

DIVERSIFYING THE TEACHER WORKFORCE REQUIRES RACE-CONSCIOUS APPROACHES THAT START EARLY

David Blazar¹, Max Anthenelli, Wenjing Gao¹, Ramon Goings², & Seth Gershenson³ //

¹University of Maryland, College Park, ²University of Maryland, Baltimore County, ³American University

CENTRAL QUESTION

To diversify the teacher workforce, *when* should policymakers intervene and *what magnitude* of effects do interventions need to have?

Academics, policymakers, and practitioners agree that we need to address barriers to entry into teaching in order to ameliorate teacher shortages and diversify the profession.¹ As experimental evidence continues to find large effects of teacher-student race/ethnicity-matching on student outcomes,² scholars argue that we need to “redefine teacher quality to include teacher race”³ and ensure that race is considered when designing teacher recruitment and retention policies. However, as the K-12 student population grows more diverse, the teacher workforce in Maryland (and nationally) remains overwhelmingly White (Figure 1).⁴

The mismatch between student and teacher demographics stems in part from “leaks” at multiple stages of the “teacher pipeline,”⁵—or, what we call a “teacher pathway” that implies opportunities for re-entry. In this brief, we present descriptive analyses of teacher recruitment pathways in Maryland to provide benchmarks and potential policy targets for increasing racial/ethnic diversity in the teaching profession.

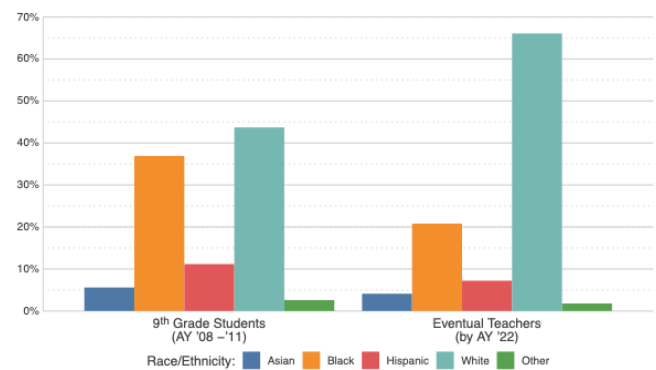
RESEARCH METHODS

Using data on all public-school students in Maryland from the Maryland Longitudinal Data System Center, we follow four cohorts of 9th graders (SY08-09 to SY11-12) over a 12 year period. We capture key stages on the pathway towards becoming a teacher: high school graduation, college enrollment in 2- or 4-year programs, completion of a BA, BA in teaching, and observed teaching in a Maryland public school. For individuals who become teachers, we also observe license type (e.g., “traditional” versus

“alternative”) and whether they taught in the same district they attended high school.

We start by exploring demographic representation at different stages of the pathway. We also conduct a policy simulation that asks: *If a policy were to increase high school graduation (or college enrollment, college graduation, etc.) of Asian, Black, or Hispanic students by X%, how much would teacher demographics shift?*

Figure 1. Demographic Characteristics of Students and Those Who Become Teachers



KEY FINDINGS

Early barriers require timely interventions, aiding students of color in achieving educational milestones that are prerequisites for teacher candidacy.

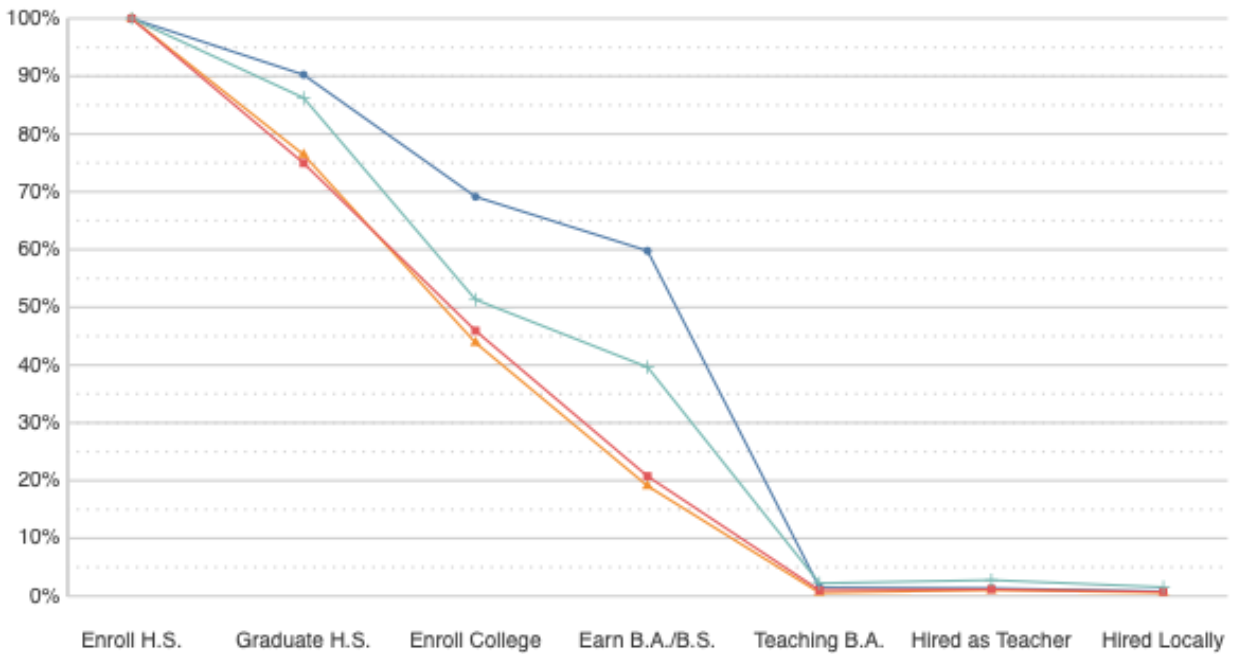
Figure 2 shows that teaching is a rare outcome for students of all backgrounds: 1.8% of 9th grade students in Maryland public schools go on to become teachers in Maryland public schools within 12 years. However, it is a particularly rare outcome for Black students (1%), Hispanic students (1.2%), and Asian students (1.4%), compared to White students (2.8%). Figure 2 further shows that Black and Hispanic students face barriers earlier in the pathway, starting in high school, than other students.

About this Brief. The University of Maryland College of Education’s **Maryland Equity Project (MEP)** seeks to improve public education through research that supports an informed public policy debate about the quality and distribution of educational opportunities in Maryland and nationally. To learn more, [follow us on X](#) and [subscribe to our email list](#). The full academic paper accompanying this brief is posted on our website: Blazar, D., Anthenelli, M., Gao, W., Goings, R., & Gershenson, S. (2024). **Disparate Pathways: Understanding Racial Disparities in Teaching.**

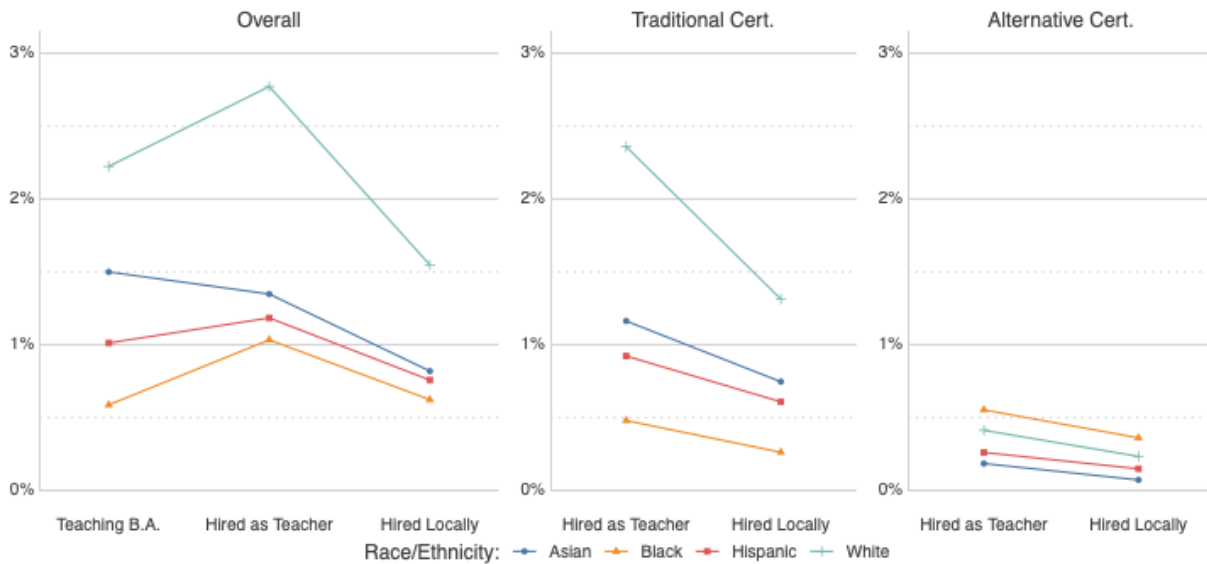
DISPARATE PATHWAYS: UNDERSTANDING RACIAL DISPARITIES IN TEACHING

Figure 2. Share of 9th Graders at Each Stage on the Pathway into Teaching within 12 Years, by Race/Ethnicity

Panel A: All Pathway Steps



Panel B: Pathway Steps Related to Teaching



While alternative teacher preparation pathways may help address barriers to entry, current approaches still show persistent racial disparities.

Traditional certification routes are more common than alternative pathways. Figure 2 shows that 1.4% of 9th graders become teachers through a traditional

undergraduate degree in teacher education, compared to 0.4% of 9th graders who go through an alternative pathway that allows individuals with a bachelor’s degree outside of education to teach full-time while earning full certification. However, re-entry into the pathway through an alternative route is significantly more common for Black students: over 50% of the Black 9th graders who go on to become

DISPARATE PATHWAYS: UNDERSTANDING RACIAL DISPARITIES IN TEACHING

teachers re-enter through an alternative route. At the same time, the transition into teaching through an alternative route does not make up for substantial underrepresentation at earlier stages in the pathway.

Policy strategies must be race-conscious and differentially benefit students of color, as race-neutral strategies have minimal impact.

Figure 3 plots the racial composition of the teaching force as a function of the size of hypothetical policy shocks, which range from 0% (no impact) to 30%. The first panel focuses on a single-stage policy shock that only targets high school graduation, where we see minimal changes. This is true for other single-stage policy shocks that target college enrollment, college graduation, etc., indicating that any single strategy or approach is likely insufficient to diversify the teacher workforce.

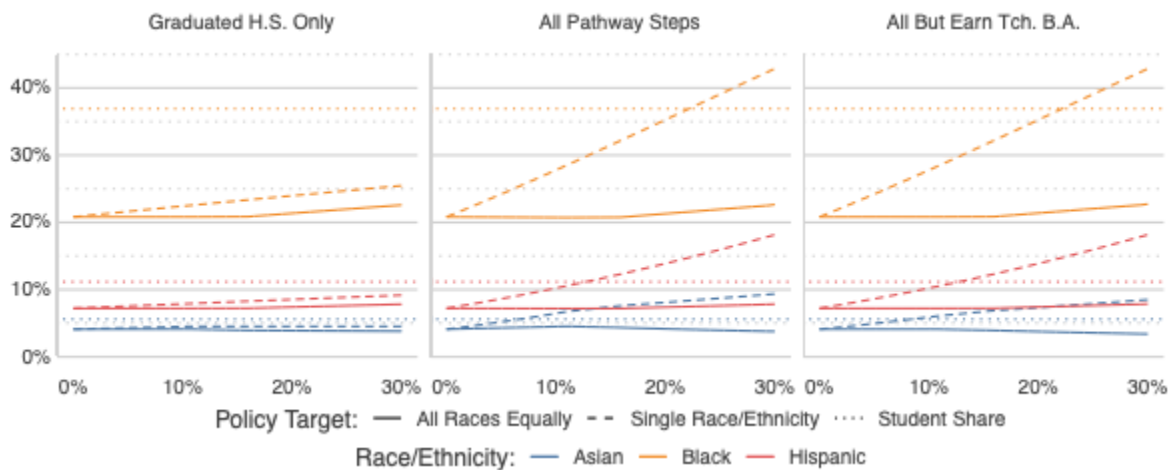
Next, we present multi-stage policy shocks that simultaneously impact multiple stages in the teacher pathway. Given the centrality of certification pathways in our earlier findings, we consider a multi-stage policy shock aligned to a traditional route that includes earning a

bachelor's degree in teaching (i.e., "All Steps") versus a multi-stage policy shock aligned to an alternative route. The figures are largely the same, indicating that there is minimal room to improve demographic representation for students of color by targeting undergraduate teacher education and traditional certification routes.

Figure 3 also reports simulated policy effects under two policy shock scenarios: "race-conscious" policies only affect the transition of Black, Hispanic, or Asian teachers through pathway stages, while "race-neutral" policies benefit all students equally. Fully race-neutral policy shocks have modest effects on teacher demographics and fall woefully short of achieving a representative teaching force. For example, race-neutral policies that impact all pathway stages (and all groups) by 30% only increase the share of Black teachers by roughly 2 percentage points.

Race-conscious policies *can* meaningfully alter teacher demographics, but only when multiple policy solutions simultaneously address various educational milestones *and* when each demonstrates significant effects. For example, for Black individuals, parity between teachers and students is achieved with approximately 30% increases.

Figure 3. Simulated Effects of Policy Shocks on Shifting Teacher Demographics



POLICY IMPLICATIONS

Are these policy benchmarks achievable? Yes, but only with sustained investments and race-conscious approaches.

Our simulations suggest that increasing Asian, Black, and Hispanic students' HS graduation, college enrollment and completion, and teacher-entry rates each by upwards of

30% would yield a representative teaching force in Maryland. But is doing so realistic? No singular intervention would accomplish these goals immediately. However, a growing body of evidence suggests that various interventions and practices—both big and small—have the potential to make substantial progress towards these goals.

Providing more **equal access to effective and diverse teachers** would get us well on our way to the 30%

benchmark. For example, having at least one Black teacher between kindergarten and third grade increases high school graduation and college enrollment rates by 13% and 19%, respectively.⁶ There is admittedly a “chicken and egg” problem here. Increasing access to same-race teachers for Black students requires that we have more Black teachers to begin with. That said, classroom assignment and teacher retention policies could increase the odds that students of color experience same-race or same-ethnicity teachers at least once in elementary or middle school.

Other school inputs, practices, and behaviors could be targeted that benefit all students, but disproportionately benefit Black and Hispanic students. Eliminating 20 student **absences** would increase high school graduation and college enrollment rates by about 40%.⁷ Random assignment to a **small classroom** in elementary school increased Black students’ college enrollment rates by about 20%, an effect that is more than twice as large as that for White students.⁸ Another strategy for boosting college completion rates of students of color is to invest in **community colleges**, which is a more common entry point into higher education for students of color. For example, an intensive case management intervention in Texas increased female students’ rate of degree attainment by about 30%.⁹

Preliminary evidence from **urban teacher residency** programs and **grow-your-own** programs is promising too. For example, related research from the Maryland Equity Project has found that the Teacher Academy of Maryland (TAM) program—which provides early exposure to teaching and the opportunity to earn college-level credits towards an undergraduate degree in teaching—increased Black girls’ entry into teaching by 80% and White girls’ by 39%.¹⁰ Aligned with analyses from this study, almost all of the effect for Black girls is driven by alternative routes into teaching. Similarly, urban teacher residency graduates tend to be about twice as racially diverse as other novice entrants and in some cities (e.g., Boston) these programs contribute 25% or even 50% of the incoming novice teacher cohort.¹¹

We view alternative teaching routes as a likely important contributor to shifting teacher demographics. But, we also view resources that begin much earlier (in high school and even before) as critical for addressing the systemic barriers that we have created for students of color—Black and Hispanic students in particular—to become teachers.

Acknowledgements

The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305A210031 to the University of Maryland, College Park. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education. The research was prepared by members of the Research Branch of the Maryland Longitudinal Data System Center (MLDSC). The Research Branch would like to thank the entire staff of the MLDSC for their assistance and support.

Endnotes

¹ Gist, C. D., & Bristol, T. J. (Eds.). (2022). *Handbook of research on teachers of color and indigenous teachers*. American Educational Research Association. Sutchter, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortages in the US. *Learning Policy Institute*.

² Blazar, D. (2024). Why Black teachers matter. *Educational Researcher*. Dee, T. S. (2004). Teachers, race, and student achievement in a randomized experiment. *Review of economics and statistics*, 86(1), 195-210.

³ Gershenson, S., Hansen, M. J., & Lindsay, C. A. (2021). *Teacher diversity and student success: Why racial representation matters in the classroom* (Vol. 8). Cambridge, MA: Harvard Education Press. Hansen, M., & Quintero, D. (2021). *Boosting teacher diversity requires bold, extensive action*. Brookings Institution.

⁴ Taie, S., & Lewis, L. (2022). Characteristics of 2020-21 Public and Private K-12 School Teachers in the United States: Results from the National Teacher and Principal Survey. First Look. NCES 2022-113. National Center for Education Statistics.

⁵ Lindsay, C. A., Blom, E., & Tilsley, A. (2017). *Diversifying the classroom: Examining the teacher pipeline*. Urban Institute.

⁶ Gershenson, S., Hart, C. M., Hyman, J., Lindsay, C. A., & Papageorge, N. W. (2022). The long-run impacts of same-race teachers. *American Economic Journal: Economic Policy*, 14(4), 300-342.

⁷ Liu, J., Lee, M., & Gershenson, S. (2021). The short-and long-run impacts of secondary school absences. *Journal of Public Economics*, 199.

⁸ Dynarski, S., Hyman, J., & Schanzenbach, D. W. (2013). Experimental evidence on the effect of childhood investments on postsecondary attainment and degree completion. *Journal of Policy Analysis and Management*, 32(4), 692–717.

⁹ Evans, W. N., Kearney, M. S., Perry, B., & Sullivan, J. X. (2020). Increasing community college completion rates among low-income students: Evidence from a randomized controlled trial evaluation of a case-management intervention. *Journal of Policy Analysis and Management*, 39(4), 930–965.

¹⁰ Blazar, D., Gao, W., Gershenson, S., Goings, R., & Lagos, F. (2024). *Do Grow-Your-Own programs work? Evidence from the Teacher Academy of Maryland*.

¹¹ Guha, R., Hylar, M. E., & Darling-Hammond, L. (2016). The teacher residency: An innovative model for preparing teachers. *Learning Policy Institute*. Papay, J. P., West, M. R., Fullerton, J. B., & Kane, T. J. (2012). Does an urban teacher residency increase student achievement? Early evidence from Boston. *Educational Evaluation and Policy Analysis*, 34(4), 413–434.