

How College Scholarships Shape Maryland's Teacher Pipeline

David Blazar and Yu Hung Yaow

University of Maryland, College Park

Contact mlds.center@maryland.gov if you have any questions about this brief.

Key Takeaways:

- Teaching Fellows for Maryland, which provides full tuition and room/board, shows meaningful effects upwards of 50% on teaching degree completion and entry into the profession. The smaller TEACH Grant and Workforce Shortage Student Assistance Grant programs show modest effects.
- One explanation for differential effects across programs may be the size of the award. Teaching Fellows increases total grants and scholarships—further decreasing loans—while TEACH has no effect on total grant and scholarship amount and may even increase loans.
- The positive effects of Teaching Fellows are concentrated among white students, with less clear evidence of comparable gains for Black students—potentially driven by Black students' underrepresentation amongst recipients relative to the broader population of education majors and college students in the state.

What We Studied

In this brief, we study the following three financial aid programs operating in Maryland that differ in size, selectivity, and scope.

Scholarship Overview

The **TEACH GRANT** is a federal program offering up to roughly **\$4,000 per year** to any eligible education student with at least a 3.25 grade point average (GPA). The grant carries the risk of converting to an unsubsidized loan if the service obligation (i.e., working in a high-needs school) is not met.

Teaching Fellows for Maryland is a state program **covering full tuition, fees, and room and board**, making it far more generous but with similar repayment requirements. Prior to the 2024-2025 application cycle, the Teaching Fellows for Maryland had a 3.3 GPA requirement.

The **Workforce Shortage Student Assistance Grant (WSSAG) Program** is broader in design, covering multiple workforce shortage fields beyond teaching, with awards determined by a mix of GPA and financial need rather than a fixed eligibility threshold. The amount is the same as TEACH.

Teacher shortages remain a persistent challenge across the United States, and college-level grants and scholarships have been widely promoted as a promising strategy both for expanding the overall supply of teachers and for supporting individuals of color who wish to enter the profession but face racial wealth gaps.ⁱ Despite their prominence in policy conversations, though, the causal effects of these programs on actual outcomes—completing a teaching degree and entering the classroom—remain largely unknown, with existing causal studies focusing on slightly different contexts such as loan-forgiveness programs or post-baccalaureate fellowships.ⁱⁱ

We study the effectiveness of the TEACH Grant,ⁱⁱⁱ Teaching Fellows for Maryland Scholarship^{iv}, and Workforce Shortage Student Assistance Grant Program (WSSAG)^v on two categories of outcomes: (1) near-term financial aid outcomes, including grants and scholarships received and loans taken; and (2) longer-run educational and labor market outcomes, teaching degree receipt, and becoming a teacher at a Maryland public school (including schools designated as Teacher Cancellation Low Income [TCLI]^{vi}).

How We Analyzed the Data

We draw on administrative data from the Maryland Longitudinal Data System (MLDS), covering school years 2015 through 2025. We restrict our analytic sample to four-year institutions that participate in the TEACH Grant or Teaching Fellows for Maryland programs. At the student level, we restrict the sample to education majors or students that have enrolled in at least two education courses, who also filed for the FAFSA. These restrictions produce a more comparable control group than the broader pool of all education majors or all college students. Even though college students are eligible for grants and scholarships in multiple years, we focus only on students in their second year of college to deal with the fact that our long-term outcomes are lifetime events and having duplicate observations would distort our analysis. We focus on second-year students instead of first-year students, as our main analytic strategy requires a prior-year GPA that is not available for most first-year students. Of students who received a grant or scholarship in their second year, around 33% also received one in their first year and 73% received one in their third year.

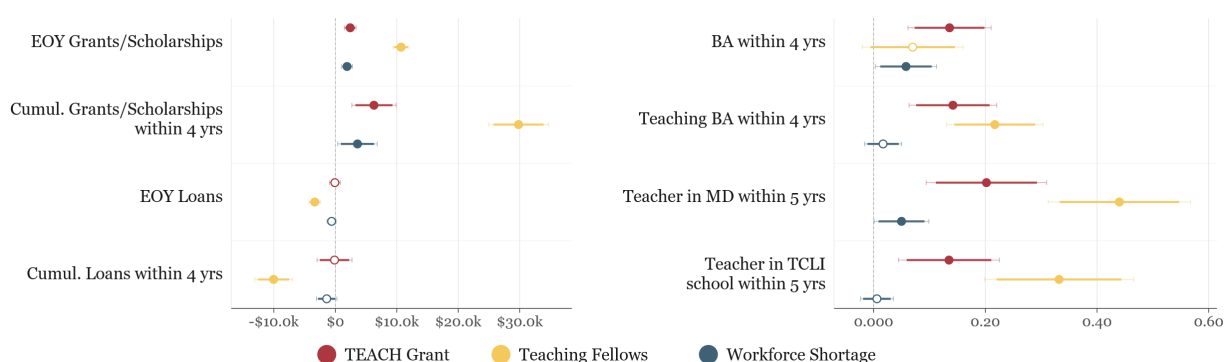
We use two different approaches to study the impact of these programs. First, we take advantage of the GPA cutoffs used to determine eligibility for the TEACH Grant and Teaching Fellows programs. Students whose GPAs fall just above or below the cutoff are often very similar, allowing us to estimate the causal effect of being eligible for the grant or scholarship through a Regression Discontinuity (RD) design.^{vii} Because GPA does not perfectly determine who ultimately receives the grant or scholarship, this analysis measures the effect of program *eligibility* rather than the effect of actual receipt. Second, we use statistical analysis to compare students who *received* grants or scholarships with those who did not, while accounting for differences in baseline GPA, credits earned, and financial aid, as well as demographic characteristics. This approach further allows us to include the WSSAG program that does not

have a clear GPA cutoff. However, these results should be interpreted as showing relationships or associations rather than proving cause and effect.

What We Discovered

Our research indicates that receipt of all three grant or scholarship programs is associated with positive outcomes. For financial outcomes, Teaching Fellows for Maryland and WSSAG shifts funding towards grants and scholarships and decreases loans, while the TEACH Grant does not decrease loans. The associations between Teaching Fellows receipt and degree/employment outcomes are much larger than the other two programs—which is unsurprising given the more generous nature of this scholarship (Figure 1).

Figure 1: Association Between Scholarship Receipt and Financial, Attainment, and Career Outcomes

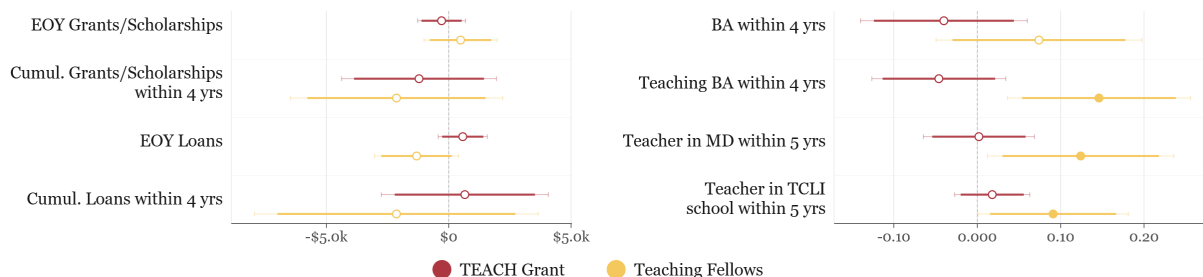


Notes: “EOY” = end-of-year. Each dot is an estimate of the association between receipt of a given grant or scholarship and the outcomes listed in the rows. Financial outcomes are on the left (measured in \$ units) and educational attainment and career outcomes are on the right (measured in percentage points). The horizontal bars are confidence intervals: 95% for the thinner bars and 90% for the thicker bars. Solid dots indicate estimates that are statistically significant at the 5% level, semi shaded dots indicate significance at the 10% level, and hollow dots indicate estimates that are not significantly different from zero.

For our preferred RD analyses, we first confirm the existence of a “first stage”: students who cross the 3.25 GPA threshold are more likely to receive a TEACH Grant, and students who cross the 3.3 GPA threshold are more likely to receive a Teaching Fellows Scholarship. A placebo test confirms that the likelihood of grant or scholarship receipt does not rise at the other program’s GPA threshold, supporting our statistical approach. The WSSAG program is excluded here, as there is not a clearly defined GPA eligibility threshold like there is for the other two programs.

RD analyses suggest no effects of TEACH Grant eligibility on degree or teaching outcomes, potentially due to overall grants and loans not being meaningfully increased or reduced, respectively (Figure 2). None of our estimates is statistically significant besides the first stage. For Teaching Fellows, our estimates are more promising. There are meaningful effects on receipt of a teaching degree and teaching outcomes. Teaching degree receipt within 4 years increases by around 13 percentage points and becoming a teacher in Maryland within 5 years increases by around 10 percentage points. These are roughly 50% increases over the control group mean.

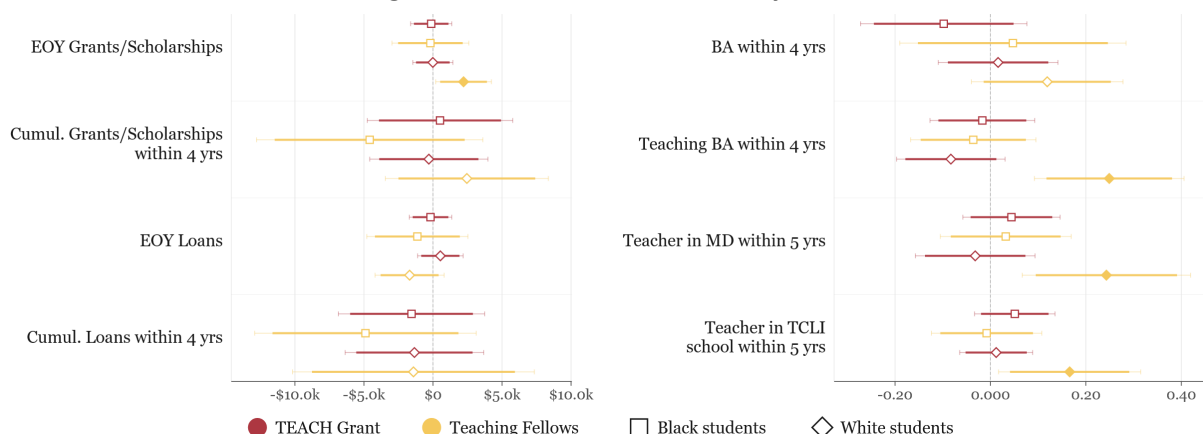
Figure 2: RD Estimates of the Effects of TEACH and Teaching Fellows Scholarships



Notes: RD = Regression discontinuity. Estimates can be interpreted as causal effects stemming from program eligibility. “EOY” = end-of-year. Each dot is an estimate of the association between receipt of a given grant or scholarship and the outcomes listed in the rows. Financial outcomes are on the left (measured in \$ units) and educational attainment and career outcomes are on the right (measured in percentage points). The horizontal bars are confidence intervals: 95% for the thinner bars and 90% for the thicker bars. Solid dots indicate estimates that are statistically significant at the 5% level, semi shaded dots indicate significance at the 10% level, and hollow dots indicate estimates that are not significantly different from zero.

Notably though, the positive effects of the Teaching Fellows program seem to come almost entirely from white students (Figure 3). While Black students are overrepresented amongst TEACH Grant recipients (over 40% of recipients are Black versus 26% of college students and 31% of education majors), they are underrepresented amongst Teaching Fellows recipients (25%)—patterns that could attenuate the effects we observe. For Black students, our estimates on becoming a public-school teacher in Maryland are similar for both the TEACH and Teaching Fellows programs (3 to 4 percentage points, or a 30% to 50% increase over baseline). However, neither is statistically significant.

Figure 3: Differential RD Effects by Race



Notes: RD = Regression discontinuity. Estimates can be interpreted as causal effects stemming from program eligibility. “EOY” = end-of-year. Each dot is an estimate of the association between receipt of a given grant or scholarship and the outcomes listed in the rows. Financial outcomes are on the left (measured in \$ units) and educational attainment and career outcomes are on the right (measured in percentage points). The horizontal bars are confidence intervals: 95% for the thinner bars and 90% for the thicker bars. Solid dots indicate estimates that are statistically significant at the 5% level, semi shaded dots indicate significance at the 10% level, and hollow dots indicate estimates that are not significantly different from zero.

thicker bars. Solid dots indicate estimates that are statistically significant at the 5% level, semi shaded dots indicate significance at the 10% level, and hollow dots indicate estimates that are not significantly different from zero.

Taken together, the associational and causal estimates paint a divergent picture. The positive associations in the first analyses likely reflect selection: students who receive grants or scholarships differ from those who do not in ways that also predict better outcomes. Once we account for selection using the RD design, the evidence for a beneficial effect of the TEACH Grant on teaching outcomes is weak at best. The Teaching Fellows program shows large positive effects across the analyses. We only study the effects of the WSSAG program in the first approach, where estimated associations are smaller than for TEACH—suggesting that, if we were able to apply a more rigorous RD design, we may also see null or small positive effects.

Policy and Practice Implications

Grants and scholarships for prospective teachers are widely regarded as a promising tool for addressing teacher shortages, yet rigorous causal evidence on their effectiveness is nearly absent from the literature. Our findings suggest caution is warranted. The TEACH Grant, as structured, does not generate reliable gains in teaching degree completion, whereas Teaching Fellows is more successful at increasing overall funding (simultaneously decreasing loans), the likelihood of earning a teaching degree, and entering Maryland public schools as a full-time teacher.

One important factor may be the size of the award. Both the TEACH and Teaching Fellows programs convert to loans if the service obligation is not met, but the Teaching Fellows award is much larger than the TEACH Grant. Award size matters through two channels. First, a larger award provides a stronger upfront financial incentive to enter teacher preparation and complete the degree. Second, for a smaller award, recipients have less to lose if their grant converts to a loan, weakening the incentive to complete service. A federal evaluation of TEACH found that 63% of early recipients had their grants converted to loans.^{viii} Our analyses suggest that institutional financial aid packaging practices may be offsetting federal grant dollars. State and federal policymakers designing scholarship programs should consider how their awards interact with broader financial aid ecosystems to avoid unintended crowd-out.

The racial heterogeneity in our Teaching Fellows results also deserves attention. Grant and scholarship programs are frequently promoted as a pathway for diversifying the teacher workforce, yet our findings suggest the program's benefits may not be reaching Black students in the same way they reach white students. Possible explanations include differences in awareness, application barriers, or how the program interacts with other financial aid for students from lower-income backgrounds. Future work should examine these mechanisms directly, as program design choices that appear neutral on their face may produce unequal outcomes in practice.

Acknowledgements

This research was prepared by members of the Research Branch of the MLDS Center, supported by the Institute of Education Sciences (IES), U.S. Department of Education, through Grants R305A210031 and R305C240007 to the University of Maryland, College Park. The Research Branch would like to thank the entire staff of the MLDS Center for this assistance and support. All opinions are the authors' and do not represent the opinion of IES, the MLDS Center, or its partner agencies.

How to Cite this Brief

Blazar, D. & Yaow, Y.H. (2026). *How College Scholarships Shape Maryland's Teacher Pipeline*. MLDS Center.

ⁱ Carver-Thomas, D. (2018). *Diversifying the teaching profession: How to recruit and retain teachers of color*. Learning Policy Institute.

ⁱⁱ Jacob, B., Jones, D., & Keys, B. (2024). The value of student debt relief and the role of administrative barriers: Evidence from the teacher loan forgiveness program. *Journal of Labor Economics*, 42(S1), S261-S292. Steele, J., Murnane, R., & Willett, J. (2010). Do financial incentives help low-performing schools attract and keep academically talented teachers? Evidence from California. *Journal of Policy Analysis and Management*, 29(3), 451-478.

ⁱⁱⁱ <https://studentaid.gov/understand-aid/types/grants/teach>

^{iv} <https://mhec.maryland.gov/preparing/pages/teachingfellowsmidscholarship.aspx>

^v https://mhec.maryland.gov/preparing/pages/financialaid/programdescriptions/prog_wssag.aspx

^{vi} TCLI schools are schools that serve a total enrollment of more than 30 percent low income students.

^{vii} Calonico, S., Cattaneo, M. D., Farrell, M. H., and Titiunik, R. (2017). rdrobust: Software for regression discontinuity designs. *Stata Journal*, 17(2), 372–404.

^{viii} Barkowski, E., Nielsen, E., Noel, H., Dodson, M., Sonnenfeld, K., Ye, C., DeMonte, E., Monahan, B., & Eccleston, M. (2018). *Study of the Teacher Education Assistance for College and Higher Education (TEACH) Grant Program*. Office of Planning, Evaluation and Policy Development, U.S. Department of Education. <https://www2.ed.gov/rschstat/eval/highered/teach-grant/final-report.pdf>