



# Increasing Economic Diversity at a Flagship University



# Increasing Economic Diversity at a Flagship University: Understanding the effect of the HAIL scholarship on student decision making

Research shows that low-income students face unique barriers to applying to colleges. The HAIL (High Achieving Involved Leader) study at the University of Michigan (U-M) explored whether providing an early, four-year guarantee of free tuition and fees could influence high-achieving, low-income students' decisions to apply to a highly-selective university. The HAIL intervention meaningfully changed students' college decisions, inducing these students to apply to and enroll at U-M at substantially higher rates. Specifically, HAIL students were more than twice as likely to apply to, gain admission, and enroll at the University of Michigan than students who did not receive the HAIL scholarship offer.<sup>1</sup>

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## Key Findings

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- 1 HAIL students were more than twice as likely to apply to the University of Michigan than students who did not receive the HAIL intervention (the control group). Specifically, 68% of HAIL students applied to U-M as compared to 26% of students in the control group, a difference of 42 percentage points.
- 2 Of HAIL students, 32% applied and were admitted. Of control students, 15% applied and were admitted. In other words, HAIL increased the likelihood of students applying and being admitted by 17 percentage points.
- 3 27 percent of HAIL students enrolled at the University of Michigan compared to 12% of students in the control group, a treatment effect of 15 percentage points (which translates roughly to 150 more high-achieving, low-income students from Michigan enrolled at U-M each year).

# Introduction

For many students, deciding whether to go to college is one of the most important decisions they will ever make. On average, college graduates are more competitive job applicants and earn higher incomes across their lifetimes.<sup>2,3</sup> But college enrollment rates differ dramatically across the income and wealth distributions.<sup>4</sup> Students from wealthier families are far more likely to go to college than their low-income peers.<sup>5</sup> At the nation's top colleges, this gap is even wider. The state of Michigan is no exception; high-achieving, low-income students<sup>6</sup> are substantially less likely than their high-achieving, more-advantaged peers to attend a highly selective school like the University of Michigan.

Part of the problem is that high-achieving, low-income students often do not even apply to the selective schools for which they are qualified.<sup>7</sup> Time and again, research has shown that low-income students face unique barriers in applying to colleges — especially to highly selective colleges — that their higher-income peers may not face. These students are often unaware that they are qualified to attend highly selective colleges, overestimate the costs to themselves and their families, and may be intimidated or confused by the process of applying for financial aid. Unfortunately, these misconceptions have been shown to influence low-income students' decisions about whether to apply to college in measurable ways.<sup>8</sup>

The HAIL (High Achieving Involved Leader) study, which first began at the University of Michigan in 2015, explores whether removing complexity and uncertainty about college costs — without actually changing these costs — could influence high-achieving, low-income students' decisions to apply to a highly-selective university. Specifically, it examined whether providing targeted information to low-income students about a full scholarship (for which they were already eligible)

could induce more of these students to decide to apply to and attend the University of Michigan.

## Study Design

The study measured whether an early commitment of free tuition affected the rates at which low-income students applied to, were accepted to, enrolled in, and persisted at the University of Michigan. To explore this question, researchers collaborated with leadership at the University of Michigan to design the HAIL scholarship. HAIL guaranteed that if low-income students were admitted to U-M, they would receive four years of free tuition at this flagship university.



The research team leveraged administrative education data already collected by the state of Michigan to identify low-income students who were also high-achieving: those with high GPAs and standardized test scores who also qualified for the federally-subsidized lunch program. Across two cohorts, this study has examined the behaviors of about 4,000 high-achieving, low-income high school juniors across the state<sup>9</sup>, some of whom received targeted information about the HAIL scholarship (we call these students “HAIL students”) and some who did not (i.e. the control group). Students were randomly assigned to the HAIL student group or the control group, in order to observe the causal effect this new approach had on students’ college choices.

HAIL students were mailed large, maize-and-blue-colored packets from the University of Michigan. These packets introduced the HAIL scholarship and encouraged students to apply to the university. The students’ parents and school principals were notified about the scholarship as well.



Importantly, the HAIL scholarship offer did not, in the end, change the actual cost of college for these students. After filling out aid forms, they would have been eligible for financial aid covering more than tuition and fees (if admitted). What HAIL did was eliminate

that delay and uncertainty, providing an unconditional guarantee of four years of tuition and fees before students even applied.

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*When we designed the HAIL scholarship, we knew there were students who had the ability to attend a college like the University of Michigan, but believed they couldn’t afford it. Our partnership with the research team revealed just how many of these students live right here in Michigan...and allowed us to test the effectiveness of this truly innovative program.*

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**Paul Robinson**  
Interim Vice Provost

By design, HAIL is a low-cost intervention for the university. The mailed packets only cost the university about \$10 per student. And since the students were already eligible for similar financial aid packages, the university did not need to distribute any additional financial aid.

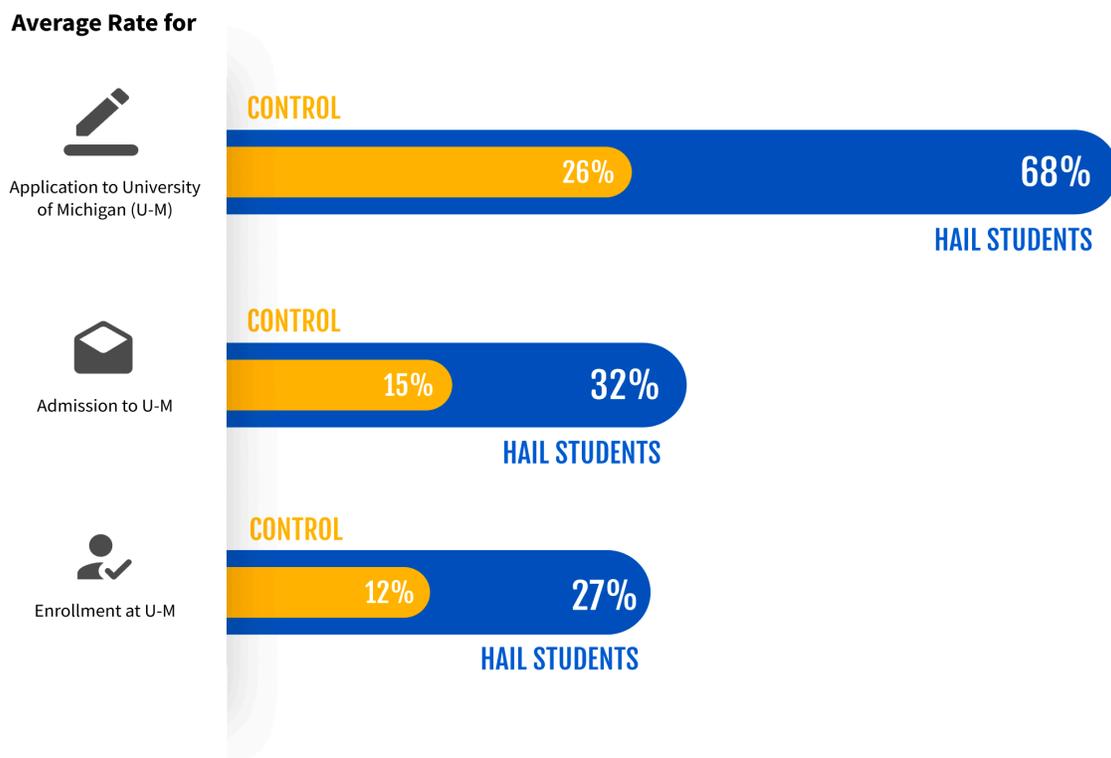
Using data provided by the Michigan Department of Education (MDE), Center for Education Performance and Information (CEPI), and the University of Michigan Office of Enrollment Management (OEM), researchers measured HAIL’s effect on the rates at which low-income students applied to, were admitted, enrolled, and persisted at the University. These data sources also allowed researchers to track student enrollment at institutions other than the University of Michigan.

# Study Findings

**HAIL substantially changed students' college decisions.** HAIL students were much more likely to apply to, be admitted to, and enroll at the University of Michigan than students who did not receive the information regarding the HAIL scholarship (the control group). Specifically:

- 1 HAIL students were more than twice as likely to apply to, be admitted to, and enroll at the University of Michigan than students in the control group; 68% of HAIL students applied to U-M as compared to 26% of students in the control group, a difference of 42 percentage points.
- 2 Of HAIL students, 32% applied and were admitted. Of control students, 15% applied and were admitted. In other words, HAIL increased the likelihood of applying and being admitted by 17 percentage points.
- 3 27% of HAIL students enrolled at the University of Michigan compared to 12% of students in the control group, a treatment effect of 15 percentage points (which translates roughly to 150 more high-achieving, low-income students from Michigan enrolled at U-M each year).

## Estimated Effect of HAIL Scholarship on University of Michigan Application, Admission, and Enrollment Rates for 1st & 2nd Cohorts



**Source:** Michigan administrative data and University of Michigan Office of Enrollment Management data.

**Note:** All analyses done at the school-year level. Application, admission and enrollment measured in the summer and fall following expected high school graduation. Admission and enrollment are unconditional on application.

To the research team, the effects of HAIL were startling. They were much larger than either they or university leadership could have hoped for, given the effects of previous interventions targeting similar barriers.<sup>10, 11</sup>



*One thing that surprised us all was that HAIL induced some students to end up at U-M who, in the absence of the intervention, wouldn't have attended college at all. It would be reasonable to assume that these high-achieving students would have attended college somewhere, were it not for HAIL, just at a less selective institution. What we found out, though, is that some of these bright and talented students likely may not have gone to college at all.*



**Professor Susan Dynarski**  
Project principal investigator

#### **Physical distance to U-M and proximity to peers:**

HAIL most heavily impacted the college decisions of students who were disconnected from U-M. Students were considered disconnected if they lived in areas far from U-M's campus, attended high schools with few previous applicants to U-M, or did not attend high school with many other high-achieving, low-income peers. HAIL's effect on application rates for students in each of these groups was larger than 40 percentage points.

#### **Race / Ethnicity:**

In Michigan, there are relatively more White and Asian students living outside of the urban Southeast. Because HAIL's impact has been strongest for rural students living further from U-M, it is unsurprising that HAIL's treatment effects were larger for White and Asian students than they were for Black and Hispanic students. The HAIL intervention increased enrollment among White and Asian students by 16 and 14 percentage points respectively. For Black and Hispanic students, HAIL increased enrollment rates by 6 and 9 percentage points, respectively, although the effects were not statistically significant due to the small number of students in these groups.

#### **Type of Institution:**

HAIL encouraged some students who would have attended less-selective four-year colleges, two-year colleges, or would not have gone to college at all, to instead apply to the U-M a highly-selective four-year university. Specifically, HAIL increased four-year college enrollment rates by 7.2 percentage points and decreased two-year college enrollment rates by 3.5 percentage points. It increased the proportion of students attending any college by 3.8 percentage points.

#### **Opportunities for Policymakers to Take Action**

HAIL showed that a simple, inexpensive intervention can simplify the financial aid process and significantly impact low-income students' application and enrollment decisions. Specifically, HAIL demonstrated that presenting targeted information about a scholarship can affect students' college decisions. A broader implication is that the way a policy or program is communicated and presented can dramatically affect its

impact. Institutions seeking to improve college access for low-income students are encouraged to employ the following strategies, all of which were central to the HAIL intervention's success.

### **1. Design outreach strategies tailored to institutions' specific goals**

HAIL's design made progress toward the University of Michigan's goal of economically diversifying its student body. In fact, U-M's President Mark Schlissel speaks with great pride about HAIL and the university's targeted outreach to qualified students who perceive the University of Michigan as out of reach.

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***Cost should never be a barrier to in-state students seeking to study at the University of Michigan. This research has given us important data that has helped us design programs that provide greater access to the life-changing educational opportunities at a top public research university. I am proud that so many students from all areas of our state have benefited.***

”

**Dr. Mark S. Schlissel**  
University of Michigan President



In the case of U-M, this meant carefully targeting communications to high-achieving, low-income students that they wanted to attract, sending clear messages to these students that the cost of college, or the complexity of navigating the financial aid system, would not be barriers they needed to overcome. U-M also shifted the timing of when it made its offers and did not require documentation of financial need up front. Institutions that want to address similar goals should ensure communications are targeted and presented clearly to make the decision process easy for students. Doing so will enable students to more easily reap the benefits offered by the college or university.

### **2. Design college access initiatives using data and research-practice partnerships**

The HAIL intervention was successful in part because it leveraged existing data and research-practice partnerships. The research team successfully tailored its outreach to high-achieving, low-income students by obtaining K-12 data through a process that allowed researchers to access educational data collected by the Michigan Department of Education (MDE) and the Center for Education Performance and Information (CEPI). Many states, including North Carolina,

Tennessee, and Texas, have set up similar processes of disclosing education data for research purposes. Moreover, in partnership with the University of Michigan's Office of Enrollment Management (OEM), the research team was able to track whether students applied and were accepted to U-M and test tweaks to the intervention over time. Institutions with similar student outreach goals should also leverage research-practice partnerships and available data sources at the stage when they are designing scholarship (or intervention) programs. This will allow the institution to track whether the initiative is having the intended effect and is worth further investment. Additionally, the power of giving researchers a seat at the table as interventions are being designed should not be underestimated. This allows researchers to conduct robust evaluations, which result in precise findings in real time.

### **3. Make every effort to reduce barriers to financial aid**

The financial aid process is confusing and cumbersome and can be especially so for low-income students. Many do not have home internet access, do not have a parent who has navigated the process before, or do not speak English at home, all of which can complicate the aid process.<sup>12</sup> HAIL simplified the process by eliminating some of these barriers altogether. The program identified and contacted low-income students to make them aware of their eligibility for the scholarship and pushed supplemental information to these students and their families rather than leaving them to conduct their own research.<sup>13</sup> And HAIL explicitly did not require students to complete the Free Application for Federal Student Aid (FAFSA) application to be eligible for the scholarship.



## **Conclusion**

Institutions can draw on the approaches used in the HAIL program to simplify the college decision process for low-income applicants. They can reach out to low-income students and encourage them to apply. In that outreach, schools can be extremely clear about what applicants would be expected to pay if admitted. They can offer scholarships that do not require students to complete the FAFSA. The University of Michigan's Go Blue Guarantee scholarship program (an outgrowth of the HAIL study) continues to use many of these strategies to induce low-income students to apply.

HAIL showed that low-income, high-achieving students want greater access to the nation's top institutions. To grant that access, states and institutions can identify existing barriers in financial aid processes and address them by simplifying the processes and clearly presenting information. Doing so can open doors for students they did not know were within their reach, impact their college decisions, and ultimately afford them the educational opportunities they deserve.

# Related Resources

## The High-Achieving Involved-Leader (HAIL) scholarship at the University of Michigan

High-achieving, low-income students attend selective colleges at far lower rates than upper-income students with similar achievement. The HAIL scholarship offers these students an early commitment of free tuition at a flagship university, without requiring they fill out the FAFSA. Since 2015, over 1,000 students have accepted the HAIL scholarship and enrolled at U-M. Impressively, this intervention has more than doubled the application, admission, and enrollment rates of low-income, high-achieving students to the University of Michigan.

To learn more about the HAIL scholarship and what policy makers can do to help more students access college, please see a list of multi-media resources below:

**Video Lecture:** "Understanding the Effect of the HAIL Scholarship on Student Decisions." Susan Dynarski. National Center for Institutional Diversity Inaugural Lecture, April 1, 2021. [https://www.youtube.com/watch?v=wnKRfZXV\\_do&t=203s](https://www.youtube.com/watch?v=wnKRfZXV_do&t=203s)

**Journal Publication:** "Closing the Gap: The Effect of Reducing Complexity and Uncertainty in College Pricing on the Choices of Low-Income Students." (2021). Susan Dynarski, C.J. Libassi, Katherine Michelmores, and Stephanie Owen. American Economic Association. <https://www.aeaweb.org/articles?id=10.1257/aer.20200451&from=f>

**Television Interview:** "Susan Dynarski Discusses the Burden of Student Debt with CNN's Christiane Amanpour." PBS Amanpour & Company, May 22, 2019. <https://www.pbs.org/wnet/amanpour-and-company/video/susan-dynarski-discusses-the-burden-of-student-debt/>

**TED Talk:** "Why financial aid is broken and a simple solution to fix it." Susan Dynarski. TEDxIndianapolis, November 12, 2015. [https://www.youtube.com/watch?v=UEvdL\\_FodYU](https://www.youtube.com/watch?v=UEvdL_FodYU)

**Discussion Paper:** "Loans for Educational Opportunity: Making Borrowing Work for Today's Students." (2013). Susan Dynarski and Daniel Kreisman. The Hamilton Project. <https://edpolicy.umich.edu/files/dynarski-kreisman-the-hamilton-project.pdf>

## EPI Mission Statement

The central mission of the initiative is to engage in applied education policy research. The Education Policy Initiative is a program within the Ford School that brings together nationally-recognized education policy scholars focused on the generation and dissemination of policy-relevant education research. The primary goals of the initiative are to:

- Conduct rigorous research to inform education policy debates in Michigan and nationwide
- Disseminate best practices in education reform to local, state, and national policymakers, as well as to educational practitioners, parents, and students
- Train graduate students and others to conduct cutting-edge research in education
- Facilitate interactions between students and faculty from different schools and/ or departments who share an interest in education reform.

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## Citations

<sup>1</sup> Dynarski, S., Libassi, C.J., Michelmore, K., & Owen, S. (2021). *Closing the Gap: The Effect of Reducing Complexity and Uncertainty in College Pricing on the Choices of Low-Income Students*. American Economic Association (forthcoming).

<sup>2</sup> Abel, J.R., & Deitz, R. (2014). *Do the Benefits of College Still Outweigh the Costs?* *Current Issues in Economics and Finance*: 20(3).

<sup>3</sup> Edelson, D. (2020, February 27). *How does a college degree improve graduates' employment and earnings potential?* Association of Public & Land-Grant Universities. <https://www.aplu.org/projects-and-initiatives/college-costs-tuition-and-financial-aid/public-values/employment-earnings.html#:~:text=College%20Dedicated%20workers%20enjoy%20a,is%20a%20high%20school%20diploma.&text=The%20earnings%20gap%20between%20college,less%20education%20continues%20to%20widen>.

<sup>4</sup> Bailey, M. (2011). *Inequality in Postsecondary Education*. In S. Dynarski (Ed.) *Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances* (p. 26). New York, NY: Russell Sage Foundation.

<sup>5</sup> Ibid.

<sup>6</sup> High-achieving, low-income students were identified as high-achieving based on a combination of their GPA and SAT scores. They were identified as low-income based on eligibility for the federal subsidized lunch program. Qualifying SATs began at 1100 and qualifying GPAs began at 3.3. If a student had a higher SAT, they could qualify with a lower GPA, and vice versa. Students' whose family income is 185 percent of the poverty line or below qualify for subsidized lunch.

<sup>7</sup> Hoxby, C. M., & Avery, C. (2012). *The missing "one-offs": The hidden supply of high-achieving, low-income students*. (NBER working paper series No. 18586). Cambridge, MA: National Bureau of Economic Research.

<sup>8</sup> Smith, S., & Garcia, C. (Hosts). (2019, January 24). Susan Dynarski. [Audio interview]. In the Indicator from Planet Money. NPR. <https://www.npr.org/sections/money/2019/01/24/688395248/hail-to-college-access>

<sup>9</sup> The study included two cohorts of students, with roughly 2,000 students per cohort. Cohort 1 included 2,108 students from 529 schools and Cohort 2 included 1,802 students from 497 schools. More specifically, in the first cohort there were 1,057 students across 262 treated schools and 1,051 students across 267 control schools. The second cohort included 875 students across 238 treated schools and 927 students across 259 control schools.

<sup>10</sup> Hoxby, C., & Turner, S. (2013). *Expanding college opportunities for high-achieving, low income students*. (SIEPR Discussion Paper No. 12-014). Stanford, CA: Stanford Institute for Economic Policy Research.

<sup>11</sup> Hoxby and Turner (2013) provided low-income, high-achieving students with personalized information about their financial aid eligibility. This intervention increased the share of students enrolled in a selective college by 5 percentage points (from a control mean of 29 percent), as compared with the 15 percentage point increase in enrollment for HAIL scholars at U-M.

<sup>12</sup> Dynarski, S. (2007). *Simplifying Student Aid*. [Powerpoint slides]. Susan Dynarski. <https://drive.google.com/file/d/0B-be68kd0RRORUitNXJiWHB3N2M/view>

<sup>13</sup> Smith, S., & Garcia, C. (Hosts). (2019, January 24). Susan Dynarski. [Audio interview]. In the Indicator from Planet Money. NPR. <https://www.npr.org/sections/money/2019/01/24/688395248/hail-to-college-access>