Post-Baccalaureate Bridge Programs
An Underutilized Tool for Strengthening Faculty Diversity

Eugene Tobin
Daniel Rossman
Elaine Vilorio
Christy McDaniel
Martin Kurzweil
Catharine Bond Hill
Ithaka S+R provides research and strategic guidance to help the academic and cultural communities serve the public good and navigate economic, demographic, and technological change. Ithaka S+R is part of ITHAKA, a not-for-profit with a mission to improve access to knowledge and education for people around the world. We believe education is key to the wellbeing of individuals and society, and we work to make it more effective and affordable.

Copyright 2022 ITHAKA. This work is licensed under a Creative Commons Attribution 4.0 International License. To view a copy of the license, please see https://creativecommons.org/licenses/by/4.0/.

ITHAKA is interested in disseminating this brief as widely as possible. Please contact us with any questions about using the report: research@ithaka.org.
Introduction

If the United States is to ensure socioeconomic and racial equity and maintain its preeminent position in education and research, higher education institutions must correct the mismatch between the profiles of current faculty and the increasingly diverse student bodies attending the nation’s colleges and universities.¹

Over the last 50 years, the US has experienced significant shifts in its racial and ethnic makeup, making it a much more racially diverse country than it was a half century ago.² The racial and ethnic composition of the higher education system has shifted too. Between 1997 and 2017, the non-white share of undergraduates grew from approximately 29.6 percent to 45.2 percent and the non-white share of graduate students increased from 20.8 percent to 32 percent.³

In spite of this progress, various forms of racial bias, socioeconomic inequality, and academic gatekeeping continue to limit access of students of color and lower-income backgrounds to higher education’s resources and potential benefits. This imbalance has magnified a growing awareness that diversity among faculty, doctoral candidates, and PhD recipients lag far behind the diversity of the country as a whole and the nation’s undergraduate student body.⁴ Approximately 75 percent of full-time faculty at degree-granting institutions are white, while those who identify as Black, Hispanic, and Indigenous collectively represent approximately 11 percent, including less than 6 percent who are Black.⁵

Various forms of racial bias, socioeconomic inequality, and academic gatekeeping continue to limit access of students of color and lower-income backgrounds to higher education’s resources and potential benefits.

A combination of constraints in the academic job market, antiquated recruitment policies, institutional inertia, evaluation biases, and competing professional opportunities continue to work against the hiring and retention of candidates of color. Even when faculty of color are

¹ Throughout this paper we use a variety of interchangeable descriptive language—students of color, racially minoritized, and historically underserved—to refer to Black and African American, Hispanic, and Indigenous peoples.

² From 1968 to 2018, the percent of six to 21-year-olds in the US who are non-white grew from 18 percent to 48 percent. As a result, there are currently more non-white than white children at every age from infant to nine years, producing the first minority-white generation at 49.6 percent. See Richard Fry and Kim Parker, “Early Benchmarks Show ‘Post-Millennials’ on Track to Be Most Diverse, Best-Educated Generation Yet,” Pew Research Center, 15 November 2018, https://www.pewresearch.org/social-trends/2018/11/15/early-benchmarks-show-post-millennials-on-track-to-be-most-diverse-best-educated-generation-yet/.


successfully recruited, they are disproportionately represented in a narrow band of fields.\(^6\) In the 2018-19 academic year, the percentages of faculty of color ranged from 11.3 percent in philosophy and religious studies (followed closely at the low end by STEM disciplines, English language and literature, and library science) to 55.6 percent in area, ethnic, cultural, gender, and group studies.\(^7\) These racially-based forms of academic categorizing perpetuate disciplinary segregation and increase the likelihood that minoritized PhDs will be discouraged from specializing in fields in which there are few faculty of color.

There are similarly alarming statistics on the racial composition of graduate students and PhD recipients that directly affect faculty diversity.\(^8\) Despite significant increases in the diversity of first-time graduate students, those from historically underserved backgrounds remain underrepresented, especially in STEM fields.\(^9\) In 2016, only 15 percent of all US university doctorates were awarded to African American, Hispanic, and Indigenous people, even though these three groups collectively represent more than 30 percent of the US population.\(^10\) These disparities underscore the extent to which diversity among doctoral candidates, PhD recipients, and faculty lags behind demographic changes in the country as a whole.

### The Changing Job Market for PhDs

The job market for full-time continuing faculty positions has been shrinking for over a generation. In 1969, tenured and tenure-track faculty accounted for over three-quarters (78 percent) of the professoriate while part-time, non-benefited adjuncts represented less than one-quarter; by 2019, the percentages had flipped. Tenured and tenure-track faculty now account for just over one-quarter of all faculty (27 percent) and non-tenure-track faculty represent three-quarters of the professoriate.\(^11\)

---


\(^7\) Unsurprisingly, approximately half of all department chairs in these latter fields identify as people of color but only about 15 percent of all other department heads identify as a race or ethnicity other than white, and in nine disciplines, less than 10 percent of all department heads are people of color. See Morgan Taylor et al., Race and Ethnicity in Higher Education, 2020 Supplement, 232, [http://1xfsu31b52d33idp13twos-wpengine.netdna-ssl.com/wp-content/uploads/2020/11/REHE-2020-final.pdf](http://1xfsu31b52d33idp13twos-wpengine.netdna-ssl.com/wp-content/uploads/2020/11/REHE-2020-final.pdf).


\(^10\) From 2008 to 2018, the number of Hispanic first-time graduate students increased each year, on average, by 8.2 percent. Yet in 2018 Hispanic students represented only 11.6 percent of all first-time graduate students (among US citizens and permanent residents) while comprising more than 18 percent of the country. National Science Foundation (NSF) data [https://www.nsf.gov/statistics/degree/recipients](https://www.nsf.gov/statistics/degree/recipients) show that in 2019 there were 30 fields of science in which fewer than five PhDs were awarded to Black and Hispanic scholars in the US.

\(^11\) American Association of University Professors, Data Snapshot: Contingent Faculty in US Higher Education, [https://www.aaup.org/news/data-snapshot-contingent-faculty-us-higher-education-Yvp1RXbMJSx](https://www.aaup.org/news/data-snapshot-contingent-faculty-us-higher-education-Yvp1RXbMJSx); Steven Hulbert and Michael McGarrah,
Our research indicates that with appropriate investment and mentorship, students of color and lower-income backgrounds can have rewarding careers as faculty and administrators within the academy. Moreover, as doctoral programs respond to the declining share of full-time and tenure-track positions, graduate faculty are preparing their students for a broader range of career options. In addition to teaching, research, and administrative positions within colleges and universities, PhDs from diverse backgrounds will be able to find rewarding academic careers in early college, microcollege, adult education, and higher education in prison programs that serve students who have had limited access to a college education.

The Intersection of Racism, Poverty, and Education

The absence of faculty diversity is often framed as a “pipeline” problem that will be solved when more minoritized students begin their academic careers, but the pipeline metaphor inadequately captures the socioeconomic forces that shape students’ pathways before college or the systemic institutional racism they encounter during their journeys. The years that matter most occur long before college when children from historically underserved and lower-income backgrounds first encounter a racially segregated and impoverished educational system. Racial differences in attendance and completion at the postsecondary level reflect earlier gaps in students’ elementary, middle, and high school training. These “gaps” represent the fault lines of race and class that affect parental wealth, home ownership, access to pre-K programs, and quality health care. Children from Black, Hispanic, and low-income family backgrounds are more likely to attend lower quality resegregated schools because housing and schools are interconnected through their reliance on local property taxes to fund public education. Recent studies indicate that even among high-achieving Black and white third-graders with the same test scores, Black children are one-third less likely to be placed in gifted and talented programs. By the time students of color enter college, many have to compensate for weaker preparation in reading, mathematics, and critical thinking skills, reflecting the paucity of advanced placement and honors courses in high school as well as the lack of access to college counselors with sufficient time to provide individual attention. Although students of color have to hurdle innumerable obstacles and educational disruptions on their pathways to college, one of their biggest challenges is entering an unfamiliar environment while respecting the assumptions and values of the communities that nurtured them.

The Shifting Academic Workforce: Where are the Contingent Faculty? (New York: TIAA Institute, 2016) https://www.tiaainstitute.org/publication/shifting-academic-workforce. Although these patterns are unmistakable, colleges and universities do not systematically track these data and there may be some imprecision in data shared with the Integrated Postsecondary Education Data System. See John C. Cross and Edie Goldenberg, Off-Track Profs: Nontenured Teachers in Higher Education (Cambridge, MA: MIT Press, 2009), 23.


The absence of faculty diversity is often framed as a “pipeline” problem that will be solved when more minoritized students begin their academic careers, but the pipeline metaphor inadequately captures the socioeconomic forces that shape students’ pathways before college or the systemic institutional racism they encounter during their journeys.

Students of color face non-academic barriers too, many of which stem from being the first in their family to attend college. Indeed, about 42 percent of Black and 48 percent of Hispanic students are first-generation collegegoers.\(^\text{15}\) Part of the achievement gap these students experience can be attributed to a lack of social capital that provides other students with the information, guidance, emotional support, and “institutional know-how” to navigate the bureaucracies and administrative obstacles of a large modern university. Students from first-generation and lower-income backgrounds are less likely to receive important information and guidance about colleges from family members and surrounding support networks.\(^\text{16}\)

While students at historically black colleges and universities (HBCUs) benefit from nurturing environments and resources that address academic, social, and financial obstacles, first-generation racially minoritized students at predominantly white institutions often feel isolated and may suffer from low levels of social interaction, self-doubt, and feelings of inadequacy.\(^\text{17}\) In addition to lacking a strong support system, they perceive a social and/or academic gap with majority white students, and do not see role models or mentors among predominantly white faculty members. The inability to establish a personal connection with a professor means that students of color are less likely to benefit from formative research, laboratory, and internship experiences that stem from a faculty member taking a special interest in them. For many undergraduates of color, these missed opportunities reduce access to valuable guidance, encouragement, and recognition that might inspire them to participate in summer research and graduate student recruitment and enrichment programs. Preparedness for graduate school requires role models and mentors who encourage students’ academic aspirations, build self-esteem, and help them navigate a challenging personal and professional journey.


There are very few opportunities for graduates from racially minoritized and lower-income backgrounds who were excluded, overlooked, and/or underestimated during their college years to earn a second or even a first chance at graduate school admission.

The student-faculty connection, which plays such a formative role in inspiring undergraduates to imagine a life as an academic, is of even more importance in making the transition to graduate school. At both educational stages, the absence or paucity of mentoring experiences with faculty represent a serious weakness in sustaining the diversity pipeline. Currently, there are very few opportunities for graduates from racially minoritized and lower-income backgrounds who were excluded, overlooked, and/or underestimated during their college years to earn a second or even a first chance at graduate school admission.

Resistance and Reform: Changing the Culture

Organizational cultures are notoriously resistant to change, and this is notably true in the academy when it comes to protecting long-standing prerogatives like faculty autonomy over admission and hiring. However, the persistent homogeneity of faculties is a live, urgent, and increasingly vocal conversation on college and university campuses, and the pressure to increase faculty diversity has reached an inflection point. Graduate school deans, directors of graduate studies, and graduate admissions committees are challenging norms and practices that privilege candidates whose background, training, and pedigree most closely replicate the profiles of current white male members of the faculty. This is a propitious moment to expand the competitive pool of racially minoritized graduate school applicants whose pursuit of the PhD is motivated by traditional scholarly interests and by community-based concerns that lie at the intersection of civic engagement, social justice, and higher education’s mission to serve the public good.

Post-Baccalaureate Bridge Programs

The vast majority of post-baccalaureate (post-bacc) programs help bachelor’s degree recipients prepare for and apply to medical school. Most of the approximately 290 active programs in the US are one or two years in length and are offered by a range of institutions that include Bryn Mawr and Goucher Colleges, Columbia, Johns Hopkins, and Southern Illinois Universities, and Washington University in St. Louis. By comparison, you can count on the fingers of both hands

---

20 According to the Association of American Medical Colleges’ (AAMC) database, there are 288 post-baccalaureate premedical programs in the US. See https://mec.aamc.org/postbac/#/index.
the number of post-bacc programs that prepare students of color for admission to graduate school in the arts and sciences.

Four of the most prominent—the Research Scholar Initiative at Harvard University (economics or life sciences); the Post-Baccalaureate Research Education Programs at Yale University (biological and biomedical sciences or humanities, social sciences, physical sciences and engineering); the PhD Excellence Initiative at New York University (economics); and the Hot Metal Bridge Post-Bacc at the University of Pittsburgh (eight disciplines across the humanities, natural sciences, and social sciences)—offer upper- and graduate-level coursework, general courses in research methodology, opportunities to conduct independent research, intensive faculty mentorship, research assistantships, as well as an annual stipend (ranging between $24,000 and $40,000), tuition remission, health insurance, laptop, and GRE materials.

Through their required components and design features, the post-bacc programs address academic preparation and research experience, financial insecurity, and low social capital among historically underserved students following the completion of their undergraduate education, a critical juncture in the PhD pathway. First, they aim to sharpen students’ skills and expand their knowledge in order to better prepare them for graduate-level coursework and to complete a dissertation. Second, they impart research experience, both in terms of understanding the research process and then applying what they have learned to conduct their own research during the program and in preparation for a PhD. In addition, they provide strong financial support to alleviate concerns about affordability, especially considering that students have to forgo employment in order to participate in the post-bacc. Finally, they aim to build students’ social capital by providing a network of mentorship and advising around coursework, graduate school applications, and professional opportunities that were unavailable prior to their participation in the program. In many ways, these research university-sponsored post-bacc programs seek to emulate successful strategies developed by undergraduate enrichment programs of long-standing, such as the McNair, Gates Millennium, and Meyerhoff Scholars Programs, and the Mellon Mays Undergraduate Fellowship program.

The four post-bacc programs discussed above are of recent vintage and operate on a far more modest scale than the more established undergraduate programs. What they share in common is a paucity of data about student outcomes, especially with respect to PhD completion by post-bacc graduates, and the recognition that even the most successful pipeline programs “lose” students to professional opportunities outside the academy. Limited public data and private interviews confirm that: (1) admission to post-bacc programs is extremely competitive and oversubscribed; (2) a substantial number of admitted post-bacc students come from selective institutions, including a sizeable cohort that had previously decided to apply to graduate school; and (3) enrollment in post-bacc programs strengthens the likelihood of admission into prestigious PhD programs.21

---

21 The Research Scholar Initiative at Harvard accepts three to four students in each of its two programs. Recent post-bacc students are enrolled in graduate school at Harvard, NYU, the University of Chicago, University of California, Berkeley, University of Pennsylvania, and University of Texas (Southwestern Medical Center). See https://gsas.harvard.edu/diversity/research-scholar-initiative. NYU’s PhD Excellence Initiative, funded by the Alfred P. Sloan Foundation, reports that 10 current and recent fellows are
The most salient differences between long-standing undergraduate enrichment programs and recent post-bacc pipeline initiatives are the absence of broad accessibility, scale, and external financial support at the post-bacc level. Current arts and sciences post-baccalaureate programs enroll minuscule numbers of students, most of whom come from highly selective colleges and universities. As a result, there is an unmet demand for post-bacc opportunities for students in arts and sciences disciplines who have been overlooked and underestimated because of their lack of preparation, later emergence of their academic ambitions, or the less prestigious sectors of higher education from which they come, thus reinforcing previously existing inequalities. It is worth noting that students’ intellectual interests change frequently and dramatically after they declare (and often switch) undergraduate majors and, as a result, early-stage interventions tied to graduate school admission are likely to have high attrition rates.

There is a large pool of qualified students who started their educational careers at community colleges, under-resourced liberal arts colleges, public non-flagship campuses, HBCUs, tribal colleges, and Native American-serving nontribal institutions. With the notable exception of a handful of HBCUs, most Minority Serving Institutions are not significant producers of future PhDs. Their students and alumni are rarely invited to apply for pipeline enrichment programs and have not had equal access to the full range of educational opportunities available to recent graduates with comparable credentials at elite institutions.

The main focus of enrichment programs, from the undergraduate years through completion of the PhD, is to address some combination of low academic preparation and research experience, financial insecurity and low social capital, and lack of community and cohort identity with peers. Post-bacc programs are among the most recent entrants and, arguably, the most innovative of all pipeline initiatives that help PhD seekers overcome a number of barriers, including lack of research experience, difficulty locating mentorship opportunities during college, and hardship around where and how to apply to PhD programs.

Post-bacc programs draw on the best practices and lessons learned from decades of enrichment interventions. They address a part of the PhD pipeline where minoritized and historically underserved students from less selective colleges fall through the cracks because they have been overlooked and underestimated, often due to previously existing inequalities. Finally, post-bacc programs draw upon the professoriate’s enduring roles as teachers, scholars, and mentors.

enrolled in doctoral programs at Brown, Columbia, and Stanford Universities and the University of Minnesota (https://www.phdexcellence.org/fellows/). Yale’s post-bacc Research Education program (one in biological and biomedical sciences and a second in humanities, social sciences, physical sciences and engineering) has enrolled 26 students since the program started and has been equally successful in placing fellows in graduate schools of the most highly regarded research universities (https://gsas.yale.edu/diversity/prospective-students/post-baccalaureate-research-education-programs). The University of Pittsburgh Hot Metal Bridge Post-Bacc (across multiple arts and sciences disciplines) reports that 85 percent of its post-bacc graduates have gone on to graduate school at Pitt and elsewhere, https://www.asgraduate.pitt.edu/hot-metal-bridge-post-bac-program).
Diagnosing Weaknesses and Proposing Solutions

In *What Universities Owe Democracy*, Ronald Daniels, the president of Johns Hopkins University, reminds us of two precarious threads that link democracy and higher education: Democracies draw their credibility and resilience from a collective belief in the prospect of social mobility, and colleges and universities contribute to democratic flourishing when they embrace cooperation and collective action.\(^{22}\) The interdependence and frailty of this “public good” argument acknowledges higher education’s role as the primary agent for allocating opportunity and advantage. The tension between these two elements increases when our educational system expands access to only a few, while maintaining stratification and inequality.\(^{23}\)

Our research indicates that current university-sponsored post-bacc programs are highly successful in strengthening students’ preparation for graduate school by providing opportunities for advanced coursework, mentorship, faculty-directed research, and exposure to cohort and community-building strategies.

This analysis of the challenges and opportunities facing efforts to diversify the faculty ranks underscores the disconnection between democracy’s needs and higher education’s efforts to address those needs. Our research indicates that current university-sponsored post-bacc programs are highly successful in strengthening students’ preparation for graduate school by providing opportunities for advanced coursework, mentorship, faculty-directed research, and exposure to cohort and community-building strategies. But these programs are expensive to operate, lack scale, and frequently fail to recruit or admit candidates from less selective institutions where the largest number of talented students of color and lower-income backgrounds start their postsecondary journeys. In this sense, the traditional academic gatekeeping and rationing that limit access to current post-bacc programs symbolize the metaphorical distance between opportunity and privilege that continue to constrain diversity and equity within the academy.

We recommend the creation of a post-baccalaureate bridge program by a coalition of leading undergraduate colleges and distinguished research universities linked by a shared commitment to public engagement and full participation, regardless of a student’s identity, background, or reputation of the degree-granting undergraduate institution. A multi-institutional, cross-sector, post-bacc initiative that expands the pool of students of color and lower-income backgrounds entering PhD programs will likely narrow the gap between opportunity and social advantage and increase diversity within academic and professional ranks. The recent growth of higher education and community-based partnerships that seek to democratize access, bridge socioeconomic and opportunity gaps, fight against systemic racism and inequity, and restore full citizenship to system-impacted people represent a promising set of emerging professional

---

22 Ronald J. Daniels, *What Universities Owe Democracy* (Baltimore: Johns Hopkins University Press, 2021), 9, 84, 94.

opportunities. Our primary commitment is to diversify faculty ranks across all sectors of higher education by preparing talented students of color and lower-income backgrounds to enter graduate school, complete PhDs, and assume full-time faculty positions. New and recent PhDs can also find rewarding careers as faculty members, researchers, and administrators in early college, microcollege, adult, and higher education in prison and reentry programs situated at the nexus of social justice, civic engagement, and higher education. This form of collective action would support the success of students of color in college by providing models and mentors, which, in turn, would foster meaningful access, build social capital, promote fairness, social mobility, and strengthen our fragile democracy.