Talks at GS

Raj Chetty, Harvard Economics Professor & Director of Opportunity Insights

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Raj Chetty: One cornerstone aspect of the American Dream is the idea that through hard work, any child should have the chance to move up in the income distribution relative to their parents. A few years ago, we set about to assess the extent to which America actually lives up to that aspiration of being a place where kids can rise up beyond where their parents were in the income distribution.

[MUSIC INTRO]

Greg Shell: Good morning. I'm Greg Shell. I'm a partner in the sustainable investing group. I lead the Horizon Inclusive Growth Fund. I am incredibly pleased for your presence here. Thank you all for being here. You don't lack for things to do here at Goldman Sachs, so thank you for taking the time out. Welcome to another Talks at GS. We are in for a treat this morning. We have the venerable Doctor Raj Chetty with us today to talk about a really important topic for us all. I'm delighted to be joined by Raj. He's an economist, and the William Ackman Professor of Economics at Harvard University. Raj is also the director of Opportunity Insights, a nonpartisan not-for-profit organization based at Harvard, which uses big data to study the science of economic opportunity.

By analyzing the anonymous data of 100 million Americans, Raj and his colleagues focus on the critical question of how to give children from all backgrounds a better chance at succeeding. Raj received his PhD from Harvard in 2003. He's one of the youngest tenured professors in Harvard's history. He's also received numerous awards for his research, including the

MacArthur Genius Fellowship. So I'm here with the genius this morning, a verifiable genius. As well as the John Bates Clark Medal, given to The Economist under 40, whose work is judged to have made the most significant contribution to the field.

We're going to talk to Raj today about some of the important findings about upward mobility from his work at Opportunity Insights, the role of higher education, and other policy prognosis on how to make it more accessible. As well as the solutions at the local level to improve opportunity for all. Our format today is that Raj would really love to present a fact based of a handful of slides, and then I'll come back on stage and we'll get into a conversation, Raj?

Raj Chetty: Great. Well, thanks so much, Greg. And thank you all for coming. It's really a pleasure to be here at Goldman Sachs with all of you. So I'm going to talk today, we're going to have a conversation about how we can make investments and policy changes to improve economic opportunity in the United States and beyond. But I thought I'd start by setting the stage, if we can pull up the slides here, talking about the American dream, which is, of course, a multifaceted concept that means different things to different people. But one cornerstone aspect of the American Dream is the idea that through hard work, any child should have the chance to move up in the income distribution relative to their parents. That's certainly an aspiration this country has had for a long time. It's the type of ideal that drew my own parents and countless other immigrants to come to this country.

And so in some analysis, my colleagues and I did a few years ago, we set about to assess the extent to which America actually lives up to that aspiration of being a place where kids can rise up beyond where their parents were in the income distribution. So what we found, shown in this first chart here, is that children's prospects of rising up beyond where their parents were have changed dramatically in the United States over the past half century or so.

So what we're doing in this first chart here is constructing a very simple statistical measure of the American dream. We're asking what fraction of children went on to earn more than their parents did, measuring both kids and parents incomes in their mid-30s, and adjusting for inflation. And we're looking at that data by the year in which the child was born. So if you look at the far-left side of this chart, you can see that for kids born back in the middle of the last century, say kids born in 1940, it was a virtual guarantee that you were going to achieve the American dream of moving up. 92% of children born in 1940 went on to earn more than their parents did.

If we look at what has happened over time, you can see that there's been a dramatic fading of the American dream, such that for children born in the middle of the 1980s, who are turning 30 or so in recent years, when we're measuring their incomes as adults, it's become a 50/50 shot, a coin flip, as to whether they're going to achieve the American dream of moving up.

So this broad trend is, of course, of great interest to economists, to folks in business, reflects a fundamental change in the US economy that I think we'd like to understand. But I would argue it's also a fundamental social and political interest, because it's this very trend that underlies a lot of the frustration that people around the United States are expressing, that this is no longer a country where it's easy to get ahead, even through hard work. And if you look at the places where you have the greatest support, for example, for populist candidates, it's exactly in the places where social mobility defined in this way has fallen the most. And so I think it's this trend that underlies a lot of the social issues that people are discussing around the country.

So motivated by this trend of the fading American dream, in our research group that I direct at Harvard Opportunity Insights, we are interested in understanding what is driving this fading pattern. And more importantly, what we can do to restore the American dream more broadly, create economic opportunities for upward mobility going forward. Now, we are not by any means the first group to be interested in analyzing that question. Researchers have been studying these issues of inequality and opportunity for decades. Our angle on it is to use the tools of modern big data to study these questions. Much as you all, I'm sure, tap into large data sets to make decisions, our vision is that large scale data can help us understand important economic and social policy issues like this with greater precision.

What I want to do in the first few minutes before we open it up to the conversation, is just give you a quick sense of some key patterns we're seeing in the data, and how large scale data can help us understand the science of economic opportunity. And to get into that, the first way in which I'm going to disaggregate the picture, going beyond this national picture, is by breaking the data down geographically. So this map here, let me first take a second to describe how we constructed it. It shows you the geography of upward mobility in America. Describe how we built this map and then what I think we learned from it.

So what we've done here is taken data on 20 million kids, essentially all kids born in the United States in the late 1970s, early 1980s, obtained information from anonymized tax returns, linked them back to their parents, and back to the exact location in which they grew up. Using that data set, we construct simple measures of upward economic mobility for 740 different metro and rural areas in the US. So, for example, in the New York City area, what we're looking at here is the average household income as reported on your 1040 tax form when you're around 35 years old. If you grew up in a low-income family, and for the purposes of this talk, I'm going to define a low-income family as a family at the 25th percentile of the national income distribution, which corresponds to an income of about $27,000 a year.

So say you're a kid growing up in a low income family in New York City, we see when we look at your own tax filings, that on average, you're making about $35,000 a year in adulthood. You can similarly compute that statistic for all of the different metro and rural areas in the US. And we color the map so that the red/orange colors represent places where kids are less likely to rise up. And the blue/green colors represent places where kids growing up in families at that same low-income level do better in adulthood.

So if you start by just looking at the scale in the lower right-hand side of this map, you can see that there's an enormous amount of variation in children's chances of rising up in achieving the American Dream, even in the present day in the US. There are some places, like rural Iowa, for example, you may not have expected this, but Dubuque, Iowa, turns out to be a place where if you grew up in a low-income family, you have incredibly good chances of reaching the middle class or beyond. Yet there are other places, like Charlotte, North Carolina. Some of you might know that Charlotte is often viewed as the booming city of jobs in the southeast. Despite that fact, if you grow up in a low-income family in Charlotte, making $27,000 a year, you're actually making less than your parents were on average in your mid-30s. Which is remarkable given the amount of economic growth that has occurred over the past 30 years in the US.

So there are huge differences across America and children's chances of achieving the American dream. Why is this useful to recognize? First, from a scientific perspective, this gives us a new lens, a microscope, essentially, to start to understand the drivers of economic opportunity. We can ask what's different about Iowa versus Charlotte? What's - what happens when a kid moves from one of these red colored places to a blue/green colored place? And that can help us, as I'll show you in the next couple of minutes, understand what the drivers of economic mobility are. But second, and perhaps more importantly, getting that scientific understanding can help guide policy decisions, or perhaps investments going forward, that can help us potentially turn those red colored areas into blue/green colored areas and thereby increase economic opportunity throughout the United States.

So I'm going to do, in the next couple of minutes, just give you a quick overview of what we and others have learned over about a decade of research on the drivers of economic opportunity from these kinds of data. And then we'll transition to a conversation about what we might be able to do going forward to increase economic mobility. So one key piece of evidence that helped us sharpen our understanding of the drivers of economic mobility is to recognize that the differences are emerging, not at a broad regional level or differences across states and so on, but actually at a hyper local level.

So we've built a tool called the Opportunity Atlas, which is a website you can go to yourself if you're interested, OpportunityAtlas.Org. And you can go there and type in your home address, and you can see what economic mobility looks like exactly in your neighborhood. So the same statistics that I was showing you before now zoomed in to show you the data at the census tract level here in New York City. Each census tract has about 4,000 people, so think of this as narrow definitions of neighborhoods. And it's the exact same statistics that we started out with. The red colors are places where people are less likely to rise up, blue/green colors are places where you're more likely to rise up.

And the first very simple observation here is the spectrum of colors you're seeing on this map when I zoom into New York City is exactly the same as the spectrum of colors that I showed you on the national map. So what is that telling you? You can drive two miles down the road in New York, and it's like you're going from Alabama to Iowa in terms of your chances of rising up in your life. And so that simple fact is telling you that the origins of these differences, they can't just be about state policies or differences in labor markets across cities. It's something about what's happening on one side of the street versus another side of the street. Maybe the schools that kids attend, who they interact with, things that vary at a very granular level.

Now, furthermore, we found that when kids move from one of these red colored areas to one of these green colored areas in childhood, especially early in their childhood, we see dramatic changes in their life trajectories. So these differences reflect causal effects of growing up in different neighborhoods, not just at different types of people live in different parts of New York.

Last piece of descriptive evidence on sort of what the facts are, so what is driving this variation in the maps that I've been showing you? Obviously, that's a question of significant interest. There have now been hundreds of papers written using the data that our team has constructed, analyzing that question. Rather than going into the details of that literature, I'm just going to summarize, at a high level, the four strongest patterns that people have found over the years in terms of predictors of economic mobility.

The first is that places with lower poverty rates, more mixed income communities, tend to be places where kids growing up in low income families are more likely to rise up. Second, places with more stable family structures, more two-parent families in particular, tend to have higher levels of economic mobility. Third, as you might expect intuitively, places with better schools, both at the K through 12 level and in terms of access to higher education, tend to have higher levels of upward mobility. And finally, places with greater social capital tend to have higher levels of upward mobility.

Now I want to take one more second to dwell on this notion of social capital, which is a term that's been discussed for over 100 years in the social sciences and policy discussions. People have meant different things by it. Is it about the strength of your community, who your friends are, who you're connected to? There's been a sense that this might be quite important, but no really sharp evidence, no measurement of what social capital actually means. This is, again, a place where big data can help us make progress. So when we started to get interested in this idea, we set up a collaboration with Meta, the company that operates the Facebook platform, and use social network data to construct very granular measures of social capital that we haven't had in the past.

I'll just give you a quick sense of that with this final set of maps here, where the map on the left is the map of upward mobility, based on tax records that I've been showing you from the beginning. The map on the right is a map of what we're calling economic connectedness. It's a measure of social capital that's very simple that we construct in the Facebook data in the following way. We take the set of people in Facebook with below median income, and we ask what fraction of your Facebook friends have above median income? So it's a measure of how connected low income people are to high income people on Facebook.

The green colors in the map on the right are places where low income folks have more high income friends, where there's more cross-class interaction. The red colors are places where there's more disconnection by class. And you can see the result immediately for yourself, those two maps look basically identical to each other. In the places where you have more cross-class interaction, kids from low income families are more likely to rise up. And that turns out to be the single strongest predictor of economic mobility we or anybody else has found over the years.

And this turns out to be an incredibly robust pattern, not just at the national level as you're seeing here. But again, if we zoom in to New York and look at the local level, you see at the zip code level, the same exact pattern playing out. In the zip codes where low income folks are disconnected from high income folks, they have the poorest chances of rising up. And so our sense is this is one very important ingredient that matters for driving economic opportunity going forward and filters into potential policies that we should think about and so forth.

And so on that note, let me stop here. There are a bunch of different ways I think we can take this data and now go forward to think about how to intervene and create policies to increase economic mobility. I'm sure we'll turn to some of that in the conversation.

Greg Shell: Just to sprint through a lifetime of your research. But at all levels, this cuts through what I think is a central organizing principle of American life. Which is that if I do what I'm supposed to do, I work hard, on the other side of that will be not just economic security, but some of the resultant outcomes like a house of a certain size and so forth. That's broken down at some level. One of the things that you - that I want to make sure we cover, what frustrated that, what changed structurally? Why has it altered so much where this sort of average person on the street is experiencing something very different today perhaps, than in times past?

Raj Chetty: Yeah. So, Greg, that's a great question. So kind of tying back, I showed you in the modern data geographically, there are these big differences in opportunity across places. To be clear, there are still many places in America where if you grow up in a low income family, as you were seeing in those maps, you have a pretty good chance of rising up. But there are many places where opportunity has faded.

And so what has happened in kind of over the past 70 years at the macro level, tying to some of the factors that I've been discussing here? One way I like to think about it comes out of a book by my colleagues at Harvard, Larry Katz and Claudia Goldin, who recently won the Nobel Prize. The title of their book is The Race Between Education and Technology. And so the logic there is that technology has always progressed in the US and other countries, both in the form of technical innovation and also in the form of global competition, which you can abstractly think of as sort of a form of technological advancement. In the past, before 1970, 1980 or so in the US, Greg, we saw that human beings, in terms of their skill levels, were keeping up with that technological progress. Year after year, you saw higher levels of educational attainment, greater quality of education, ability to basically compete with machines.

If you look at the data, starting around 1980, there's basically a stalling in educational progress. Whereas of course, as we all know, technological progress has continued, if not accelerated. And so we've sort of started to lose the race between education and technology, not just in terms of the number of years of education, but also a number of the factors that I've been emphasizing here. If you look at what people are exposed to, how connected they are to folks who might inspire them to pursue a different career, how many kids from low-income families are going to college? Lots of these indicators, you're seeing a society that's increasingly coming apart where there's less cross-class interaction, more stratification and so on. And I think those factors have contributed to the erosion of the American dream and get that fading pattern that we see in the first slide.

Greg Shell: Raj, when this topic is talked about, lots of people would reference trade. Not just technology, but real automation, things that replace labor. There are other points of friction that we could describe. I suppose the obvious question that comes out of it is why don't we do more about it? And the key thing is, what can we do about it now?

Raj Chetty: Yeah. So as I said, I would put trade in the same kind of logical bucket as automation, technological progress. All of those things are putting pressure on workers and making it harder to compete, in some sense. In the past, we've made investments to maintain that competitive edge, and that led to wages growing across the economy. That's stalled to some extent. I think it's a great question, why hasn't that continued? I think the response in an economy that increasingly faces those pressures is not to try to shut off those pressures. Competitive forces will always bring those things out in the end. It's rather to figure out how to equip people to compete.

That could be through public investment, changes in policy. But I also think, we have the slide up here on policy approaches to increase upward mobility. It's about figuring out how we change the structure of our communities to create that kind of social capital that I was describing, seems really important in order to foster upward mobility going forward. And I think that can lead to the types of investments, both privately and publicly, that will increase economic opportunity going forward.

Greg Shell: Something that I've been curious about, Raj, is the idea that the construct as it's developed is actually really expensive for the country to sustain. Said differently, when so much of our economic capacity is concentrated, we leave a significant amount of stranded human capital to the side, and it's expensive to maintain that. My own observation is that people don't really command a strong sense of understanding how inefficient this is economically and so forth.

Why do you suppose that's so? Because the data is pretty unsubtle and I think the more we learn about it, the more we understand that this is a direction that probably is not optimal for an economy. And yet it persists. There's a certain self-perpetuating nature of these results, and one that we seem to be somewhat addicted to, as if this was the only way, or certainly something that was normal. When - you've had many thousands of conversations about this, what do you observe about how people receive this data that give you a clue to why it's been so acceptable in society to see results like this?

Raj Chetty: Yeah. So I think at some level, people are surprised to see the starkness of these patterns. But in another level, I find that people say, well, when I think about it, this actually resonates with my experience or what I hear people talking about in terms of the trajectory of the country and so on. In terms of why this has been viewed as kind of acceptable, even if people had a rough understanding, not maybe seeing the statistics depicted exactly in this way, but broadly had the sense that there might be many people getting left behind. Why is that the equilibrium? I think there are two answers you can give. There's a standard economic answer, going back to your econ 101 class. If you think about incentives here, there's a fundamental incentive problem in terms of who's going to invest in creating economic opportunity.

As you noted, some of these things are very expensive to fix upfront. Investments and getting people on a totally different trajectory in terms of their education, in terms of the structure of communities, changes in the nature of housing, and so on. A lot of upfront investment. Who gets the return from that? It's pretty diffuse. The people who benefited from those investments, they have better jobs. Maybe there are fewer social ills, less reliance on transfers, lower rates of crime, higher rates of innovation. But as a private investor, you don't get to capture those returns.

And so we know there's a public goods problem here, that there isn't any one actor in the economy who necessarily has an incentive to make that private investment, even if it has a very high social rate of return. And so you can see how in equilibrium, we end up under investing in something that actually would have quite a bit of value for our economy.

I think there's a second reason as well, maybe one that's more sociological or psychological, which is that when you're in a very stratified society where you essentially don't come into contact with folks in a very different walk of life. People who don't have these opportunities, who don't end up in rooms like this. Or conversely, people in rooms like this who may not have that much contact with people in communities that have fewer opportunities. I think everybody's kind of going about their own work, and you don't necessarily have that discussion of here are these talented folks out there who could benefit from these opportunities. And that doesn't come to the forefront of the discussion as much.

Greg Shell: Raj, when you look at the map that you showed, I think it's become nearly impossible for us to look at the map of the country anymore without understanding and having a key sense for political partisanship, sort of urban centers versus rural places where college graduates tend to congregate, places where people for whom their lot in life is in part because they didn't have an opportunity to go to college. There are lots of divides all over that map.

Say a little bit about that, about how balkanized this experience is. This experience actually is about geography. Because if I were to take your prognosis and make it simple, it's almost really strongly the case that poor people have to get more exposure to rich people. But it's not easy for them to do that. And I just wonder without that, how do you foster that level of economic integration that you describe as being really vital?

Raj Chetty: Yeah. So you're absolutely right that there are sharp divides. One way to put it is poor people need to get more exposure to rich people, I think about it slightly differently. We find that low income folks who grow up in communities where people are thriving in various ways, where you have high levels of employment in the prior generation. Not necessarily the richest folks, but people in stable jobs, people pursuing careers in business or science or other walks of life that you may not otherwise have considered. You basically see kids following in the footsteps of the people around them.

And you're right, Greg, that a big challenge in the country is because of the amount of segregation we have. There are lots of kids out there who literally have not been exposed to people who've gone to college, let alone pursued a career in finance or in certain types of business, science, et cetera. And so I think that's a critical challenge to address.

You mentioned the politics of this, our group deliberately does not focus on political issues, but I certainly think that some of the patterns we're seeing in the data connect with the types of discourse you're seeing in different parts of the country. Let me maybe show one set of maps on how this is changing over time. I'm just going to jump to the end here of this slide deck. Where when you look at how these patterns are changing over time, I think you see connections with what people have been discussing publicly as well. So I showed you this map at the beginning on economic opportunity. Here I'm zoning, I'm showing you data from a more recent study, where we're basically able to look at how these patterns are changing over time, because enough time has elapsed. That we're able to look at this for multiple generations of kids.

And so this map on the left, you can think of as basically a version of the map that I showed you at the beginning on economic mobility. Here for kids born in 1978. And I'm honing in here on white kids born to low-income parents. You'll see in a second why disaggregating the data by race turns out to be quite important in understanding these changes.

So now what we can do in a study we put out last year is look at how this map looks in - for kids born in 1992. Same exact statistics constructed using tax records, white kids born to low income families in 1992. What do you see? The red colors have basically spread across America. It used to be the case that if you were a white kid growing up in a low-income family in parts of California and parts of the northeast, around here, for example, you had a pretty decent shot of reaching the middle class. Now you can see that in those places, your chance of reaching the middle class look like they do in Appalachia. And so opportunities really receded for white children growing up in low-income families.

In contrast, if you look at black kids growing up in low income families, first, a lot of the map is blank because we don't have a sufficiently large black population in much of the US to construct these statistics. But if you look at the places where you do, the purple here represent places with lower levels of upward mobility. The peach/orange represents places with higher levels of upward mobility. This is for the black kids, born in 1978 to low income parents. This is the same map for black kids born in 1992.

Here you see the opposite pattern where opportunity is getting better for black children, upward mobility is rising.

One final point on this, you'll notice I changed the color scale. I did that deliberately, because if you now juxtapose the map for black children on the left and white children on the right, both born in 1992, look at the color spectrum at the bottom. The very best places for economic opportunity for black kids, even today, they have worse outcomes there than the very worst places for economic mobility for white kids. So there's still an enormous racial divide, but it's shrunk by about a third in the past 15 years or so. Which is a remarkably rapid rate of change. And shows you, Greg, I think that some of the divides that you're mentioning, while they're clearly there, they can also change over time in quite significant ways.

Greg Shell: I can remember personally when I saw some of the headlines around this data, everybody uses your research to make a point. They already believe there's a lot of confirmatory bias in it. And so I remember reading the white paper and it was very different from the headlines. But this idea, and I just want to maybe double click on it, is this idea that both race and class have been incredibly, highly correlated in America for a really long time. And those gaps that have stemmed from that, I think what you're saying have closed some. This is not to say what some of the headlines have been, that it's somehow inverted, and that you're not making that point.

But talk about that idea that a lot of your research is pulled in different ways to make points, perhaps, that people already believe. I just wonder how you experience that, because as even as you traverse around that data, even in this room, probably it's the case that there's a spectrum of how people will receive what you said. But the facts are clear, race and class are still highly correlated, not as correlated as they've been.

Raj Chetty: Yeah. I mean, Greg my approach is try to take the constructive approach here as elsewhere. In the last couple of weeks, I've talked to senators in DC, on the left, on the right. People, as you note, naturally latch on to different aspects of the data. And I find especially different policy solutions. So you can see in some of the four correlates I was describing ways we could intervene, naturally there might be one group of folks who gravitates toward solutions like affordable housing, reducing segregation. There are other folks more interested in things like family structure and social capital and how we increase social connections and so on.

And my view is this is a complicated problem. There's no way there's one solution for this entire set of issues. And so it's valuable to have people who want to focus on different aspects of the problem come together and work on that aspect. That being said, where I find it's hard to completely shift people's priors, and if somebody is focused on affordable housing, somebody else is focused on a different set of issues, you may not get them to completely change their focus. But what we see in the data is you can make much more efficient investments than we currently make within those domains.

So my view is, for example, a lot of the billions of dollars we spend on affordable housing in the US is actually not at all effective in creating economic opportunity. And there are ways, and we can see this in the data, that we can sharpen those programs to make much better investments, and same things in other policy domains as well. So I think it is possible, even though people have that confirmatory bias, as you put it, to get them to move toward what the data says within those realms.

Greg Shell: I want to go back to the sort of four-pillar methodologies that you think help us find our way into a different spot. And I want to first talk some more about social capital. So you've measured this in a particular way, but my observation is so much of it is endemic, so much of it self-perpetuates. There are actually really natural ways to achieve it in reality. What gives you greatest hopefulness that this is happening, or that people's understanding about it is getting more precise and sophisticated such that we see it happening on purpose out in the real economy?

Raj Chetty: Yeah. So you're absolutely right that something like social capital, what makes these problems, I think, so persistent over centuries is exactly that fact that the kind of self-reproducing, there's a tendency toward stratification in a very successful capitalistic economy. There's no force that's moving in the opposite direction that emerges in an equilibrium. And so if it were easy to fix those issues, I think we would already have solved those problems. And at some level, that's why they're so persistent.

That being said, I think that there are things we can do that, to me, let's take the approach of I'm going to find a way to bring people from different class backgrounds together and just put them in a room. I think something that kind of artificial and deliberate is never going to work. I think it's more thinking about how you incorporate the idea that social capital matters, into more effective design of other policies.

So to give you an example, as I was saying earlier, we spend lots of money on affordable housing programs that give people housing vouchers to move to better neighborhoods. About $25 billion per year. Those programs we see in the data are not very effective in actually helping families move to higher opportunity neighborhoods, like the green colored neighborhoods in the maps that I was showing you. Because people don't seem to have the social support needed to actually find housing in those areas. So you get a voucher, you're told you have four months to find housing wherever you want. It's very challenging to find housing in a different neighborhood. You're unfamiliar with the landlords, you may not be familiar with the area, et cetera.

We've done an intervention where we provide some social support, I think of it as essentially a social capital intervention, in the housing-search process. Connect you with a counselor, think of it as sort of like a broker who helps you find housing in a different neighborhood. And in a randomized trial, we show that this small intervention, which costs a couple thousand dollars a family, relatively small, relative to the overall size of the program, dramatically shifts where families end up choosing to live. And ends up desegregating the city where we implemented this, Seattle, to some extent. And so that's an example of how one very specific case. But on the margin that's going to lead to more connections for those kids with a very different group of children relative to whom they would have interacted with and change their economic trajectory over their lifetimes.

So we didn't set about doing that intervention just saying the whole goal here is to create social capital, it was within the confines of an existing policy. And I think there are many ways that we can do that across a broad range of interventions.

Greg Shell: Historically, education and the opportunity for post-secondary training, literally almost of any kind, over time, but specifically in professional services and technology, that's been the transformative event for people. That's how you change your life, is, for the most part, from education. But I think sort of recent data suggests that there is a sort of asymptote that we've approached here where more of that doesn't net you significant gains potentially.

And because of that, we've started to see a movement that I wonder your reaction to, which is more vocational and technical training. This idea that not everyone needs to go to college. There's a real sense that that is not the transformative event it perhaps once was. And people starting to find different ways into the real economy. What's your reaction to that and how strong a pillar is education really going forward?

Raj Chetty: Yeah. So my view, and let me show you a bit of data on this, Greg, that I think speaks to this, I think education remains a tremendous pathway to economic opportunity. The issue is that that pathway is not open to many people in our society. And so just to show you that directly in the data, let me turn to this chart here that I think exactly speaks to that question. So just like our team has constructed statistics on economic mobility for every neighborhood in America, which I showed you earlier, we've also constructed publicly available statistics on how every college in America is contributing to economic mobility. And that's what's being shown here. Every dot on this chart represents a different college in America. We're using data on 30 million students. Department of education records connected to tax records, and so on.

And when you think about a college's contribution to economic mobility, there are two key statistics that matter. And you'll see how this connects to your question, Greg. So on the vertical axis is what we're calling the upward mobility rate. So what we're doing here is, say, take the set of students at MIT who come from low-income families, the bottom 20% of the income distribution, and ask what fraction of them, when we follow them over time after they graduate college, what fraction of them reach the top 20%

of the income distribution? You can see at MIT that number is close to 70%. The vast majority of kids, even those kids who started out in the poorest families in America, end up well in the upper middle class or beyond. Similar to Stanford, Harvard, et cetera.

And so on that dimension these colleges truly do give a great pathway to upward mobility. I think that absolutely remains the case. But what matters for a college's contribution to economic mobility is not just how well the low income students do, conditional on attending, but how many low-income students you have on campus to begin with.

And that's what's shown on the horizontal axis. It's a measure of what we're calling low income access, what fraction of the student body comes from parents in the bottom 20% of the income distribution? And you can see that number at places like Harvard is around 3%. You're about 80 times more likely to attend Harvard if your parents are from the top 1% of the income distribution, than if they're from the bottom 20% of the income distribution. And so what that means is, just mechanically, institutions like that that do provide great pathways to upward mobility, they can't be contributing a whole lot to economic mobility because those pathways are not broadly available.

Now, going over to this right side of the chart, you can see that there are colleges in the US, many community colleges, for example, that serve many, many low income kids. But if you look at where those dots are on the vertical axis, they unfortunately don't have great outcomes. And so conceptually, the way I see the problem in terms of education, I think the broad description of education is stalled, it's no longer the pathway, et cetera. I think that's too broad brush.

I think this chart captures what the key issue is, which is you basically have no dots on the upper right side of this chart. You don't have many institutions that both provide access to many people from lower part of the income distribution and deliver great outcomes after college.

There are a handful of exceptions. I've highlighted one that I see is kind of illustrative. The Vaughn College of Aeronautics and Technology, which happens to be down the road here in Queens. It's a very small institution. Why do I highlight it? It connects to your point about vocational. An example of the type of institution where we see lots of low and middle income kids attend. And it provides a very specific type of technical training, aeronautics, which is something that pays decently well, gives you a path into the upper middle class. And you can see that's one of those few dots in the upper right side of the chart, suggesting that maybe that's the kind of model we should be investing in more in the US.

Greg Shell: I literally could talk to you all day and all week. I have one more question before I go to the audience. But Raj, when I - you're deliberately non-partisan, and I think it's important for you to be. I myself, am a registered independent. I feel strongly the way that you do. That said, it's not - you're not blinded by the fact that what we're seeing today among political actors is really almost a wholesale stepping back from the traditional role of government regarding some of the pillars that help produce social and economic mobility. Certainly education, health, I think to some degree, sort of transportation, housing, even things like food services. That social safety net, probably we have reason to think is less firm. And I'll say it that way. Than it has been.

How sort of excited or optimistic do you feel, if you take that prior as being anywhere near true, that social and economic mobility in the United States is really on the move? Or do you think we actually could be in a place in the intermediate term where it's not just stalled, but we actually take some key steps back? What is the data telling you? What's your instinct when you talk to political actors? If we're really taking counsel and taking what the data tells us, we ought to be focused on and whether or not we're actually doing that.

Raj Chetty: Yeah, great. I mean, I think those are all valid points. You focused on the federal level, which I think is very natural. And there are lots of things going on where one may have concerns that economic mobility could fall further. Certainly, I think trying to understand how we make these investments more efficiently, as I've been emphasizing, is very valuable. But doing so in a way that is data driven, I think is extremely important. The thing that gives me optimism, I think there's a lot of uncertainty at the federal level, the thing that gives me optimism is what I've shown you here, that these issues really originate at a much more local level. And that creates a lot of capacity to make change that doesn't necessarily involve national politics or dealing with that set of issues. And so maybe let me give you -

Greg Shell: Before you do -

Raj Chetty: Yeah.

Greg Shell: Are they separate, in your mind, or do you think even at the local level, we're really a proxy for a deeply and maybe embittered, divided society?

Raj Chetty: I mean, I think at the local level there are also many divisions. But what I was going to do here is give you an example of how we're seeing at the local level, progress being made, even in some of those places where we've seen stubbornly the lowest levels of economic mobility in the past. And so let me focus on this example here of Charlotte, North Carolina. I mentioned that at the beginning, one of the lowest economic mobility places traditionally in the US. Ranks 50th out of the 50 largest cities in America in terms of children's chances of rising up.

So when we put that data out publicly, and this is the kind of thing that gives me reason for optimism, Greg. If you look here at the slide on what happened subsequently in Charlotte, they set up a local task force and commission to try to understand why it is that despite the fact that they had many jobs, bringing a lot of high paying jobs to the city. Apparently they weren't providing pathways to upward mobility for kids growing up in the city itself. Why was that happening? Effectively, they were importing talent. People were moving to Charlotte to get those high paying jobs, but local folks weren't benefiting.

And so that led to a number of concrete things, not just talking about the problem, but $160 million, concrete investments for workforce development. Programs to basically connect kids growing up in disadvantaged communities in the local area with high paying jobs at these local companies, providing mentorship and training to get those jobs. Various investments in early childhood education efforts and other mentoring programs. Affordable housing programs to create opportunity. Trying to monitor these indicators and so forth.

And so that's a place where we're actually seeing in the data, Charlotte is improving in terms of economic mobility. Now, I'm giving talks in a number of cities across America, it's not just Charlotte, where you see this kind of coalition building between the private-sector folks and the public sector philanthropists, that really seems like it creates positive change. Now, is that completely independent of what's happening at the federal level? Obviously not. But I think these kinds of models can be a real way to make progress.

Greg Shell: Thank you for another Talk at GS. Thank you for coming to Goldman Sachs. Please join me in thanking Raj Chetty.

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