The Impact of Free Tuition Program Design on College Applications and Enrollment in the United States

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High tuition costs coupled with complexity and uncertainty in the financial aid process are key barriers to low-income students' applications to and enrollment in higher education. Free tuition programs can alleviate these burdens, but there are multiple methods of structuring these programs. Researchers investigated how two different free tuition programs for low-income students affected application and enrollment to the University of Michigan. One program provided an upfront, unconditional guarantee while the other required an application and confirmation of eligibility. The unconditional offer substantially increased application and enrollment while the conditional offer had a much smaller effect on applications and zero effect on enrollment.

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A degree from a selective college can be a promising pathway to upward mobility for low-income students.[1], However, low-income students apply to and enroll in selective colleges at lower rates than their similarly achieving high-income peers.[2]

One common explanation for this trend is the growing cost of tuition. Paying for college is a major factor that influences low-income students' decisions to pursue higher education.[3], In recent decades, the cost of attending a four-year public college has risen substantially,[4], in part due to large state funding cuts.[5] While federal student aid has also increased, it often still falls short of covering the increases in tuition for all students in need.

Informational barriers and complexities within the financial aid system may compound cost concerns, preventing high-achieving, low-income students from attending schools that would improve their life outcomes. The typical financial aid process requires

students to annually verify need through complicated forms and does not inform students of their aid amount until after they have applied to and been accepted to a college.

Free tuition programs are a popular solution to increase college enrollment for low-income students. Some of these programs set tuition to zero for all students, while others target free tuition on students who have demonstrated need through the traditional aid system. However, there is little evidence on which program design is more effective. Does including a high degree of certainty in free tuition offers have an impact on application to and enrollment in college?

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Overall, 12 percent of college students come from the bottom fifth of the family-income distribution while 28 percent are from the top fifth.[6] At selective colleges, there are more students from the top one percent of the income distribution than from the entire bottom half.

The University of Michigan at Ann Arbor (UM) is a selective, four-year public university. The school received 64,972 applications for first-year undergraduate admissions for the fall of 2019 and admitted 14,883, a 23 percent acceptance rate.[7], In the 2019 U.S. News & World Report, University of Michigan at Ann Arbor ranked 25th in the country, making it the third highest ranked public university.[8]

Starting in 2015, the University of Michigan at Ann Arbor offered thousands of low-income students an up-front guarantee of four years of free tuition and fees through their "HAIL Scholarship." The scholarship was offered to students in the fall of their senior year of high school, before college application deadlines, and did not require any paperwork or verification after admission.

Since 2017, the University has also offered the "Go Blue Guarantee," which provides free tuition and fees to admitted students who have shown that their family's income and assets fall below given cutoffs. In 2017 the cutoffs were US$65,000 for income and US$50,000 for assets.[9]

Using data from the Michigan Center for Educational Performance and Information, researchers identified high-achieving high school students in the state who would be competitive applicants for UM. Study participants had an average GPA of an A and SAT score of 1260 out of 1600. All qualified for a free or reduced-price lunch.



Young man sits at a computer in a library.

Photo: Shutterstock.com

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Researchers evaluated the impact of two different interventions on applications to and enrollment at the University of Michigan. In fall 2019, 1,796 high-achieving low-income high school seniors in Michigan were randomly assigned to receive a HAIL scholarship offer, personalized outreach about the Go Blue Guarantee, or business-as-usual recruiting communications from UM. Randomization occurred at the school level: all eligible students in a given school were assigned the same treatment. Researchers used stratified randomization to ensure that the three groups had a roughly equal number of schools by region and urbanicity (i.e., city, suburb, town, or rural).

The groups and the mailings were as follows:

1. Comparison (610 students at 159 schools):
    1. recruitment materials typically sent to prospective applicants
    2. general information about financial aid
2. HAIL Scholarship (595 students at 159 schools): Students and their parents received:
    1. a personalized encouragement to apply from the university president
    2. an unconditional offer of four years of free tuition and fees
3. Go Blue Encouragement (591 students at 159 schools): Students and their parents received:
    1. a personalized encouragement to apply from the university president

2. information about the Go Blue Guarantee, which provides up to four years of free tuition and fees for those whose eligibility has been verified through annual financial aid applications.

Though both intervention groups emphasized free tuition, they differed in how much certainty they provided to students. One offered a four-year guarantee of free tuition, with no application required. The other described a program the student might be eligible for, were they to demonstrate need through an aid application.

Application to the University of Michigan at Ann Arbor and enrollment at any college in the US were the primary outcomes of interest. Data on the outcome variables was collected from the university, the state of Michigan, and the National Student Clearinghouse.

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The HAIL Scholarship substantially increased application and enrollment rates. The Go Blue Encouragement had a smaller but significant effect on application but zero effect on enrollment.

Primary Outcomes

Applications

The HAIL Scholarship increased application rates by 28 percentage points from a baseline of 35 percent (an 80 percent increase). The Go Blue Encouragement increased application rates by 8 percentage points from a baseline of 35 percent (a 23 percent increase).

Enrollment

The HAIL Scholarship increased enrollment by 9 percentage points from a baseline of 17 percent (a 53 percent increase). Enrollment data from the National Student Clearinghouse shows that students who received the HAIL Scholarship were diverted from community colleges and less selective four-year colleges; none were diverted from schools as selective as University of Michigan. The Go Blue Encouragement had no impact on enrollment.

The positive effects of the Go Blue Encouragement on application suggest that a lack of information may have been preventing low-income, high-achieving students from applying to a selective school like UM. The findings on enrollment, combined with minimal differences in actual financial aid received, suggest that students place a high value on financial certainty when making schooling decisions.

Straightforward zero-tuition programs like the HAIL Scholarship may increase enrollment of low-income students at four-year colleges more than conditional programs like the Go Blue Encouragement. Policymakers aiming to target high-achieving, low-income students should consider programs that proactively identify eligible students using administrative data and inform students early of their eligibility, rather than requiring students to apply via the traditional aid system.

Use of Results

Inspired by the HAIL program, in 2024 the state of Washington, passed legislation that automatically awards tuition grants to students who received food assistance through SNAP while they were in high school.[10]

Over eight years, HAIL was gradually expanded to include every public high school in the state of Michigan. However, in 2023 the University of Michigan ended the HAIL program in favor of the Go Blue Guarantee.

Burland, Elizabeth, Susan Dynarski, Katherine Michelmore, Stephanie Owen, and Shwetha Raghuraman. 2023. "The Power of Certainty: Experimental Evidence on the Effective Design of Free Tuition Programs." *American Economic Review: Insights*, 5 (3): 293-310.

Burland, Elizabeth, Susan Dynarski, Katherine Michelmore, Stephanie Owen, and Shwetha Raghuraman. 2023. "The Power of Certainty: Experimental Evidence on the Effective Design of Free Tuition Programs." NBER Working Paper #29864, March 2022.

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1. Chetty, Raj, John N. Friedman, Emmanuel Saez, Nicholas Turner, and Danny Yagan. “Mobility Report Cards: The Role of Colleges in Intergenerational Mobility.” NBER Working Paper #23618, July 2017.

2. Hoxby, Caroline M. and Christopher Avery. “The Missing "One-Offs": The Hidden Supply of High-Achieving, Low Income Students.” NBER Working Paper #18586, December 2012

3. Hahn, Ryan D. and Derek Price. 2008. “Promise Lost: College-Qualified Students Who Don’t Enroll in College.” *Institute for Higher Education Policy,* November, 2008. https://files.eric.ed.gov/fulltext/ED503317.pdf.

4. Mitchell, Michael, Michael Leachman, and Matt Saenz. 2019. “State Higher Education Funding Cuts Have Pushed Costs to Students, Worsened Inequality.” *Center on Budget and Policy Priorities,* October 24, 2019. https://www.cbpp.org/research/state-budget-and-tax/state-higher-education-funding-cuts-have-pushed-costs-to-students.

5. Mitchell, Michael, Michael Leachman, Kathleen Masterson, and Samantha Waxman. 2018. “Unkept Promises: State Cuts to Higher Education Threaten Access and Equity.” *Center on Budget and Policy Priorities,* October 4, 2018. https://www.cbpp.org/research/state-budget-and-tax/unkept-promises-state-cuts-to-higher-education-threaten-access-and.

6. Chetty, Raj, John N. Friedman, Emmanuel Saez, Nicholas Turner, and Danny Yagan. “Mobility Report Cards: The Role of Colleges in Intergenerational Mobility.” NBER Working Paper #23618, July 2017.

7. University of Michigan Office of Budget and Planning. 2019. “Common Data Set 2019-2020.” Accessed January 30, 2024. https://obp.umich.edu/wp-content/uploads/pubdata/cds/cds_2019-2020_umaa.pdf

8. Slagter, Martin. 2019. “University of Michigan climbs in latest U.S. News ranking.” *mlive,* September 9, 2019. https://www.mlive.com/news/ann-arbor/2019/09/university-of-michigan-climbs-in-latest-us-news-ranking.html.

9. The eligibility cutoffs have changed since the time of the intervention. As of March 2024, the cutoffs were $75,000 for income and $75,000 for assets. Students above these cutoffs are still eligible for tuition assistance but will not have full tuition covered by UM.

10. https://lawfilesext.leg.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/House/2214-S2.SL.pdf?q=20240329152100