Big data suggests colleges are leveling the economic playing field

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New study by Brown University faculty member and a team of researchers shows how Brown and other American colleges help students climb the economic ladder. Credit: Brown University

Two students attend the same college. One is from a low-income

background, while the other's family is in the top 20 percent of earners nationwide. When it comes to annual earnings in their mid-thirties, which student is likely to earn more?

A new study coauthored by John Friedman, associate professor of economics and international and public affairs at Brown University's Watson Institute, finds that those two graduates earn about the same—suggesting that colleges help level the economic playing field.

Friedman collaborates on the Equality of Opportunity Project, a team of researchers who use data to identify new pathways to economic success for lower- and middle-income students. The team's work is informing the national discussion on income inequality and how colleges and universities shape students' ability to move from one economic stratum to another.

Earlier today (Wednesday, Jan. 18), the *New York Times* featured the new study—titled "Mobility Report Cards: The Role of Colleges in Intergenerational Mobility"—in a column and interactive data feature.

Here, Friedman talks about Brown's impact on students' economic mobility—and particularly the University's success in moving students of all backgrounds into the top 20 or top 1 percent of the income distribution—and the broader findings of the new study.

What are mobility report cards, and what information do you use to generate them?

The mobility report cards are publicly available statistics on college graduates' earnings in their early thirties and their families' incomes in the five-year period when the kids are between 15 and 19 years old. Our main definition of college attendance is the college you attended for the

most years between the ages of 18 and 22. We do this for each college in America and cover all college students from 1999 to 2013. Our data do not speak to race, ethnicity or first-generation status. We focus on family incomes and graduates' incomes.

Broadly speaking, what did you discover about access to colleges and economic outcomes for students?

Access to colleges varies substantially across the income distribution, with more students from the very top of the family income distribution attending Ivy League colleges than students from the bottom half of the family income distribution, despite the generous financial aid offered by these institutions. At the same time, though, students from low- and high-income families at each college have very similar earnings outcomes once they get into the labor force themselves. So in this sense, colleges successfully level the playing field across students with different socioeconomic backgrounds.

You measure two types of success, in which students from lower- or middle-income families move into either the top 20 percent or the top 1 percent by their mid-thirties. How does Brown do moving students into the top 20 percent?

Looking at Brown students born between 1980 and 1982 (who were in the graduating classes of 2002 to 2005), more than 70 percent of our students came from families in the top 20 percent of the income distribution (earning more than $111,000), and about 3 percent of our students came from the bottom 20 percent of the income distribution (earning less than $25,000). We focus on the fraction of the kids who get into the top 20 percent by earning more than $58,000 by their mid-

thirties. At Brown, about 60 percent of students from the richest 20 percent of families make it into the top 20 percent, and about 55 percent of students from the poorest 20 percent of families also make it in the top 20 percent. We think that is a positive fact. Once you're at Brown, your family income is essentially not determinative for your outcomes or for predicting what your earnings will be.

What sort of mobility into the top 1 percent do you see at Brown?

Brown gets between 7 and 10 percent of its low-income students into the top 1 percent. This doesn't mean hedge fund managers—these are graduates who earning more than $200,000 annually by age 34. This could be a doctor, someone at a law firm or a consulting firm, or many other professional positions. This is a very high success rate—Brown and other Ivy League schools get students into the top 1 percent much more so than other types of schools with a larger share of students from poor families. We think that is broadly representative of the fact that Ivy League institutions and other elite private schools are doing something really extraordinary at the very top.

What is a mobility rate? And what did you determine Brown's mobility rate to be?

We define a college's mobility rate as the fraction of its students who come from a family in the bottom fifth of the income distribution and end up in the top fifth. You can calculate this by multiplying the fraction of students from parents in the bottom fifth by the fraction of those students who make it themselves into the top fifth.

At Brown, we get about 3 percent of students from the bottom 20 percent, and about 55 percent of those students get into the top 20

percent, making our mobility rate 1.6 percent. As for getting students into the top 1 percent, Brown's rate is 0.20 percent. These numbers mean that, in every graduating class, about 25 students move from the bottom fifth to the top fifth, and three students move from the bottom fifth to the top 1 percent.

Which colleges and universities have the highest upward mobility rates?

We find that high-quality, mid-tier public universities are those with the highest mobility. To give you an example, the State University of New York at Stony Brook enrolls about five times as many students from low-income families compared to Brown. Sixteen percent of Stony Brook students come from the bottom 20 percent of the national income distribution, and half of those students then make it into the top 20 percent— making Stony Brook's mobility rate 8 percent. To put that into perspective, if Brown had a similar mobility rate, about 120 students from each graduating class would move from the bottom fifth to the top fifth. Other examples of similar outstanding schools that are potential engines of mobility are California State University, Los Angeles; the University of Texas at El Paso, and many campuses in the City University of New York system.

What sort of trends do you see over time?

At Brown, we see increasing economic diversity over time and a steady, smooth increase without any big jump at a discrete moment, meaning no single event or policy change had an outsized impact. For the mid-tier public schools like SUNY Stony Brook, or other schools that we have identified as engines for economic mobility, we have seen access rates falling, which is a potentially troubling trend. It may be that cutting state funding has made it more difficult for those schools to attract and

support low-income students. These schools may also increasingly look to admit students from richer families who will pay full tuition. There are many other possibilities as well, but whatever it is, it's not a trend in the right direction. You would want these schools to be growing and access to be staying the same if not growing as well over time.

Does this study lay the groundwork for additional research?

This paper is really only the first step. We want to try to look at how these data respond to different policies and see if we can partner with various schools to look at what they are doing. With schools like those in the CUNY system, for example, you can ask if what they are doing is scalable. Are they doing a great job at educating the kids they have, or are they particularly adept at finding super-smart low-income kids who didn't have great test scores or grades, so perhaps they couldn't (for those or other reasons) get into more selective Ivy League schools? Sorting those questions out requires yet more data.

Provided by Brown University