Geoff Wodtke: Hello, and welcome to the Inequality Podcast. I'm Geoff Wodtke. Today we're very fortunate to be joined by Doug Downey, who's a professor of sociology at The Ohio State University. So Doug's research explores the role of schools in producing or potentially mitigating inequality in the United States. Some of his most influential work on this topic focuses on the origins of disparities in academic achievement and how these disparities emerge and evolve over the course of a child's education. And building on this research has new book, *How Schools Really Matter* argues that schools play a more positive role than is often assumed and that the primary drivers of educational inequality may lie outside of schools, in kind of broader policy decisions and social and economic context. So these issues are obviously central to understanding contemporary patterns of social stratification and mobility in the US. And I should say at the outset that Doug's work has been hugely influential for my own thinking in research and it's really kind of challenged me to reconsider some of my assumptions about the fundamental causes of inequality and how it's reproduced across generations. So it's a real pleasure to welcome you Doug. Thanks so much for joining us.

Doug Downey: It's good to be here.

Geoff: So I wanted to focus our conversation on disparities in academic achievement and how schools might contribute to them. So achievement test scores, you know, in things like reading and math obviously don't determine a kid's future, but they do matter. And you know, they're tied to big milestones like graduating high school and going to college. They're also linked to future earnings and even health later in adulthood. So we care a lot about them, especially when it comes to class and racial gaps and performance on these tests, you know, because they're kind of an early signal of more lasting inequalities throughout the life course. So to start us off, could you give, you know, our listeners a sense of how large these gaps in academic achievement are in the US today?

Doug: Yeah, and unfortunately they're, they're pretty large, a common sort of way to think about this in terms of the socio economic gaps is to split people into five groups or quintiles. And then we can think about how large is the gap between those in the top fifth–those from families with like high income, high education, high prestige jobs–versus the bottom fifth–those with lower income, low education and low ranking jobs. And many studies find that the gaps on tests of like math and reading skills between these two groups are between 0.5 and a full standard deviation. To put that in more concrete terms, a standard deviation difference among high school seniors would represent roughly about three years of learning. So it's–the gaps are pretty big and as you said, they're important. If you want to predict later educational success such as the likelihood of graduating high school or going to or graduating college, one of the best predictors would be a child's math

and reading skills and so these cognitive skills not only did they predict later success in school though, they also predict things like success on the job. The likelihood of staying out of prison, the likelihood of getting involved in using drugs, the ability to develop stable family formations and long term health. So for a lot of things that we care about, having higher rather than lower cognitive skills is an advantage and it turns out to be one of the key ways that advantage or disadvantage is transferred from one generation to the next and socio economic or racial gaps are really important to study for that reason.

Geoff: So there's kind of a long standing debate about whether and how schools contribute to or like exacerbate these inequalities or these gaps in achievement or possibly whether they might even help to mitigate them, on the other hand. So I'm wondering like what are the main ways that schools might, like, contribute or exacerbate gaps in achievement?

Doug: Schools are an obvious culprit for making inequality worse. One group of school explanations sort of focuses around how there are differences in resources in different schools, different levels of funding. Some schools might enjoy better teachers, smaller student teacher ratios, more extracurriculars, better curriculum quality, like more availability of advanced placement classes, things like that. Another group of explanations sort of focuses on cultural obstacles that, like, disadvantaged children often face when they attend a school mostly run by middle and upper class teachers and administrators. So for example, imagine a student's confused by an assignment, a middle class student may better understand how to go to a teacher and ask for help, whereas a lower class student may be unfamiliar with that kind of cultural skill. So these two broad categories–sort of differences in resources and cultural obstacles– I think capture a lot of the different ways that researchers think about how schools might make inequality worse.

Geoff: So I mean, I think for those reasons and others, many maybe most people assume that differences in access to quality schools or different school environments are one of the kind of key drivers of achievement gaps. But there's also ways that schools might actually reduce inequalities or maybe just play kind of a more neutral role or kind of like a conduit for inequalities generated elsewhere. So how might this occur? Why might schools actually attenuate these gaps?

Doug: We haven't spent nearly as much time thinking about this alternative. The vast majority of our energy has gone toward thinking about how schools make inequality worse. But we have started because of some of the research patterns that we've found that are surprising, the best evidence suggests that exposure to school doesn't really increase SES gaps in math and reading skills, and if anything it probably reduces them. So it’s made us start to think of this alternative question–what could schools possibly be doing to reduce inequalities. One, I think our understanding of teachers is shaped by–the understanding of

teachers that comes out of the social science literature might lead one to believe that teachers are discriminatory actors and whether it's conscious or unconscious, they tend to advantage the already advantage students. But I think there's good reason to rethink that and to think that teachers do more to reduce than increase inequality, at least on average. While we may be able to observe some teacher practices that disadvantage low SES youth, these may not be representative of the overall picture of how teachers influence inequality. I think that the typical teacher is probably egalitarian minded, looking for opportunities to help those who need it the most. One possible reason the data don't show SES gaps like in math and reading growing during school periods is that we have underestimated the tendency to get the best results. And we've underestimated the tendency for teachers to help low SES students. A second possibility is that, you know, our school based policies around funding are more egalitarian than many of us think this hasn't always been the case. Historically, we have had significant differences in school funding, but in the last several decades, many states have adopted funding formulas that redistribute resources in ways that limit the gap in these resource differences between school serving high and low SES children. One exercise I always have my undergraduates at Ohio State do is they go to the Department of Education's website and compare the per pupil expenditures for school districts serving high and low SES children. The students are usually surprised to find that the funding differences are small or nonexistent. So while social scientists put a lot of emphasis on inequalities in school resources like funding, the gaps in these resources have narrowed over the last half century through more equal funding mechanisms and federal programs like Title One. A final way that schools might be compensatory that I think about is our practice of how we group children. I would call it age-based grouping. We can group children in school in lots of different ways, but we tend to do it by default on the basis of chronological age. There are a few exceptions to this. We might have one kid delay entry into kindergarten. We might hold a kid back a year if they haven't performed very well. But for the most part, the default mechanism that we use to decide which how we group children together is based on chronological age. And this practice probably reduces the rate at which the highest skilled children would learn. And as a result turns out to be a compensatory practice, potentially a large one. And I'm not arguing against this practice. I like compensatory practices, but I'm merely identifying it as a likely way in which schools are compensatory.

Geoff: It's also interesting because it's one of those practices that I don't think most people think a whole lot about. Certainly not about as compensatory. It's just like, oh, when your kid turns five, they go to kindergarten and then they typically just progress a grade each year as they age. And you could imagine an alternative system where your kid goes to kindergarten once they're like a school readiness is indicated by standardized tests or

some other developmental indicator passes a certain threshold. And since disparities on those early indicators emerge when kids are very young, right, that system would likely, as you said, generate much larger inequality. So it seems like it's sort of this practice that is taken for granted, but potentially has like a huge compensatory effect.

Doug: Exactly. If we look at the data of kids entering kindergarten, the variation in their skills is really dramatic. You have some kids who are reading, like reading Harry Potter books and things. They have reading skills at a fifth grade level that overlap with the fifth graders. And then you have other children who come into kindergarten who don't know their letters yet. And so the variation is really dramatic. So what do we do with these kids who are reading and overlapping with the fifth graders? Sometimes we move them up one year, but we don't move them up five grades. We don't move them into the group that would sort of be where their cognitive skills align. And I'm not saying that we should, but what I'm noting is our practice of keeping kids grouped together primarily based on chronological age is probably a sort of hidden school practice that is largely compensatory. But as you noted, we don't we don't tend to think about it too much.

Geoff: Yeah. So I mean, on the question of when disparities in achievement emerge and how they change over time, I mean, you've published a number of influential studies on seasonal learning or how students learning rates kind of differ, you know, during the school year versus over the summer when kids are not in school. And you've used this as a way to kind of understand how much schools are contributing to students learning and then to gaps in learning. So I mean, could you tell us a little bit about why this kind of seasonal learning research is useful for studying educational inequality and kind of what you've learned from this body of work?

Doug: The seasonal comparison research is a different window into how schools matter. And I think it's a valuable one. One way to understand why it's valuable is to is to think about what the challenge is and it's a considerable one. It's hard to really know how schools matter because children are affected both by what goes on in school and what goes on outside of school. So if school A is producing higher reading scores than school B, it might be because of what's going on in the schools or it might be because the schools are serving different populations of children. The fact that children spend so much time outside of school, it confounds our ability to isolate the school effect and this confound is really significant. Children spend most of their time outside of school, so by the time the average 18 year old American turns 18, they have spent just 13% of their waking hours in school. So you've got this 87% of their time that's been outside of school, which is larger than most of us would have predicted. You know, we need to recognize that 87% is real and these non school environments that children experience–their homes and their

neighborhoods–they're not equal, they're dramatically unequal. So when we're trying to understand like why one school produces high reading scores and one produces low reading scores, it's very difficult to remove that non-school confound because you know it's like this 800 pound gorilla, it's large and it's difficult to just statistically control. It's hard to just measure a few things about these kids non-school backgrounds, statistically control them, and then really believe that you've isolated the school effect. And unfortunately nearly all of the observational data collected for education research is inadequate for addressing this problem. So it's really been an obstacle–a serious obstacle for the field. What's unique about seasonal comparison research is that it approaches this problem seriously and it gains leverage by doing something unique. Rather than trying to understand schools role by sort of measuring all these things about the non-school environment and statistically controlling them, it uses the non-school period as leverage it compares what happens when children are in school during the nine month academic year to what happens when they're not during the summers and the main advantage seasonal comparison research has then is that it circumvents the challenge of trying to identify and statistically control for students non-school environments. The importance of the non-school environment is captured entirely by the summer patterns. So if we conceptualize summer learning is due to non-school factors and the school period learning as a function of school and non-school factors, we can estimate schools contribution to learning by knowing what the non-school effect is from the summer observation. Now it's a powerful design because it reduces the likelihood of alternative explanations considerably. With traditional methods if we find that school A produces lower reading scores in school B. There are very likely non-school explanations for that pattern and we can try to kind of reduce that likelihood with some statistical controls but it's very hard to identify and measure everything about the non-school environment that matters. With seasonal studies we tend to ask whether SES gaps grow faster when schools out versus in if we find that inequality grows faster when schools out it suggests that schools are likely compensatory and the list of viable alternative explanations is reduced considerably using this method.

Geoff: And so what do you mean see I mean you've looked at data from a number of different sources on, like, how gaps grow during the school versus during the summer over most of elementary school in some cases into middle school. Kind of what are the consistent patterns or key takeaways there?

Doug: I summarize the empirical patterns as follows–gaps between low and high SES students sometimes grow faster when school is out versus in, that is during the summer versus the school year and sometimes there's no difference between the two. One thing we never find is that gaps grow faster when schools in versus out. So the patterns tend to either show that schools reduce SES inequality or kind of reflect it, but we do not find that

they increase it. The implications suggest that the dominant critical view social scientists have had of schools and their role in the stratification system may be misplaced and not just by degree but schools may operate in the exact opposite direction that we've always thought. As currently constituted, they appear to play an important role reducing inequality. So the results of these kinds of studies have forced us to rethink the traditional critical view of schools that they make an equality worse.

Geoff: So kind of related to this line of work you've also, you know, develop some alternative ways of like conceptualizing and measuring school quality by comparing sort of students learning gains during the school year to you know how quickly they're learning out of school during the summer. And then you've looked at how like the distribution of this indicator of school quality differs by you know family SES and so forth. So can you talk a little bit about you know that approach and what you've found measuring and analyzing kind of school quality from this seasonal learning perspective?

Doug: Yeah so what we call this approach–we call it trying to identify school impact and we believe that you know it may be a better approach than how people have thought about trying to identify school quality in the past. In the past you know one way to do it was to simply compare the test scores of one school versus another and that's obviously not a very good way because you know students arrive at those schools with different skill sets. Then probably the most popular alternative is comparing how much students gain in a year, for example, between third and fourth grade that way you don't really reward a school or punish it for the skills that children arrive with and you're trying to isolate you know how schools contribute to the gains made in a particular year. I think that approach is better but again I don't think it does a very good job of isolating the school effect because even those gains between like third and fourth grade are a function of both what happens in school and outside school. We've got an entire summer of error in there not to, mention all the time after school on the weekends and during holidays that affects children and varies considerably. So faced with this kind of problem we–you know we developed this measure called school impact and the logic we've used is simple. We say a good school is one that increases children's rate of learning compared to when they're not there, when they're not at school so. It kind of borrows the logic of a crossover design in medical research where they estimate the effectiveness of a drug by observing how patients change from off treatment to on treatment periods. So in this case in the case of schools you can think of well how does it how does a students learning change during the off treatment period in the summer to the treatment period when they're exposed to school. The advantage to using this approach when evaluating schools is that it takes seriously the obvious ways that the non-school environment can distort our understanding of how schools matter. So you know we think this approach is better suited for identifying what actually occurs within the

school walls and when we use the school impact measure to understand school quality the, interesting finding is that school serving low SES children do not look worse than schools serving high SES children by this measure. Which suggests that we may be underestimating the quality of what occurs in schools serving mostly low SES children and the accountability schemes used in many states to assess schools almost certainly underestimate the schools the quality of what's happening in schools serving low SES children and over estimate what's happening in school serving high SES children.

Geoff: So if I asked you what's like one misconception about schools and inequality that you wish, you know, you could like correct for the public or for policy makers would it be that or is there is there another one you'd want to emphasize?

Doug: Yeah that's–I mean that's a good candidate. Let me throw out a couple. Yeah I mean that one's sort of related to the misconception, I think, that people think that inequality in math and reading skills is largely due to schools, when I would say it's probably entirely due to non-school factors. And if they understood that I think there would probably be greater public support for policies aimed at reducing inequality in the non-school environment. The other one, you know, sort of along with that–I wish the public would understand that increasing school exposure if anything it works toward reducing inequality. We had a proposal in Ohio a few years back where the proposal was to increase the number of days children attend school from 180 to 190. And as you can imagine I'm supportive of that kind of thing. I'm all for children going to school more they learn a lot more when they're in school and exposure to school seems to work in the direction of reducing inequality but I think I was I may have been the only one in Ohio who liked this idea, you know. One of the arguments on the other side was that because the school serving low SES children are so poor, if we expand the school year it will just increase inequality. And you know that's based on this traditional critical view of schools that I think is almost certainly wrong. If anything more school exposure reduces SES based inequality.

Geoff: A lot of the prior research on seasonal learning and school impact has been based on data from students in elementary school. And so I'm wondering about your thoughts on high schools and how high schools might contribute differently to inequality during adolescence? You know, are there features of high school that might make them sort of more or less likely than elementary schools to exacerbate gaps or do you think many of the same arguments that you've built on data from elementary school apply very much in the same way to high schools and adolescence?

Doug: Yeah so that's a good question because I think it's reasonable to think that high schools might be different than elementary schools. One big difference is that high school students more often take clusters of classes, you know what we call tracking like the

college track of classes versus the general education track, whereas elementary students more often take their classes together like they're they all experience third grade together. In this way, the curriculum structure of high schools might make them less compensatory than elementary schools or even exacerbatory. Whether they are or not I don't think I can answer that confidently at this point, mostly because we just don't have the same kind of data for high schoolers that we have for elementary school children. And the key leverage you need from the data is an ability to know what happens when kids–when they're not in school. That's what gives you leverage for understanding how schools matter and we have that kind of data for young children because we are testing them. There are a couple of nationally representative data sets– the early childhood longitudinal studies of 1990-2011 that have this really unusual characteristic that they tested kids at school in the fall and at the end of school in the spring, and then they did it again the consecutive year so you're able to estimate what happens in the summers. But we lack that data for high schoolers. So we're not able to apply the same seasonal comparison method to high schoolers. The main answer is we don't really know yet and it's possible that high schools operate differently. Elementary schools are highly compensatory and that it sort of shifts over time but that said I–my hypothesis would be that we would see roughly similar patterns in high school. And I say this for a couple of reasons. First I think it's unlikely that schools systematically reverse course between elementary school years and high schools and you know despite the curricular differences we talked about the majority of what schools do and how they operate across the elementary and high school years would likely persist. We still have teacher student relationships, we still have age based grouping, we still have state formulas that work toward equal funding, so most of that would be the same. Second, although you know we don't have seasonal comparison research on high schools which I think provides a strong set of empirical evidence, we do have some hints about like the magnitude of SES inequality in high schools versus outside of them and this is important. My colleagues and I have a study right now under review where we compare the magnitude of SES gaps in resources across school and non-school domains in the nationally representative high school longitudinal study of 2009 and what we're trying to determine is whether the SES gaps really are substantially bigger outside of school versus inside school in terms of resources. So knowing this is important because it tells us quite a bit about whether once kids are exposed to school does it make the inequality the experience worse or does it reduce it? And the answer is SES based inequality is much larger outside of school, whether it's in terms of gaps in financial resources, adult youth ratios, or the kind of interpersonal support they receive from adults, SES gaps are coming up. So they are consistently larger at home than they are a school, so most of our data suggests that SES gaps in resources at school are either non-existent or modest, while the SES gaps outside of school are consistently large and those patterns are consistent with

what I would describe as like as a compensatory view of schools. You know I wouldn't describe this work as definitive yet because we were only able compare differences in resources that were available in the HSLS data set. But that said there were quite a few resources available and we compared all of them that we could and we consistently found that high schools tend to be a much more equal world than the non-school environments that youth experience and therefore we think high schools are also likely to be compensatory environments.

Geoff: Yeah, I mean it seems to me at least intuitive that school environments at whatever level will always be more equal than the non-school environments just based on how schools are organized, funded, regulated and so forth. Where I tend to think that the story could be, you know, different in high school is that even if the differences in resources or, you know, instructional practices, ability grouping are still, you know, let's say relatively small compared to what's happening outside of schools, they could be much larger than they are in say first and second grade.

Doug: Right, yeah and that's a real possibility and so what that might suggest is that it could be that we're finding fairly consistent evidence that if schools affect inequality in any way during elementary school years, they're compensatory, they're kind of rubbing the rough edges off of inequality. It may be that that compensatory effect is more modest in high school. Right now we don't have a good way to compare that magnitude. But clearly we have less empirical evidence overall during the high school years and so a it's a good and fertile area for future researchers to explore.

Geoff: So I mean taking the weight of the evidence, you know, from all of your research, you know, what do you think that policy makers and educators you know should understand about the roles that schools can play in reducing inequality and potentially the risks in over estimating what schools alone can accomplish?

Doug: Well I think there are risks there but I–let me start with, you know I think the main school policy that would reduce inequality and that is the most straightforward one is to increase school exposure. Have children go to school more than they currently do. That said, school policies themselves are unlikely to make a meaningful dent in SES gaps. One of the patterns, empirical patterns that I think is pretty important for understanding this issue is to look at what happens to SES gaps after kids enter kindergarten. We, you know, we can measure them right at kindergarten entry which reflects largely, you know, their non school environments up until age five roughly and what we notice is that those gaps are pretty large once they start kindergarten. A really important question is what happens to those gaps over the next several years while they're exposed to school and the best data, I believe for this, is the nationally representative early childhood longitudinal studies

consistently shows both across reading and math that SES gaps do not increase over time while children are in school. They narrow somewhat and this is a surprise to most researchers, even education scholars. You know, I report this to them and they assume the opposite. They assume that the gaps grow, but the ECLS data uses I think the highest quality scales for reading and math and this question without getting into the weeds too much, it depends quite a bit on believing that you have an interval level scale. And now that we have pretty darn good scales of math and reading, I think we have a better sense of how these gaps change as children progress through school. And the fact that our best data are suggesting that the gaps do not increase between kindergarten and the end of eighth grade are really sobering for policy makers who would look for school based solutions to SES gaps. Now I mean one way you could interpret this is, okay, maybe its evidence that schools are doing quite a bit. They're currently compensatory and maybe we could leverage them even more and make them even more compensatory and the clearest evidence I see for doing that is simply increasing children's exposure to school. But clearly most of the action for when these SES gaps develop occurs before school exposure, really in the first thousand days of life. So for that reason, I think if you're serious about trying to reduce SES gaps in cognitive skills, you really need to focus most of your attention on equalizing non-school environments more. And so for that reason, I support a range of policies that would reduce the level of inequality in the non-school environment and make children's, kind of the, rapid growth periods prior to kindergarten more similar. And these include policies like universal healthcare, better family leave, increased minimum wage, expansion of the earned income tax credit, more progressive tax rates, reduced exposure to toxins, improve public infrastructure. All of these kinds of policies which I believe would disproportionately reduce the stress that the low SES children and their families experience.

Geoff: So one of my esteemed colleagues at you Chicago Jim Heckman has written a lot about early childhood education and, in particular, do you think that's another potentially important lever in the policy portfolio right before kids enter school for closing gaps?

Doug: I think it wouldn't hurt, you know. Like universal preschools or you know high quality early education, all of those things work in the right direction. I think though we should think bigger. Really we need to considerably change the way that our current political economy rewards individuals in such an unequal way that we produce large numbers of people on the bottom of the stratification ladder who are exposed to quite a bit of stress. And so my critique is kind of more fundamental and larger. I think you know we're not–I don't think we're going to work our way toward significantly reducing SES gaps in math and reading skills by developing you know more preschool. So I think those kinds of programs are good, they work in the right direction, but I think I think we need more fundamental change.

Geoff: So the other kind of specific you know policy intervention I wanted to ask you about is like summer learning programs which have become more popular and seem relevant, you know, given a lot of your research on seasonal learning and the recommendation to just expose kids to more school. You know, summer learning programs aren't exactly like extending the school year, but they're kind of in a similar vein. So do you think, you know, these types of programs often run by like library systems or even districts, but that don't take place like inside an elementary school and are guided kind of by parents and students themselves–like are these a possible way to, you know sort of, keep gaps from widening more during the summer or keep learning rates kind of up when school is out by, you know kind of, taking some of what is going on, you know, during the school day and school year and trying to keep students you know doing those sorts of things over the summer?

Doug: So there's the potential there that, obviously what matters is you know if it's a high quality program, that it could play a meaningful role in maintaining children skills or potentially even having them grow some. You know, it's discouraging to see some of the summer patterns where kids may just sort of tread water or even lose skills–what Alexander and Entwistle called summer setback. So clearly that, you know, the summer is a time when kids don't learn nearly as fast as they do when they are in school and so it represents an opportunity to do something during that period. I guess you know–I want to provide a nuanced answer because I don't want to say 'hey I don't think this stuff will work' because I do think it will work. But I also want to make it clear that, you know–you asked earlier are there some risks to focusing on sort of school based solutions, and I think you know summer schooling, I would put that in the basket again of, sort of, school based solutions to reducing SES gaps. And I think there are some risks to this the school based approach to this problem that I think we should take seriously. I think school reform can play a meaningful role in some ways, but it's ability to reduce societal level inequality has some challenges. At its best, some school reforms might be able to make schools even more compensatory than they currently are. But you know let's remember those gaps and skills are largely formed prior to kindergarten. In some of the best data, they suggest they're entirely formed at the basis of kindergarten, so any school based approach is necessarily remedial. We're trying to resolve a problem we've already allowed to become large with a school-based solution and I think it just makes a lot more sense to try to prevent those large gaps from emerging in the first place. The school based approach, at its worst, focusing on school reform, diverts attention from the more fundamental sources of SES inequality that continue to persist in the non-school environment. And, you know in this way, discussions of school reform may serve an arena to sort of cool out those who would call for more significant reforms to our current political economy and the distribution of of reward.

Geoff: Yeah it's a lot I mean both sides of the political aisle like to bash schools, public schools in particular and it's a lot more politically expedient, I think, to you know fund say 10 extra days in a school year. However helpful that might be it's a different story entirely to like change the you know the entire tax and transfer system to like equalize family environments during early childhood.

Doug: Right schools are much more attractive sort of policy lever than trying to address the inequalities in our non-school environment. And you know I think one initial reaction to what I'm saying is–well you know, Doug, school policy is easier than changing the non-school environment. We can't affect people's families nearly as easily as we can through school reform and they're right about that at some level, but if the real source of inequality is in the non-school environment. Then that's where we need to direct our attention. We can affect the non-school environment. There are lots of policies that we have that shape whether children have health care, whether the degree of income inequality that they experience, the availability of housing and stable housing. Lots of policies and decisions that we have made differently than other countries. It's not inevitable that we have the kind of inequality in our non-school environment that we have. Many countries have looked at these same questions and made decisions differently and have less inequality than we do.

Geoff: Well you've given lots for social scientists and anyone else interested in education inequality to think about, so really grateful for you joining us today. Thanks again.

Doug: Thanks Geoff, and enjoyed chatting with you.

Geoff: The Inequality Podcast is a production of the Stone Center for Research on Wealth Inequality and Mobility at the University of Chicago. I want to end the podcast by giving thanks to the people who really make it happen. First I want to thank our producer and engineer Shane McKeon. Second I'd like to thank our assistant director Nina Gray for production oversight and doing so much to bring the podcast to life. And lastly our executive director Grace Kolovo for her support, not just for the podcast, but for every activity at the stone center. You can get in touch with us at stonecenter@uchicago.edu. Thanks for listening.

This transcript was produced with the assistance of AI.