

Reducing the Stratification of College “Choice”

By Laura W. Perna and Roman Ruiz⁵⁷

University of Pennsylvania

Among the distinguishing characteristics of the U.S. higher education system are its size and institutional diversity.⁵⁸ In 2014, the United States was home to nearly 4,700 degree-granting institutions and several thousand more non-degree-granting institutions (Figure 1).⁵⁹ The nation’s postsecondary educational institutions vary in level (4-year, 2-year, less-than-2-year), control (public, private not-for-profit, and for-profit), selectivity of admissions, credentials awarded, curricular and extracurricular programs offered, number of students enrolled, location, mission, and many other dimensions.

This impressive array of options ostensibly ensures that all students have the opportunity to enter the postsecondary educational institution that best suits their individual needs, goals, and priorities. Yet, despite the great number and diversity of postsecondary educational institutions in the U.S., the *2016 Indicators Report* shows that, on average, students from lower-income families are enrolling in institutions with different characteristics than students from higher-income families. Students from low-income families (as measured by receipt of Pell Grants or other Federal Grants) represent considerably smaller shares of first-time, full-time degree- or certificate-seeking undergraduate students at private not-for-profit four-year institutions (33 percent) and public four-year institutions (38 percent) than at public two-year (56 percent), for-profit four-year (74 percent), and for-profit two-year (71 percent) institutions (Indicator 2c). Low-income students represent less than one-in-five first-time, full-time degree- or certificate-seeking undergraduates attending the nation’s most competitive (15 percent in fall 2012) and highly competitive (19 percent) institutions, about a third (30 percent) of students attending very competitive institutions, and 42 percent of students attending competitive institutions, but represent more than half of students attending less competitive (51 percent), non-ranked four-year institutions (55 percent), two-year or less-than-two year institutions (61 percent), and for-profit institutions (74 percent, Indicator 2e).

Although characterized as differences in college “choice,” “choice” is a misnomer for describing the college destinations of many low-income students. Differences in enrollment patterns by family income reflect the stratification of the financial, academic, and other resources that are required to enroll in different colleges and universities. Students from higher-income families have the resources that enable meaningful choice from

⁵⁷ All views expressed in this essay are the sole responsibility of the authors, and do not represent the position of the Pell Institute for the Study of Opportunity in Higher Education or the Alliance for Higher Education and Democracy of the University of Pennsylvania (PennAHEAD).

⁵⁸ Brubacher, J. S., & Rudy, W. (1997). *Higher education in transition: A history of American colleges and universities* (4th ed.). New Brunswick, NJ: Transaction Publishers.

⁵⁹ U.S. Department of Education, National Center for Education Statistics. (2015). *Digest of Education Statistics* (Table 317.10). Retrieved from <http://1.usa.gov/1TLIH4C>.

among the array of available options nationwide. But, resource constraints and structural failures often limit the “choices” of students from lower-income families to the local or online, non-selective or for-profit postsecondary educational institution.

No college choice is possible if students choose not to enroll in postsecondary education. Among high school graduates, rates of continuing on to postsecondary education are substantially lower for those from the lowest-income quartile than for those from the top quartile (60 percent versus 87 percent in 2014, Indicator 1b). This 27 percentage-point difference in enrollment rates means that substantially fewer students from lower- than higher-income families are “choosing” a path that tends to yield considerable economic and non-economic benefits in the short- and long-term. Higher education is associated with countless benefits for individuals, including higher earnings, better working conditions, higher rates of employment, lower rates of unemployment and poverty, better health, and longer life expectancies. Our society also benefits, as with higher educational attainment comes greater economic productivity, less reliance on social welfare programs, greater civic engagement and charitable giving, and higher rates of voting.⁶⁰

Why does it matter that college “choices” are stratified based on family income?

The benefits of higher education are greater for those who complete a college degree than for those who do not. But, completion rates are lower at the institutions in which low-income students are relatively concentrated: two-year and for-profit institutions rather than four-year public and private not-for-profit institutions and institutions that are less rather than more selective. Among degree-seeking students who first enrolled in fall 2009, the share who had no credential and were no longer enrolled 6 years later was higher for those who first entered four-year for-profit institutions (56 percent), two-year public institutions (45 percent), two-year not-for-profit institutions (40 percent) and two-year for-profit institutions (35 percent) than for those who first entered four-year public (25 percent) and four-year private not-for-profit institutions (19 percent).⁶¹ At public four-year institutions, six-year bachelor’s degree completion rates for first-time, full-time students who first enrolled in 2007 range from a low of 33 percent at open-admissions institutions to a high of 85 percent at institutions that accept no more than 25 percent of applicants. 6-year completion rates at private non-profit four-year institutions also increase with selectivity, ranging from 38 percent at open-admissions institutions to 91 percent at institutions that accept fewer than 25 percent of applicants.⁶²

Where a student attends college is also associated with differences in other outcomes. Institutional selectivity, as measured by Barron’s, is a strong positive predictor of enrolling in graduate school, as well as the Carnegie Classification of the graduate institution attended.⁶³ As measured by average SAT scores, the selectivity of the undergraduate institution attended is also positively related to annual earnings for Black and Hispanic

60 Baum, S., Ma, J., & Payea, K. (2013). *Education pays: The benefits of higher education for individuals and society*. Washington, DC: The College Board.

61 Shapiro, D., Dundar, A., Wakhungu, P.K., Yuan, X., Nathan, A., & Hwang, Y. (2015). *Completing college: A national view of student attainment rates, Fall 2009 cohort* (Signature Report No. 10). Herndon, VA: National Student Clearinghouse Research Center. <https://nscresearchcenter.org/wp-content/uploads/SignatureReport10.pdf> (Figure 12).

62 National Center for Education Statistics (2015). *Digest of Education Statistics 2015* (Table 326.10). Washington, DC: Author. Retrieved from <http://1.usa.gov/1jvmZkp>.

63 Zhang, L. (2005). Advance to graduate education: The effect of college quality and undergraduate majors. *Review of Higher Education*, 28(3), 313-338.

students and for students whose parents are not four-year college graduates.⁶⁴ Institutional sector is one of the strongest predictors of student loan default even after controlling for students' demographic, academic, and socioeconomic characteristics. Borrowers who attend for-profit 2-year and 4-year institutions, as well as private not-for-profit 2-year institutions have significantly greater likelihood of loan default than borrowers who attend public four-year colleges.⁶⁵

How can we reduce the stratification of college choice?

Although framed as differences in “choice,” differences in the distribution of students from low- and high-income families across different types of postsecondary educational institutions reflect differences in the structures in which low- and high-income students are embedded.⁶⁶ Students (perhaps with their families) decide to enroll in college, and select a particular college to attend, based on their assessment of the benefits relative to the costs. But, these cost-benefit calculations are not made in a vacuum; they are informed by the views, understandings, and resources of their families, as well as the characteristics and resources of the high schools they attend and the neighborhoods and states in which they live.

To reduce the stratification of college choice, we need a comprehensive approach⁶⁷ that ensures that students from low-income families have the:

- 1. Financial resources required to pay college costs.** The costs of attending college include not only tuition and fees, but also the costs of room and board, books, and other supplies, the costs required to participate in campus life, and the opportunity cost of foregone earnings. For many students, the sticker price is reduced by some amount of financial aid. But, over time, the purchasing power of the Pell Grant has declined (Indicator 3b(ii)) and the costs of paying for higher education have been shifted to students and their families (Indicator 4a). Research suggests that robust need-based financial aid programs can increase the economic diversity of elite institutions by encouraging more high-achieving, low-income applicants who otherwise would not apply.⁶⁸
- 2. Academic preparation required for college-level work.** Both the availability of academically-rigorous coursework and participation in academically-rigorous coursework vary across schools. About 23 percent of 2009 graduates of public and private high schools in which no more than 25 percent of students were eligible for free or reduced-price lunch took calculus, compared with no more than 12 percent of graduates attending high schools with higher shares of low-income students.⁶⁹ Showing the same pattern, about half (49 percent) of 2009 graduates of public high schools in which no more than 25 percent of students were eligible for free or reduced-price lunch earned credits in dual enrollment, Advanced Placement, or International Baccalaureate courses,

64 Dale, S., & Krueger, A. B. (2011). *Estimating the return to college selectivity over the career using administrative earnings data* (Working Paper No. 17159). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://bit.ly/1M3tjga>.

65 Hillman, N. W. (2014). College on credit: A multilevel analysis of student loan default. *Review of Higher Education*, 37, 169-195.

66 Perna, L. W. (2006). Studying college choice: A proposed conceptual model. In J. C. Smart (Ed.), *Higher Education: Handbook of theory and research*, Vol. XXI (pp. 99-157). Springer.

67 Perna, L. W., & Jones, A. (Eds., 2013). *The state of college access and completion: Improving college success for students from underrepresented groups*. New York, NY: Routledge.

68 Avery, C., Hoxby, C., Jackson, C., Burek, K., Poppe, G., & Raman, M. (2006). *Cost should be no barrier: An evaluation of the first year of Harvard's financial aid initiative* (Working Paper No. 12029). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://bit.ly/1nJTb5i>.

69 National Center for Education Statistics (2014). *Digest of Education Statistics 2013* (Table 225.40). Washington, DC: Author.

compared with only about a third of graduates of public high schools with higher shares of low-income students.⁷⁰ In recent years, upper-middle and upper-income families have been increasing their investments in their children's academic readiness, a pattern that will only further widen the gap in higher education opportunity and outcomes across demographic groups.⁷¹

3. Knowledge of college choices, financial aid, and other aspects of the college-going process.

Research shows the positive relationship between the availability of high school counselors and four-year college enrollment rates.⁷² But, at most high schools, and especially at high schools serving large shares of low-income students, counselors are not available to provide the needed assistance. The number of students per counselor **averaged** 553 at public elementary schools and 421 at public high schools nationwide in 2010-11.⁷³

We must also do more to improve outcomes for students who enroll in college, especially those who enroll in less-selective four-year institutions, community colleges, and for-profit institutions. Students who enter these institutions must have effective:

1. **Opportunities to become ready for college-level work.** Although more students are taking the ACT and SAT, college-aspiring high school seniors are largely underprepared for college-level work as measured by the companies' college readiness standards.⁷⁴ Among recent high school graduates, only 42 percent met SAT's college- and career-readiness standards; only 28 percent of ACT test takers met college-readiness benchmarks on all four subject tests.

Students who enter postsecondary institutions with weak academic skills often require developmental education. Among students who enter community colleges, approximately 60 percent enroll in at least one remedial course, and many more are assigned to remedial education but never enroll.⁷⁵ For students who are prescribed developmental education, the chance of successfully completing the assigned remediation sequence is low. In a national longitudinal study of 57 community colleges, only 46 percent of those assigned to reading remediation and 33 percent of those assigned to mathematics remediation completed their assigned sequence.⁷⁶

70 National Center for Education Statistics (2014). *Digest of Education Statistics 2013* (Table 225.60). Washington, DC: Author.

71 Reardon, S. F. (2011). The widening academic achievement gap between the rich and the poor: New evidence and possible explanations. In R. Murnane & G. Duncan (eds.) *Whither opportunity? Rising inequality and the uncertain life chances of low-income children*. New York, NY: Russell Sage Foundation Press; Weis, L., Cipollone, K., & Jenkins, H. (2014). *Class warfare: Class, race and college admissions in top-tier secondary schools*. Chicago, IL: University of Chicago Press.

72 Hurwitz, M., & Howell, J. (2013, February). *Measuring the impact of high school counselors on college enrollment* (Research Brief). Washington, DC: College Board Advocacy & Policy Center. Retrieved from <http://bit.ly/1JmJjH9>.

73 Clinedinst, M. E., Hurley, S. F., & Hawkins, D. A. (2013). *State of college admission 2013*. Washington, DC: National Association for College Admission Counselors.

74 Adams, C. J. (2015, September 9). ACT-SAT performance for 2015 graduates called 'disappointing'. *Education Week*, p. 4.

75 Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community Colleges*, 145, 11-30.

76 Bailey, T., Jeong, D. W., & Cho, S-W. (2010). Referral, enrollment, and completion in developmental education sequences in community college. *Economic of Education Review*, 29, 255-270.

Although research shows conflicting effects of remedial education on college outcomes,⁷⁷ institutions are exploring innovative practices to ensure student success for those assigned to developmental coursework. Mainstreaming students who place into remedial-level mathematics courses into credit-bearing mathematics courses with supplemental academic supports may improve course completion rates and allow “remedial” students to earn college credit.⁷⁸ Learning communities may also improve student outcomes. Under this model, a cohort of low-academic performing students is co-enrolled in a developmental course and additional courses such as a major-specific course or first-year experience course.⁷⁹ More comprehensive learning community models may incorporate integrated curricula, tutoring, and enhanced academic advising.

2. **Pathways that enable students to transfer** from one postsecondary educational institution to another without loss of credit. On average, low-income students are less likely than higher-income students to transfer from 2-year to 4-year institutions, and those who do transfer are less likely to attain a bachelor’s degree.⁸⁰ Many states have legislated state- or system-level articulation agreements between 2-year and 4-year sectors, but a number of states continue to permit institutions to define their own transfer policies.⁸¹ Some, but not all, states guarantee transfer of general education credits taken at 2-year institutions within the same state.⁸²
3. **Structures and programs that support students** as they navigate the academic, social, and other challenges that may limit college access, persistence, and completion. Even with the availability of sufficient financial aid and academic preparation, some students from low-income families may encounter difficulties. Research demonstrates the positive effects of TRIO programs on students’ college-related outcomes.⁸³ Methodologically rigorous research studies conducted by Westat and Mathematica Policy Research show that: Student Support Services promotes persistence in college, college credit accrual, and college grades; Talent Search increases applications for financial aid and postsecondary enrollment; and Upward Bound Math-Science has positive effects on enrollment in selective four-year institutions and completion of a bachelor’s degree in a math or science discipline.⁸⁴

77 Long, B. T., & Boatman, A. (2013). The role of remedial and developmental courses in access and persistence. In L. W. Perna & A. P. Jones (Eds.), *The state of college access and completion: Improving college success for students from underrepresented groups* (pp. 77-95). New York, NY: Routledge.

78 Logue, A. W., Watanabe-Rose, M., & Douglas, D. (2015). *Should students assessed as needing remedial mathematics take college-level quantitative courses instead? A randomized control trial*. Paper presented at the annual fall conference of the Association for Public Policy Analysis & Management.

79 Bailey, T., & Cho, S-W. (2010). *Developmental education in community colleges* (Issue Brief). New York, NY: Community College Research Center. Retrieved from <http://bit.ly/1RIMn6q>.

80 Jenkins, D., & Fink, J. (2016). *Tracking transfer: New measures of institutional and state effectiveness in helping community college students attain bachelor's degrees*. New York, NY: Community College Research Center. Retrieved from <http://bit.ly/1KnJTkX>.

81 Roksa, J., & Keith, B. (2008). Credits, time, and attainment: Articulation policies and success after transfer. *Educational Evaluation and Policy Analysis*, 30(3), 236-254.

82 Education Commission of the States. (2014). *Transfer and articulation: All state profiles*. Retrieved from <http://bit.ly/1pqI7gq>.

83 Maynard, R. A., Orosz, K., Andreason, S., Castillo, W., Harvill, E., Nguyen, H., Robertson-Kraft, C., & Tognatta, N. (2014, November). *A systematic review of the effects of college access programs on college readiness and enrollment*. Paper presented at the annual fall conference of the Association for Public Policy Analysis & Management.

84 The Pell Institute. (2009). *National studies find TRIO programs effective at increasing enrollment and graduation rates*. Washington, DC: Author. Retrieved from <http://bit.ly/1KefKp4>.

Ensuring that meaningful college choice is not merely a privilege of the most advantaged students requires commitment and action from multiple players and stakeholders. The federal government plays a role via the student financial aid, student support programs, and other initiatives created by the Higher Education Act of 1965, as amended over time and soon to be reauthorized again. State governments can promote college affordability (via policies pertaining to appropriations to institutions, financial aid to students, and tuition-setting policies), ensure that students can transition between K-12 and higher education institutions and between higher education institutions without loss of academic credit, and encourage the availability of high-quality postsecondary educational options.⁸⁵ Colleges and universities can promote outcomes for low-income students by controlling costs, awarding student financial aid based on financial need, and providing academic and other support services. K-12 schools play a role by ensuring the availability of and enrollment in academically-rigorous courses and providing information about and assistance with college-going processes throughout the educational pipeline.

The stratification of college choice illustrated in this *2016 Indicators Report* is the product of a complex, cumulative and longitudinal process that begins at an early age—arguably at (or even) before birth. To reduce this stratification and create meaningful college choice for low-income students, we need commitment from multiple stakeholders and a comprehensive approach that addresses the many systemic and structural forces that limit opportunity and outcomes for low-income students.

85 Perna, L. W., & Finney, J. (2014). *The attainment agenda: State policy leadership in higher education*. Baltimore, MD: Johns Hopkins University Press.