



AMERICAN ENTERPRISE INSTITUTE

**IMPROVING ECONOMIC OPPORTUNITY IN AMERICA:
A DISCUSSION WITH RAJ CHETTY**

**WELCOME:
ROBERT DOAR, AEI**

**PRESENTATION:
RAJ CHETTY, STANFORD UNIVERSITY**

RESPONSES AND DISCUSSION

**PANELISTS:
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ROBERT DOAR: Good morning, everyone, and welcome to the American Enterprise Institute. My name is Robert Doar, and I'm the Morgridge Fellow in Poverty Studies at AEI, where I focus on our nation's large safety net programs.

Before coming to AEI, I spent 20 years working in New York State, in New York City Social Services programs. And I have to begin this morning by letting you know that while I had many goals for improving antipoverty programs in New York, my highest personal goal was to walk in the New York City St. Patrick's Day parade with the mayor of the city of New York, and in 2013 I got to do that with Mayor Bloomberg. I say that because on this St. Patrick's Day, there is no other place I'd rather be than right here, about to listen to our speakers.

Happy St. Patrick's Day.

We are very honored and pleased to have Raj Chetty with us today. As many of you know, Raj Chetty is a professor of economics at Stanford University and a recipient of the John Bates Clark Medal, given to the best American economist under age 40. With a series of path-breaking papers, Professor Chetty has brought new light to one of our nation's most important challenges: How do we help children born into poverty move up the economic ladder? As someone who follows this issue closely, I wait in anticipation for every paper Raj produces, and I suspect all of you feel the same way.

Thankfully, we have two outstanding economists here this morning to participate in the discussion. Melissa Kearney is a professor of economics at the University of Maryland and a senior fellow at Brookings, as well as research associate at the National Bureau of Economic Research. Dr. Kearney's work on how government policies and economic conditions affect the behavior and outcomes of economically disadvantaged populations has been path-breaking in its own right. And, over the years, Melissa has been an enormously helpful guide to people like me, all across America, who work in programs intended to help poor Americans.

Now, in introducing our other discussant, I need to let you in on a little inside-AEI information. There are some economists here at AEI who feel fairly strongly that the only people who are allowed to talk about economic policy are economists. And I'm not an economist. So not being an economist, I'm going to hesitate from saying anything about the economic substance of Jason Furman's outstanding service as chair of the President's Council of Economic Advisers. But I can say that in all the other important aspects of the job, the ones involving leadership and setting an example as a public servant, openness, clarity, willingness to consider the views of others, faith in our institutions, honesty, and love of country, Jason Furman was spectacular. Now, I also have to say he's a fellow New Yorker, so maybe I was influenced a little by that. So we're very pleased to have him with us here today. Jason is now a senior fellow at the Peterson Institute for International Economics.

So here's how we're going to do it. Raj will speak for 20 to 25 minutes. Then Jason and Melissa and I will comment, then we'll have a little discussion, and then we'll open it up for questions from the audience. Thank you very much. Raj. (Applause.)

RAJ CHETTY: Thanks so much, Robert, for organizing this. Thanks to AEI. It's really a pleasure to be here. Thank you all for coming. So I'm going to start today by talking about the American dream, which is a complicated concept that can be conceptualized in different ways. I'm going to think about one specific measure of the American dream, which is the chance that a child earns more than their parents at a comparable age. So think about measuring children's income in real terms around age 30, think about measuring their parents' incomes in real terms when they were 30, and ask what fraction of kids are doing better than their parents at a comparable age. That traditionally is a way many people have thought of achieving the American dream.

So now, what this chart here shows you from some of our recent work is the fraction of children who are earning more than their parents based on the year in which they were born, by their birth cohort. And you can see that back in 1940, for kids born in the 1940s, it was a virtual guarantee that you were going to achieve the American dream of doing better than your parents. More than 90 percent of kids were earning more than their parents at a comparable age.

Now, if you go forward over time, you see that that number drops steadily, and for kids born in the 1980s, kids entering the labor force today, we estimate that it's roughly a coin flip as to whether you're going to do better than your parents or not. So a dramatic change in your chances of realizing the American dream.

Now, the exact numbers you get from this analysis depend upon the way in which you measure income, the way in which you adjust for inflation, and various other factors. Scott Winship, for instance, has done — talked about alternative versions of this sort of calculation, which give you slightly less steep declines. But I think we can all agree, no matter what the definition, turns out there's quite a steep decline in children's chances of achieving the American dream of earning more than their parents.

So now the question that I want to focus on here today is how we can revive the American dream. And I want to start with kind of a macroeconomic point, which is that reviving the American dream will likely require more broad-based economic growth and not just higher GDP growth rates. So if you think back over the past half century and think about the key macroeconomic factors that might underlie that trend I started out with, there are two major changes that have occurred.

First, as you all know, we've had a slowdown of GDP growth rates. GDP growth rates are about 1 percentage point lower in the past 30 years or so relative to what they were in the middle of the last century. And, second, we have a very different distribution of economic growth, with wages being essentially stagnant or even declining at lower percentiles of the income distribution, and most of the increase in income going to the very top of the income distribution.

So you can ask how much of each of these two factors contributed to the decline in absolute mobility. And what you find is that if we imagine the hypothetical of restoring

GDP growth rates to the levels experienced between 1940 and 1970, we would undo roughly one-third of the decline in absolute mobility that we saw on the initial slide. So restoring GDP growth would, you know, definitely make a difference. Obviously, if you have a more rapidly growing economy, you're going to have more kids doing better than their parents. But by no means does it completely close that gap.

In contrast, if we simply had current levels of GDP growth but distributed that growth in the same way that it was distributed in 1970, we would undo 70 percent of the decline in absolute mobility. So neither of those obviously is a direct policy prescription by any means, but what this shows you is that the key thing that's going on is a lack of broad-based growth, lack of growth in incomes in the bottom and the middle of the income distribution that's driving that decline in absolute mobility.

So motivated by that, I want to next talk about, you know, what kinds of things might you be able to do to increase incomes for kids growing up in low- and middle-income families, and the particular approach we're taking in our research is to use a geographical lens, OK? So we studied what policies ultimately can help revive the American dream by examining geographical variation. And the reason for this is, as some of you might know from our earlier work, children's prospects for upward income mobility vary greatly across areas within the United States.

And so a natural way to think about how you might ultimately reverse that macroeconomic trend is to ask what you can learn from the experiences of places that offer good prospects for upward mobility even today and basically asking: What do they seem to be doing right, and can we replicate that elsewhere in the United States? It's a natural way to learn about the problem, right?

So, as a first step, I'm going to start by just showing you what the data look like on rates of upward mobility across areas within the United States. And so we're going to calculate rates of upward mobility for every metro and rural area using data on all children born between 1980 and 1982 in the US. So this is about 10 million kids whose income information we're able to link to their parents and use that to draw this map here, which shows you the geography of upward mobility within the United States.

So the way this map is constructed is that we divide the US into 740 different metro and rural areas, what are called commuting zones. They're aggregations of counties. And in each of those places, we take the set of kids who grew up in families in the bottom quintile, the bottom fifth of the income distribution, and we ask what fraction of those kids growing up in low-income families make it to the top fifth of the income distribution. So think of that as, you know, one way to measure upward mobility, kind of a classic Horatio Alger version of the American dream, rising from rags to riches. How common is that?

And so the way that map is colored is that lighter colors represent areas with higher levels of upward mobility. And so if you start by just looking at the scale in the lower right, in the lightest colors you can see — for instance, in the center of the country, you can see rates of upward mobility exceeding 16.8 percent, so more than 16.8 percent of kids born in

the bottom quintile make it to the top quintile. That is an incredibly high rate of upward mobility, especially when you remember that you can't have more than 20 percent of people in the top 20 percent, right? And so relative to what is really a plausible upper bound of a 20 percent rate, this is quite a substantial fraction of kids making that leap. That's a higher number, for instance, than you see in Denmark or Sweden or Canada, countries that are thought to have the highest levels of upward mobility in the world.

Now, at the other end of the spectrum, if you look at places like Atlanta or Charlotte, you see rates of upward mobility below 4.5 percent, lower than any country for which we currently data. So even within the United States, there's this incredibly broad spectrum in terms of rates of upward mobility, which I think of as an interest both from a policy perspective, because it suggests you might want to focus on these areas that are in the darker red colors and trying to improve upward mobility and target your efforts there, but also from an academic perspective because it gives us kind of a lens to learn about how we can basically produce more outcomes that look like the brighter colors on this map, OK? So in the big map, naturally your eye gravitates to this broad regional variation, the middle of the country looks much better than the southeast. Parts of the Rust Belt, like Ohio, for instance, have very low rates of upward mobility.

What I want to show you next though is that there's quite a bit of highly local variation as well. So let's zoom in to the DC metro area and now look at the same data across counties within the DC metro areas. We're computing the same statistic. What fraction of kids rise from the bottom quintile of the national income distribution to the top quintile. And you can see that even within DC, there's really a dramatic amount of variation. So if you take the city of Baltimore, only 3.5 percent of kids who grew up in Baltimore end up making it to the top quintile. That's essentially the lowest number that we see anywhere in the US.

If you look at the District of Columbia itself, the number is 4.7 percent. If you go over to Montgomery County, it jumps to 16.1 percent. So that's just a dramatic difference, you know, in a relatively narrow geography. And, you know, this pattern that we see in DC, you see very similar patterns in other cities as well.

So, naturally, the next question of interest is to ask why upward mobility varies so much across areas. And the first point that I want to make here is that most of the variation of upward mobility across areas is caused by differences in childhood environment, OK? And so the way I'm going to show you that is talking about a study in which we look at seven million families that move across areas in the United States. And rather than getting into the technical, statistical details of that study, I'm going to summarize what we find with a simple example.

So let's say we take a set of families that start out in the District of Columbia, OK, and just pick a round number. Suppose if you grew up from birth in DC; you earn \$30,000 on average when you're age 30. Say if you grew up in a low-income family in DC, you're earning \$30,000 at age 30 on average, right? So now I want to think about a set of families that move from DC to Montgomery County, which, as we saw in the previous slide, growing up in Montgomery County seems to be associated with higher rates of upward mobility,

right? So, again, to pick a round number, suppose if you grew up in Montgomery County from birth, you earn \$40,000 on average when we measure your income at age 30.

So now, what I want you to do is think about a set of families that move from DC to Montgomery County with kids of different ages, starting with families who move when their child is exactly nine years old. So why age nine? That happens to be the earliest age that we can look at in currently available data. Now what we do is look at these kids who make this move when they're nine years old and track them forward 21 years and measure their own earnings when they're 30 years old, all right? And what you see is that these kids, represented by that dot there, they're earning about \$35,000 on average. That is, they're about halfway between the kids who grew up in DC from birth and the kids who grew up in Montgomery County from birth. So that's for the kids who moved when they were exactly nine years old, right?

So now we repeat that analysis for kids who move when they're 10, 11, 12, 13, and so on. And what you see is a very clear declining pattern. The later you make that move, the less of the gain you get. If you move by the time you're in your early 20s, you get essentially no gain at all. And if you move after that point, the relationship is completely flat.

So I think there are three key takeaways that you see from this chart. The first is that place seems to matter. Where you grow up has a causal effect on your long-term outcomes. It's not just that the kids who live in DC are different from the kids who live in Montgomery County. Apparently, moving a given child from DC to Montgomery County changes that child's life outcomes. I think that's very important and quite encouraging for people interested in trying to have an impact on poverty because it shows that you can actually meaningfully change outcomes by changing environment.

The second thing you see here is that what really seems to matter is childhood environment and not adulthood in terms of differences across places. Moving when you're an adult doesn't really seem to do a whole lot for you.

And the third thing you see is that every additional year of childhood exposure to a better environment matters roughly equally. This is particularly important in light of recent discussions about early childhood intervention. Our view is that early childhood intervention, like pre-K investments and so forth, can be incredibly valuable, but what these data show you is that later interventions, when you're 10 or when you're 12, moving to a better environment, that continues to be quite valuable as well. So it's not like you should give up after kids are five years old. Environment seems to matter throughout childhood.

So, next, OK. We've established that places seem to matter. Some places generate better outcomes than others. So why is that? And what can we learn from that ultimately from a policy perspective? How can we replicate the successes of Montgomery County elsewhere? So we've looked at a variety of factors that might be correlated with these differences in mobility across areas. And what I'm going to be able to do today is not offer you a precise recipe for how you replicate the successes of one place in another, but rather

point out what some of the strongest correlated factors appear to be. And in the interest of time, I'm going to summarize the five strongest correlations we find in the data.

The first strong pattern is that areas that are more segregated by race or by income tend to have much lower levels of upward mobility. There are various ways in which you can measure segregation. It turns out the patterns here are so stark that you can just see them visually. So let me give you an example. So this map here depicts racial segregation in the Atlanta Metro area. The way the map is constructed is that each person in Atlanta is represented by a dot, and the dots are colored so that whites are blue, blacks are green, Asians are red, and Hispanics are orange. And you can see immediately, no matter how you measure it, Atlanta is an incredibly segregated city, with the blacks and whites living in completely different parts of the city. And, similarly, if you were to draw a map based on income, you'd find that Atlanta is an incredibly segregated city by income.

Now, Atlanta and places that look like this in terms of residential segregation tend to have the lowest levels of upward mobility in our data. In contrast, if we look at Sacramento, which has the same minority share as Atlanta — the same fraction of blacks and Hispanics — you see that the colors are much more intermingled in Sacramento than they are in Atlanta, right? And, corresponding to that, Sacramento and cities that look like this in terms of residential structure tend to have much higher rates of upward mobility.

Now what exactly is the mechanism that links segregation to upward mobility? We don't exactly know. It could be about funding for public schools being greater especially for low-income families when you live in a city that looks like this. It could be about differences in whom you're interacting with and exposure to people from more educated, affluent backgrounds that changes your outlook on life. Those are things we're trying to study going forward. What we can say at the moment is there seems to be a strong correlation between these two things.

I'm going to run through a little bit more quickly the other factors. The second strong correlation in the data is that places with a smaller middle class tend to have less mobility across generations as well, so the degree of income inequality within a generation is associated with the degree of mobility across generations. The third and fourth factors that I'm going to talk about in some ways I think are the most interesting and more important, and they don't receive as much attention as I think they should. And these are factors that come more from the sociology literature.

So the third very strong correlation — in fact, the single strongest correlation we find in the data — is that areas with more single parents tend to have much lower rates of upward mobility. Now, I've had a number of conversations with Robert about these issues, who's particularly interested in this aspect of the data. I think it's a fascinating one and very important.

Let me give you a little bit more nuance on this correlation and how we're interpreting it at the moment. So the first thing to note is that, you know, the simplest explanation you might come up with for this pattern is that growing up in a one-parent family instead of a

two-parent family is detrimental for kids' long-term outcomes. And you do see that to some extent in the data.

So that is part of what's going on, but it's a small part of what's driving this correlation that we're seeing at the area level. And the way that you can see that is that we continue to find this strong correlation between the fraction of single parents and rates of upward mobility even if we focus on the subset of kids whose own parents are married.

So if you're growing up in a two-parent household and you live in an area with a lot of single parents, you are less likely to climb the income ladder. That's just a fact in the data. And so what that shows you is that this is not just a mechanical consequence of whether your own parents are married or not. It's picking up something, again, about the community-level factors maybe directly associated with the stability of families or maybe other factors that are correlated with both single parent rates and upward mobility. We don't exactly know, but it shows you the mechanism is more than just an individual-level marriage effect.

A second qualification I want to make is that when we look at people who move across areas, as I was showing you in the Montgomery County/DC example, we find that 40 percent of this correlation is due to differences in the types of people living in areas with many single parents versus a few single parents. So that is when you look at people who move across areas, that correlation falls by about 40 percent. And so it remains a very strong pattern even when you look at the movers that growing up in an area with fewer single parents does seem to be associated with better outcomes. So I think understanding this is quite valuable. But there's a more nuanced story than just a simple thing of, you know, whether your parents are married or not. You shouldn't interpret it that way.

The fourth factor is somewhat related. It's the idea of social capital. And so the way I think about social capital is the old adage that it takes a village to raise a child. Will someone else help you out even if you're not doing well? Salt Lake City with the Mormon Church is a canonical example of a place thought to have a lot of social capital. And, corresponding to that, Salt Lake City and places that look like it tend to have very high rates of upward mobility.

Now, as many of you know, this concept of social capital was popularized in a very famous book by Bob Putnam at Harvard called "Bowling Alone." And the reason for the title of Bob's book is that social capital is quite hard to measure. And so Bob uses the number of bowling alleys and in particular whether people are bowling alone as a proxy for social capital. So I was struck in our own data to see that the number of bowling alleys is in fact very strongly correlated with rates of upward mobility. That is a true fact.

I mention that here because it illustrates a caveat to everything that I'm showing you on this slide, which is that these are correlations rather than causal effects, right? I'd be very surprised if the lesson coming out of our work is that we should build more bowling alleys to increase upward mobility in the US. So you want to think of this as kind of

indicating where we should be looking and not as necessarily giving you direct policy prescriptions.

The fifth factor is one whether there's lots of work I think demonstrating causal effects in compelling ways and their clear policy ideas — improving the quality of teachers, certain types of charter schools, for instance, that can really make a difference in the quality of local public education. And we find very strong links between the quality of local education in an area, both at the K–12 level and at the higher ed level, and rates of upward mobility.

And so what I'm going to do in just the last few minutes is spend a little bit of time on our most recent work, which focuses on the education angle and how it might play into upward mobility, in particular talking about the potential role of higher education. So I'm going to present one final set of data on that.

I want to emphasize that I'm doing this not because I think education is the most important of the five factors on this list, but rather because it's the one where I think we and others have made the most progress in understanding what one might be able to do.

So in the context of higher education, I'm going to describe a recent study we've done that we're calling mobility report cards, where we have constructed publicly available data on the income distribution of parents and children at every college in the United States, which you can download on the web. And so that gives you an idea of how every college in the US is contributing to intergenerational mobility. So rather than going into the full details of the study, I'm just going to summarize the key highlights by giving you examples of a couple of colleges.

So here I'm starting by showing the income distribution of parents for students at Columbia University in New York. And the bars represent the fraction of kids coming from each quintile of the national income distribution among students at Columbia. So you can see that, at Columbia, you have 5 percent of kids coming from the bottom quintile; you have about two-thirds of kids coming from the top quintile; you have 13.6 percent of kids coming from parents in the top 1 percent of the income distribution, that is, earning more than \$660,000 a year.

So at Columbia, as at many other Ivy League institutions, you have more children from the top 1 percent of the income distribution than you do from the entire bottom half of the income distribution. So this is a common property that you see at elite colleges, that the income distribution is quite skewed.

So this gives you, you know, one part of the picture in terms of thinking about mobility, what the parents' incomes looks like. So let's now turn to the other part, which is looking at children's outcomes. So this line here plots the fraction of kids from each of those income quintiles who end up reaching the top quintile themselves when we measure their earnings in their mid-30s.

And so the first interesting thing you can see here is that this line appears to be essentially flat, so the kids who are from low-income families and the kids who are from high-income families at Columbia do just about as well as each other in terms of earnings outcomes. For those of you who are, you know, following the higher ed literature, this finding itself is quite important because it suggests that there isn't a lot of mismatch of low-income kids who are admitted to places like Columbia, highly selective institutions to those universities. That is, even if you come from a lower-income background and you're able to get into Columbia and you haven't had all the resources and education and so forth that the higher-income kids have, you're still apparently able to do perfectly well in terms of outcomes among the kids who are admitted, obviously.

Now, at Columbia, you can see that roughly 60 percent of kids across the board end up making it to the top fifth. So let's now compare that to just to take a contrast to State University of New York Stony Brook, where I think there's some strikingly different patterns.

So, first of all, as you might expect intuitively, if you look at the parent income distribution, it looks much flatter across the quintiles at Stony Brook than at Columbia, right? So Stony Brook has about six times as many kids from the bottom quintile as Columbia. What is striking I think is if you look at the kids' outcomes, they actually don't look that much worse at Stony Brook, which is a far less selective university than Columbia. And so, as a result, when you put these two things together and you ask what fraction of kids come from poor families and end up reaching the top quintile of the income distribution, Stony Brook has a lot more kids coming from poor families and doing quite well than Columbia, because Columbia has a very small base of low-income kids to begin with.

So you can then, you know, following that line of reasoning, ask what are the colleges in America that take the most low-income kids and have most of them reach the top quintile. So what are the colleges that generate the highest mobility rates? And what you can see here is the set of colleges that end up at the top of this list are kind of these somewhat unheralded, mid-tier public institutions, places like Cal State Los Angeles, Stony Brook, as we just saw, the City University of New York, CUNY System, Glendale Community College in LA, and so forth.

The colleges that tend to have the best outcomes for kids, like the Ivy Plus Colleges, Columbia and so forth, end up much lower in terms of mobility rates because they just have a much smaller fraction of low-income kids to begin with.

Now, one last piece of data on this, which I think is somewhat worrisome. So you might ask: OK, what can we do maybe to increase access to these colleges that seem to promote mobility? How have things changed over time? So as you all know, elite private colleges have made lots of efforts over the past few years to try to change this picture and increase access for low-income kids, right?

So, for instance, Harvard, in 2006, essentially made college free for kids earning below \$60,000 or \$80,000 — for families' incomes below \$60,000 or \$80,000. So this now plots the fraction of kids from families in the bottom quintile at Harvard. And you can see that

around 2006, when they expanded this kind of outreach, there is some uptick in the fraction of kids from low-income families, but it's not all that large. Stanford did something very similar in 2007. The pattern looks essentially totally flat at Stanford.

Now, in contrast, where you see much bigger changes is if you look at Stony Brook or you look at Glendale Community College, the fraction of low-income kids at those institutions has been falling dramatically. And so that is potentially quite concerning if the places that were providing the most pathways for kids to climb the income ladder are now doing so much less, that does not bode well in terms of what mobility is going to look like going forward and could play into that declining trend that I started out with.

So let me conclude by just briefly summarizing some policy lessons, and I'm sure we can discuss this further in the discussion period. So, first, I think one of the messages that comes out of this work is that we should be thinking about working on improving opportunities at a local and not just national level. So, for instance, you might think of using housing vouchers to help low-income families with young children move to higher-opportunity areas, something we're working with local public housing authorities and HUD on. You might also think about how you can invest in improving opportunity in areas that currently offer lower levels of upward mobility, like the city of Baltimore. In our ongoing research, we're constructing estimates of opportunity by Census tract in order to try to facilitate this work and zoom in even further than the maps that I was showing you.

A second important note is that I think childhood environment is really critical. Many conversations about inequality and mobility focus on the labor market and issues like trade, which obviously are extremely important. What these data suggest is at least when you're thinking at a place level, traditionally when people talk about place-based policies, often the focus is on things like jobs and the labor market, and I actually think that is not the right approach. To the extent that you're going to focus on specific places, it really seems like the childhood environment, things like schools and segregation, the people kids are coming into contact with really seems like the key. And so here I think focusing concretely on things like expanding schools and colleges that deliver the best outcomes using the types of data we've been constructing here can be quite valuable.

Third, this relates to what I was pointing out on things like family structure and social capital. While I think traditionally we spend time on policy levers like building more schools and things like that, which makes a lot of sense, I also think it's quite important to think about why we're seeing such strong relationships with things like social capital, norms, aspiration effects, and things like that.

Broadly, you might ask, you know, how can we create more connected communities? So one of the things we're doing in our ongoing research is studying how networks affect aspirations and mobility using Facebook data, which gives us unprecedented ability to look at how people are linked to each other and understand how to measure social capital basically in a much more granular way.

And then, finally, at the broadest level, as I hope I've illustrated here, I think constructing these types of statistics and disseminating data to monitor progress and developing better policy solutions is our best shot at trying to revive the American dream. And so, in that spirit, to try to help more people study these questions, recognizing that we can't do all of this by ourselves by any means, all of the data that I've been presenting here by area, by college is publicly available on this website: equalityofopportunity.org. And so I hope some of you will be interested in joining the effort to talk about all these important problems.

Thanks very much. (Applause.)

JASON FURMAN: Great, Robert. Thank you so much, Raj. That was just a terrific, terrific presentation. I'm really excited. This is my first time in this new space. When I had thought about AEI before, I didn't usually think of Scandinavia, but I will from now on.

I want to talk a little bit about some of the broader lessons that we learned from this work and some of the questions that I think we still have, and I think Raj ended on the right note — that this data is available, that we don't know a lot of the answers but we're making — he in particular is making — a lot of progress.

I wanted to start, you know, a little bit philosophically, which is a bit of a danger because of my lack of training in that, and say, you know, imagine that we had data for income at two points in time, $T = 0$, $T = 1$, and we had it for three people, the three dots on the left side and the three on the right. You could summarize that data by looking at the mean or the median, which in this case would be the same. You could look at the growth between them. You could look at the spread, which is the degree of inequality, and use those to judge what you thought about that society. That society got better because of growth; it didn't get any worse in terms of inequality. And that's most of what we've done in economics and most of the way we've looked at questions. And, by the way, if you look at, for example, the median income, the growth of it has slowed a lot since 1973. And there, the analysis Raj has is actually backwards, in that it is the slow growth rate of GDP that's played a bigger role in the rise in inequality if you do a thought experiment.

So that's just two pairs of point-in-time data. What Raj does that's really exciting is link that set of data from $T = 0$ to $T = 1$. So now we're going to pretend those are three people and draw arrows between them. This is the first world, in which there's no relative mobility at all. Everyone's ranking stayed the same. But if you look at that first chart that Raj did, what fraction of people have a higher income than their parents did, the answer would be 100 percent. So this is a world which has complete absolute mobility and no relative mobility.

Contrast that to the other pretty natural way to think about the world, which is whatever quintile you start in, or tercile in this case, you have an equal shot of making it into another one. And just to draw a different picture, here is a world with very high relative mobility. Your rank in the first period has relatively little to do with your rank in the second

period but it has only 33 percent absolute mobility. Because we had more relative mobility, we had two of those people are now worse off than their parents. One is better off.

I think this to me says a few things. One is it does reinforce the importance of growth — that you're a little bit less worried about this relative absolute if everyone is moving up. But second, really gets it is what we're trying to worry about in policy, for example, the people at the very bottom and their ability to move up or is it maybe the workers in Ohio who aren't necessarily at the very bottom but used to have a bit of a higher status and have moved down and the coping with that is understandably a rather difficult thing. I don't know the answer to that, but I do want us to think that when we think about mobility and we think about progress, there is a difference between relative and absolute. There's some tension between and that affects where our focus is.

The second set of points I wanted to make is about the distinction between place-based evidence and place-based solutions. I have no doubt at all that we can learn an enormous amount, and have been learning an enormous amount, from looking at variations across places. The question is: What is the impact of that on policy? This is one of Raj's maps. I don't know which one. I don't know if you can just look at any of your maps and tell us which one they are.

But imagine that this isn't whatever Raj was plotting but this instead is a map of the amount of retirement savings wealth that is lost due to conflicted advice that your brokers give you. Retirement brokers right now can sometimes get a kickback in exchange for giving you advice. That kickback leads them to give you bad advice. You get a lower rate of return. I've never seen county-by-county estimates of this, but my bet is they'd looking something like that and that some counties would have better retirement brokers, some counties would have less good retirement brokers, and you'd have a big variation in the quality of the advice you got.

If that were the case — and, you know, maybe Raj will go out and figure out if it's true, because I can't imagine a more exciting question than that one. If that were the case, I don't think the answer to that would be that in the counties where people are getting bad retirement-savings advice you want county officials to, you know, go out and get the brokers to give better advice. The lesson I would draw from that would be that maybe we should have a nationwide regulation, maybe we could call it the fiduciary rule, which we called it the first time we proposed it, and no one liked that name so we withdrew it and re-proposed it and called it the conflict of interest rule, which is much more exciting for people. And that was a nationwide rule. It was done by the Department of Labor, and we'll see the future of it. Again, you don't need to agree or disagree with me on that particular rule. That's an example of something where there might be regional variation. It doesn't mean the solution is regional.

In thinking about place-based policies, one can think about policies that affect the place and policies that help the people move. So, first, on affecting the place, there's a long-standing public finance orthodoxy against such policies. Partly it's normative, that you want to get to poor people wherever they are, like the EITC does, rather than everyone in a given

place, where you'll have a range of people. Partly it's incidence — that if people can move, you're not going to make them better off. They're the elastic factor. The inelastic one, which is land, and the people who own it would benefit. Partly it's a general equilibrium. Not everyone can move, and if they do, then everything would stay the same.

And last — and I really would emphasize this — is political economy, that a lot of these place-based policies, it's really hard to do the selection process in a way that is, you know, utterly apolitical, even when you're trying. We came up with this idea of promise zones, the tax incentive in the Obama administration. We spent a lot of trying to figure out this last question: Should they go to the poorest places because they needed the most help? Or should they go to a place that's in the bottom half but it's been moving up because you can build on progress? Or are those places already making progress so they don't need the tax credit? We couldn't quite figure out — is this about low-income places, places with potential, places that the president just wanted to visit? It was never passed into law so we never had to decide this.

So I wouldn't say never do place-based policies, but just because there's spatial variation, I think we want to be much more confident that there's some really serious agglomeration effects, some type of nonlinearity, and that we can really identify it. And I can tell you when I've tried to do that, I've had a hard time doing it.

Some other policy questions is — you know, which is related to that is what do we know about the returns to an investment. You know, if we put money into schools in Salt Lake City, that's such an engine of opportunity, they know how to do good things without money, we should put it there. Charlotte's hopeless. They don't know what they're doing. We'd be wasting money there, versus Charlotte is this, you know, place with real lack of opportunity, there's a huge ability to change that, that's what we should focus on.

You know, are these policies separable? If we do any one of them it works, or do you need to do all five of them together and there's some type of synergy? And this also gets at whether you want to address it as a place or nationwide.

What explains this lack of mobility between places? I don't have a sufficiently neoclassical rational expectations bent that I look at these data and say they must be wrong because if you could have more mobility, the person would have moved and the person would have gone to Stony Brook. I think people do make systematic errors in these types of things, in part because of lack of information. That information is getting better. We've seen from Caroline Hoxby's work that small interventions in college can make a big difference. But drilling down further on why there are these thousand dollar bills lying on the sidewalk, why people aren't picking them up. I think it's important to help understand how they can.

And then, finally, on colleges, is information sufficient? And we made some information available in our administration. I think this really builds on it would the polite way of phrasing it or is much better would be the impolite way — to us — of phrasing it. But, you know, is that enough? And Raj was very politely showing us all the good schools. There's a lot of schools that are sort of the opposite of engines of opportunity. They're

basically more like a trap, many of them in the for-profit sector. And is regulation, gainful employment, for profit, of the type that we did in our administration maybe a better type based on these type of data necessary as well?

So those are just a few different thoughts to put down on the table for all of us. Thank you. (Applause.)

MELISSA KEARNEY: Thanks. It's a privilege to be here to discuss Raj's work. And so I — you know, it's hard to do this in seven minutes. There's so much rich stuff here. So I'm going to just pull out a few key reactions I have to this work.

But I have to start by saying, you know, this data work is truly astounding and groundbreaking. The findings are incredibly important and have just yielded such insight that we couldn't possibly have obtained without access — Raj's and his team's access and careful work with all of this data.

But, as an economist, when you look at what they've put out, really it's extremely challenging from the perspective of economic analysis in economic policy. And so there's three key reasons why I say that.

The first is that this is sort of irrefutable data showing us that there are real differences across places in prospects for upward mobility but we're left with the question of why. And the mover studies are even more challenging because in two of the studies, Raj and his coauthor show us that kids who move to different places have better outcomes. And so now we know that places themselves have causal impacts on kids' outcomes.

But, again, we don't really know why. So the correlates are really important, but it's very — it's really important for us to realize as researchers and policy observers that the correlates are just clues as to what might be going on and where we should look, but as Raj pointed out, those are not necessarily where the solutions lie. So we really need to keep pushing to figure out the mechanisms.

The second challenge that I take from this body of work is what do we do with this information? And Jason was alluding to this very directly. The answer can't be, in my mind, just to get everyone to move. And this is one of those things academic economists and urban economists will frequently say if you say, you know, What should we tell the mayor or the governor of a declining city?" And the very typical academic economist's response, public finance economist, urban economist is give them vouchers and tell them to move. And that might work in our utility maximizing model, but this is why people don't like talking to us, right, because what mayor is going to say, here, everyone in Detroit, take your voucher and go to the promised land.

So, you know, that's one reason. A second reason is if we think about what Raj showed us about social capital, social capital is built when people invest in their communities. And so if we come in and say, hey, you know, folks who are looking for better opportunities,

you should leave, that explicitly undermines social capital. So I worry about that as our policy prescription as well.

And then, finally, on this point, I'll make the obvious observation that it seems that a lot of what is a place is the people who live there. And so if we take everyone from Atlanta and move them to Salt Lake City, it's no longer Salt Lake City. And so, at best, giving people vouchers or opportunities to move to better cities or better places is a partial solution to the problem, and we really need to figure out how to achieve these sort of better outcomes in a broader swath of the country.

OK. And, finally, the thing that really makes economists squirm when we look at these results, if we're honest with ourselves, is that the factors that seem to be correlated — again, these are the clues as to what we might need to be pushing on — they're really more about culture than are policy levers, OK? And this keeps coming up. We saw this last year in the bestselling book "Hillbilly Elegy," and I'll be honest: nine out of 10 poverty scholar economists that I talked to didn't like that book, right? And why? Because it tells you the story that this is about family, this is about culture, and this is about things that we don't understand or really know how to change, OK?

So this is from Raj's early paper with this coauthor in 2014. And I want to pull this up because this is really the figure that sort of took my breath away three years ago. And I think it's really important to see the correlates — the factors that are highly correlated with rates of upward mobility as well as the ones that aren't.

So if you look at the factors in yellow, these are the things that are really highly correlated with rates of upward mobility. We've got the way our communities and our cities are organized. Residential segregation, that really matters. Social capital index, fraction religious, the fraction of households kind of by single moms, married, divorce rates. The middle one, tests and high school dropout, I think of those more as sort of behaviors that respond to the conditions, OK?

The things that are policy levers that as public finance economists we might have wanted to pull to make things better, those come in really low on this chart. So state EITC exposure, tax progress, CVT, college per capita, college tuition. The data is suggesting that those are not the clues, right, for the things that really matter. And just for fun, I'll point out in green that this is not about Chinese imports or a share of foreign born. Those are not highly correlated, OK? (Laughter.)

So I think — you know, this is really challenging. And it suggests culture matters. And, again, you know, as an economist, I can't even write culture without putting in quotes because we don't know what it really is. But I think one way as social scientists we can think about it is this doesn't just fall from the sky. It's in part a reaction to — and a response of individuals to their world around them and the economic conditions and opportunities that they're seeing.

So, you know, their economic experience, their childhood experience shapes their behaviors, their decision to stay in school, to get married, to have a birth out of marriage. And then these things affect their rates or their likelihood of upward mobility or being in a stable or a stable relationship. And so we've got this cycle of behaviors responding to conditions, conditions reflecting behaviors, and that's what we need to figure out how to address.

I've become really interested in this idea of culture of despair, which fits with what we're seeing in sociology, ethnography, development psychology. I think it's something that, as economists and policy observers and makers, we have to think more seriously about. And this is consistent with Chetty, Hendren, and Katz findings about MTO, which Raj showed us. The kids who move when they're younger get the biggest effect, right? And that suggests that it's consistent with the idea that somehow we're changing who they see themselves as, who they're interacting with, their worldview is different.

So I think the question that this really poses for us is how do we improve the life chances and perceptions of low-income individuals and kids without simply moving them to live with more high-income people, OK? I will put this up there, hoping we have time to talk about things, things in our discussion and our Q&A, so let me just list the four buckets that I would like us to hopefully talk about.

We need to address residential segregation, and to do that seriously will be really hard and will require much larger disruptive policy interventions than I think we've considered previously. We need to address the outlook and attitudes of these low-income kids growing up in disadvantaged areas. I think there are sort of a lot of low-cost ways to do that that don't require federal legislation or even lots of federal money. There's things that local groups, private-sector groups could do, so that's encouraging.

We need to leverage higher education as an engine of upward mobility. I love this latest paper that Raj and his coauthors have put out, and for me, the message that screams from that data is we need much more investment in our public universities. If legislatures and big donors want to get bang for their buck, that's where they should be putting the money.

And sort of underlying all of this, and I think Robert will pick up on this, we need a real dedicated investment in the human potential, and that's going to require a very well-funded, well-structured social safety net.

Thanks. (Applause.)

MR. DOAR: Great. Thank you, Melissa. That was wonderful. So thank you all very much. It was a great discussion. I have a few remarks I'd like to make. And the first is I want to agree that this work is important. And I want to thank Raj's team for doing it.

But I also think we need more of it, and performed by others, hopefully using other very rich data sources, including administrative data from safety net benefit programs. As Bruce Meyer has shown, our survey data is increasingly plagued by nonresponse and

underreporting for benefit receipt. And we have these great data sources about recipients of food stamp benefits or Medicaid, for example, but the only people — and just a little exaggeration — who can really use them are state Social Services commissioners. That seems to me to be a mistake, and we should correct it. I think Raj's work shows how useful these other data sources could be.

Second point, I think there is too much emphasis on moving people from bad neighborhoods to good neighborhoods and not enough about how neighborhoods can change and how those changes can result in better outcomes for poor children. I call everyone's attention to a great paper recently released by HUD and coauthored by my old friend, Ingrid Gould Ellen, which looked at New York City public housing development, NYCHA housing development that were either in high-income, low-income, or gentrifying neighborhoods.

And they found that the public housing residents who lived in gentrifying neighborhoods, those in which income was increasing, when compared to residents from low-income neighborhoods had higher employment rates, higher adult educational attainment, and earned \$1,700 more annually, even after controlling for observable characteristics. That in any other context, that's a significant finding about improvement for people who are in poor communities.

So I think, Raj, based on your work and this work, you should be a pretty strong supporter of gentrification. I don't know if you would be — and I also want to recount a story in New York City. In the last years of the Bloomberg administration, the administrators of NYCHA housing were concerned about diminishing federal resources, and they put forward a plan to use underutilized spaces in NYCHA campuses to develop market-based housing. Now, they were doing it partly to increase revenue for NYCHA, but they were also doing it, it seemed to me, to increase economic integration. Now, all of the forces of a variety of kinds that exist in New York City came out against it, and that didn't happen. And I suspect now, as we look at our new president's budget, people are regretting that, not only because the federal resources are less but also because they lost an opportunity to increase economic integration, which I think Raj shows is good for poor families.

Point three, I appreciate greatly you addressing the issue of family formation here this morning. And we made progress, Raj. We're getting better. That sounds very arrogant, and I apologize. But I do want to say that, for me, in the business of helping low-income families, it was very important to be willing to talk directly to young people about the long-term negative consequences of having children before they were ready, before they had a consistent copartner, in parenting that child for the long term.

And so, Raj, what you say and how you say it is so important and so influential; I just want that message to come from you as well. It's had an effect on teen-pregnancy reduction. And I think talking directly about the importance of two active, involved parents can have an even greater effect on better outcomes for children.

On absolute mobility, while I really thought it was very nice of you to cite Scott Winship's paper in the beginning of your remarks, so there is some quibbling, and it's not

just quibbling, about the extent of the steepness of the decline. But I can't argue, and no one really can argue, that we have lost ground, and certainly people feel worse off, as evidenced I suppose by the way the Americans voted in the recent presidential election.

But here, while I appreciate your findings, I'm less positive about your explanation for why it has happened and what we should do about it. Is growing inequality really the cause? And is saying, "if we had not gotten more unequal, everything would have been better" really a useful answer? Bluntly reducing inequality through greater redistribution of tax and spending program could significantly reduce growth, and I don't know that that would really help.

And when we talk about redistribution, I also want to say that we can redistribute the whatever you economists call what we're redistributing. We can do that by other ways besides tax and spending policy. It can happen in all kinds of ways in which we increase resources for low-income Americans in a better way.

I happen to suspect that growth in public assistance programs, which discourage labor force attachment, have led to some people becoming stuck in place. Their poverty has been alleviated, but their upward mobility has been stalled. By providing these studies on mobility, you have done so much to focus our attention on that and away from exclusively focusing on poverty alleviation, where a great deal of progress has been made. Everyone agrees that properly measured, poverty is down by a lot. But with help of your work, I think we are facing up to the fact that alleviating poverty should not be the only goal. Now, I happen to think that will bring us back to the value of work, steady employment, rising wages, and how only through full-time work can people at the bottom really move up.

Finally, on colleges — this is a topic of particular interest to me because I have an 11th grader, and we're about to go off on the college trip. And I'm looking at all the statistics about colleges, and I would note that The Princeton Review does not have — and I hope next year it does have — the percentages of kids coming from low-income families or the bottom fifth. It seems to me to be more useful.

Colleges should be at least in part about helping people advance, especially people who start from right near the bottom. But I am curious about the interaction between this finding and the use of affirmative action in colleges and university for racial minorities. A question that your paper raises is: To the extent that they have not already, should colleges place a greater emphasis on helping people from lower-income families and less emphasis on affirmative action on the basis of race? I happen to think so. And I think your work helps to bolster that case.

Thank you very much. Now we're going to go over there and have a little chat. And, Raj, you get to respond so that's first.

MR. CHETTY: So that's a lot to respond to. Thanks, everyone for those — (laughter) — great comments. Let me just — you mentioned a few things.

So, first, I think a common theme that's emerged, which I absolutely agree with, is that the solution can't just be to move everyone. So I think we can learn a lot from looking at people who move, and I think that's extremely helpful from an academic perspective. I think sometimes the academic findings get misinterpreted in the public discussion as, oh, this paper just shows that we should move everyone. That is not I think actually the way it should be interpreted.

That said, we do spend a lot of money in the US on various affordable housing programs, more than \$40 billion a year, more than \$20 billion of which goes to Section 8 housing vouchers. And I think just it's useful to think about how you can spend that existing pot of money more effectively, given that you're already giving about two million families a year vouchers.

And the key problem in the current system is in our view something like 85 percent of voucher recipients, even though they're getting this money from the government, they're living in what we classify based on our data as relatively low-opportunity, high-poverty neighborhoods. And what we're finding in our most recent work is that there are a number of places that you might call opportunity bargains; that is, places that would be affordable to people with housing vouchers but would offer much greater opportunity for their kids.

And so setting aside the broader debate about whether you want a geographic mobility policy versus some other set of policies, I think it makes sense to try to deploy the billions of dollars that we're spending on housing vouchers more effectively to try to figure out how we can get more families to use those vouchers to live in better neighborhoods. So that is one thing we're working on with various local public housing authorities.

Now, the next issue is recognizing that that's never going to be a fully scalable solution. What can you do to try to improve opportunities in places that aren't doing so well? And here I think the points Jason raises are absolutely right, that you can't directly see from the data just the fact that there's area-level variation doesn't necessarily mean that you want to take a place-based approach.

I do think, though — and this connects to some of the questions you were raising, Jason, about what drives these area-level differences — my sense is it's partly about information. But even more than information, I think there's something about seeing yourself following a certain path that's more than just getting a brochure in the mail, saying, you know, there's this college that you can apply to or there's this career path that you can pursue.

Having mentors and role models and the kinds of things that Melissa was talking about, those are inherently kind of local in their nature. It's hard to imagine how you have a national policy that would kind of in a global scale change that. I'm not saying, you know, that's impossible, but it has kind of a local feel, things like social capital and so forth.

And so I do think it makes sense, especially in the context of kids who are not going to be mobile in the sense of labor markets, you know, the traditional models that we think about, where people are going to go find the job wherever it exists. I think that kind of logic

is actually the reason why moving in adulthood, the initial studies of MTO, they didn't find much of an impact because I think helping an adult move five or 10 miles away, it's unlikely that's going to have a big effect. Because if that would lead to a dramatically higher income, presumably people would have kind of figured that out themselves. Whereas for kids' outcomes 20 years later, it's hard to know exactly where your kid is going to do the best, and there might be various other factors that are playing into the decision you make about where to live and so forth. So I do think there could be room for place-based efforts, and I think we should be thinking about them. That's not to say that I think it should be abandoned.

MR. DOAR: Can I just interrupt? Just one thing about this place-based question. Do both of you make a distinction between place-based policies executed from Washington versus place-based policies executed at the local level? I have great suspicion of people in Washington deciding we're going to put this here or this there. I agree —

MR. FURMAN: I mean, first of all, there are some things that are inherently place-based so I'm all for infrastructure, and infrastructure has to be in a place. You can't just have it sort of hovering over the nation as a whole.

I think the economical question would be: Do you want a tax credit for everyone whose income is below \$30,000, or do you want a tax credit for everyone who lives in these 20 places? A lot of my argument is against that second approach — that communities, neighborhoods, places should be figuring out how to do mentorship, figuring how to build a better community. Absolutely.

MR. DOAR: And they should be looking at these other places that appear to do better and asking themselves why aren't we like that and what can we do to be more like that?

MR. FURMAN: Yes, absolutely.

MR. CHETTY: So that's exactly right. That's what I was going to conclude with. I mean, I think, you know, I don't have the answer there, what should they be doing. You guys are right to be pushing on that. We don't have the answers yet, but my hope is by studying — especially when you get a longitudinal aspect of these data, right now it's kind of a snapshot, but we're working on various things that will allow us to kind of see how communities are changing over time, like the point you were making about New York, Robert. And I think when you have panel structure for lots of places over time, we'll be able to look back at various local community development efforts with things like the Harlem Children's Zone, numerous other efforts that have been undertaken, and try to get a better sense of what that recipe actually is. And I hope in particular we'll be able to make progress on the kinds of social issues that you were raising, Melissa.

MR. DOAR: So, Raj, I want to ask you one question of future work, because I got a little glimpse of it when we met last time in New York. And I wonder if you'd just give a hint to these Raj Chetty groupies, what's coming. And that is that you have taken what you learned in the cross-country intergenerational mobility study and updated the data using

2014 statistics. And now will come out with kind of a here's what we think — why don't you tell them?

MR. CHETTY: So one of the issues with this kind of data, it's very apparent what the problem is when you're thinking about giving — helping families move to higher-opportunity neighborhoods is that the data are inherently stale in the sense that you can only measure upward mobility for kids who were born, say, in the 1980s, right, because those are the kids for whom you see incomes directly around age 30 once incomes start to stabilize today.

Now, neighborhoods change a lot, and so you might worry that if we give you advice on where to move or try to encourage a voucher-holder to move to a certain neighborhood and it's completely changed the past 20 years, that's going to be problematic. So what we are doing in our current work as we go to finer geographies and have these estimates by Census tract, we're also working on updating them over time.

The way we do that is by correlating the estimates that we construct for the 1980s, what characteristics of those places in the 1980s and 1990s, and then we construct, exactly as Robert was just saying, a prediction of what opportunity is going to look like in those places based on updated Census data. So, for instance, you might see that the level of segregation or social capital is associated with levels of mobility in the 1980s data. You now measure those things today, and you form an updated prediction of what opportunity looks like today.

So we're hoping to have these relatively current measures of opportunity at much finer geographies. And also coming to one of the things you raised at the end about affirmative action and race issues, you'll notice that in a lot of our work, to this point, we have not been able to speak about heterogeneity by racial and ethnic group, which I think could be extremely important here. And so we're working on incorporating that dimension by getting information on race and ethnicity linked into all of this.

MR. DOAR: And I wondered if they could pull up the Melissa chart that showed the correlations because I thought that was really great. Because I have the following question, Raj, and then we'll — I want you guys to — come on, pitch in. If you can find it but if you can't, you know what I'm talking about, the chart.

MR. CHETTY: I've seen that chart. Yeah.

MR. DOAR: So when you do the calculation, when you did the calculation for the current circumstances, did the different characteristics have a different score or a different multiplier that led to your index?

MR. CHETTY: So what is going on there is basically we're in a sense getting the weights you put on those various characteristics from exactly that chart that Melissa showed, right? And then we're updating using more recent data on those characteristics to form the prediction.

MR. DOAR: So the weights that had the highest correlation, the ones that had the highest correlation had the highest weights.

MR. CHETTY: Exactly. And so those include, as Melissa was pointing out, a lot of these cultural factors.

MR. DOAR: So one with the highest weight is the extent to which the households are — so high population of single-parent families.

MR. CHETTY: That's definitely one of them, but, again — so what we do is we correlate it with the causal effects. And so one thing you want to be careful of is that chart was actually just using the people living in a given area. When we look at the movers, you start to get a little bit less weight on the single parents and a little bit more on segregation, but things like social capital continue to be extremely important and so forth.

MR. DOAR: Melissa, you want to — what else do you want to comment?

MS. KEARNEY: So one thing I wanted to respond to that you mentioned, Robert, was when we look at the absolute mobility, and you made the point that we can't just rely on sort of redistribution to get back to the rates we saw before, the way I sort of interpret that chart that Raj put up was it sort of validates what people are feeling, which is that it's harder for their kids to get ahead.

And I think the way to sort of reconcile your skepticism about it and what we know from the data is that, you know, what inequality is reflecting is actually sort of global changes in how hard it is to earn a high wage without high levels of education and high levels of skill. And so the reduction in the likelihood that you can do better than your parents and the rise in income inequality that's happened at this time, those both reflect underlying trends that are real. They're not necessarily policy failures; they're not easy to address. But if your parents had a high school degree and were in the upper middle class, it's much harder to do that now without advanced education, etc.

So I think — you know, no, we can't just redistribute money and solve that problem, but there are underlying challenges that make this very real. It's why people were feeling it, they document it, and there was call for, you know, policies to address.

MR. FURMAN: I was going to be polite, but since you — as your guest, but since you called in, maybe I'll comment on your comment, Raj.

MR. DOAR: But, Jason, could you be polite and still do it?

MR. FURMAN: And I agree with most of what you said, and I thought it was really important, but two things I wanted to bring up. This is part of one broader body of work, which is following long-run outcomes through administrative data, which is something that we can increasingly do today.

And one thing that's striking is studies on food stamps, Medicaid, housing vouchers by Raj, EITC, looking at longer-range outcomes in terms of education, health status, employment, earnings of very long-run benefits of those programs. So I think you —

MR. DOAR: For children.

MR. FURMAN: For children, yes, benefits for children, long-run benefits for their mobility. And so I think that says some of the tension between, you know, a handout trapping someone in poverty gets it actually exactly backwards. And the handout at least for children is a way of helping those people out of poverty. And maybe each one of those hits some exact thing that helps somebody because they need their health benefit in this way or they need their food in that way and they eat better or maybe that all of them are just relieving a budget constraint, relieving certain amount of stress, anxiety, something that Sendel (ph) and Aldush (ph) wrote about in scarcity, and just helps that focus and get ahead. So I think there's less of a trade-off between some of these handouts and upward mobility than you imply.

MR. DOAR: OK. We have time for a question or two. OK. Here. We'll go to Scott.

Q: Great presentation. First, a selfish plug in the form of — (off mic) — I am directing a new project at the Joint Economic Committee for Senator Mike Lee that's specifically about trying to understand the relationship between social capital and economic mobility. We've been doing some initial analyses that correlate the two that are not bowling alleys, but are things that like do you have a focus that you can get your emotional and social needs met if you need them met. And we've got charts, very strong correlations between the two as well. If folks want to see those, come here after.

Question to Raj. On that absolute mobility stuff, the sort of horse race analysis you do at the end of your paper about, you know, would reducing inequality be better, would increasing growth be better? It feels like there's a little bit of a thumb on the scale there and that your counterfactual for inequality is what if we'd had no growth in inequality over the 40 years, between the 1940 and the 1980 cohort, versus what if we'd had better economic growth in the 10 years between the 1970 cohort and the 1980 cohort, if I'm understanding that right. If that's not right, definitely let me know I'm wrong.

MR. CHETTY: So let me just describe the mechanics of what we do. So we — in the growth counterfactual, we are adding essentially 1 percent GDP growth starting in 1980 until 2010. So we're measuring kids and incomes at age 30 so we're seeing over a 30-year period, suppose you've got 1 percent higher GDP growth rates. That would mean that GDP would be about \$5 trillion higher than it actually is today. How would that have impacted the calculation? So it is over a 30-year span. And then for the inequality calculation we're saying, suppose we took the shares of GDP going to each income group in 1970 and split the pie in that way, and we have the current same GDP that we do today, how would that affect the calculation?

So in that sense, I think they are both, you know, on kind of the same scale. I think of it as essentially an accounting exercise. I mean, the points you made about what does that mean for policy, I think — and what Jason followed up with, I think that's all absolutely right. I mean, this is not saying you can pick either A or B. These things are pretty highly related. The more you try to tackle inequality, it might affect the rate of growth and vice versa. Policies that try to improve upward mobility might also end up affecting rates of inequality so I think that's right. Social capital stuff sounds great.

MR. DOAR: Adam?

Q: I'm Adam Meyerson of the Philanthropy Roundtable. I have a question about your most important correlation of family structure. Why does upward mobility seem to be correlated more with the percentage of single parents in your neighborhood than your own family?

MR. CHETTY: Yeah. That's a question to which I don't have, you know, a rigorous database to answer. I can throw out some potential hypotheses. So, first of all, all of these things are highly correlated with each other, right? So places that tend to have more two-parent families, they also tend to be places with more social capital, for instance. So if it is, you know, the connectedness of the community and whether somebody else will help you out and so forth, the way you should interpret that is not literally that it's the number of two-parent families that's having an effect but rather that it could be picking up maybe something else about community-level stability that is having a causal effect on outcomes.

A very different interpretation is that the number of two-parent families itself is an outcome that is like upward mobility, so exactly as Robert was saying, single parenthood could be highly correlated with rates of upward mobility because the same factors that lead to good economic outcomes could also lead to better family outcomes — that is, you know, delayed childbirth until you're in a stable relationship and so forth.

And so then that kind of explanation would suggest not that it's the family structure drawing error to that, you know, causally affecting the economic outcomes, but rather there's some third thing that is affecting both things creating this correlation. So, as you can see, you know, it's hard to unpack exactly what's driving that correlation, but, you know, that's what makes it I think an important issue to study.

MR. DOAR: Raj, before I go to the next question, which is going to be over here, I wanted to go to a specific issue, and maybe I don't have this exactly right, though I did say I want more emphasis on place than moving but I do like moving too. And I like vouchers, housing vouchers as opposed to project-based funded HUD projects. I wondered if you would say directly that vouchers are better than project-based —

MS. KEARNEY: On the record.

MR. CHETTY: So here is my view on that. I think it's an issue of at what level we think integration matters. So I think building very large housing projects, so, for example,

the Martin Luther King towers in Harlem, which is a very large housing project which actually was one of the sights of the Moving to Opportunity experiment that HUD implemented in the 1990s which Melissa mentioned, I think that level of project-based development actually increases segregation because the people you interact with are the other people in the project.

And so what I think is attractive about the voucher approach is that it leads to a little bit more natural scattering, which then more naturally leads to integration, which in my view is what you're probably trying to achieve with any of these policies.

And so I think vouchers can be highly effective and, in that way, maybe more effective than the projects, but it's very important that people actually use the vouchers to move to places that are better for their kids. And that does not happen automatically, and that is not currently happening.

MR. FURMAN: And then also it depends on things like do you get a flat amount no matter where you live or do you get something that's proportional to the cost of where you're living, and I think this research has implication for policy-design questions like that.

MR. CHETTY: And it's not — I think that's right, Jason, but I would say it's important that we don't just make it proportional to the cost because that just encourages you to go to more expensive places. But, as I was saying, when you look at the correlation between opportunity and rents, there's some upward correlations, and moving to more expensive places is better, but there are lots of ways in which you can move where it's actually not more expensive and you find a much better place for your kid. And when you think about stretching the government's, you know, bang for the buck, you want to go in that direction, not encourage people to go to more expensive places.

MR. DOAR: Again, before — one last — I can't resist giving — it's a little risky here at AEI doing this, but we've talked a lot about stickiness at the bottom, so now let's talk about stickiness at the top. Have you had a chance to think about that? Does that concern you? And what could we do about it?

MR. CHETTY: I mean, at some level, if you're thinking about relative mobility, if you've got stickiness at — you know, those things have to go hand in hand, right? You can't have upward mobility in relative terms without having downward mobility.

MR. DOAR: I tell my children all the time. There's upward mobility, and there's downward mobility.

MR. CHETTY: No. In absolute terms, of course, this is like Jason's chart at the beginning. You can naturally have everybody going up. And so, you know, I think that is relevant insofar as when you have quite a bit of persistence at the top, maybe there are opportunities for financing programs that would help lower-income people come up, you know, especially as you have a growing concentration of wealth and income and so forth.

We don't per se focus — largely, we're just thinking about this in absolute terms at the end of the day. How can we help kids growing up in low- and middle-income families do better in absolute terms? There's a separate issue of whether that's coming at the expense of the rich or not. I think that is another interesting issue to try to understand. But for that reason, because we've largely been adopting kind of this absolute lens, we've been less focused on the stickiness at the top.

MR. DOAR: All right. Kevin, last question.

Q: Kevin Corinth from AEI. So one question, so one of your policy solutions says given that we spend \$20 billion on housing vouchers, might as well turn them into opportunity vouchers, get these families into better neighborhoods. So now what if — what would you say if we lifted that constraint and said, instead of spending that \$20 billion that has to be on housing vouchers, you can have that to spend on investing in opportunity any way you want? How would you spend that \$20 billion? Would it still be on opportunity vouchers, or would it be on something else?

MR. CHETTY: That's a great question. I don't think — I can give some hunches, but ideally what you'd like is we want to know what the rates of return are on various different investments, right, to be able to answer that precisely. So it's possible that intervention in schools, like trying to do a more effective job in keeping the best teachers in our schools and having the flexibility to hire teachers who have the highest value added measured in various ways could be quite valuable. And maybe that will have a higher return than spending the money on vouchers. I don't know. I don't think we have enough data to make that exact comparison.

So my sense is the vouchers approach, given what we've seen with moving to opportunity, where we saw something like 30 percent earnings gains for the kids who moved to these better neighborhoods — that is likely to be a pretty high rate of return. Whether it's the highest, I don't exactly know.

But I would, at the moment, in the context of this particular set of issues, focus on things like helping, you know, families move to better neighborhoods to some extent or trying to invest in schools so that you improve the quality of teaching in various ways. There are certain charter school models that I think are incredibly effective. So figuring it out how to scale those up while continuing — you know, I think the key problem there is you might drain resources from public schools and leave a bunch of people behind, how can you mitigate that sort of problem — that's also worth thinking about.

MR. DOAR: Does anyone on the panel have any final remarks, anything that hasn't been said that you want to say? No. OK. Thank you all very much. (Applause.)

(END)