

An Evaluation of the Educational Impact of College Campus Visits: A Randomized Experiment

Elise Swanson
University of Arkansas

Katherine M. Kopotic
University of Arkansas

Gema Zamarro
University of Arkansas

Jonathan N. Mills
University of Arkansas

Jay P. Greene
University of Arkansas

Gary Ritter
Saint Louis University

Background

Despite evidence of positive returns to post-secondary education, persistent and significant gaps in college access remain between students with higher and lower socio-economic status, as well as between those with and without parents with postsecondary degrees.

An array of interventions encourage students to attend college, primarily by addressing financial or informational barriers to access (e.g., Cornwell, Mustard, & Sridhar, 2006; Dynarski, 2003; Goldrick-Rab, Harris, Kelchen, & Benson, 2012; Oreopoulos, Brown, & Lavecchia, 2014; Myers, Olsen, Seftor, Young, & Tuttle, 2004; Carrell & Sacerdote, 2017; Barr & Turner, 2017; Bergman, Denning, & Manoli, 2017; Bettinger et al. 2009; Hoxby & Turner, 2013). In general, evaluations of these interventions report positive results, especially among low socio-economic students, who have graduated high school or are on the path toward graduation. Additionally, motivated by research highlighting the importance of the middle-school years in shaping college-going behaviors, programs like Upward Bound and Talent Search, target already high-achieving middle school students. Rigorous research supporting these interventions is scarce. However, a single randomized control trial of Upward Bound reported positive effects on college enrollment among students with lower initial educational expectations, but no overall effects (Seftor et al., 2009). Despite their apparent success, by focusing on high achieving students on the path of graduation, the financial or informational interventions described above have missed an important group of students who have already fallen off a college track.

In addition, previous efforts to increase college attendance have neglected the third type of barrier, psychological obstacles, which may present a serious challenge to increasing college enrollment. Even if students possess the financial resources and information necessary to attend college, they may be less likely to enroll if they feel they would be uncomfortable or would not belong on college campuses. Given how little exposure disadvantaged students have to college campuses or individuals who have had those experiences, we suspect that the college environment can be very psychologically intimidating to these students.

Research Questions

We study the extent to which visits to a college campus during middle school could reduce psychological barriers to college access, specifically for disadvantaged students. We argue the concrete experience of visiting a college campus during middle school could increase one's comfort level with and interest in the idea of attending college, thereby motivating students to engage in pro-college behaviors during high school that would increase their college readiness and the likelihood of attending and succeeding in college. Universities across the country invest resources in early outreach visits, which bring middle and high school students to their campuses, but there have been very few formal evaluations of these efforts. We present preliminary results to answer whether visiting a college campus multiple times during eighth grade has an effect on student motivation, college-going behaviors, and intentions to apply to college.

Setting/ Population/ Intervention

We worked with 15 middle and junior high schools to bring eighth-grade students on three university field trips throughout the 2017-18 school year. Schools were invited to participate if they were located within 2 hours of the University of Arkansas and served a student body where at least 60% of students received free or reduced price lunch or where at least 50% of students were students of color. Across all schools, 937 students were included in the study, 471 of whom received a college information packet and attended three visits to the UA campus:

- First visit: a campus tour, college information
- Second visit: small group interactions with academic departments
- Third visit: athletic related event to experience campus spirit

The control group consisted of 466 students who only received an information packet. We randomly assigned applicants within school to each of these two groups

Research Design

We use a randomized field experimental design and estimate an intent-to-treat effect of the campus visits. We calculate effects in a multivariate regression framework that explicitly models the randomization process while controlling for observable differences between students.

Data Sources

Data for this paper comes from student surveys and district administrative data. We surveyed study participants twice during the 2017-18 academic year (pre-randomization and post-intervention) to collect information on student demographics, knowledge about college, academic engagement, and socioemotional skills. We also collected administrative data from each participating district to examine ninth grade course enrollment and course grades.

Results

Our preliminary analysis of student survey responses examined self-reported and performance task measures of academic engagement, student effort, college-going efficacy, college knowledge, grit, perspective-taking, and self-management. In models controlling only for treatment and school fixed effects, we find that assignment to campus visits positively impacted student self-reported academic engagement, self-management, a performance task measure of student effort (statistically significant), self-reported grit, college knowledge (statistically significant), and college-going efficacy. In our preferred model, which additionally controls for student demographics, we observe a statistically significant but negative effect on self-reported measures of academic engagement, and positive, but statistically insignificant, effects on college knowledge and a performance task measure of effort. Finally, we find that our intervention increased the likelihood of a student having a conversation with a school staff member about college.

Conclusions

This study represents the first scientifically rigorous evidence that efforts to reduce psychological barriers, due to a lack of familiarity with college, through field trips could improve students' college knowledge and effort. However, our preliminary results suggest such visits may also have a discouraging impact, as we see negative estimated effects on self-reported academic engagement. Students in the treatment group also appeared to engage more in conversations with school staff about college. Our future work will include a second wave of data collection as well as examinations of the mid- and long-term impacts of this intervention on student behavior, including postsecondary enrollment. Our intervention is relatively low-cost and easily replicable by school districts and universities interested in increasing their socioeconomic diversity or student population overall.

References

- Barr, A. & Turner, S. (2017). A letter of encouragement: does information increase post-secondary enrollment of UI recipients? (NBER Working Paper No. 23374). Cambridge, MA: National Bureau of Economic Research.
- Bergman, P., Denning, J., & Manoli, D. (2017). Broken tax breaks? Evidence from a tax credit information experiment with 1,000,000 students. (IZA Discussion Paper No 10997). Bonn, Germany: IZA Institute of Labor Economics.

- Bettinger, E., Long, B., Oreopoulos, P., & Sanbonmatsu, L. (2009). The role of simplification and information in college decisions: results from the H&R Block FAFSA experiment. (NBER Working Paper No. 15361). Cambridge, MA: National Bureau of Economic Research.
- Carrell, S. & Sacerdote, B. (2017). Why do college-going interventions work? *American Economic Journal: Applied Economics* 2017, 9(3), 124-151.
- Cornwell, M., Mustard, D., & Sridhar, D. (2006). The enrollment effects of merit-based financial aid: evidence from Georgia's HOPE program. *Journal of Labor Economics*, 24(4), 761-786.
- Dynarski, S. (2003). Does aid matter? Measuring the effect of student aid on college attendance and completion. *The American Economic Review*, 93(1), 279-288.
- Goldrick-Rab, S., Harris, D., Kelchen, R., & Benson, J. (2012). Need-based financial aid and college persistence: experimental evidence from Wisconsin. Wisconsin Scholars Longitudinal Study. Retrieved from:
<http://www.finaidstudy.org/documents/Goldrick-Rab%20Harris%20Kelchen%20Benson%202012%20FULL.pdf>
- Hoxby, C. & Turner, S. (2013). Informing students about their college options: a proposal for broadening the expanding college opportunities project. The Hamilton Project, Brookings.
- Myers, D., Olsen, R., Seftor, N., Young, J., & Tuttle, C. (2004). The impacts of regular Upward Bound: results from the third follow-up data collection. U.S. Department of Education. Retrieved from:
<https://www2.ed.gov/rschstat/eval/highered/upward/upward-3rd-report.pdf>.
- Oreopoulos, P., Brown, R., & Lavecchia, A. (2014). Pathways to education: an integrated approach to helping at-risk high school students. (NBER Working Paper No. 20430). Cambridge, MA: National Bureau of Economic Research.