feelings of nonbelonging can boost key student success outcomes at broad-access, majority-minority institutions where most students from historically underrepresented groups attend college.



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## NARRATIVE

While selective private institutions receive the most fanfare in American higher education, broad-access public institutions—those that accept more than 75% of those who apply—enroll most college students in this country. By offering a pathway to a valuable college degree for students from economically and socially disadvantaged groups, these schools have tremendous potential to spur upward mobility.<sup>1</sup> Yet students attending broad-access colleges often face steep barriers to postsecondary success, including higher financial constraints of attendance and lower levels of preparedness for college-level coursework.<sup>2</sup> These factors, among others, can make it more challenging and resource-intensive to support students to graduation.

Our research examined another potential factor in student retention and completion: feelings of belonging. Studies have shown that racial-minority students and those who are the first in their families to attend college often harbor persistent worries about belonging, sometimes arising from awareness that they come from a historically excluded group in higher education or from negative stereotypes about their intellectual abilities. The day-to-day experiences of students attending broad-access colleges can also contribute to feelings of non-belonging. For students who commute long distances to attend classes on campus, work while they are enrolled in school, and/or are parenting or fulfilling caregiving responsibilities at home—as many students at broad-access colleges do—cultivating a sense of belonging through more traditional means like attending campus events or joining clubs or sports teams is more challenging.

These compounding factors heighten the risk of students experiencing concerns about whether they belong in college, which have been correlated with lower rates of persistence among first-generation and racial-minority students *even* at diverse broad-access colleges and universities where their identities are not in the numerical minority.<sup>3</sup> To address the negative outcomes associated with feelings of nonbelonging, institutions and policymakers must be aware of what strategies they can employ to enhance belonging within their student bodies, particularly for vulnerable populations, and how these strategies can promote stronger retention and degree attainment.

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***“Experiencing concerns about whether they belong in college... [has] been correlated with lower rates of persistence among first-generation and racial-minority students even at diverse broad-access colleges and universities.”***

## THE EXPERIMENT

We hypothesized that an intervention to help students think about belonging productively, as a process in which doubts are normal yet people's experience improves over time, would benefit persistence at a broad-access institution, especially for first-generation and racial-minority students. We also explored the possibility that benefits would be greatest for academically struggling students from socially disadvantaged backgrounds, since academic struggles can undermine students' sense of belonging.<sup>4</sup>

To test these hypotheses, our experiment delivered a double-blind, randomized intervention to 1,063 first-year students attending a large, broad-access, racially and economically diverse university in the Midwest that is classified as a Hispanic-Serving Institution (at least a quarter of the student body at HSIs are Hispanic/Latino). The intervention took the form of a reading-and-writing exercise assigned in the required college writing course taken by all university freshmen. Our primary interest was among students who identify as African American, Latino, and Native American, as well as first-generation college students of all races and ethnicities.<sup>5</sup> To assess the broader impact of the intervention on this campus, we also collected anonymized academic records of all students enrolled in the first-year writing course in the year before and the year following the intervention's implementation.

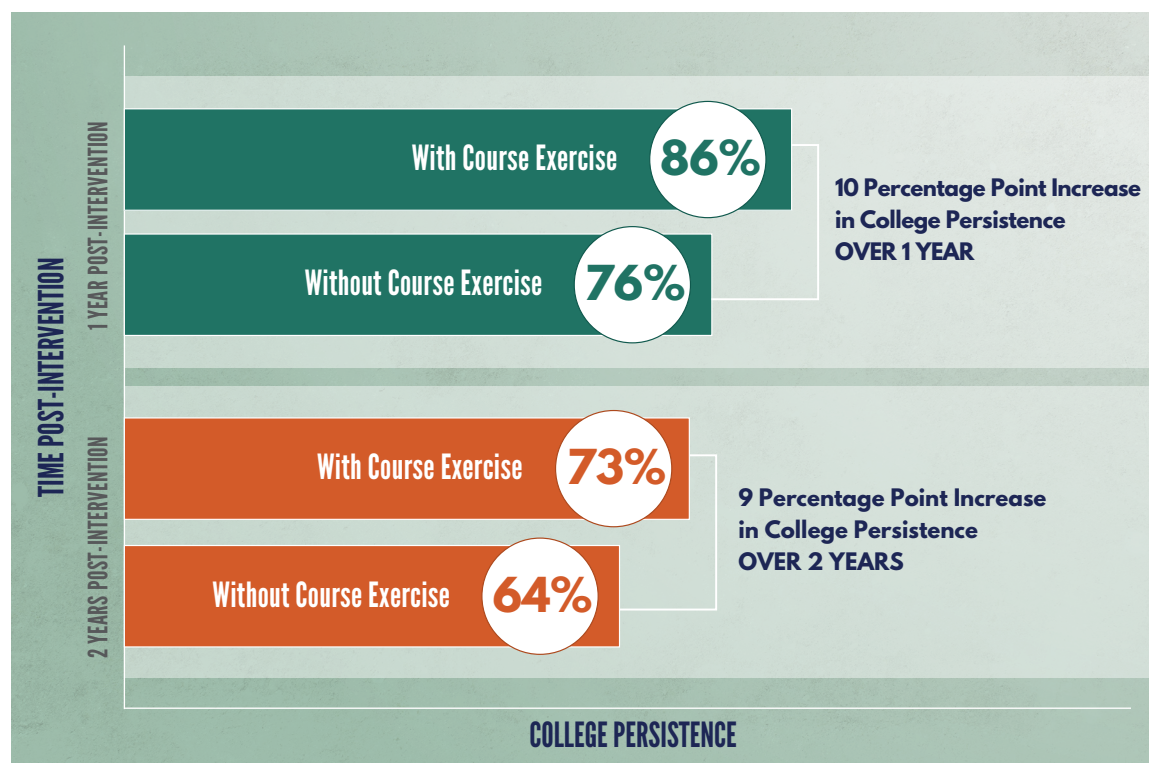
Our research team worked in close partnership with university administrators and upper-class students to customize existing materials from interventions that were effective in strengthening feelings of belonging among students at highly selective institutions for this different institutional context.<sup>6</sup> Specifically, the goals for the redesigned materials were twofold:

- to address the particular and unique barriers to cultivating a sense of belonging for students attending a broad-access, less-selective institution, and
- to model coping strategies that were available to students and proven effective at that institution.

Students receiving the intervention were tasked with reading stories from upper-level students that highlighted typical academic and social challenges in college, depicted these challenges as common and temporary, and shared management strategies that had worked for them. Students were then asked to complete writing exercises designed to facilitate the personalization and internalization of the core message of belonging. The randomized control group of students who did not receive the intervention completed similar activities, but the content did not focus on belonging. Because of the intervention's design and integration into an existing course, the overall costs involved were minimal, totaling about \$25,000 to photocopy and print the materials for students and to support a graduate student teaching assistant to help deliver the intervention to students enrolled in the first-year courses.

The main outcomes we assessed were persistence through the second and third years of college, which we measured as students' continuous enrollment at the institution, because persistence is highly predictive of completion rates. These metrics were also selected as high-priority by university administrators—even more so than full-time enrollment figures—because many students in this campus context enroll part-time at various points during their college career to continue progressing toward their degree while they are working or caregiving.<sup>7</sup> As shown in Figure 1, the percentage of socially disadvantaged students maintaining continuous enrollment over one year following the intervention (through the second year of college) rose from 76% among students who did not receive the reading- and -writing exercise to 86% among those who did. Over two years after the intervention (through the third year of college), 64% of students who did not receive the exercise maintained continuous enrollment compared to 73% of those who did.

**Figure 1. Continuous Enrollment for Black, Latinx, Native American, and First-Generation Students Following Social Belonging Intervention**



We also examined students' grade point average (GPA) and found that students receiving the intervention saw a GPA boost of 0.19 in the semester immediately after the course exercise. Students were both more likely to remain enrolled at the university and more likely to earn better grades in their coursework following the intervention—and students who had struggled academically during their first semester of college experienced the greatest GPA gains. Follow-up analyses showed that the reading and writing exercise also reduced the percentage of students from our populations of interest who ranked in the bottom 10% of their class.

To understand *how* the intervention effectively supported students' academic outcomes, we examined students' psychological experiences and how the intervention changed the way students reacted to the academic and social adversities that most college students experience during their first year in college. What we found was that the intervention stopped students from making broad negative assumptions about these adversities in the days following the exercise. Instead of perceiving these challenges as indictments on their ability to succeed in college and, as a result, lowering their sense of social and academic fit in college (as we saw among students in the control condition of the intervention), students who received the intervention came to view these hurdles as a normal part of the first year of college. With a more secure sense of fit on a daily basis, students from structurally disadvantaged backgrounds also become more confident about their belonging in college more generally over time. Even one year after the intervention, these students reported greater feelings of fit on campus in the treatment as compared with the control condition.

## POLICY RECOMMENDATIONS

This low-cost intervention to improve students' sense of belonging was effective in both improving student retention rates and boosting GPAs among students attending a broad-access university—offering key insights for institutional leaders and policymakers working to improve college student outcomes. These findings indicate that:

- **Investing in creating a culture of belonging on campus is imperative for retention and completion.** We found in our [Student Experience Project](#) with over 300 STEM gateway faculty at six colleges and universities that faculty who engage in communities of practice aimed at implementing inclusive teaching practices boosted students' sense of belonging in class and raised their end-of-course grades—and the effects were particularly large for racial-ethnic minority students, first-generation students, transfer students, and students with high financial need. Given the proven impact that feelings of social belonging have on student academic outcomes and persistence, it is critical that colleges recognize that students, especially those from historically underrepresented backgrounds, commonly experience worries about belonging—and that they take steps to help students develop adaptive mindsets that allow them to view belonging as a process and use this mindset to authentically cultivate their sense of belonging within the context of their institution over time.
- **Strengthening persistence and completion should be key goals for policymakers.** Persistence in college is one of the best indicators of whether a student will make it across the finish line to earn a degree or credential. And when college students drop out, each individual student forfeits between \$500,000 and \$1 million dollars in lifetime wages, disadvantaging themselves and their communities, families, and

children.<sup>8</sup> When policymakers at the institutional, state, and federal levels choose to invest resources in proven interventions to boost student retention and completion, they are not only investing in long-term positive outcomes for individual students, but also for local economies and society.

- **Developing evidence-based strategies to improve completion at the nation's broad-access colleges is essential.** Given that most students, particularly students from first-generation and racial-minority backgrounds, attend broad-access institutions, it is especially important to develop and expand evidence-based ways to increase persistence in those contexts. However, disproportionate focus on elite, highly selective institutions in education research contributes to assumptions and policy recommendations that are based on a handful of atypical schools that educate a small fraction of college students. As the federal government continues to build upon its initial investment in the College Completion Fund for Postsecondary Student Success, the Department of Education has a powerful opportunity to learn about, implement, and scale up a variety of well-proven initiatives to move the needle on college completion rates nationwide.
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## ENDNOTES

1. T. D. Snyder, C. de Brey, S. A. Dillow, Digest of Education Statistics 2017 (NCES 2018–070) (National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC, 2019).
2. J. Scott-Clayton, The Looming Student Loan Default Crisis Is Worse than We Thought. Evidence Speaks Reports, Vol 2, #34, in *Evidence Speaks Reports* (Center on Children and Families at Brookings, 2018); S. Goldrick-Rab, R. Kelchen, J. Houle, *The color of student debt: Implications of federal loan program reforms for black students and historically black colleges and universities* (Wisconsin HOPE Lab, 2014); J. Jackson, M. Kurlaender, College readiness and college completion at broad access four-year institutions. *Am. Behav. Sci.* 58, 947–971 (2014).
3. D. S. Yeager, G. M. Walton, S. T. Brady, E. N. Akcinar, D. Paunesku, L. Keane, D. Kamentz, G. Ritter, A. L. Duckworth, R. Urstein, E. M. Gomez, H. R. Markus, G. L. Cohen, C. S. Dweck, Teaching a lay theory before college narrows achievement gaps at scale. *Proc. Natl. Acad. Sci. U.S.A.* 113, E3341–E3348 (2016).
4. D. S. Yeager, P. Hanselman, G. M. Walton, J. S. Murray, R. Crosnoe, C. Muller, E. Tipton, B. Schneider, C. S. Hulleman, C. P. Hinojosa, D. Paunesku, C. Romero, K. Flint, A. Roberts, J. Trott, R. Iachan, J. Buontempo, S. M. Yang, C. M. Carvalho, P. R. Hahn, M. Gopalan, P. Mhatre, R. Ferguson, A. L. Duckworth, C. S. Dweck, A national experiment reveals where a growth mindset improves achievement. *Nature* 573, 364–369 (2019); G. L. Cohen, C. M. Steele, L. D. Ross, The mentor’s dilemma: Providing critical feedback across the racial divide. *Pers. Soc. Psychol. Bull.* 25, 1302–1318 (1999); C. Good, A. Rattan, C. S. Dweck, Why do women opt out? Sense of belonging and women’s representation in mathematics. *J. Pers. Soc. Psychol.* 102, 700–717 (2012); M. C. Murphy, S. Zirkel, Race and belonging in school: How anticipated and experienced belonging affect choice, persistence, and performance. *Teach. Coll. Rec.* 117, 1–40 (2015).
5. G. M. Walton, G. L. Cohen, A brief social-belonging intervention improves academic and health outcomes of minority students. *Science* 331, 1447–1451 (2011); N. M. Stephens, M. G. Hamedani, M. Destin, Closing the social-class achievement gap: A difference-education intervention improves first-generation students’ academic performance and all students’ college transition. *Psychol. Sci.* 25, 943–953 (2014).
6. G. M. Walton, G. L. Cohen, A brief social-belonging intervention improves academic and health outcomes of minority students. *Science* 331, 1447–1451 (2011); N. M. Stephens, M. G. Hamedani, M. Destin, Closing the social-class achievement gap: A difference-education intervention improves first-generation students’ academic performance and all students’ college transition. *Psychol. Sci.* 25, 943–953 (2014).
7. W. G. Bowen, M. M. Chingos, M. S. McPherson, *Crossing the Finish Line: Completing College at America’s Public Universities* (Princeton Univ. Press, 2009).
8. T. Julian, *Work-Life Earnings by Field of Degree and Occupation for People with a Bachelor’s Degree: 2011. American Community Survey Briefs. ACSBR/11–04* (US Census Bureau, 2012); <https://eric.ed.gov/?id=ED537269>.