The Effects of a Comprehensive College Transition Program on Psychosocial Outcomes:
Evidence from a Randomized Control Trial

Tatiana Melguizo
University of Southern California

Francisco (Paco) Martorell
University of California at Davis

Elise Swanson
Adrianna Kezar
University of Southern California

Word Count: 973

Background

Despite increases in the overall share of students attending college (National Center for Education Statistics, 2018), six-year graduation rates remain below 60 percent (Shapiro et al., 2018) and gaps in graduation associated with student race/ethnicity, socioeconomic status, and parental education persist (National Center for Education Statistics [NCES], 2016; NCES, 2015; Cataldi et al, 2018). Universities are experimenting with comprehensive college transition programs (CCTPs) in an attempt to improve these outcomes. CCTPs provide financial support as well as resources designed to assist students navigate the challenges of attending college, such as academic support, transportation assistance, and advising (Hallett, Kezar, Perez, & Kitchen, in press). These intensive, wraparound programs have shown promise in increasing enrollment, persistence, credit accumulation, and graduation rates (Xu et al., 2018; Angrist et al., 2016; Evans et al., 2017; Scrivener et al., 2015; Weiss et al., 2014).

We examine the impact of a CCTP on students' psychosocial outcomes: mattering, sense of belonging, academic self-efficacy, and social self-efficacy. This focus allows us to examine a potential mechanism driving the previously-estimated positive impacts of CCTPs on academic outcomes (Oyserman, 2015; Yeager & Walton, 2011; Heckman, Stixrud, & Urzua, 2006). Additionally, students' well-being matters to student affairs practitioners as well as students and their families. By examining psychosocial outcomes, we provide a more nuanced view of students' postsecondary experience.

Research Questions

We estimate the impact of participating in a CCTP on students' psychosocial outcomes, and investigate whether these effects vary across groups. Specifically, we address the following research questions:
1. What is the impact of participating in a CCTP on students' self-reported mattering to campus, sense of belonging to campus, academic self-efficacy, and social self-efficacy at the end of their first and second years in the program?
2. Does the impact of participating in a CCTP on students' psychosocial outcomes vary based on students' race/ethnicity, first-generation status, gender, socioeconomic status, or prior academic achievement?

Intervention

We evaluate the Thompson Scholars Learning Communities (TSLC) program, supported by the Susan Thompson Buffett Foundation (STBF) and implemented at the three four-year campuses in the University of Nebraska (NU) system. In addition to a generous scholarship, the program includes a first-year seminar, shared academic courses, peer mentoring, academic tutoring, proactive advising, shared housing, and numerous social and academic events. Students participate in the formal program during their first two years of college and receive financial support for up to five years of undergraduate study.

Research Design

Between 2012 and 2016, students who applied to and were eligible for a scholarship from the STBF were assigned to one of four groups: first, students could be selected for the TSLC program by the foundation (must-funds); second, students could be randomly assigned to the TSLC program; third, students could be randomly assigned to receive a scholarship but not the full TSLC program (College Opportunity Scholarship [COS]); fourth, students could be

randomly assigned to receive no financial or additional support from the foundation (control). We collect survey and administrative data for students in these four groups who entered college in fall of 2015 and 2016.

We leverage the randomization of students to estimate the causal impact of TSLC participation on student outcomes. We exclude must-fund students from our analysis, as their participation was determined by a subjective review of their application materials. We further restrict our comparison to students randomized into the TSLC and COS groups. We exclude control students because of two types of self-selection. First, only about half of students in the control group enrolled at the institution they indicated as their target institution on their application (students enrolled after scholarships were awarded). The share of students who enrolled in their target institution among the TSLC and COS groups is higher. Second, while survey response rates are similar for students in the TSLC and COS groups, attrition is higher among control students and could lead to selection bias in our sample.

We use a regression framework to estimate the impact of TSLC participation on students' psychosocial outcomes while controlling for a rich set of background characteristics (race/ethnicity, gender, first-generation status, ACT score, high school GPA, and expected family contribution) and randomization strata (targeted institution by cohort). We interact treatment status with each subgroup to examine heterogeneity.

Data Sources

We combine data from students' scholarship applications, administrative records from the University of Nebraska system, and survey responses. Across the two cohorts, 667 students were in the TSLC group and 382 were in the COS group. We restrict our analytic sample to students with complete demographic data who completed the survey at the end of both their first and second years on campus. This limits our main sample to 577 students.

Results

We find positive, statistically significant, and practically meaningful impacts of TSLC participation on students' sense of mattering and belonging at the end of their first and second years on campus. Specifically, TSLC students report a 0.169 (0.196) standard deviation greater sense of belonging to campus than their COS peers at the end of their first (second) year on campus. Similarly, TSLC students report a 0.274 (0.294) standard deviation higher sense of mattering to at the end of their first (second) year on campus. We find no impact on students' academic or social self-efficacy.

We also find suggestive evidence that the program had larger effects for students from historically underserved groups. Specifically, we find larger and more consistent effects of the program on mattering for students of color, first-generation students, female students, low-income students, and students with below-median ACT scores.

Conclusions

Our results indicate that the TSLC, an example of a comprehensive college transition program, improves students' psychosocial outcomes on average and may have a particularly profound impact on students from historically underserved groups. This pattern of findings suggests that CCTPs can not only improve student outcomes but be equity-enhancing in the ways in which they shape students' postsecondary experiences.

References

Angrist, J., Autor, D., Hudson, S., & Pallais, A. (2016). *Evaluating post-secondary aid: enrollment, persistence, and projected completion effects* (Working Paper, 23015) National Bureau of Economic Research (NBER), Cambridge, MA.

Cataldi, E., Bennett, C., Chen, X., & Simone, S. (2018). *First-generation students: College access, persistence, and postbachelor's outcomes.* National Center for Education Statistics: U.S. Department of Education.

Evans, W. N., Kearney, M. S., Perry, B. C., & Sullivan, J. X. (2017). *Increasing Community College Completion Rates among Low-Income Students: Evidence from a Randomized Controlled Trial Evaluation of a Case Management Intervention* (Working Paper No. 24150). National Bureau of Economic Research. Cambridge, MA.

Hallett, R., Kezar, A., Perez, R. & Kitchen, J. (in press). A typology of college transition and support programs: Situating a two year comprehensive college transition program within college access. *American Behavioral Scientist*.

Heckman, J. J., Stixrud, J., & Urzua, S. (2006). The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior. *Journal of Labor Economics*, *24*(3), 411-482.

National Center for Education Statistics (2015). Postsecondary attainment: Differences by socioeconomic status. In *The Condition of Education 2015*. Washington, D.C.: U.S. Department of Education.

National Center for Education Statistics (2016). Table 326.10: Graduation rate from first institution attended for first-time, full-time bachelor's degree-seeking students at 4-year postsecondary institutions, by race/ethnicity, time to completion, sex, control of institution, and acceptance race: Selected cohort entry years, 1996 through 2010. *Digest of Education Statistics 2017*. Retrieved from https://nces.ed.gov/programs/digest/d16/tables/dt16_326.10.asp

National Center for Education Statistics (2018). Table 302.10: Immediate college enrollment rate. *Digest of Education Statistics 2017*. Retrieved from https://nces.ed.gov/programs/coe/indicator_cpa.asp

Oyserman, D. (2015). *Pathways to success through identity-based motivation*. New York, NY: Oxford University Press.

Scrivener, S., Weiss, M. J., LeBlanc, A., Ratledge, A., Rudd, T., & Sommo, C. (2015). *Doubling graduation rates: Three-year effects of CUNY's accelerated study in associate programs (ASAP) for developmental education students*. Retrieved from http://www.mdrc.org/publication/doubling-graduation-rates

Shapiro, D., Dundar, A., Huie, F., Wakhungu, P., Bhimdiwali, A., & Wilson, S. (2018). *Completing college: A national view of student completion rates—Fall 2012 Cohort* (Signature Report No. 16). Herndon, VA: National Student Clearinghouse Research Center.

Weiss, M. J., Mayer, A., Cullinan, D., Ratledge, A., Sommo, C., & Diamond, J. (2014). A random assignment evaluation of learning communities seven years later: Impacts on education and earnings outcomes. *Society for Research on Educational Effectiveness*.

Xu, D., Solanki, S., McPartlan, P., & Sato, B. (2018). EASEing students into college: the impact of multidimensional support for underprepared students. *Educational Researcher*, 47(7), 435-450.

Yeager, D. S., & Walton, G. M. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research, 81*(2), 267-301.