

Friends in Higher Places: can exposure to high-achieving peers raise university aspirations for disadvantaged students?

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Evidence from both the UK and the US suggests that low-income students tend to apply to lower-ranked universities than higher-income students with the same grades (Campbell et al. 2022; Hoxby and Avery 2012; Black, Cortes, and Lincove 2015; Chetty, Deming, and Friedman 2023). In the US, this is often attributed to a lack of transparency about financial aid and sticker prices (Dynarski et al. 2021). However, despite uniform tuition fees for domestic students in the UK (Campbell et al. 2022), similar patterns of ‘undermatching’ are observed in that context, indicating that policymakers may also need to address non-financial barriers to ambitious applications.

In this paper, we use the UK university setting to study social exposure to elite universities as an important non-financial barrier. We hypothesize that students are less likely to apply to an elite university if they do not know anyone who has attended it, and low-income students are less likely to know people attending elite universities through their school or family members. The paper has two complementary components. First, using national administrative data, we illustrate how application choices are affected by those of school peers and past cohorts at their school. Second, we conduct a field experiment with university applicants at over 20 schools to isolate the effect of informal social exposure to universities on these patterns and to test interventions that may reduce disparities driven by inequality in exposure.

In UK administrative data provided by UCAS, the centralised university application service, we find large disparities in application choices across schools with different income levels, controlling for grades. To demonstrate that these patterns can change, we focus on ‘breakthrough students’. In an event study framework where we compare schools where a student breaks through to attend the University of Oxford for the first time to schools where no student does, controlling for differential grade trends, we show that there is a discrete and persistent increase in applications to Oxford starting in the year after the breakthrough, but the same schools see no increase in applications to Cambridge. Similar patterns hold for other elite universities in the UK, and the effects are robust to several different specifications, including a matched event study design and the Sun and Abraham (2021) estimator for staggered treatments. This analysis suggests that students become more likely to apply to a given university when more peers at their school have attended it, and

that this is driven by a connection to the specific university, rather than a broader improvement in the school's performance.

Without evidence on students' outcomes, the welfare implications of these breakthroughs are unclear; the students affected by these breakthroughs tend to be from lower-income neighborhoods than the typical attendee at the university, and so may not go on to succeed at these universities (Jack 2020). We use the Longitudinal Education Outcomes (LEO) dataset, which links UCAS applications data with administrative data on earnings and university graduation, to evaluate the effects on medium-run outcomes for these students. Students who are induced to apply to an elite university following a breakthrough at their school are somewhat less likely to receive an offer from that university than the typical applicant, but matriculation at the relevant university also increases, and these students are no more likely to drop out of the university than their peers. They are less likely to graduate with a first-class degree, reflecting the fact that they are now enrolled in more academically competitive universities. In the labour market, they become more likely to be employed at elite firms by age 25, and are somewhat more likely to end up in the upper tail of the earnings distribution, consistent with results in Chetty, Deming, and Friedman (2023). Taken together, this evidence suggests that when a student breaks through to an elite university, the students from their school who follow them to that university in subsequent cohorts are no less likely to succeed than the typical attendee at that university; it follows that at schools where such breakthroughs have *not* happened, there are likely to be some students who would be successful at these universities but are discouraged from applying.

However, designing policy to address these disparities requires us to understand *why* peer choice matters. We hypothesize that one important mechanism is that students are more comfortable applying to universities that they have some informal exposure to through their social networks at school. Breakthroughs of the kind described above can provide such exposure, but are difficult to induce at scale as an outreach strategy. To test the mechanism that we highlight, and to evaluate interventions that could address this mechanism, we will run an RCT with university applicants in the UK where we provide students with exposure to less familiar universities through alternative means. Specifically, we will randomly assign students to receive (a) travel subsidies of up to £75 for university visits, (b) one-on-one mentoring with current university students, and (c) videos of students discussing their university experiences, each of which allow students to encounter unfamiliar universities. We will work with schools to combine these treatments with surveys and an in-school workshop on university applications, and we will evaluate whether these treatments encourage applications to and enrollment at less familiar universities. We will also measure changes in beliefs and stereotypes about different universities in response to the treatments.

Our design involves a single treatment arm and active control arm, and we estimate the effect of the bundled treatment of receiving video exposure, mentors, and a subsidised visit on our out-

comes of interest. We randomise students into these arms at the individual level, stratifying by school. Students in the active control arm receive a generic informational workshop on university applications, which is informative about the application process but contains information that is largely publicly available, and complete surveys that are used as part of our data collection. We receive data on university applications, offers received, and final destinations directly from school administrative records under data use agreements. To address spillovers within a school, we collect data on students' friends in our surveys, allowing us to account for friends' treatment assignments. We have recruited over 20 schools across England and Wales to participate in this RCT, primarily with relatively deprived intakes, and expect to have over 2000 participating students; interventions will primarily take place in May – June 2025.

In our pilot experiments, we find that students express interest in universities that they are academically overqualified for, consistent with undermatching patterns in national data. Students tend to have accurate - rather than unduly pessimistic - beliefs about the academic requirements for more selective universities. However, they are systematically less confident that they would make friends and fit in at more elite universities, by around 20 percentage points on average. Students who were randomly assigned to watch a short video from a current university student tended to become more optimistic about their probability of fitting in at that university. These results suggest that the more intensive components of our treatments - mentoring and visits - are likely to have larger effects on students' expectations of belonging at different universities, and that this may shift actual application choices. We will analyse initial survey outcomes from our main experiment by June 2025.

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