

Welcome. You are listening to a UC Davis Center for Poverty Research Conference Podcast. I'm the center's director Ann Stevens. In March of 2015, the center hosted the conference, Increasing College Access and Success for Low Income Students. This conference brought together a unique mix of researchers, policy professionals, and education leaders to discuss new research and opportunities for low income students.

In this presentation Alexander Mayer presents his work on community college developmental education. Mayer is a research associate at MDRC, a non-profit, non-partisan education and social policy research organization dedicated to learning what works to improve programs and policies that affect the poor.

>> Hi, my name is Alex Mayer.

I'm very pleased to be here. I graduated from UC Davis. I did my graduate studies here, and it's just very exciting to be part of this conference. And especially to be talking about so many programs that we're evaluating. Using randomized control trials and having interesting conversations about this.

I wanna talk first a little about MDRC for anybody who is not familiar with our organization. We're a non-profit organization, we do research on social policy and programs that are designed, almost exclusively, for low-income people. Our work started about 40 years ago doing welfare to work type programs, evaluations and really focused on employment outcomes.

And has expanded since then in the early 2000s into the area of post-secondary education. Really, with the recognition that a lot of the low income populations that we were studying, who were served by the programs of our research, faced educational barriers that were related to employment outcomes. So in the early 2000s we launched a series of trials to study programs in community colleges.

And so most of our research in community colleges it touches in four year colleges as well. Today I'm going to just provide an overview of several of our major research projects and talk about some of the successes and challenges. I haven't advanced beyond talking about challenges and opportunities, but it's really a nice framework for thinking about this.

And towards the end I want to talk about some of the work that we're doing, looking ahead at some of the research that we're planning for and work that's already started for the next five years. I should say that, my name is up here, but there's a lot of people who have contributed to this work.

We're a fairly large organization, we have about 300 people, and we do collaborations with government agencies, with community colleges across the country. One of the themes earlier this morning was really about the marathon of research, and I think it's really an apt analogy for us. It's almost like a series of marathons and relays, and I'm really just the tail end here.

There's a lot of work that's come before me, but I'll just jump right into it. And so, just for a little bit of context to highlight sorta the issues that were important, that are important. When we're thinking about community college students and specifically about students in developmental education.

Tom already touched on many of these I just wanted to really highlight the fact that when we're talking about developmental education, we're talking about a large portion of the students who come into community colleges under prepared for college level material. Students come in and take the assessment test, and up to two-thirds of these students are placed into courses that they have to take before they can even start earning college level credits towards a degree.

As I said, we are very focused on low income populations and many of the students in community colleges, particularly in our studies, have high amounts of existing financial need. And also, what Tom highlighted, these conditions are highly associated with very low completion rates. About two thirds of the students in community colleges don't earn a degree and so there's recognition of this problem, there's growing recognition.

It's really an area of a lot of salience right now. Which creates both opportunities and challenges. So there's a lot of reform going on in community colleges, it's great to see so much attention to this issue. But there's really a lack of systematic research. Even about what colleges are doing across the country so what are the reforms colleges are trying, how are they working to improve the outcomes of their students and serve them in new and different ways?

We just don't know what's happening systematically in a lot of respects, but there's also limited research on the evidence of these practices. There's a lot going on to study these programs, but at the same time, this creates challenges for us when we're doing the research. And particularly when we're thinking about some of the more comprehensive interventions that take longer to materialize within a college and to develop.

The status quo is really changing underneath what we're doing. So we look at new reforms and by the time we've done our evaluations and can start to think about what are the effects, the status quo has in fact changed. And so this poses one problem in terms of interpreting our results, but it can also cause problems just in terms of testing different theories.

And so comprehensive reforms that bring in different interventions into a package, sometimes those reforms are actually changing for the control group. And so we were not able to test the package and the holistic theory and we're only really testing a portion of it. So today I'm going to provide an overview of four projects, it's actually a little misleading, as you can see.

Several of these projects in fact, encompass lots of other projects. The first project I'm going to talk about is the learning communities. The first project and the second project are performance based scholarships both started in some of our initial research in community colleges. And in part, led to larger demonstrations to try to replicate what we were seeing in some of the earlier findings and both projects led to multi-site demonstrations.

And I'll talk about the research and the programs involved in those projects and some of the results. I'm also talk, many of you have probably heard of the program ACEP accelerated studies in associates programs it's getting a lot of attention right now.

>> Um-hm.

>> It's really sort of the shining star at least for us in MDRC.

We're seeing very positive results, and I want to talk about that program but also the plans that we have for pushing that forward. And then a new national center that was established last year, that's several people here are part of, to study developmental education, and there's three large studies, and some smaller, supplemental studies.

So, learning communities, the first study I'm gonna talk about was part of our opening doors demonstration, which included two other large, large trials. So, each of these trials that I'm gonna be talking about, involves large samples of students, so generally a thousand or more students are involved in these studies themselves.

A learning community, it captures a lot of things that Greg was just talking about at least in terms of some of the things that it's trying to help students do, in terms of engagement. But it co-enrolls cohorts of students together in a series of classes. And so in the Kingsboro learning community, students took three classes together.

They generally had an English class, and these were mostly developmental education students, but there were some students who placed in the college level courses. And it paired the English course with another course that was required for their intended major. And it also provided a freshman orientation course. So these students took all three courses as a cohort, and went through the classes together.

The instructors across the different classes were supposed to collaborate, and particularly at Kingsborough, there was a strong collaboration. I mean they were supposed to integrate the curricular so they're trying to make the course material itself more relevant to the students, to make connections across their classes that engage the student more directly with their education and help them see the connections across different subjects.

And at Kingsborough and at other programs, the program provided additional supports, so at Kingsborough there was

additional counseling, tutoring, and textbooks that were provided to the students. So the theory of change is really about engaging students more directly and thoroughly in their education, but also helping them establish stronger relationships, both among their peers and with their professors that can help them through the college experience and maybe deal with some of the adversities that students all experience in college but particularly low income students and particularly students with developmental needs and then also that the benefits of the extra supports would help them.

So I just want to talk briefly about the early results. These, as part of our research, we always do implementation, acts of qualitative research to understand, kind of the strength of the program. Was it implemented with fidelity? Do we really see a treatment contrast? And here, we saw a very strong implementation at Kingsborough for the learning communities program, and the program itself benefited from strong support from college administration.

And the students we surveyed, we talked with them, and they did feel more integrated. It provided some support for the theory of change. And in fact, when we looked to the impacts, and during the program term, we saw that students were attempting and passing more of their courses.

Students in the program group, again, this is a randomized trial, they earned more credits. This is just in the program term so they earn on average about 1.2 credits more than the control group so that's about a third of a course. And they were advancing more quickly through the developmental education courses.

So we did some follow up on these students again and one of the important areas where we need to make progress if we're going to improve outcome for community college students is really in terms of persistence. Students are leaving college without a degree and we're trying to find strategies to help them stay in college, or take more classes and earn their degrees.

We did not see an impact on persistence in this program, but we did see that our estimate on the average number of credits earned grew after four years, four semesters of follow up. So, we saw after four semesters, students were earning about 2.5 more credits than students in the control group.

So, these were really very promising results, you have to remember this is a one year, or one semester, program. The program stopped, and we followed students for four more semesters, and we see at least some evidence that the impacts are growing. So looking at these results we did two things.

And by we I mean lots of people who came before me. But we got funding to follow these students for several more years, to see if these sorts of impacts could in the long run translate into impacts on degree completion. And in part this study led to a larger demonstration where we evaluated learning programs across the country.

So I want to first turn to the longer term follow up. And here we see very promising results. If you look at the bar graph the darker blue bars correspond to the credits that were earned by the program group, the white bar corresponds to the control group and then of course above is the estimated impact so in the first year we saw an impact of over two credits due to the program.

So here I should say these estimates are a little different than what I showed you before. We were able to collect data from across the CUNY System. Kingsborough is part of the City University of New York and so students that, in fact, went to other colleges, we could collect their data.

And you see that pretty consistently over the six year period. The impact estimates grow and they remain statistically significant at least to the point one level throughout the duration of the follow-up. By the end of year six we saw a four credit increase. And so this was previously sort of the shining star for us, or aspired to be the shining star.

These impacts were associated with a small impact and degree completion to result of four and a half percentage point impact on degree completion after 4 years and it really generate a lot of enthusiasm to see in such a relatively short program at this point long term effects. So turning to the larger demonstration where we tried to see if these results would replicate across the country.

I don't have time to go through all the details, but we did this in several other sites across the country. The three that are highlighted here had similarities to the Kingsboro program. And the fact that they were all focused on English. All of the studies in this demonstration here were focused on developmental education students.

These two focused on math for the learning communities link, and to do the larger demonstration we also considered the original Kingsborough study, but only the students who placed in developmental education. So this is really a broader test of whether these learning communities can be effective for developmental education students specifically.

But at Kingsborough, the majority of the population in the study were developmental education students. So these are the results from that demonstration. And so here we see that after the first semester we do see a positive impact, but it's smaller. We have evidence of that after the second semester.

And by the third semester we don't have evidence any longer of a positive impact. The impact could still be there. There's lots more variation happening after three semesters. But these results really don't resonate with what we saw in the Kingsborough program. So this was really a difficult thing for us to reconcile.

We did this larger demonstration. The Kingsborough results looked very promising. We saw in fact impacts on degree completion, and here we saw that more broadly we weren't finding similar results, and there are a lot of possible explanations for this. There's variation in the programs across the demonstration. In particular integrating across the curriculum was difficult and inconsistent.

And there were some scaling challenges, especially in the first two years. And this was the case across the colleges. Now these colleges were operating learning communities at a small scale and we asked them and they wanted to really expand these learning communities to serve more students. Excuse me.

And so, doing that was challenging. And so for the first two semesters it posed some problems. But we do see modest impacts in the short term on average. And one of the themes that really emerges from our research, and that I wanted to pay special attention to is that, we're often looking at short term programs.

So these are programs that effect students for one semester. We'll look at them, we'll see there's some positive effects, and then we said, okay, let's see. The program has stopped, we'll follow up for several more semesters, or years. And we don't see evidence of the impacts and it's disappointing to us.

But in many respects I feel bad for the programs almost, because they're doing almost what they're designed to do. They're having an impact on the students in the short-term and it's really our expectations may be too high for them in the long-term. But as I said, we've faced some real challenges trying to reconcile these results.

We didn't come up with a clear explanation of why the Kingsborough results appeared so much better. It could be that it was just a much stronger program that it was implemented more. It could be differences in the students. And it could be just the sort of the impact of the ideal program, versus as how it was implemented in the field.

So how are power learning community programs operating generally across the country versus what is really the theory of how a learning community can impact students over time? So I'll turn back to that towards the end, but I wanna talk about another large scale demonstration though we did this as a performance based scholarships program.

And it was launched out of the same initial demonstration. We're looking at performance based scholarships in Louisiana. And so performance based scholarships are, as again these are all low income students. These are need-based grants that students earn contingent on academic on performance or on meeting certain student. So in Louisiana students could earn up to \$1000 a semester if they stayed enrolled part-time and if they earned enough part-time credits by the end of the semester.

The scholarships were paid directly to students. So they can do whatever they want with the money. They often, these were many low income mothers. They could use it for childcare, they could use it for other needs, and they're paid on

top of existing financial aid. So these are students who are.

They get these scholarships in addition. The goal is really to address unmet financial need and make college more affordable, but also incentivize students to take more classes to earn more credits and to improve their outcomes. So there's a couple things that I wanna highlight about Louisiana. In addition to the characteristics of the students in the program, we followed these students for three semesters.

Less than 40% were registered in the second and third semesters. So this is a huge drop in their attendance but, and they're not earning a lot of credits after three semesters the average was just 7.7 earned credits. This program had a very positive effect at least in the short term.

It positively effected persistence in both the second and third semesters. This is an outcome that we've learned over time is very difficult for us to move so it's very encouraging. And they were earning more credits as a 3.3 credit impact for students in the program group. So this again was very promising in Louisiana, about the time of this study, during our follow up period Hurricane Katrina hit.

So we weren't able to follow up these students for a longer period of time, but we did launch a larger performance based demonstration at sites across the country. And so, the original study was in Louisiana at two colleges. We launched another study, these again, these are all large randomized trials.

In Ohio, the study was focused on low-income parents, and both these studies, these were where the state was repurposing existing TANF funding, and trying to use it to help students advance educationally. These programs were all designed around core principles at each of the sites that I'm going to talk about in terms of incentivizing students to take more classes, rewarding them, providing scholarships contingent on academic performance, but within those principals the sites had flexibility to implement the programs to design them around the perceived needs of their students.

So, in New York we focused on adult learners. And in Hillsboro, in Florida, we were focused on students with developmental math needs. And so the program was designed around incentivizing students to make progress in their developmental math sequence. We did do a study at a four year college, at the University of New Mexico focused on traditional students.

And here in this program, the scholarship incentivized students to take beyond 12 credits, beyond a full-time load or 15 credits, what they would need to graduate within 5 years. And in Arizona, we focused on Latino Hispanic males and in California we have a very unique program where students can take the scholarship to any college, it was a portable scholarship.

And the study itself was designed to try to ascertain if there were particular components of the scholarship that were more effective, so we randomized into six different groups. Students could get a scholarship that lasted for multiple semesters for different durations for different amounts. And then we tried to test whether or not those sorts of factors could make a difference in student's progress.

So here you'll see some early results from the demonstration. This is a demonstration that we're currently wrapping up. But this is just in the first year for students, and we see across all of these studies, we see positive point estimates. For four of the studies here we see statistically significant findings.

But in fact, in later years, in both Florida and New Mexico the point estimate's grown, we see statistically significant impacts. And so here we're seeing very consistent results across all of the states and all of the sites in the demonstration. Although there is some variation it's not really detectable by our statistical methods for the most part.

And so this is promising but particularly because the programs had the flexibility to be tailored to the specific needs of the students. And so, with the learning communities, we were really looking for, you know, we didn't see the same types of consistent results, at least in terms of what we saw at Kingsborough.

And the very positive impacts, but here we saw that flexibility could still be associated with consistent and positive impact. In some cases as we're doing this longer term followup now at some of the colleges we have up to four or five years of credit and degree data. And we're seeing, these are modest impacts.

Again these programs lasted for usually one year, sometimes they lasted for two years and were following these students for four or five years. The programs themselves it's \$1,000 or \$2,000 for students. It's a sizable amount for students. But in the context of their financial aid package during that year it is usually just about 10 to 20 percent of what students are getting.

So it is important, but we need to think about it in the context and this is really one or two years and it is modest in terms of their financial packages over their academic careers. As I mentioned we saw little detectable variations in impacts. We did see that in some cases students reduced their loan packages but were able to still have greater financial aid due to the scholarships even after producing those.

So there's also, there's a lot of unanswered questions still about the scholarships. We gave all of the sites had the flexibility to tailor that, to tailor the programs. But there's still questions around. To adding services or no services. Is that a key part of these scholarships? In several of the sites additional services were included with the program, students could get additional tutoring and, in fact, were incentivized to take tutoring.

But were not really able to process how important that is and our results in California are very specific to that population, but we don't really have a lot of evidence of altering the design of the scholarship has a big impact. And so one of the things we've been talking about recently is really how to think about the implications of these scholarships for policy.

So we've all, we've often thought about this in terms of scholarship providers. It's a very relevant intervention for scholarship providers. But it also has implications for states, particularly as the economy is turning around and they're looking for new ways to use their existing funding in new directions to support students.

Education, here we saw two states that used TANF money. So I'd probably getting fired if I didn't talk about this program. And I'm running out of time. So I want to talk a little bit about the accelerated study and associate programs. This is an evaluation that we're running at Kuney.

And this is really an example of something where we're not looking at a one term program, or a one year program of a specific intervention. This is really a multi-faceted intervention, that brings together several different components to help students progress. So here students are required to enroll full time, but again.

Students know this when they enter the study, and so students in the control group have the same aspirations. And they're encouraged to take that early and there's a strong messaging around graduating within three years. But there's a lot of financial support. Students know that they will not have to pay tuition after all of their financial aid is calculated.

They have a tuition waiver. They also get Metro cards. So in the City of New York, this is very important. They get free Metro cards that they can use to travel around the city. It takes away the barrier for them of getting to college and also provide some incentive.

Now these Metro cards were also tied to visiting advisors. And so we use them both as a way to help students, but also to engage them in some of the other supports that we thought were very important. The students were given free text books. Student were assigned to advisors that had much smaller case loads.

They also had to take advantage of tutoring services, career services, and then they had a block schedule, so they also had an element of cohort enrollment, and were provided with early registration. So this is, this is really a very comprehensive program. It's one of the most promising comprehensive programs that we've studied.

But it's not cheap. You know, and a lot of our research, we talk about, you know, it's programs that are the silver bullet, and we're saying oh this is effective but it's not a silver bullet. Likewise it was one of the authors on this report

he calls us the platinum bullet.

This is really everything, almost everything we could think of doing. And we see large impacts on persistence. We see more students enrolling up from term to term, as between five and ten percentage points. And the CUNY system, you can also enroll in courses between semesters. They're called intercessions.

We see very large impacts on enrollment in those intercessions, up to 25% point in some cases. So this is having a big effect, and those effects translate into higher graduation rates. So our three year results, you can see the control group graduated at 22%, but it's nearly doubled by this program.

Forty percent of students in the program were graduated after three years. I imagine this is very expensive, and Tom was talking about cost effectiveness, and how important that is. This program, at least the version that we studied, costs about \$6,000 per student each year. So this is \$18,000 over the course of students' academic careers for three years.

But when we do a cost effectiveness analysis, it's actually cost effective. We're paying more for students, but it costs a lot already to educate students. And the graduation rates are so high. That paying more for students we are seeing so many more graduates, that the program is actually cost effective.

So, here again are previous studies that I talked about, The Learning Communities Demonstration, the performance based Scholarship Demonstration, and both of those studies we saw larger effects in our early programs. And then, and the follow up we're seeing strong results, although we did see positive results. Here we're really trying to replicate this.

And we're launching a replication in Ohio at three colleges and tailoring the program, working with CUNY and the Ohio colleges to figure out how to do this program in a way that makes sense for the students in Ohio. And the colleges there, and really trying to see if there's a place where we can launch this more proudly across the country, since it's been so effective in New York.

We'll also be doing long term follow up. And this program, as you know, is getting a lot of attention. It's been cited by the White House. And it's something that we really have high hopes for in terms of their application studies and the programs. So just briefly, we've also launched a partnership with the Community College Research Center, and a new center to study post-secondary readiness developmental education.

This includes three large studies. There's a nationally representative survey of colleges, where we'll be learning more about reforms that colleges are implementing. Learning more about their assessment practices, how those assessment practices have changed in recent years. And what are really the choices that are driving college's decisions in these areas.

And to some of the other points, how colleges practices may differ for nontraditional students. So we think this'll be very informative to get systematic information across the country, and also to generate new ideas of programs that we might want to study. We're testing an assessment study across the state of New York.

We're at six colleges, randomly assigning students to be placed into college >> Level courses or developmental courses. Either based on their existing placement method, or on a new algorithm that takes into account student's academic history. That uses their transcript records and other information to try to predict how they would do.

And to identify students that may be ready for college, that would otherwise have been underplaced, and to test whether or not that's an effective way. And if these students are in fact more ready for college than we previously recognized, and that we previously placed them. And there's also an instruction study where we're evaluating a very comprehensive reform, again in Texas.

This is the new Mathways project, which is giving students more opportunity to advance out of algebra to take courses and math instruction that's designed to be more relevant to their career aspirations. That's tied to different forms of

teaching, so it's more hands on rather than lecture based. It accelerates students more quickly through, through the developmental education and into college level materials.

And again we're doing an RCT of this study across the state of Texas. So all of these reports are available on our website, and I'd be more than happy to talk now or follow up afterwards. Thank you.

>> I'm Ann Stevens, the director 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. Core funding comes from the U.S. Department of Health and Human Services.

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