Steven Durlauf: Hello everyone, this is Steven Durlauf. Welcome to The Inequality Podcast. Today I am very pleased to introduce Zachary Ward, who is the Herman Lay Chair of Enterprise and Professor of Economics at Baylor University. Zach is one of the leading figures on what I'm going to call the new economic history, and I use the phrase new because there has been a renaissance within economics in the use of historical data, not just to answer historical questions, but to give insights into contemporary phenomena. And so Zach has been instrumental in leading these very impressive developments and so it's a real pleasure to have a chance to talk to you today. Thank you so much.

Zachary Ward: Thanks for having me.

Durlauf: So I thought we might start with you giving a sense of how you see economic history having evolved in the context of the work that you do, which I'm going to organize into thinking about inequality and immigration.

Ward: I mean, basically there's been a huge change in how people do economic history, which was sort of occurring during my PhD. So I feel like I was a very lucky cohort where I was entering and starting to do my dissertation when these new massive data sets started to become available. So basically, historical census data in the United States becomes publicly available after 72 years. So now most recent, the 1950 census is publicly available and you know, this is how you can go on the ancestry.com and FamilySearch to search for your ancestors. But fortunately, it's been all digitized for economic historians to use and essentially link censuses up to one another. So you can build these massive new data sets that basically were not available before. So sort of the older version of economic history, people would manually search for people across censuses to compare a child's occupation to a father's occupation. And you have these relatively small data sets to sort of understand concepts about occupational mobility. But with the digitized censuses, now you can basically expand this to millions and tens of millions, really expand the number, the breadth of the family trees that you can create to learn all sort of new and interesting things about the history of mobility in the United States.

Durlauf: That naturally leads to the first topic which is your work in intergenerational mobility. And it's a perfect example where it's both of enormous historical importance but also I think speaks to contemporary factors. And so in organizing the many papers you've written, I thought we might start with differences between blacks and whites from the perspective of intergenerational persistence.

Ward: One of the things that always interested me in this historical mobility research is that a lot of people focused on those, you can easily link and across censuses to build these intergenerational data sets. And what people ended up doing is focusing only on essentially

white men. And so a lot of the historical research on mobility in the past focused on like a very specific subgroup. I thought, you know, obviously we're missing an incredibly important experience within the United States for black Americans. So essentially what I wanted to do was create a data set where we included black Americans in the intergenerational data sets and sort of understand mobility differences across black and white children. And essentially what you find is that the story of mobility in America's past completely flips if you're talking about just the white population versus the overall population within the United States.

So the standard story about the history of mobility in the United States is that it used to be a land of exceptional mobility, especially compared to Europe for people coming over where, you know, we didn't have this aristocracy or this elite as much. So people thought mobility was very high. But of course this is missing the incredibly important story of limited upward mobility for black Americans. So what I was able to do is put together a data set that expanded who we are studying mobility for. So not just for white men, but also for black men. Essentially what you find is that pretty unsurprisingly there's conditional on the parents' occupation. Black men are much less likely to move upward within the occupational distribution. And when you think about mobility overall within the United States as a whole, this really changes our understanding of how much mobility was there within the United States as a whole.

Durlauf: I think this brings up a very important issue in which is the way that we discuss mobility or other aspects of inequality is we have this desire to take very complicated high-dimensional processes and reduce them down to single numbers. And so economics, a you know, the most common one is the so-called intergenerational elasticity of income, the IGE. Part of what I want to turn to in a moment is your focus on occupational mobility which leads to different calculations. But the point is, regardless of the calculation, the statistic, the fact that it's a scalar means that all the heterogeneous experiences are being somehow averaged in a certain way. And one of the things I think is so important in your work is that you identify a fundamental heterogeneity. And that is the difference between blacks and whites and how those experiences differ.

I've actually sometimes wanted to write a paper whose title was there's no such thing as the IGE. Simply because it is masking so much of the heterogeneous and correlated experiences within the population. So I really just wanted to highlight the importance of taking historical disparities, you know, in this case with respect to race, seriously, and avoiding these claims that the society is more or less mobile today.

Ward: In addition, there's all these important differences across the United States, especially historically. So, you raise the issue of race, but there's the issue of ethnicity,

there's large differences across different immigrant groups. There's the issue of where people are within the United States, so there's very large differences across the North and the South. So yeah, I completely agree. Kind of boiling this all down to a single number misses a lot of what's going on underneath.

Durlauf: Now in defensive single numbers, you know, having data summaries of course is invaluable. So I want to, since many of my papers report those types of statistics, I have to put it in some caveat. But the serious point is that I think that this work really does change how we think about the dynamics of mobility and claims that it's slowed down with the American dream as less for similar to in the past. So then I'm thinking about groups, another area you worked on is men versus women. So might you describe the main findings there?

Ward: Yeah, so really difficult thing about studying women's mobility in the past is— One is that it's difficult to link women across censuses. So if you're talking about comparing where a daughter is in childhood to a daughter in adulthood, the methods that we have to link people across censuses, you know, we don't have social security numbers. We don't have sort of the stable identifiers in the historical data like you have in the modern day data. So you need to come up with different ways to link people across censuses because many women change their last names and last names is basically one of the most important things that we can link people on. So I was able to work with some co-authors to incorporate a dataset that uses millions of links of women from childhood to adulthood, largely from genealogical sources at familysearch.org. But also you can sort of match people through marriage records or administrative records as well.

Well, okay, so that one issue is being able to link women. The other issue is that if you're talking about a measure of status or income for women in adulthood, historically speaking most women did not work. We call these gainful occupations in the historical censuses. So of course there's this notion of hidden work that women contributed to the household. But in terms of what their reported occupation was within the census manuscripts, essentially most report none. So we can't create these measures of sort of educational mobility either because that really wasn't available. So what people typically do is use the husband's occupation as a proxy for the daughter's social status, which is possible. You know, that has seemed to be okay. But we also developed a little bit of a novel proxy in one of our papers where we looked at essentially what area women are living in. Are they living in areas where their neighbors are sort of higher status and lower status, which is a proxy that you can measure for everyone within the population. So if you're trying to solve this data issue where you don't observe status for women, question is what can you...what can you do? And this is one measure that we came up with.

And what we found in this paper was that mobility differences in terms of does the father predict a daughter's socioeconomic status better or worse than a son's? We actually find that the father's occupation predicts both the son and the daughter's about equally, which was very surprising to us. I was not expecting that because typically if you think about women's mobility in the past, since women often did that work, mobility often occurred through the marriage market, whether you're marrying someone who's sort of a higher status or lower status husband. But since we found that the mobility was approximately similar between fathers and sons and fathers and daughters, what this suggests is that daughters are marrying husbands who have outcomes very similar to the sons of the fathers, which is indicative of basically relatively strong assortment mating.

Durlauf: So to follow up on that, one of the areas of inter-experience mobility research, which I don't want to say is not existing, but perhaps understudied is the issue of who marries who. And of course leads to the assortment of mating question. And thinking about 2026, there's probably more of a focus on educational assortment of mating. And so I think that one of the interesting features of what you did is that it identifies it's something, you know, it's one more piece of the puzzle as it were on the evolution of the dimension of how long this sort of meaning occurs. So with reference to men versus women, is this a case where there's geographic heterogeneities that were interesting?

Ward: We thought there would be as well because the economy, like the structure is very different across the south and the north. And you do see very large mobility differences across states within the United States in the past, but in terms of differences between men or women within these different states, you actually find it to be quite similar actually, which we were also very surprised by. So yeah, we were trying to find some interesting things to sort of tease out in terms of the difference between men versus women mobility. And one thing is that it does seem that women are more and more upwardly mobil[e] in terms of gaining higher educational levels than sons, conditional on the father's occupation. So you do see that when we can measure education, but otherwise mobility differences were pretty similar.

Durlauf: One of the other areas of intergenerational mobility that probably is understudied is multi-generational mobility and it’s again an area that you’ve written on. So could you describe your main work there?

Ward: Yeah, so I sort of described one part of my work, which is trying to include more groups into the data set. So like include women, include African Americans. Another big part of the work is trying to deal with this bad historical data, where it's very difficult to measure people's socioeconomic status. So I sort of talked about that with women and the difficulty of measuring status for women, but even for men, the available measures that we

have in these historical census manuscripts are largely occupation. And occupation is something that is measured with significant error. If you ask people their occupation today in the panel study of income dynamics, it's recorded with error. It's just very difficult to narrow people into a specific occupational code. And historically, this was also the case. And when you have that type of error, this tends to increase your mobility estimates or sort of reduce the strength of the link between parent and child. If you correct for that type of error, mobility appears to be much lower.

So I've done a lot of work on that with two generational data sets, so between father and son. And we think the error is because of this data coding issue or perhaps people are changing occupations throughout their lifetime. So a single snapshot of their occupation doesn't quite capture sort of their lifetime status. The multi-generational question is trying to go even further and say, okay, well, you know, if we know what your father does, does your grandfather or even your great grandfather predict your outcomes? And sort of the standard story within the literature is that yes, they are strongly predictive. So there seems to be these multi-generational effects. But the question is, why is that happening?

It could be because there's these direct influences from the grandfather onto the grandchild. So grandparents can help take care of the grandchildren. They provide social networks. They're going to be direct transfers of wealth. But going back to this measurement error issue that I was talking about before, another possibility is that if we have messy data, then even if we try to correct for the father's status, we still could be doing a poor job of it. And then the grandfather just simply provides more information about the father, right? So the grandfather effect appears to be predictive. The grandfather appears to be important in a multi-generational aggression. But this is just simply mirage or an artifact due to measurement error. And we want to look at this and basically try to understand, you know, whether this is important. And we basically show that the grandfather effect seems to be largely due to this measurement error issue. So if you do a multi-generational regression and correct for measurement error in the father's outcomes, the grandfather is no longer as important.

The big picture is like, are we measuring mobility incorrectly with two generational data? This could be a problem because if we are measuring mobility incorrectly with two generational data, then sort of long run mobility is very different. And what we sort of show on this paper is like, oh, well, if you actually do improve the outcomes, improve the measurement of the father by a lot, then these multi-generational influences seem to go away. That doesn't mean they're completely gone. There does seem to be sort of this, we call it sort of excess persistence across multiple generations, even correcting for measurement error. But it's going to be relatively small within our context.

Durlauf: So let me extract a few themes, I think, are important. The first is that intergenerational mobility research faces very deep measurement issues. And so the given example, which is very visible right now, is the debates about the nature of wealth inequality that's dynamics or income inequality in the United States or in Europe, where you have a Thomas Piketty, Emmanuel Saez, and Gabriel Zuckman in one side will make a certain set of very strong claims. These have been challenged by often splintering others. What they come down to with statements is that there isn't a wealth of, you know, a self-evident object, which is parental status, a self-evident object, which is offspring status, or... which lets you either calculate things cross-sectionally or intergenerationally. It's not the most glamorous thing to talk about. In other words, the headline is, this is the statistic. You don't get the headline that says it turns out that statistic was factual. It was conditioned on a set of decisions that have to interpret the measurements. And so this is just another very important example where you find that type of observation.

The second thing is I think that, you know, a way to, you know, couch all this is that in asking the question of why parental status affects children, it's under theorized if we reify the data we have as the mechanisms. In other words, that we have a statistic for parents as a statistic for a child. That's not the same statement as the statistic of the parent is the description of the mechanisms. And so when asking the, you know, the phenomenon that matter for the parents, again, we have these dimension reductions into some measure of parents' income, which is why one has to then go through and ask what the informational content is of grandparents, et cetera. We're trying to use the observable correlations or dependencies to talk about something that is more theoretically subtle.

The final observation, I guess, is that I think that part of the negative finding here in the sense you didn't find it overall in the data, you emphasize that isn't a universal statement. And so in societies in which you have higher rates of single parenthood, you have higher divorce rates, et cetera, one would then think, again, of course, there were studies that reflect this, that the importance of the broader kinship network comes into play. And so I take a third message from your work, not that grandparents don't matter so much, as that we have to think about contexts where the effects are going to be the same.

Ward: Just to touch on that extended kin, that's where a lot of my newer work is sort of going on because with these family trees that you can build, you can build these very broad networks of these horizontal connections of aunts and uncles, their spouses, their cousins, and all this stuff. And some of the newer work I'm working on is, you know, if a parent passes away, you can see where a child ends up getting placed, and they're often with this extended kin as well. And you see these incredibly strong correlations that still exist across these extended kin, which suggests that there's these sort of latent unobservable things

that are very important that's shared amongst this group. It's similar to this grandparentless multi-generational vertical idea where, you know, you're saying if we know what the parent does, does the grandparent provide any extra information? But we sort of can build out chains not vertically, but also horizontally. And what you end up getting is all these different correlations across these different types of kin, either occupational status correlations or educational correlations depending on what type of data you're using. And you can try to understand, you know, how fast will these correlations decay across these extended kin as you sort of increase the steps in between sort of a child and, you know, a parent's brother or a parent's brother's sibling or a parent's brother's siblings spouse and their sibling.

The basic finding, which is not specific to United States, so other people have sort of worked on a similar idea, is that these correlations do decay quite slowly as you add marriage steps and as you add sibling steps. It's consistent with various things, but one would be there's sort of these latent things that we think are important to the mobility processes that are shared across these extended kin that gets transmitted across generations. You can look at natural experiments within the data to sort of say like, okay, well, if there's sort of a severance between a child and a parent, whether due to a parental death or adopted children, do these correlations change that much? And you know, you find some interesting results, you know, you find that the family that they're placed in is also predictive of the child's outcome, even controlling for the biological parent as well, and that the people that they're sort of— that the children are placed in are often amongst these extended kin as well.

Durlauf: I think you also brings up an issue of how to think about safety nets. You know, of course, the standard discussion is the social safety net provided by government at different levels, but there's this private safety net and that is the embeddedness that we have both in families and in communities and the examples you're giving where a parent dies, for example, that's when the safety that gets activated. So I bring that up for a couple of reasons. One of them is another example of how one makes progress by decomposing aggregate statistics into disaggregated ones. In other words, if I aggregate across the population, the fact is a latent family safety that protects everybody's like a known in the cases where it's activated. There's going to be obvious interactions between that safety net and lots of factors such as the levels of discrimination in society or regional heterogeneities and income etc. So it sounds like a pretty fruitful area once again to pursue.

Ward: Yeah, and that sort of connects with the idea of other people within the family being a safety net. I think that's a major role that women played in the past as well. So there's this shock to the parents, the father's occupation or they're sort of dropped out. This is where this idea of hidden work within the census sort of comes up. You see sort of women

contributing to the household in ways that are not completely obvious. I wrote a paper on this looking at women immigrants and how they contributed to the household sort of in the early years after arrival. And one of the main ways that they contributed is taking in boarder and renters. And that's something that you can, like it's not listed as an occupation, but you see within the household of the census manuscripts sort of, are there borders and lodgers within the household? And these are often the responsibility of the wife and the daughters to do. And it's a major source of income for immigrant households within the early 20th century. So you can use sort of this as a measure as well, sort of understanding the assimilation of immigrants.

Durlauf: So one other example that comes to mind here that will credit my colleague Rafe Stolzenberg in sociology has to do with the intergenerational persistence in entrepreneurship. One explanation would be that entrepreneurs have certain risk taking characteristics, certain tacit knowledge that they passed on to their children. So Rafe's argument was that actually they ensure them because entrepreneurship is extremely risky. And so this is the case for having a successful entrepreneur as a parent. And that's what he's focused on is the thing that's actually getting transmitted. So it's not at all about the skills. It's about the fact that the private safety net is operationalized.

I think that's also an interesting example where in thinking about persistence of status, there are different questions. One would ask about the persistence of disadvantage, another is persistence of middle class, and third of course is the persistence of elites. And that was not randomly chosen and so was I hoping we would talk about your work on elite persistence.

Ward: Yeah, so this is a paper that we wanted to look into. Basically it was a not being satisfied with the occupational measures that we have within the historical censuses. So if you're sort of looking at the transmission of status historically, it's all based on occupational proxies because that is the basically the only thing that's available in every single census from 1850 onward. But there are some censuses that include more information and there's other more creative ways to sort of proxy for like, if you're a farmer, are you an extremely wealthy farmer or are you sort of a sharecropper? What we did in that paper is we looked at the censuses that we do have some self-reported wealth information, which is between 1815 and 1870. And we basically said, okay, well, if we can rank people on this wealth information and capture the difference between rich and poor farmers, capture the difference between rich and poor merchants. John D. Rockefeller was listed as an oil merchant within the census manuscripts and we would and then we'd assign them the exact same status as all merchants, right? If you can rank people on their self-reported wealth and then link people across generations to the grandchildren, you could sort of ask

whether this generational wealth, quote/unquote, matters for what we can measure for the grandchildren. And for the grandchildren, we can measure things like home values, educational attainment, wage income. And what you find are these incredibly sharp non-linearities between the grandparents and the grandchild, where sort of between like the zero and the 95th percentile of the grandparents distribution, wealth distribution, they're sort of, you know, having a wealthier grandparent appears to predict, you know, a little bit higher educational attainment, but where all the action is above the 98th percentile, where you see this incredibly sharp increase where the grandchildren of, you know, the incredibly rich by the 19th century standards grandparents, the grandchildren are also getting much higher educational attainment, much higher wage income, much higher home values.

So there does seem to be this elite persistence that happens where, you know, having this exceptional wealth does appear to matter. So that's one thing we sort of find. The other thing that we find is sort of somewhat paradoxically is that there's a lot of downward mobility at the same time. So while there is this non-linearity between grandparents and grandchildren, if you link just sort of the parents to their own wealth measures, like a decade later, you see a lot of people who were in the top 1% of wealth were no longer in the top 1%. And this is not like, the period that we're talking about includes the Civil War, so there's immense wealth destruction, and it's not just that, right? So this is also happening in the north as well, where people who are at the top seem to drop out of the top, but at the same time, it's predictive of what happens with the grandchildren.

Durlauf: I think that leads to kind of two themes I want to pull out. One of them is non-linearity. In other words, that thinking about mobility in the United States, I think the following description is reasonable. And that is there is very substantial mobility. However, there's persistence in the tails. In other words, if you ask questions about the predictive power of disadvantage or extreme wealth versus extreme wealth, it's highly persistent. But that leads to the great majority of the population in the world, and which you see very substantial movement. And so in developing claims about the United States, the American dream, the land of opportunity, those decisions seem to be essential.

The second thing that you brought up, which is important, is the fact you see downward mobility. And there, the observation I would make is that it says something about, I think within economics, a bit of a gap between the way theory is done, and the way empirical work is done. In other words, the interest in economics will often be about models in which you have poverty traps or you have affluence traps. Good theory makes assumptions, or successful theory makes many factually incorrect assumptions in order to generate models that produce understanding. However, the notion of there's a literal poverty trap or a literal affluence trap, that's a consequence of modeling assumptions and not about the

world. And so I think a transition in empirical work that focuses not on things you claim, or when claims are poverty traps or affluence traps is desirable. And replacing it with something that simply measures—and this is self-serving because this is work that I've done with a number of co-authors—is on memory. In other words, how much memory is there in the descendants from some status of a given parent. And so I think you work very much speaks to that.

So I was hoping we could step back on kind of two broader questions. One of them is to say something about occupations versus income as the source of study. In a first order approximation, which you are inconsistent with, economists have tended to focus on income, whereas sociologists have focused on occupation, I think which is understandable reasons because we think about budget constraints, notions of well-being, sociologies more focused, you know, obviously historically comes out of class considerations. As you noted, looking at historical data, the occupational data are what is available. I was hoping you could say a bit about how you think about the complementarity between income versus occupations as a way to understand mobility.

Ward: Yeah. So historically, as you said, we're dealing only with occupations. And the way that economic historians typically try to measure mobility is that they try to sort of use income or occupation and then sort of come up with these single statistics of mobility, as you mentioned before, the IGE, based on these occupational income measures. And you know, this is missing, yeah, this is missing an incredible amount of heterogeneity if you just look at these transition matrices across different occupational groups. Something that is really important historically speaking is a transition out of farming, especially urbanization. So I think something that's sort of difficult to pin down, but also incredibly important is the structural change out of agriculture and sort of this transition out of farming into sort of these semi-skilled jobs or these manufacturing jobs within urban areas. And it seems from what we can tell that this was led to income gains as far as we can tell with like the limited historical data that we add because urban premiums were relatively large relative to rural areas. But you know, this is something that's sort of difficult to actually pinpoint.

Durlauf: So I think obviously there are compliments and one reason that I think that the occupations add something clearly is that the status, prestige and things they do adhere to income, they severely adhere to occupations and that's why status measures are common in sociology. But also their mechanisms. In other words, income is obviously profoundly influenced by occupation and education and so I think in developing the virtual, the future research integrating both occupations and common education is something to aspire to, not that I think we're necessarily close there.

The other thing I was hoping you might say a bit about is meritocracy. In other words, has the work you've done influenced the way you think about the extent to which you'd want to use that word for the American experience?

Ward: Yeah, I mean, I think that's difficult to pinpoint with the historical data. I think things that are sort of obvious to me is the incredible differences in mobility across these groups that we're talking about before in the past. So you know, across black and white. And also, yeah, as I mentioned before, across like the North and the South essentially. So if you think about what happened after the Civil War is that there's this incredible wealth destruction in the South where the South basically lags behind the North for like 80 years until World War II where you could think of this as a relatively poorer country within the United States as a whole. So if you're someone that's born within the South and if you're someone who's black that's born within the South, there's sort of a double disadvantage that's going on there where you know, you're sort of subject to these constraints within these areas and like the opportunities for upward mobility are not there. I think it's difficult to describe that as some form of upward mobility is based on merit if so much is based on the chance of births. But over time those sort of gaps have declined. So you know, there has been incredible regional convergence in income. There's been racial convergence in income. So you know, it seems like that has improved in the long run. And if you think about the legal setup of the United States in the past, especially for African Americans, I mean, it's incredibly difficult to have upward mobility and talk about a real conversation about merit. I guess that's how I think about it in the long run.

Durlauf: What you said is exactly right, which is that these debates of American meritocracy here today are in the past. They're uninteresting because any reasonable definition of meritocracy, if it's binary, the answers no. But what I claim is the interesting question is the extent to which it exhibits the features one associates with meritocracy and then the extent to which you see evolution there and clearly the different experiences of African Americans since 1965 compared to the previous hundreds of years, that has to be a fundamental feature.

And also I think that going down that way on meritocracy than demands the question for who? And from the people talk about the US has lower mobility than various European countries. In the aggregate, that's correct, but there are certainly groups where you tell a different story, which actually leads to immigrants, where one would have a much more affirmative answer, I think in terms of the way that American society works. And so I was hoping we could talk about your work and immigration. First of all, ask you sort of what you see as the broad themes and maybe some reference to assimilation.

Ward: I sort of think about my work on assimilation as sort of understanding these group inequalities that exists across US-born and foreign-born individuals and sort of how that changes as immigrants stay longer within the United States. So there's a question of whether in the decades after arrival immigrants can sort of move up the occupational ladder at a faster rate or slower rate than those who are born within the United States. So I've looked at this in different ways. One of the, and other people have looked at this as well, but so one of my main contributions to this sort of literature within the past is sort of looking at groups that are relatively under-explored, specifically the experience of Mexicans and Mexican Americans in the early 20th century and also in the 19th century.

So I live in Texas, we're right next to Mexico. What sort of always fascinated me about Mexican immigration is that it's very different from European immigration. Most Mexican immigrants, especially in the past, are located in the southwest, the southern parts of Texas, only a few until later in like the 1920s start moving up northward into sort of more urban areas. And sort of the question I was wondering is, you know, so what happens to Mexican immigrants as they stay longer within the United States relative to Europeans or relative to US born and also relative to African Americans, but also what happens to their children and their grandchildren. So sort of connecting this back to this mobility question. And I think broadly within the historical literature, there's this optimistic finding where the children of immigrants are much more upwardly mobile than the children of US born individuals. So you see this upward mobility that exists, especially across generations. This does not fit the Mexican experience in the past. Mexican immigrants in the first generation do not seem to climb relative to the US born and actually there's some evidence of them falling behind over as they stay longer where sort of the US born workers are moving up into higher paid occupations while Mexican immigrants are remaining in the same sort of set of occupations. And then the children of Mexican immigrants also do not experience this immigrant mobility advantage.

If you know a little bit about the history of Mexican immigration in the American Southwest, you know that there's incredible discrimination. They're restricted from citizenship for a long time. Segregated schools, very similar to the African American experience. And you see sort of similar mobility disadvantages that are across generations.

Durlauf: Well, it's a very important message. And these questions of assimilation, obviously they're politically loaded, but what we need his facts. And the essential fact of discrimination inhibits the assimilation that would have occurred is fundamental on asking questions about persistent gaps. I think another issue often in discussions of assimilation of persistent inequality is what I'm going to call the distinction between converging and convergence. In other words, going back to African Americans, there's evidence converging

in the last 60 years, but that does not extrapolate the convergence in other words. It's one thing to say that certain barriers have been diminished. It's quite a different thing to say that barriers are gone or that the deeper roots, the persistent features of disadvantage, which are transmitted across time, are going to dissipate over shorter horizons. And so I think that the work that you did on Mexican immigration speaks to those kind of broad questions.

Ward: And then something else that is very difficult, if you're talking about multiple generations of descendants of Mexicans, is that it's very hard to identify who is a grandchild of a Mexican immigrant. So you can look at these cross-sections of black-white income differences and you could track this over time. And this racial identity is largely persistent over time. But in terms of ethnic identity, people stop claiming themselves to be Hispanic over time. And if you're looking at data where you're measuring differences between those who are US-born, with US-born parents, but claim themselves to be Hispanic, they are very different than full entire group of people who've descended from Mexican immigrants. So there's selection into who self-identifies as Mexican or as Hispanic. And we sort of show that in the past. In the past, people have these indirect ways of identifying who is Hispanic, basically based on the surnames, and this misses, like, basically half of the descendants of some of the Mexican immigrants. And those who do not have a Spanish surname tend to have higher educational levels and higher income levels. And so there's more of an optimistic view of this assimilation across multiple generations once you get these sort of data issues in identifying sort of who is a grandchild of a Mexican or Hispanic immigrant correctly.

Durlauf: So one theme in your work is the importance of cities in the immigrant experience. Could you talk about that?

Ward: Yeah, so I sort of touched on this before where urban areas, where these areas of incredible growth, incredible expansion of manufacturing. You had these occupational ladders where some immigrants could come in and sort of work at these manufacturing firms, but also had the ability to move up. You know, and if you're talking about cities in the past, and to certain extent today, you know, it's like almost half of the city was foreign-born or the child of a foreign-born, even more. So the cities in the American history are like, are the places where the immigrants settled. And what you see is that immigrants tend to move to areas that benefit themselves the most. You see essentially where this immigrant mobility advantage comes from is largely from where people tend to settle. That's true for the largely for the European experience. We sort of looked into this in the Mexican experience as well, where there's sort of a question of, you know, why isn't there more settlement into places of areas of upward mobility. And it seems like this only tends to happen after you have a shut off of the immigrant flow from Europe in the in the 1920s. So

basically we have this open flow of European migration to the United States during the age of mass migration. Up until 1913, eventually WWI happens which sort of set things off, but things open up a little bit more, and then you have these quotas that happen in the 1920s. And this is where you start to see a little bit more movement for Mexican immigrants as well as for their children.

Durlauf: And can you say something about internal migration which I know you've also studied?

Ward: A lot of my work is sort of measuring mobility: where is mobility higher or lower and when is it higher or lower? Some of my work on internal migration is trying to more understand, you know, why do people move upward in the income distribution or the occupational distribution? And so what you can, what you're able to do with these historical censuses is basically look at people who moved across places. And what we do in that study is you compare to siblings who do not move and sort of stay within the home county. And you can sort of understand what happens to the occupational and income outcomes for the children or the siblings who have moved. And what you find is essentially an incredible upward movement in terms of higher income levels for those who move from rural to urban areas. Rural to urban migration was one of the key ways that people appeared to have improved income, but also a huge thing is interregional migration. So as I've talked about before was this North versus South difference and you have the great migration, the first Great Migration of African Americans from the south to the north, after World War, during World War I and after World War I until 1940, you see incredible income games that exist for those who move, move from the south to the north. But this is also true for white Americans who moved a lot as well and just in general from rural to urban areas.

Durlauf: Thank you so much. It's been a wonderful conversation.

Ward: Thank you so much for having me.

Durlauf: So this has been Zachary Ward, Economist t Baylor University talking about his research. I hope one of the things you get from this conversation is the vibrancy of economic history, the ability to identify fundamental questions and understanding the past of the United States that speak to contemporary issues. There's lots of talk, of course, about big data. This is a certain sense in which the talk is being realized in terms of exciting research. What I mean by that is that the emergence of data sets which allow for the matching of parents and children across the United States, you can see the same thing happening in terms of the emergence of data sets in very different contexts and different questions such as Soviet era data allowing the answering of questions about the Soviet experience. All of that are reasons to feel just great about the state of social science.

The Inequality Podcast is a production of the Stone Center for Research and Wealth Inequality and Mobility at the University of Chicago. I want to end the podcast with thanks to the people who really make it happen. First, I want to express deep appreciation to our producer and engineer Shane McKeon who oversees every aspect of the process of creating these podcasts and really does just a splendid job. Second, I'd like to thank our Assistant Director Nina Gray for production oversight and the role she plays in bringing the podcast to fruition. And finally, I'd like to thank Grace Kolavo who's the Executive Director of the Stone Center who basically does everything in terms of making the center work. You may get in touch with us at StoneCente@uchicago.edu. Thank you so much for listening.