



College Students' Sense of Belonging: A National Perspective

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In a nationally representative sample, first-year U.S. college students “somewhat agree,” on average, that they feel like they belong at their school. However, belonging varies by key institutional and student characteristics; of note, racial-ethnic minority and first-generation students report lower belonging than peers at 4-year schools, while the opposite is true at 2-year schools. Further, at 4-year schools, belonging predicts better persistence, engagement, and mental health even after extensive covariate adjustment. Although descriptive, these patterns highlight the need to better measure and understand belonging and related psychological factors that may promote college students' success and well-being.

Keywords: belonging; campus engagement; college persistence; descriptive analysis; disparities; ethnicity; first-generation students; mental health; postsecondary education; race; regression analyses; secondary data analysis; social context; student behavior/attitude; underrepresented racial-ethnic minority students

Students' sense of belonging has been identified as a potential lever to promote success, engagement, and well-being in college (National Academies of Sciences, Engineering, and Medicine [NAS], 2017). Yet most studies of college student belonging have used convenience samples from one or a few 4-year institutions. As such, our understanding of how belonging varies across institutions and student identities and how it relates to important outcomes is sparse (Strayhorn, 2012), especially for students at 2-year colleges (Strauss & Volkwein, 2004). Recently, however, a nationally representative survey of college students in the United States included a measure of belonging—allowing, for the first time, a national analysis of college belonging.

Psychologists describe belonging as a fundamental human motivation (Baumeister & Leary, 1995), a “hub” that can facilitate diverse positive outcomes (Walton & Brady, 2017). In college, feeling a sense of belonging may lead students to engage more deeply with their studies, leading to persistence and success. In both experimental (Yeager et al., 2016) and correlational (Strayhorn, 2012) studies, researchers have found that students who feel they belong seek out and use campus resources to a greater extent, furthering their success. In addition, belonging may buffer students from stress, improving mental health (Baumeister & Leary, 1995).

But these benefits may not be equally shared. A growing literature indicates that students from underrepresented racial-ethnic

minority (URM; Black, Hispanic, and Native) and first-generation college (FG) backgrounds report lower belonging as well as greater uncertainty about their belonging (Strayhorn, 2012; Walton & Cohen, 2007). Further, the more diverse goals, life circumstances, and student characteristics of 2-year (vs. 4-year) students may mean that belonging functions differently in 2-year settings (Deil-Amen, 2011).

Therefore, we used these newly available national data to ask: Do first-year college students feel like they belong at their school, and does this vary by URM status, FG status, and sex? Given considerable differences in student populations and institutional goals, are patterns similar across 2-year and 4-year institutions? Further, in this national sample, does first-year belonging predict subsequent persistence, use of campus services, and mental health?

Methods and Results

We used data from the Beginning Postsecondary Students Longitudinal Study, a nationally representative survey of first-time, first-year, U.S. college students in 2011–2012 ($N = 23,750$) with a 2-year follow-up. The belonging measure asked

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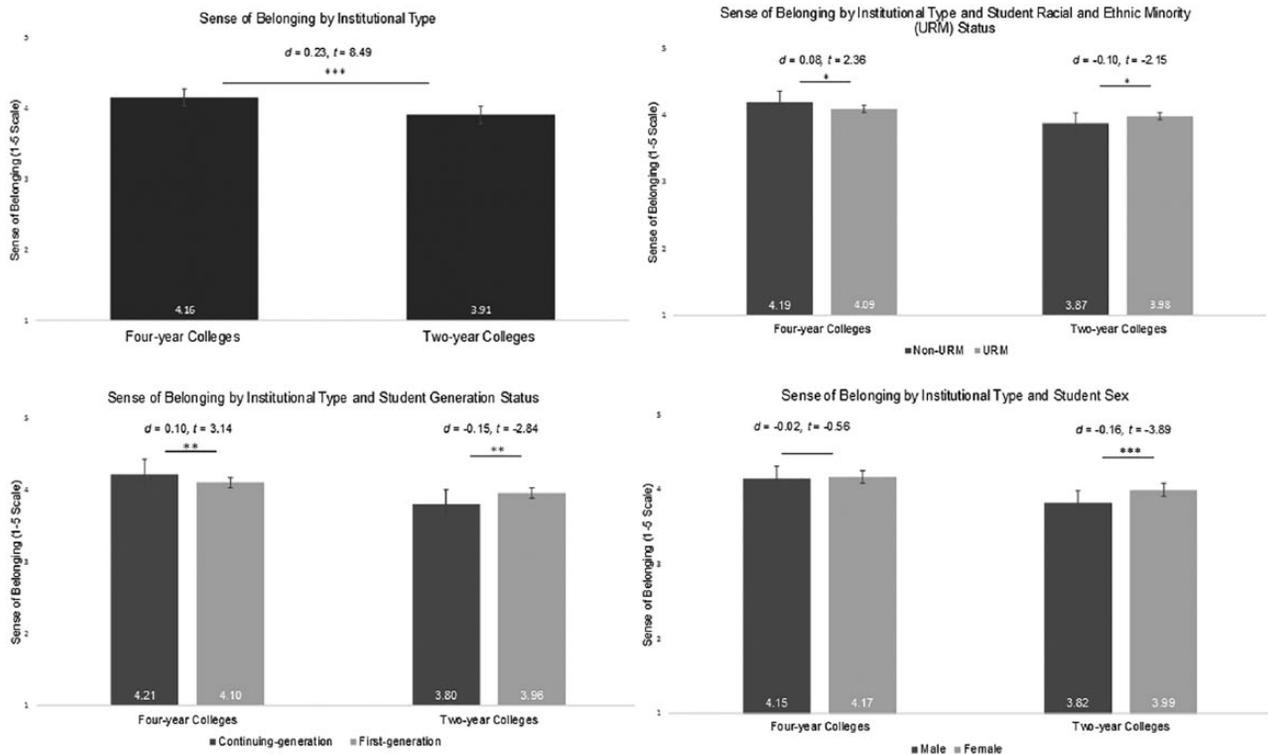


FIGURE 1. Students' sense of belonging by key institutional and student characteristics.

Note. Institutional characteristics include 4-year versus 2-year colleges. Student characteristics include (in order) underrepresented racial-ethnic minority (URM) status, generation status, and sex. Error bars represent standard errors. All estimates are weighted to adjust for the BPS: 12/14 complex survey design: Analysis weight (WTA000) and bootstrap variance estimation using replicate weights (WTA001-WTA200) to adjust for poststratification weight adjustment.

* $p < .05$. ** $p < .01$. *** $p < .001$.

students, in the spring of their first year, to indicate their agreement with the statement, "I feel that I am a part of [SCHOOL]" (1 = *strongly disagree*, 5 = *strongly agree*). A similar question, asked in the follow-up, is used for supplemental analyses of within-students changes in belonging. The Appendix (available on the journal website) provides supplemental methodological information and analyses.

First, we examined mean levels of belonging by key institutional and student characteristics. On average, students "somewhat agreed" they felt a part of their college ($M = 4.04$ on 5-point scale, $SD = 1.10$). Nevertheless, belonging varied across key dimensions (see Figure 1). Overall, students at 4-year colleges reported higher belonging than students at 2-year colleges. Both URM and FG students reported lower belonging than their peers (White/Asian/multiracial students and continuing-generation students, respectively)—but only at 4-year colleges. At 2-year colleges, the reverse was true, and women also reported higher belonging than men. There was no interaction between URM and FG status at either 2- or 4-year colleges (see Appendix Table A1 available on the journal website).

Second, we explored associations between belonging and students' (a) persistence at any postsecondary institution after 2 and 3 years, (b) self-reported use of campus services in Year 3, and (c) self-reported mental health in Year 3. We regressed each outcome on a vector of student- and institutional-level covariates associated with college success in past research (see Table 1 note

and Appendix available on the journal website). In the analyses for services use and mental health, we also controlled for the analogous first-year outcome. Given the descriptive findings, we conducted separate regressions for 4-year and 2-year colleges. Of note, the correlational nature of the data precluded causal inferences.

At 4-year colleges, belonging was positively associated with persistence, use of campus services, and mental health ($ps < .05$; see Table 1). There were no significant interactions between belonging, URM status, and FG status, suggesting that belonging (as measured here) was equally predictive for students from different backgrounds (see Appendix Figure A1 available on the journal website and "Discussion"). However, very low belonging—which was more common among URM and FG students—appears especially pernicious, associated with considerably lower persistence (see Appendix Table A6 available on the journal website). Results are robust to a large number of alternate models and sensitivity checks, including models that include institutional, student, and time fixed effects; institutional selectivity as a covariate or moderator; self-efficacy as a covariate; institutional expenditures as a covariate; and others (see Appendix Tables A7–A12 available on the journal website).

In contrast, at 2-year colleges, belonging was not significantly associated with any of the core outcomes in primary models (see Table 1). That said, in supplemental models, within-student changes in belonging over time (first year to

Table 1
Coefficients and Standard Errors From Multivariate Regressions

	4-Year Colleges				2-Year Colleges			
	Academic Outcomes		Other Outcomes		Academic Outcomes		Other Outcomes	
	Persistence Year 2	Persistence Year 3	Use of Campus Services Year 3	Self-Reported Mental Health Year 3	Persistence Year 2	Persistence Year 3	Use of Campus Services Year 3	Self-Reported Mental Health Year 3
Sense of belonging	.019*** (.006)	.021*** (.006)	.014** (.005)	.050*** (.013)	.008 (.011)	-.000 (.011)	.004 (.009)	.027 (.021)
Public/private institution (public = 1)	.055*** (.014)	.046*** (.012)	-.046*** (.011)	.042 (.029)	.033 (.056)	.014 (.055)	.019 (.061)	.061 (.120)
URM (Black, Hispanic, Native)	.018 (.013)	.026 (.017)	.042** (.013)	.070 (.042)	-.002 (.028)	.008 (.027)	.068** (.023)	.036 (.047)
Asian	.033 (.023)	.053* (.024)	.051* (.025)	-.128* (.058)	.069 (.061)	.033 (.061)	-.044 (.043)	.135 (.105)
Two or more races	-.005 (.026)	-.006 (.029)	.026 (.019)	-.093 (.058)	.084 (.050)	.007 (.062)	.050 (.057)	.064 (.115)
First-generation	-.042** (.015)	-.046* (.018)	-.019 (.012)	.009 (.026)	-.011 (.030)	-.049 (.031)	-.027 (.026)	.048 (.049)
Sex (female = 1)	.042*** (.009)	.042*** (.011)	.004 (.010)	-.134*** (.031)	.045 (.027)	.041 (.024)	.024 (.019)	-.180** (.058)
High school GPA	.042** (.013)	.045*** (.012)	.000 (.012)	.045 (.038)	-.004 (.020)	.009 (.021)	.050* (.021)	.072* (.032)
First-year GPA	.081*** (.011)	.076*** (.012)	.012 (.008)	.037 (.026)	.101*** (.012)	.098*** (.012)	-.009 (.015)	.015 (.027)
R ²	.11	.11	.07	.21	.05	.05	.07	.16
N observations ^a	10,500	10,500	6,800	10,500	5,130	5,130	1,900	5,130

Note. Standard errors in parentheses. All estimates are unstandardized but weighted to adjust for the BPS: 12/14 complex survey design: Analysis weight (WTA000) and bootstrap variance estimation using replicate weights (WTA001-WTA200) to adjust for poststratification weight adjustment. To economize on space, we report on coefficients and standard errors on key variables only. All specifications also include students' ACT/SAT scores, socioeconomic status, first-year GPA, and a measure total debt burden, as noted in main text and Appendix (available on the journal website). We also controlled for self-reported first-year use of campus services and self-reported mental health in the models predicting third-year use of campus services and third-year self-reported mental health outcomes. URM = underrepresented racial-ethnic minority students.

^aSample size rounded to the nearest 10 as per data set guidelines.

* $p < .05$. ** $p < .01$. *** $p < .001$.

third year) were positively associated with all core outcomes at both 2-year and 4-year schools (see Appendix Table A10 on the journal website).

Discussion

Overall, in a nationally representative survey, most U.S. students said they felt like they belong at college. Furthermore, at 4-year schools, belonging was positively and robustly associated with outcomes colleges care deeply about, including persistence and mental health. Finally, across all schools, within-student increases in belonging were positively associated with improvements in these outcomes.

Yet concerningly and consistent with past research in smaller and more idiosyncratic samples, URM and FG students at 4-year colleges reported lower belonging than their peers. That these differences emerged across a national sample, despite sub-optimal measurement of student belonging, underscores the

importance of further understanding students' experiences of belonging on campus and the structural or institutional qualities that lead students, especially URM and FG students, to experience higher or lower levels of belonging.

In addition, student belonging at 2-year colleges is lower than at 4-year colleges and not significantly associated with our core outcomes of interest. Does this mean that belonging does not matter for 2-year students? We think not. Two-year colleges and their students face greater structural challenges than their 4-year peers; it may be that belonging both increases and is more associated with outcomes when structural barriers have been sufficiently addressed. Consistent with this, a recent study of an intensive advising and structural support intervention at a 2-year college found impressive causal effects on academic success, accompanied by increases in belonging (Scrivener et al., 2015). Or, perhaps greater variability in student backgrounds, goals, and experiences means that general institutional belonging is less important to 2-year students than

belonging in a course, major, or profession. Suggestively, for example, students' uncertainty about their belonging in a developmental math course was the single best predictor of course persistence (Bryk et al., 2013).

The surprising finding that URM and FG students at 2-year colleges reported *higher* belonging than their non-URM/FG counterparts warrants attention. Although a greater proportion of 2-year (vs. 4-year) students are URM and/or FG, this does not appear to explain the finding (see Appendix Table A4 available on the journal website). The pattern may be due to differences in other background/demographic factors or to the kinds of institutions students attend. More in-depth studies of belonging at 2-year schools are needed to further elucidate these findings and the processes at play.

Going forward, nationally representative surveys should incorporate greater theory-driven measurements of personal qualities (Duckworth & Yeager, 2015). Only a *single* nationally representative data set measures students' belonging in college using a *single* item. More robust measures of student belonging and their uncertainty about their belonging may yield important insights. Further, research should continue to explore how contextual factors—including efforts by the institution overall but also individual instructors and staff members—affect students' belonging as well as how belonging differs across additional dimensions of student identity. Simultaneously, rigorous field experiments testing interventions to promote belonging should be carried out in varied contexts to understand average and heterogeneous causal effects of belonging on student outcomes (see also NAS, 2017). These efforts will allow practitioners and scholars to better understand—and hopefully enhance—all students' belonging, success, and well-being in college.

NOTE

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