

You are listening to Poverty in Focus. This podcast series, produced by the Center for Poverty Research at UC Davis, brings together experts in their fields to discuss new poverty research and public policy. I'm Michal Kurlaender, Professor of Education at UC Davis and I'm joined by Scott Carrell, a UC Davis Professor of Economics.

It is our pleasure today to host visiting scholar Caroline Hoxby. Professor Caroline Hoxby is a Scott and Donya Bommer professor of economics at Stanford University and Director of the Economics of Education program at the National Bureau of Economic Research. She's also a senior fellow of the Hoover institution and the Stanford Institute for Economic Policy Research.

>> Professor Hoxby is one of the world's leading scholars in the economics of education. She has written extensively on school choice, the rising cost of higher education, and public school finance. Today we will discuss Professor Hoxby's Expanding College Opportunities project. Caroline, thanks for joining us today.

>> I'm delighted to be here.

>> Can you tell us a little bit about the motivation behind the Expanding College Opportunities project? Well a few years ago, a colleague of mine, Chris Avery, who was at Harvard's Kennedy School, and I were looking at data on low income students. And we could see that they were not applying to Harvard University.

That's where we were both at the time, and we said okay, why are these low income students not applying, if they could get into Harvard University. At the time, the university was offering so much financial aid that low income students could attend absolutely for free. And students whose families were just in the bottom half of family income in the United States could attend for very small amounts of money, like \$1,000 a year, including room and board.

So we wanted to understand, what's going on? And we thought at first that they might be applying to selective colleges for which they were very well qualified but not to Harvard. So what we thought was perhaps we would see that these low-income students who are high achievers were applying to say, their state's public flagship university, or they might be applying to other selective private colleges.

But, they weren't applying to Harvard. And so we asked to see the data and basically that's where we got started with the Expanding College Opportunities Project. Because what we discovered was low income high achievers were behaving really, really differently than high income students with the same level of achievement.

They just were not applying to selective colleges and universities like the high income students were.

>> So the intervention you implemented provides guidance to high-achieving low income students in numerous ways: how to apply to college, what students would actually pay to attend various colleges, meaning the net cost as opposed to the sticker price, and on college's widely varying graduation rates and instructional resources.

It also provides no-paperwork fee waivers for applying to up to eight of the nation's most selective, 236 most selective colleges. We would love to hear your thoughts about which of these components you think might be driving the results of the study.

>> Right, so let me just back up and say one thing that your audience will probably want to know about why we did the intervention the way we did.

In the sense that we sent students packets of information that were customized to their personal circumstances, their family income, where they lived in the United States, what they're local universities and colleges were, and so on. And you're absolutely right that we provided all those different pieces of information for them.

And we also provided 8 application fee waivers to apply to selective colleges and universities. We should note that that was, the design was pretty deliberate. First of all, we had discovered in our previous research that the set of students we were trying to reach were very dispersed. It wasn't as though you could go to a high school and find 20 low income, high achievers, you could just get them together in a group, and meet with them and discuss all these things.

That isn't true. Mostly, most low income high achievers in the United States are the only high achiever in their high school, or one of only two or something like that. So, they really are fairly spread out and therefore, we went direct to the students. So that's one thing that's true about these, the interventions that we sent.

We also know that they tended to look carefully at the colleges that were really close to them. So we made sure that when they received information from us, they were always given information about their local colleges, their state colleges, regional colleges, and then an array of national colleges, so that they were, we weren't just telling them about colleges that they never heard of.

We wanted them to be able to make comparisons. And then, the third thing is that they already qualify for application fee waivers, so in fact, we were not giving them fee waivers that they would not have been able to get anyway. What we were doing was just eliminating the paperwork, essentially.

When we sent them all these different pieces of information, we had effects on their college going that I'm sure we'll discuss later. But we also sent some of them only one of the pieces of information. And, in general our findings were like this, we found that if we just gave a student the fee waivers then students applied to more colleges, which was helpful.

But they didn't apply in a way that I would describe as smarter. It was like you gave them coupons so they just applied to more places, but they didn't put much more thought into which places they'd apply to. And the result was that although they applied to more places, the places where they enroll didn't change as much as it did if we gave them information as well.

And in particular, it was really important that we give them information about how to find colleges that were a good match for their level of their preparation and also give them information on the very big difference between sticker prices and prices for low income students. Ironically, low income high achievers were usually paying more to attend non-selective colleges.

In other words, colleges that only want you to have GED or high school degree and don't care whether you got good grades or high test scores. They were paying more to attend those colleges than they would have paid to attend very selective colleges. For this group of students, not for all students, but for this group of students, the more selective the college they attend, the less they pay.

It's weird, but it's true. The other thing that you need to know about what they were doing before was, it's not only that they were paying more to attend less selective colleges. The less selective colleges that they attended had student resources that were about one tenth to one twentieth the, the resources of the very selective colleges.

So they were, it was a serious choice. It wasn't, it wasn't an apples to apples thing. It wasn't a tiny difference between the colleges they're looking at.

>> Let's talk a little bit more about the students in your study and the results from the study. Could you give us a example of the typical student that you targeted, in terms of their academic ability, their income, and maybe some examples of, of how you shifted their college choices?

>> So the typical student in our study scored at the 95th percentile on either the SAT math and verbal test or scored at the 95th percentile on the ACT. We include students from the 90th percentile, right up to the top, but the average student is right at the 95th percentile.

The typical student in our study is a student whose family has an income below \$40,000 a year. So they're basically in the bottom quarter of the family income distribution for families that have a, a, a senior in high school, more or less. And, those students are not, it's not that they're a large share of low income students, but there are a lot more of them than people think there are.

People think there must be only a tiny number of low income high achievers, but it's not that small. It's about 35, 36,000 such students a year. So it's not a couple thousand or something like that. And over the course of the three years we did the study, we worked with 40,000 students.

So we worked with a reasonable share of the total number of students. What we did was a randomized control trial. So we picked some of the students to receive the information packets that we've discussed and some of the students were what we call control students. We followed what happened to them, but they didn't receive anything from us.

And we survey them and we know where they went to college and how they're doing in college. So we do know how the control students are doing, but we didn't actually try to change any information that they received. So let's call those the control students and the intervention students.

The students who received the expanding college opportunities intervention were about 56% more likely to apply to a peer college or university, about 78% more likely to be admitted to one, and about 50% more likely to enroll in one. And I want to define what a peer institution is for you.

A peer institution is an institution where the student's own proper incoming preparation would be closely matched to that of other students in the college. And the reason we wanted to look at peer institutions is that that's what high income students do. High income students typically apply, are admitted to, and enroll in institutions where there other students have similar preparation to themselves.

And we don't know for sure that that's the only right strategy to have. But it's certainly the strategy that students have who can afford to have any strategy they want. Okay, so we think of that as a really important reference point. Are the low income students taking the same advantage of college going opportunities as high income students are with the same level of achievement?

So that's why we're pretty focused on this idea of going to a peer college.

>> And having done some work in this area, my guess is it's not easy to find these low income high-achieving students. Can you tell us a little bit about how you went about finding them?

>> It was really hard. It was it's the hardest part of this work and it's the behind the scenes work that people tend not to see. We spent about five years just working on how to identify all of the high achievers. And we spent almost 10 years working with the college board and ACT, the census, the U.S. federal government and a bunch of state education agencies to become really good at figuring out which of the high achievers were low income students.

It's a very complicated process, because it's not as though students in the United States walk around with a sign on their chest that says my family income is, you know, \$40,000 or my family income is \$50,000. You have to figure out who they are. And you have to figure who they are before they apply for financial aid.

If you wait until they've applied for financial aid, they've already gone through their college application and admissions process basically. So, we worked for 10 years to, to figure out how to do it. It, it requires a tremendous amount of data being put together in a pretty complex way.

Our goal is not to figure out exactly how much family income each student has, because that's not really the purpose here. The purpose is more to get into the right ballpark, so that we know that we're giving information to a student that's relevant to their family income and it's not relevant to a student with very, very different family income.

But we're not trying to figure out whether their family has \$36,000 of family income or \$35,000 family income. That's not really important for the exercise we're doing.

>> So we want to ask you, given this work that you've been engaged in, about the role of high schools. It's it's possible to read from this intervention that replacing the resources that high school college counselors should or could be providing is just not happening.

Can, can you speak more about what the lessons from the Expanding College Opportunity Program is for today's American high schools?

>> Well, I think one of the most interesting things we found in our earlier research was that if you are a low income student, but you went to a high school where there was a critical mass of high achievers, you got lots of advice about applying to college and which colleges would be a good fit for you and so on.

So that, for instance, there are some 350 relatively low income students who attend just a single one of New York's magnet schools each year and they all go to very selective colleges and universities. So they're low income, but they get lots of advice. So if you're in a critical mass of other high achievers, you're going to get a lot of advice about applying for college.

The problem is that most low income students who are high achievers are not in high schools like that. They're in high schools where their high school guidance counselor has a lot on her plate or a lot on his plate. A typical counselor has about 300 or 350 students for whom he or she is responsible and any number of those students will have problems that are serious.

They're about to drop out of high school. Maybe they're on parole. They're having psychological problems. Their families are breaking up. They have, they have all kinds of needs. And you can't really expect that a high school counselor who has one student out of 350 students who's qualified to go to very selective colleges in the United States, you can't really expect that that person is going to develop a lot of expertise about that.

I don't think that that's reasonable. Right? That's just not a reasonable expectation. And when we talked to counselors, they often said, gee you know I've only seen only of these students. I see one every few years and I try to give them the best advice I can. But, you know, that's, I don't, I don't have that much time for this student.

And this, I know that nothing really bad is going to happen to this student, right? So I think that's one of the things we learned about American high schools is kids from affluent families tend to attend high schools with a lot of other high achievers. So they get lots of advice about going to college.

And they're in an environment where lots of people know about college going. Low income high achievers are not in those environments and it's not reasonable to expect that their high schools are somehow gonna develop the same level of expertise. And that's one of the reasons why we decided we ought to find a way to go directly to the students.

Now that doesn't mean that the student's were totally on their own. In fact, a lot of students, what they did when they received the information packets, we also had a website that they could go to to use all kinds of tools on the web they would take their packet and take it to their guidance counselor.

Or they would take it to their favorite teacher. Or they would take it, you know, they would sit down at the kitchen table with Mom and Dad. It's not as though they used it all by themselves. That, that isn't really true, but we armed them with some information.

>> And just to quickly follow up, I know you're, you're planning to track these students into their collegiate outcomes. Should we worry that some of these high achieving low income students who attend schools that may be varying quality? Would they have other, should we have other concerns about their level of academic readiness for college level work?

>> Well, I think people worry a lot about low income high-achieving students going to very selective colleges and universities. And the reason they worry, I think, is two-fold. The first is that they think, okay, here's a low income student who looks very well-prepared, but when she shows up on campus, a lot of the other students at the university are going to be middle income students, or maybe upper middle income students and maybe she'll just feel out of place.

The other worry is that even though she might look great on paper, she went to a high school which was a lot less demanding than the high schools attended by some of the other students on campus. So she'll be playing catch up her whole freshman year because she'll be doing things for the first time that these other students have been doing for a few years.

I think both of those worries are totally reasonable. However, what the data say is that when a low income high achiever goes to a college where her preparation matches that of the other students, most of whom will be higher income students, she thrives. And she does much better than she does if she goes to a non-selective college.

So it's not that, you know, it's easy street to go to a very selective college or university. I don't think that's true. These students are qualified, but it doesn't mean that they are as well-prepared as all the other students. However, going to a non-selective college also has its downsides, right?

You may be the only person who really cares a lot about academics in your class. The classes may be pitched really incorrectly for your level of achievement. Your fellow students, a lot of them are dropping out. They're attending part time. There isn't a lot of cohesion to, to the student body.

So it's not that there aren't challenges at selective colleges and universities. It's just that there are challenges of other colleges and universities, as well. And the data tell us that these very high-achieving low income students are well-prepared to face the challenges that they will encounter in selective colleges.

>> So, they're, they're a number of other college-going studies that have been presented at the NBR, Economics of Education workshops. And what I'm interested in is have you used your data to see if, is this under-matching issue a problem with low income students further down the academic ability distribution?

Or is this just a problem for the various high, the very highest achievers?

>> I think what we know is that low income students are less likely to make I guess I would call them poor college-going decisions really throughout the entire spectrum of students who are prepared to go to college.

That doesn't necessarily mean that they all under-match. So some people like the terminology under match. Some people do not. With these very high-achieving low income students, if they're going to make college choices that seem kind of random, almost mechanically they have to choose a college that's less selective than the colleges for which they're best prepared, because there aren't colleges that are more selective than that.

But we also see that low income students who are just sort of middle achievers are much less consistent or systematic in how they make college choices than high income students with the same level of achievement. So, I don't think it's all about low income high achievers. I think it's about the fact that most low income students live in an environment in which the information about college-going is systematically less good.

To give you an example, let's say we take a sort of middle achiever, not a high achiever at all and but, but the student is low income. Often those students, their local colleges might include a four-year college with a 15% graduation rate, a four-year college with 50% graduation rate and one with a 70% graduation rate.

It appears that they pay absolutely no attention to whether they're choosing the 15% graduation rate college or the 70% graduation college. And yet, that is very likely to make a difference in their outcomes. And we're not talking about their attending very selective colleges or colleges that are in other states or anything like that.

We're just talking about, hey, compare the local colleges and try and make wise decisions. And it appears that they're a little less likely to do that.

>> So you bring up an excellent point. There's a lot of research about how to get students into college,uh, but not as much research, at least to my knowledge, about how to keep them there.

Do we have good information about in-college resources that selective colleges provide and why those graduation rates

are so much higher?

>> I think we know a lot about the resources that they provide. But do we have research that shows exactly which of those resources are the ones that matter?

I think the answer is no and I, the reason is that they come in packages. Right? If you attend a college in the United States that has a pretty good amount of resources per student, they tend to do everything a bit better. They have more advisors. They have a higher ratio of faculty to students.

They're more likely to have on-campus housing where you can live all four years. So you might become more attached to the college or university. They have better financial aid. You know, there are so many different pieces that typically go together that it's hard to unpack that package and say, hey what really matters is the financial aid and not the advisors or what really matters is having more faculty and it doesn't really matter whether they have on-campus housing for all four years.

It's very hard to unpack, but we do, we can ask the colleges what it is that they are doing and they'll give us an array of things that they are doing. What I see in the data though, is that if you get a student to the door of a college that has a high graduation rate, we may not understand why it does, but they are likely to have a graduation rate, that looks more like that college's graduation.

They are more likely to have a graduation probability that looks like that college's graduation rate.

>> So the Expanding Colleges Opportunity Project addresses a problem on the demand side of the question by reaching out directly to students. But isn't there a real issue on the supply side as well?

Many institutions don't have the ability or the desire to expand in order to accommodate additional low income students. Do you have any thoughts about the supply side issues?

>> Well, right now, there isn't a supply side issue, although there may be in the future. So let's talk about right now and then we'll talk about several years from now and then we can talk about long into the future.

Right now the problem is that selective colleges and universities want to have a lot more low income students than they can find. In fact, it's pretty clear that if they could find twice as many or three times as many, they would be delighted. They go, they search long and hard to find low income students to improve the diversity of their student bodies.

And they really fight over low income high achievers. I know that sounds silly, but they do. So right now there's no supply problem, but let's say that the Expanding College Opportunities project, which is now being rolled out for all low income high achievers in the United States, via the College Board and ACT, let's say that it's very successful, so that it increases the percentage of low income high achievers who apply.

In the medium term, it is the case that some colleges and universities would begin to feel pressure on their financial aid budgets, because although they would like to keep enrolling very well qualified low income students to improve the diversity of their student bodies, there's only so much money in the medium term.

And I think that they would need to turn to philanthropists to help insure that they had enough financial aid to offer. My sense is that, at this point that is, there are a lot of philanthropists who are willing to step up to that plate. They're, if you want to take an issue on which the vast majority of Americans agree, it is that if you're a student who comes out of poverty and somehow you have managed to become a high achiever against the odds, there are a lot of people who want to make sure that you are going to get a college education.

And so I think in the medium term, some philanthropists will step up, but there will need to be some stepping up. In the long term, I don't see this as a problem at all, and the reason I don't is that colleges and universities in the United States, the way they stay in business, whether it's a private or a public college or university, is that they educate people.

As a result of this people having a better education they have higher earnings, they have better employment prospects, and so on. So they earn more money and if you're a private college or university, they give you more money as alumni.

And if you are a public college or university, they end up paying more to the state as taxpayers.

And that's what supports these colleges and universities. So in the very long run, one generation pays for the next. And you don't want to under-invest in this generation thinking, oh, we're saving money, because you're really not saving money. This is an investment in people and 25, 30 years from now those investments are going to pay off.

This is particularly obvious in the case of private college and universities because there's no government involved. It's just, we invest in students today and 25, 30 years later they pay their donations help pay for our current students. And that, that's really where financial aid comes from at private colleges and universities.

I don't think it's that different at public colleges and universities. It's just less easy to see the loop.

>> So your study mentions that, about the, the, marginal cost of the intervention is about \$6. Do you have a estimate of, you know, what the net benefit of the students in the intervention?

You know, how, how much, there's good research that shows attending, Mark Hucksters' work shows that attending a flagship university it raises wages perhaps by 18%. You have a sense on what rate of return on this low-cost intervention is?

>> Well, I won't give you a rate of return, because it would be really close to a number like infinity.

But Scott, you're exactly right that Mark Hucksters' work on the return to attending more selective college is the most relevant work to our study. He looks at students who attend one the most selective colleges in the state versus one of the ones that is less selective and he looks at students who are right on the margin.

So in effect, they could attend either type of college, university and we have a very good sense that his estimates are therefore very reliable estimates of the extra earnings and employment you have from attending a more selective college. Conveniently, his earnings estimates exactly match the the sort of treatment effects that we have in our In our study.

So what we estimate is that for this \$6 intervention, students will earn about half a million dollars more over their lifetime. And that's in what economists call net present dollars, which means that I'm taking all their extra earnings that they'll earn up to age 65 and I'm treating it as though they were going to get a lump sum payment today.

So their actual earnings over all of that time would be much more than half a million dollars, but if it were a lump sum payment today that is how much it would be.

>> That's amazing

>> It is. So my own work has focused primarily on college readiness and success of non-selective broad access institutions where the majority of American students are doing their post-secondary schooling and where the graduation rates are very low on average.

What are the lessons of the project? Of the Expanding Opportunities College project for the information gaps students face more generally about college going and success?

>> Right, so I think the thing that we were most excited about at the end of the day with this project, was that when we started we weren't really sure, I mean, it's not that we weren't really sure, we were really doubtful of whether information alone would help students.

And we found that, at least for the high-achieving students we were studying, they were really not all that well-informed about their college-going decisions and they benefited a lot from having someone help them through the process. And you might think that this group of students should be better informed than anybody else, after all they're good readers.

Right? So so we weren't sure that the information would help them. I think that what we have learned more generally in the process of serving a lot of students, some 40,000 students in the United States, is that a lot of students are not very well informed about their college choices.

And I think that carries all the way throughout the achievements spectrum in the United States. That lots of students who attend comprehensive colleges or non-selective colleges, two-year colleges, for-profit colleges, they're not quite sure what the entire realm of their college-going opportunities are. They're not sure how to choose a major.

They don't know which degree program they're likely to thrive in. And they don't know very much about whether they're likely to graduate on time, whether they should work while they're in college, or take out more loans. We think that trying to help them, trying to make those decisions with more information is an important thing.

And one of the things that really bugs me at this point, although I think it's solvable, is that when you buy a house, there are people to help you. You don't just go out and buy a house all by yourself, especially not if you're age 18. You have these people called bankers and mortgage brokers and real estate agents and house inspectors and all these people who help you make the decision for yourself.

Now that's to say you shouldn't go visit houses, of course you should, but you don't do it in a way that's completely without advice. Going for college for most people is a bigger investment than they make in any house they will ever buy. And yet most people make it without very much advice and they make it when they're really young so they don't have a lot of experience.

And on top of that, you only get to do it pretty much once. Okay, so you can't make a mistake and then buy a different house and trade up or something like that. It's, it's a one time decision made by 18-year-olds without very much advice. And we think that we can really improve that.

>> So we're about out of time. What do you think that the next big steps in this area of research are for you and other researchers? Well, Sarah Turner, who is my co-author on the Expanding College Opportunities project, Sarah Turner and I are working on interventions that should improve the college-going decisions of students of all levels of achievement.

And we don't just hope to help them make decisions about 4-year colleges that are more and less selective, but also about 2 versus 4-year colleges, about what kind of loans to take out, and whether to go to college at all, because there are a lot of other good opportunities.

I mean, for instance, there are a bunch of students who are on the margin, between say going to the military and going to college or working first or not working first before going to college. So we want to help them through a lot of those decisions and we think we're going to be able to put together some pretty neat tools to do that.

>> I'm Ann Stevens, the Director of the Center for Poverty Research at UC Davis and I want to thank you for listening. The Center is one of three federally-designated poverty research centers in the United States. Our mission is to facilitate non-partisan academic research on domestic poverty, to disseminate this research, and to train the next generation of poverty scholars.

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