

THE BROOKINGS INSTITUTION

WEBINAR

THE FUTURE OF AUTOMATION AND THE MIDDLE CLASS

Washington, D.C.

Welcoming Remarks:

MARCUS CASEY
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Associate Professor of Economics, University of Illinois-Chicago

Panel 1: Social Insurance in an Automated Future:

RICHARD V. REEVES, Moderator
Senior Fellow and Director, Future of the Middle Class Initiative
The Brookings Institution

BYRON AUGUSTE
Chief Executive Officer and Co-Founder
Opportunity@Work

MARCUS CASEY
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DIANA FARRELL
Founding President and Chief Executive Officer
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MICHAEL R. STRAIN
Director and Arthur F. Burns Scholar in Political Economy, Economic Policy Studies
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Panel 2: Opportunity and Equity:

RICHARD V. REEVES, Moderator
Senior Fellow and Director, Future of the Middle Class Initiative
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PETER Q. BLAIR
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P R O C E E D I N G S

MR. CASEY: Good morning. Welcome to "Future of Automation and the Middle Class."

This is the fourth of a series of events hosted by the Future of Middle Class Initiative here at Brookings that explores various aspects of how the automation is expected to affect the labor market for middle class and working class people.

Today's discussion will focus on two distinct topics that I believe are under-discussed to this point. The first will be focus on the design of social insurance in an automated world, the second will focus on how do we ensure equity of opportunity in a world in which automation potentially presents a threat to middle class jobs.

And before we get started I want to extend a thanks to Ember Smith, Hannah Van Drie, Sarah Nzau for their assistance, as well as Richard Reeves, the director of the Future of the Middle Class initiative, for help pulling this thing together. And also I want to extend a thanks to all our panelists for agreeing to participate in what I hope to be an intellectually stimulating conversation. Thank you.

Richard, you can take it away.

MR. REEVES: Thank you, Marcus. Let me add my thanks to you, Marcus, for leading this work at Brookings for the last two years. Within Brookings our sort of shorthand for the project is "Marcus and the machines," which is actually the name I wanted to give the project, but it didn't sort of pass muster with, you know, development people and so on. So it's "Automation and the Middle Class." But that's how we think of it and, Marcus, you've just kind of provided huge leadership on this and some of the very in depth work, as well as impactful work. So my thanks to you.

So my role is to moderate these two panels today, which I'm hugely excited about. And so what I'm going to do is briefly introduce our first panel and then we'll kind of kick into the discussion. I'm going to get some short interventions from each of the panelists, then into a moderated conversation among us. Please join in. If you're watching on line you can email in your questions to events@Brookings.edu, you can use #AutomationPolicy if you're on social media. So please fire them in and then one of our team will be sharing them with me so that I can put them into our conversation.

So let's dig into Panel 1, which is, as Marcus mentioned, about this idea of social insurance and what that will mean going forward. And what I want the panel to do is to think in decades

rather than years here. I want us to be thinking longer-term. Obviously we're going to disagree perhaps about what it might mean. In fact, what I'm going to do, I'm trying to set — I'm going to try and set the mood for some blue sky thinking — how about that? That's how I want us to think, is like where are we going to end up. Trying to think long-term and radically. Obviously we have the big elephant in the room. Tends to be something like basic income, if you're pessimistic about the outcomes for the labor market, but there are many other questions that are going to be raised around our safety net programs, from food stamps through tax credits. How do we manage the balance between incentives to work and the changes that might be happening on the supply side as a result of the some of the shocks from automation, and so on.

I'll stop there because people really kind of want to hear from our glittering first panel and equally glittering second panel. So I'm just going to offer the briefest of introductions. Obviously please do have a look at the bios of our panel. But we're going to be hearing from Marcus again, but before we hear from Marcus we're going to hear from Diana Farrell, who is the founding president and CEO — the new — probably not so new anymore, Diana — but the JP Morgan Chase Institute, which has become really kind of an impactful thought leader in this space over the last few years since she's been leading it. We're going to hear from Michael Strain, who is the director of economic studies at the American Enterprise Institute — we're still used to saying our neighbor — on Massachusetts Avenue. So virtually our neighbor. So you're going to hear from Michael and you're going to hear from Byron Auguste, who is the CEO and co-founder of Opportunity@Work that investigates ways to rewire the economy in favor of those who may lack credentials but certainly lack skills. And, again, has been a real leader in this field.

So I'm going to get brief comments from each and then kick off on this question of how do we insure people against risk in this future where there may be more automation.

Diana, let's start with you, if you don't mind. And thank you to all of you for joining us.

Diana?

MS. FARRELL: Thank you for having us, Richard. And, you're right, it's not so new anymore. We're entering our sixth year of the JP Morgan Chase Institute. So I'm delighted to share some thoughts here.

I think the first question that I would answer as it relates to the topic here is well what are

we insuring people against? What is the reasonable thing? And I think that automation is making worse what is already true today, is that people do not have a sufficient buffer to withstand the day to day volatility that is the reality of most American's lives, even before COVID, but certainly now post-COVID and with the acceleration of automation that COVID brings. But I would say maybe as importantly as that is insurance against having the basics of life. Because for many Americans — and keep in mind, 90% of Americans consider themselves middle class — the basics of education, healthcare, housing, are increasingly beyond reach.

And so to ask the question how do we think about long-term social insurance in this way, I think we really do need to think radically about not subsidies for housing or childcare or healthcare, which, you know, are chemotherapy for cancer, as opposed to what are the fundamental changes to society that are going to change so that we eradicate cancer, meaning when we have structures that allow affordable housing, that they're building childcare as a matter of course, that make healthcare a basic right, not a narrowly subsidized quagmire to access. And you would go beyond that to say, you know, education and (inaudible) education to participate in the economy today. In large part, communications too, which would become core infrastructure for us.

I think as one thinks about this there's this discussion about well how much of this is private insurance, how much is public insurance. And so much of the work of the institute, for those who follow, are just how dramatically different the financial outcomes are for families that have a private buffer, people who are in a position to have some level of savings. And that's actually very important. And I can't stress how — whether it is in loss of income or exposure to any sort of the vicissitudes of life — a cash buffer, whether you're a household or a small business, represents the difference between night and day for many, many of them.

Having said that, we know it takes — for example, unemployment insurance. For a few hundred dollars — to make available the few hundred dollars of unemployment insurance that allow people to sustain consumption when they lose a job, a private household would have to have saved the equivalent of \$30,000. So, you know, obviously it's a much more effective tool to use public insurance for many of these things. But I don't want to underscore that we also need job pathways that allow people to accumulate a cash buffer and wealth accumulation over time.

Needless to say, this is all the more important if you bring a race lens to this because the starting point for Black and Latin families on all these dimensions are way worse. Their savings in particular, their wealth, is much lower. And so the public insurance mechanisms have to kick in even more aggressively for those groups of people.

So that would be how I'd frame it to start, Richard, but I hope we can come back to some of those points.

MR. REEVES: Well, I'm sure we will. The balance between kind of private and social insurance I think is important and how far it's about insuring people against future risk as opposed to current need.

Michael, I'm going to come to you next. I think you're obviously a supporter of many aspects of social insurance, but you may have a slightly different view about the current gap between what's being provided to people and what they need, but also your views about how you think the labor market is going to go in terms of whether we'll need more or less social insurance as we go forward and, if so, will it be of a different kind.

So, Michael, over to you.

MR. STRAIN: Thank you, Richard. And thanks for having me on this distinguished panel.

My first comment will be very brief, which is that we need to make sure that we are using the human capital that we have in the workforce and that the labor market functions in a way that allows for people to reach their full potential. I won't say more on that because Byron, who will be speaking next I think, is really — is doing some just pioneering work on that.

I think there's an interesting distinction here between social insurance and insurance. And let me begin on the question of social insurance. I think when thinking about how social insurance needs to change you first have to think about how automation might change the labor market. And there I think automation is changing the labor market in some ways less than we had thought. There's been a big discussion about whether or not we need to radically reform programs like unemployment insurance because automation might turn us all into gig workers, that traditional employment relationships are increasingly going to be a thing of the past, and that our existing work base social insurance system, you

know, largely assumes traditional employment relationships. The evidence that we've seen over the last few years really casts doubt on that. Traditional employment relationships remain the dominant way that people experience the workforce. And despite changes in the daily lives of many people who live in large cities, things like Uber, for example, the broader trend in the workforce doesn't really seem to be toward more independent contracting and freelancing and less traditional employment relationships. Or at least not nearly as rapid of a shift in that direction as many people had speculated.

Will that continue going forward? You know, I think it likely will. It's obviously very difficult to predict the future, but the kind of traditional employment relationship I suspect, Richard, to answer your charge of thinking in terms of the next couple of decades, will I think continue to be the dominant way that people earn a living over the next few decades. Which means that the way that we currently do a lot of social insurance, unemployment insurance again, for example, may not be adequate today but there may not be as much reason to think it will be increasingly inadequate as we go forward.

Another interesting aspect of this, of course, is that we have been living with the effects of automation for decades. And whether or not you think that social insurance programs need to be updated in the face of automation, you know, really can be answered by asking whether or not you think that over the past two decades social insurance programs have been adequate in the face of automation. And I think it's important — again, you know, I think we tend to conceptualize this as some sort of like a distinctive end. You know, one the robots will all swoop down and take all of our jobs. In reality the robots have been taking our jobs for 30 years. And that's had a profound effect, particularly on the middle of the distribution of occupations by wage and by skill.

The best insurance, distinct from social insurance, against this is education and training. I think if you look at the effects of automation over the last 20 or 30 years, I think the United States has not given workers the support that they need, it has not managed those effects adequately. The fault I think does not primarily lie in our social insurance schemes, but instead the fault lies in our ability to recognize talent and to give workers the skills they need, particularly in the middle of their careers in order to manage the effects of a dynamic economy, in order to maintain the ability to be productive in the face of economic change.

When I think about the next several decades, Richard, as you asked us to do, that I think

remains the key. The key is to insure against those risks by figuring out how to do skills and training better. I think that kind of insurance, rather than tweaks to the unemployment insurance system, is really our best shot at managing the effects of automation and making sure that our workforce is able to command high wages and is able to take advantage of economic opportunity.

MR. REEVES: Thank you. Thank you, Michael. And that's actually a perfect to Byron as well I think in terms of the emphasis on human capital. I'll just give a plug to some work that Bradley Hardy has done for us on the role of human capital as an insurance against downward mobility. We tend to think of it — our next panel will talk a little about upward mobility and so on, but thinking about it in that sense of just preventing the need to up-skill in order to stand still almost is something that I think is important. But also the extent to which our current system is working or not, and that's obviously — Byron that's very much your field.

And so over to you.

MR. AUGUSTE: Yeah, thank you, Richard.

And I took the charge to think a couple of decades ahead. And so given that I want to lay out some principles maybe that how — and, Michael, your challenge of like how do we need to update it. Because I tend to agree with Michael that we're not actually running out of work and we're not going to run out of work anytime soon. You know, work is solving problems and last I check we got plenty of problems. And, you know, it's healing and it's caring for people, it's educating them, it's entertaining them, it's building things, it's fixing things. There's actually a tremendous amount of work to do, and even all the work that we think of as, you know, automation. I mean I don't know how you guys think automation happens, but a bunch of people do work to automate things, right, like at all levels. So there's just an enormous amount of work to do.

So I'm not really buying the premise that people aren't going to have work, but I still think that there are ways that we need to evolve. What I think broadly speaking as a social insurance system, maybe things we don't think about as social insurance.

So I just want to touch on a principle level on somehow, somewhat, and some why. So on how, I guess my main statement would be if the future is automated then social insurance should be automated in the future. What's to say it should be automatic, you should know when you can expect it,

right, there should be triggering events. I think one of the tremendous weaknesses of our social insurance system now is how discretionary and arbitrary and unclear it feels to a person, right. And that applies to a lot of aspects of the system today. And we can talk about that. But that is I think one of the most important downsides because there's a lot of uncertainty in the world and working people are typically managing many different constraints. There's a lot of complexity to their optimization function. And social insurance that adds complexity rather than reduces it is not well designed. And you'll hear that in the examples I give, but I think it should be like — you should be able to expect it.

Second, on the what, I think we need to take seriously lifelong learning and meaningful work as something that needs — that a system writ large needs to actually kind of guarantee. And so what would that look like? You know, on lifelong learning, and back to the point about being automatic, a huge barrier to people re-skilling mid-career is, well, money. And it's not just the money for the training. That's the actually kind of the lesser of the problems. The biggest problem is the opportunity cost. How do I feed my kids, how do I pay my rent, how do I do all these things.

So the sense in which you want a system that's relatively automatic, much more so than it is today, is, number one, you want sort of a triggering event. Like let's say you lose your job, let's say your job is like — it doesn't have to be trade, it doesn't have to be a particular thing, you should have — I think Gene Sperling calls something like this basic income to rise, right. So it's the moment when you're sort of — you're going to have to change gears and you're going to have to do the work to get to the next level in terms of skills and training, that you have the income support to do it. So it's a bit like TAA, but TAA is completely discretionary, it's very bureaucratic, it's too slow and you have to prove a specific reason for why you lost your job. Who cares what reason? Like you should be able to move quickly.

A second aspect to that lifelong learning is actually to be able to build on the skills you have. And this is work we've been doing at Opportunity@Work. And to have the — because people gain skills on the job, right, not just in school. And if those aren't recognized it puts tens of millions of people at a real disadvantage. So if you want to get an outcome of meaningful work, right, then you actually need to help — institutions need to help people bridge. They need to do the work to gain the skills, but our institutions needs to be better at connecting them to jobs and actually sort of signaling the skills they need to get.

So that's the what, lifelong learning and meaningful work.

And then a little bit on the why. And there's kind of more ideas in that. A little bit on the why. So humans are learners and problem solvers. And it's like a very fundamental part of our makeup. And in a funny way, the way we economists think about the labor market, supply and demand, is a little bit arbitrary, right. We think of labor supply as people who have a leisure preference, we call it, but if you give them enough money to do something, well, they'll get off their butts and do it. And we think of demand as, you know, we need to make something, you know, a company, and so (inaudible). But it's kind of arbitrary, because if you look at the hedonics literature, like actually having meaningful work is a massively important part of people's happiness, of people's welfare, of people's well-being, right, of their utility. So it would be just as natural to create a labor or create a labor market where the demand side was people's demand for meaningful work and the supply side was different problems that needed to be solved, right, and to sort of do it. And that's the sense in which I think if you actually — if you think about the kind of tools we have, the very kind of automation tools, the agents and so forth, if we actually had an entitlement for people to — for example, their own software agent who could help tutor them, who could help them hit — fill in the gaps of what they're missing, that they own, that helps them on their way, negotiates on their behalf. I actually think there's no reason you couldn't do that. Big institutions will have it, rich people will have it, companies, governments. What about sort of individuals, navigate through that.

And, on the other hand, if you had the big things that need doing, some of which have a natural business model to pay people a lot of money, some of which have a less natural business model, like elements of the care economy, for example, or elements of public infrastructure.

And the final reason why you need to connect lifelong learning with meaningful work is that the vast majority of job relevant learning actually happens on the job. So to have a big training initiative or a big training fund, disconnected from the work that needs to be done, is not going to do what we need to do, right. What you want is, hey, these are infrastructure projects, and when there's more people who need to work, train them up to do that. It might take a while, it might not be shovel ready, but train them so they're getting into a new thing. I think we could create that kind of — I think that sort of addendum to the labor market should ultimately be part of — whether we call it social insurance of whether we call it labor market design, or something else, lifelong learning and meaningful work needs to

be designed for in our systems.

MR. REEVES: Thank you. There's so much there. I actually have to say that the phrase "lifelong learning" is one that I've moved away from and tried to ban my team from using, not because it's not important, just because it feels like we've been saying it for so long that it's just become one of those things you say. You know, if I'm in a tight corner on a panel as to what we should do about something, my go to sort of being lifelong learning and pre-K. But that's —

MR. AUGUSTE: Yeah. And the connection to earning is the thing that's always missing. And I'll also observe that you can say it, that doesn't mean it happens. Like we should start doing it.

MR. REEVES: Right. Quite right, because we've been saying for a really long time and it has been — and it was a really good way to get out of difficult conversations — we'll have lifelong learning.

MR. AUGUSTE: Right.

MR. REEVES: Sure. Meanwhile we have done essentially nothing about it.

So, anyway, there's lots there on all three. But, Marcus, I want to bring you back in. Having spent the past couple of years looking at all these issues for us, what are your thoughts on what you've heard and more generally?

MR. CASEY: In general, it's funny, it's like Byron was sitting in my head over the last couple of weeks because many of the comments I was going to make —

MR. AUGUSTE: I was, Marcus.

MR. CASEY: — were precisely these issues. (Laughing) So as not to be redundant, I mean I actually talked about this with a couple of people about this, and it's just interesting that he and I are on the same wavelength.

I do agree that we need to have these sort of — you think about the social insurance of the future, we need to have these automatic sort of responses. So just to kind of piggyback off his statements, since they mirror mine.

So one of the things that I was suggesting is that we need to rethink the way we've structured our social insurance system. There's be an emphasis of classic public economics, fiscal federalism, right. But, you know, as the COVID-19 crisis has kind of shown us is that fiscal federalism

has led to a wide variety of social insurance responses that, you know, leave some people getting their checks almost immediately, like here where I am in Illinois, whereas I know some people who live in places like Virginia and some other states who still haven't received any of their unemployment benefits. They've been off work nearly eight months.

And so this sort of thing, if we are going to ensure people are able to receive sufficient resources to engage in continuing to learn rather than lifetime learning, you know, and be able to put themselves in the position to transition, especially if we anticipate that there might be increased volatility in the future.

Like I agree with all my colleagues on this panel that I don't think work is going away, right. It's just the nature of that work. And I worry about that there's going to be a set of occupations that are going to be highly skilled and that are going to be available to a certain subset of people because they either have the know how, they have the resources, they have the ability to kind of jump into these highly skilled positions. And then there's a whole set of other jobs that are going to be open because people haven't received the requisite training. And so I agree with Byron, again, that we need to anticipate that, right. We need to have a pool of people, and many of whom may have recently lost their jobs, and put them in position to actually gain the training they need so (a) they don't have to stay on social insurance, per se, for a very long time, right. And so that's where the automatic sort of nationalized nature of social insurance is going to be key, right. Let's get people what they need, get them training, and get them back out.

I think of how we deal with a lot of occupations like the State Department or the CIA or some of our other government agencies. When they need to redeploy a worker off to another country, they bring them back for six months to a year, give them intensive training, and put them back out in the field. And so I think we can do that for more of our labor force and that will be great in terms of having a more dynamic labor market response to get people where they need to be to earn, right.

I mean ultimately I think — so to go back to your original question about things like is a universal basic income the right program, I think one of the problems with these sorts of things is that they're not well targeted, right. And so we need to think about targeted investments in people to get them back to the workforce.

And I agree that by and large most people really respond to actually having something to do. I think very few people really want to sit at home. And so equipping them with the skills to get back in to the workforce as soon as possible in this automated future will probably be the best thing for both sort of their well-being, but also our well-being and our dynamic economy here in this nation.

MR. REEVES: Okay, great. Thanks.

Let's drill down on a couple of these things. I have some questions coming in as well, and maybe come back to the rest of the panel. Feel free just to respond to anything else you've heard from your co-panelists. But I think actually a nice place to start is around this idea of adjustment assistance, right. So TAA without the T because I think the evidence supports you, Byron, that it's almost impossible — trying to figure out exactly where in the chain this kind of went wrong is very difficult. So adjustment assistance, or active labor market policy — whatever. But this idea that something kicks in, right. You need help, right. You've lost your job, there's an adjustment required here. But it's pretty expensive. You know, you need not only the money but the time, or the opportunity cost, as you kind of put it. Especially if you are later in life, you may have — you've got kids to look after, you've got bills to pay. It's very different from when you're 17. So it can be — you know, it's not necessarily a cheap option.

I'd just kind of like to get reflections. Maybe, Michael, we can start with you, and then Diana, just thoughts on this idea of this kind of adjustment, this kind of bounce, this triggering that kind of Byron's identified. And then maybe we can kind of come back and see what you think.

Michael, does that fit with your idea of how a modern or future social insurance system should work? And, if so, are we willing to invest as heavily as we might need to in it?

MR. STRAIN: Yes. And I think it does. I think the most important — or at least one of the most important observations is that we should be agnostic about the cause of the job loss. You know, there is an academic debate about whether or not automation of trade has reduced employment in certain areas more. That debate has enormous political consequences of course. You know, we've just gone through four years of a protectionist administration and this argument that trade with China has really adversely affected the middle class. But at the end of the day our programs should be designed to advance economic opportunity to workers who need economic opportunity. And it shouldn't matter

whether they lost their job due to trade or whether they lost their job due to technology, whether they lost their job due to some other factor. Our goal should be to provide on ramps to the labor market success. And it shouldn't matter why you need to get on the ramp.

So that I think is extremely important. We've given a lot of — you know, TAA, trade adjustment assistance, that gets folded into trade agreements for political reasons. And that's fine, and we still need to do that for politics, but we should have, you know, an identical program for people who lose their jobs due to technology or other reasons as well.

You know, is it going to be expensive? Some of it could be. Some of it doesn't have to be. I mean, you know, what we saw in the aftermath of the Great Recession was significant differences in labor markets across states. Some states — North Dakota, for example, had an unemployment rate of 3% or 4% at the same time that states like California and New Jersey had unemployment rates of 8% or 9%. There were workers in California and New Jersey who were receiving unemployment benefits for months and months and months and months and months. Why not allow them to take some fraction of that unemployment benefit that they received week after week after week and use it to move to North Dakota where they could get a job that would pay well? That would help those workers. It would also help the economy recover faster from the recession by bringing down the unemployment rate in places where it was too high.

You know, I think that there are of course going to be other programs that will need more financing than that, where you can't just redirect existing financing, but I think we're getting better at understanding how to do those in a contemplative manner.

MR. REEVES: Right.

MR. STRAIN: Work based learning programs, for example, are both more effective when done right at imparting schools to mid-career workers. And, Richard, they address your concern, which is totally reasonable, that mid-career workers often have financial obligations they have to meet. In the work based learning model you're still earning some income while also gaining some working credentials.

MR. REEVES: Right. I think this earn and learn thing, which Annelies Goger at our shop has done quite a lot of work and is kind of a hugely important part of it. Just in terms of the money, I did a back of the envelope calculation that for every dollar we spend on trade adjustment assistance right now,

we spend about \$25 in subsidies to the endowments of elite colleges. So it feels to me there's probably some money that we could reallocate.

MR. STRAIN: Yeah.

MR. REEVES: I mean I don't want to be anti-Ivy league or anything or think that their endowments are too big and they could maybe access, but —

SPEAKER: We also spend a lot of money on middle class seniors.

MR. REEVES: Sure, right. But let's — even if you kept it within the human capital bucket, like the amount of money — Diana, I just want to let Diana in it first, okay. Anything (inaudible).

MS. FARRELL: I guess I would underscore something that both Michael and Byron, and Marcus actually — all three have underscored, but that I think is really important. Part of the colossal failure of the TAA programs, in my view, was that they were hard to access, to your point, Byron, about — they need to be more automatic. But, importantly, they were parallel and disconnected from any real activity that engages work. So any adjustment assistance that we should consider as being effective has to be integrally linked to work. And if that means you subsidize work that is guaranteed to give employees skills, that I would be excited about. It combines work with the training.

So, in general, I don't think we've given enough thought to the critical role of an employer or workplace as the place where you get the training. And so I would think that would be an important design element.

The other point I would raise is an idea that needs more details to be well executed, but I think it's a really powerful concept, which is that it is too true, unfortunately, that many employers are hiring people with a set of skills that they deplete and then they send them back out into the workforce with the depleted skills, relative to where they came in at their time in their journey in employment. And there should be, in my view, a reward or maybe a penalty for laying off a worker that is not more skilled than the worker that walked in the door. And, you know, again, you could do it through some form of a credit, you could do it through credentialing credits, otherwise, but I think we would all feel better in a world that is likely to have more turnover, that an employer has an obligation to take a set of skills, improve them, whether that person stays in that job or not, that they're more credentialed on the way out than they were when they arrived.

And I don't know how much thought has been given to that. And I know some companies are thinking hard about how to make that part of the value proposition for talent at all levels, but I think that could be part of an interesting design program.

I do want to come back to something you said, Richard, though, which is that in all these conversations, of course we all believe in pre-K, of course we all believe in skills training, of course we all believe in program adjustments, but I still think that there is a higher level issue. If we manage many of those things that for a vast majority of Americans, even those who are still employed, we have an economy that just is not delivering the basics. And, you know, if you consider I mean the great work that Adam Looney has just done with — the middle class income increased three times what the market income did. So without the transfers and all the government stuff, we're just not creating pathways for a lot of people to have a house, to educate their children, to provide a little leisure, and some form for retirement. And I worry that we really do need a slightly more fundamental rethink about how do we provide meaningful work, as you suggest, Byron, which I think is critical to our livelihoods, but that that is not a condition for the basic ability to live a life.

And I think I'm really concerned for our — this economy's ability to deliver that to a very large swath of the population.

MR. AUGUSTE: Well, just to help Richard avoid plugging his own book, I think the "Dream Hoarders" book that Richard published a little while ago is very relevant here because like why is higher education, to some extent healthcare, certainly housing, why is that so much more expensive relative to a classic middle class income. It's very much because those — so like let's take education had housing. So what is gentrification about? Gentrification is about you can't build — because of NIMBYism you can't build, you know, middle class — you know, upper middle class housing in the areas you want to build it, so you sort of push out the people with no political power. But the fact of the matter is, to get more affordable house, sure there's affordable housing policy, but there's more housing, right. And all this technology and this — we could build more houses, less expensively, more modularly, we could actually employ more people in it, and they wouldn't have to earn less because there's a massive latent demand for actual housing. But you have to sort of break out of this political economy that favors, you know, the top kind of 10%.

And I think a very similar thing actually happens on this nexus between education and employment. And I think it's astonishing that we take for granted that healthcare — like business require like the healthcare social insurance system, which is a little arbitrary, but on the skills, like businesses and its activity is taken granted and we say what do schools and government have to do. I mean actually if you look at the changes in the last 30-40 years, it's really changes in business practices that have been massive, right. Like in terms of who they hire, right, like on what basis.

So when we talk about the cost — and Richard and Michael, you were talking about the cost of kind of, you now, like the adjustment assistance and so forth. The cost is much, much higher than it needs to be because of the way employers train. So if you are a project manager in construction and you don't have a bachelor's degree say, you have like 85% of the skills to be a project manager in a hospital say, but like you lose your job in construction because construction tanks, you know, sort of downturn. Do you know how hard it is to like be able to get recognized and have — get a job — get that last 15% of training. Even at the — for a job as a project manager in a hospital, it is ridiculous. Like if you treated Americans — there are 71 million Americans who are deeply attached to the labor market, but do not have bachelor's degrees. They have all sorts of skills from working on the job — STARs. They're skilled for alternative routes. Right now there are tens of millions of jobs that say STARs — these 71 million Americans cannot apply. Not we evaluate your skills and find them wanting, but we will not consider your skills a priority. I believe if you did that to German steel, you'd have a WETO case against you. But we do it to 70 million American workers. And that massively raises the cost.

So before employers should be — as Diana said I think — employers — like the incentive is to do the right thing, but frankly there are some very wrong things that are being done right now that need to stop. And it's really — it has a social destructive effect. It's almost like a pollution. It's like a very negative externality, the way these systems work. We cannot ignore the employer role if we think about skills, training, and work as part of a social insurance system.

MR. REEVES: This is part of the problem there. Byron — just maybe one minute on this — is in whose interest is it. Employers should be incentivized to take people with the right skills and don't care if you happen to get a B.A. or otherwise. It's just more efficient to do so. And the problem comes back to the fact that for those who are in a position to get those credentials or get them for their kids, why

on earth wouldn't you want an economy build on credentials, right? So for those with credentials a credentialing economy is awesome. And, guess what, we can go get them.

And so what's the incentive? Like what's the — the political economy of this seems to me to be the kind of challenge here. Everything you said just feels entirely right to me. And if it's true, then it should change, but it won't because of the vested interest against it.

Can you just say a minute on the politics of this, Byron?

MR. AUGUSTE: Yeah. Well, I think we have some pretty extensive recent evidence that rigging the system of employment against 70 million working class Americans isn't great politics, it isn't great for our political economy, it isn't great for the values that a lot of these highly credentialed folks share. So I think writ large it's actually an incredibly damaging thing and it should be very high on the list of reforms to make this system work more fairly for everyone. Because I can tell you, the phrase — we're very into the phrase, I know what I can do, but no one will give me a chance, is something I've heard from Americans in every part of the country, urban, rural, exurban, you name it, white, Black, Brown, everything. And that is actually like in a funny way, a sad way, a unifying experience of tens of millions of Americans. And I think it's very consistent with both our politics and our values, and it's actually not that hard to do to change the system so that if you can do the job you can get the job. And if you can learn the skills, you can then earn more from them.

And that's — you could — if you look at that system end to end and you do that with intention, you actually can design a system that works that way. And the technology actually helps you, it doesn't hurt you. But you've got to care and you've got to want to.

And, you know, Richard, we live in a cynical age and you just made a very cynical statement. So I don't know, maybe in our heart of hearts, like all the people with power, like just want to keep the other tens of millions down, but it's not a sustainable strategy if they do. And, frankly, it's — we all actually lose from the standpoint of the innovation and the creativity and the resourcefulness that you see in essential workers as they reconfigure systems and all that. Those are exactly the kind of skill sets and dynamism and adaptability that employers say and mean that they need, but they're looking not in all places.

MR. REEVES: I only made a cynical statement in order to provoke an inspiring

statement from you, Byron. Just want to make it clear about that.

Diana, did you want to say one more thing really quickly? And then we need to move — looked like you were leaning toward — good, all right. In that case I've got to move — that was a perfect segue actually to the next panel. I would love to carry on with this one, but we have great panelists who are coming up too. So just kind of let me thank — Marcus, thank you again for leading this work at Brookings. And, please, check it all out. And thank you to our distinguished guests, Michael and Diana and Bryon. Just terrific stuff. Thank you for all your work in this space.

And we'll now move onto the next panel. Thank you all for coming.

So we're now going to move on. Actually, it was a perfect segue into this issue of opportunity and equity. Obviously there's a fine line between thinking about insurance and thinking about opportunity, thinking about equity and what it means to think about opportunity and upward mobility. So if we think about the first session as partly about just insuring against risk, the second panel is also going to be looking at how do we make sure that there's equitable access to resources, how are we upwardly mobile, both intergenerationally, from one generation to the next, but also intra-generationally, how can workers move up the ladder, and how do we insure equitable access to the jobs, the resources, and the training, the assistance that we've just been talking about?

I think it's true to say that we have a challenge in terms of equity and opportunity in the U.S. inter and intra-generationally. And the policy has been inadequate to meet that challenge thus far. And sort of going away, it's a slower moving, it's a slow burn crisis perhaps, rather than the quick burn that we've seen of 2020, but nonetheless there.

So this session is specifically on opportunity and equity. And thrilled to be joined by some new panelists who are going to in the same format kind of weigh in on this question again of (inaudible) my blue sky, think forward, what are the equity challenges and opportunity challenges for the next couple of decades.

We're going to create jobs it sounds like, but who's going to get them, what's going to be the allocation of the good jobs, the quality jobs, etc.? What obstacles are there already or might there be new to upward mobility, this sense of being able to kind of move up? What might we need to do differently or better to promote equity in the more automated world that we're already in and moving into

more generally?

So with that in mind, I'm just going to very briefly introduce our panel and then I'll ask each of them to just say a few words on the subject and then we'll get into it.

So, first of all, we're going to hear from Peter Blair, who is an assistant professor of education at Harvard and a good friend of Brookings. So thank you, Peter, for joining us. Looking forward to your comments. Kara Swisher, who is a columnist with the New York Times and also host of a really, really excellent podcast called Sway, which if you don't listen to it, then I really, really think you should. It's excellent. And then my colleague, Nicol Turner Lee, who is a senior fellow in Governance Studies here at Brookings and is the director of our Center on Technology Innovation and has done a lot of work thinking about the intersection of technological change and equity.

So thrilled to have all of you. And we'll just do the same thing again. So, Peter, if you want to kick us off, and then I'll come to Kara and Nicol? Peter?

MR. BLAIR: Yeah, sure. And let me just share my screen for a moment here.

MR. REEVES: Sure.

MR. BLAIR: It's a pleasure to be here with you all, Richard, on this really important topic. And I found the first panel incredibly insightful. And what I want to do here is just to frame this issue within a generational view in terms of how the U.S. labor market has been changing over time.

So in this first picture here what I want to do is just really highlight the fact that there are over 71 million Americans who are active in the labor force who have high school diplomas but who don't have college degrees. And I want to really focus in on this group of workers for the following reason: if we look at the future of work in the United States, about 74% of jobs that are going to be created in the future are going to be created in companies where they typically would hire workers with college degrees. And so that necessarily is going to be screening out close to like three-quarters of Black workers, Hispanic workers, and workers in rural America. And so these are huge swaths of the United States that are already in a lot of ways very vulnerable, especially in this current COVID context.

Secondly if we look over the broad swath of time, what we can see is that in the past 50 years we've seen increasing mobility for workers with bachelor's degrees and we've seen declining fortunes in terms of real wages for workers with high school degrees or less. And so this population is

already pretty hard hit.

And so the question is, you know, what is it that we can do. And so something that I've been working on with colleagues at Opportunity@Work, as well as Erica Groshen, who is at Cornell University, is really thinking about how can we address this population of U.S. workers who represent a large fraction of the U.S. labor force, but who have been experiencing downward mobility for the past five decades.

Now, there a couple of things that we could do. You could say well why don't we just give everybody a college degree? Well, we would effectively have to double the amount of slots for higher education in the United States. And given the rising cost of college in the U.S., that's not something that's tenable. And so what we want to offer is something that's going to be a lot more immediate, something that's going to engage both employers and employees. And the core idea is the following: if we can look at workers who have high school degrees but not college degrees and recognize that they're learning skills as they do the jobs that they're currently in, then we can see them as STARS, people who are skilled through alternative routes. So, for example, somebody might start out in a job as a retail sales person and a lot of those skills are going to be transferable to a job as a customer service representative, which is a higher wage job.

And you can think about the labor market as where do I enter, how do I transition to a gateway job, and that gateway job can then take me to another job that's going to increase my wages? And so at each point along this juncture workers are learning as they are earning. And their learning is being translated into future earnings too.

And I just have here highlighted a STAR, a LaShana Lewis, who went from being a customer service representative to being a software engineer. So this is not something that's pie in the sky.

I want to end with the following figure. So one of the things that we did in our recent NBER working paper is to look at like what's the likelihood of mobility for workers who have a college degree versus workers who don't. And then we separately bin that into job transitions where wages decrease for the worker or wages are stagnant or wages increase. And we look at the gaps in terms of mobility. And so over the past like 40 years, for each year the mobility for workers who have college

degrees versus STARs, in stagnant transitions or in transitions that lead to downwardly mobile wages, it's basically a coin flip whether college workers are better off versus workers without college degrees, or STARs.

But when we look at the upwardly mobile jobs, this is the place where every year for the past like 40 years in the United States, college workers have benefited from greater mobility than workers without — workers who are STARs. And so really like the fundamental takeaway from this work is that if we think about looking at workers based on their skills, we recognize that there's a large swath of folks who have the skills to earn higher wages, but it really comes down to recognizing that when it comes to upward mobility that firms need to take the skills of STARs very seriously, not just when it comes to stagnate wage transitions.

And so that a key part of the research agenda that we've been focusing on is like how can we engage workforce partners to help to up-skill workers and to help to create pathways for mobility for workers who are STARs in the labor market.

Thank you.

MR. REEVES: Great. Thank you, Peter. That was a perfect introduction. And thank you for — you know, I thought we were going to have an economic studies event without any charts for a horrible moment there, but you've saved us. We have charts, and excellent charts they are too.

So, Kara, I'm going to come to you next. You obviously — a lot of your work is in the tech space, thinking about the role of technology more generally but also in terms of kind of equity. I was struck by your recent interview with Raj Chetty where you asked him about the equity fate or equality fate age and he said 23. I think that does speak to this point that Peter has just made, which is this idea of the industry generally, the labor market generally just judges what you do in the first quarter century of your life and after that it's — so it's more like high jump than hurdles if you like, right. It's like you enter the right credentials, probably going to be okay, don't and you're probably not and little chance of movement in between.

First of all, is that a fair characterization of the world?

MS. SWISHER: Yeah. For some people it's third grade actually, you know, in terms of their ability to move out. And also it has to do with zip code, which is something that Raj has been doing

a lot is taking actual data and inputting it rather than guessing, which a lot of our legislators have been doing. You know, these anecdotal guessing games around things when there's actually data. About a lot of things. And I think that's one of the things that's how we use the data for good. I mean data is obviously been pilloried for all the invasiveness. I write about this a lot. You know, I just wrote about my experience with Amazon's Halo, which was terrifying in terms of the data it inputs. But a lot of the data does show this issue around where you drop out, where the inability to move upwardly is very clear, without some level of luck or particular drive, right. This is — we're talking about — you know, everyone — it assumes that everyone is extraordinary and everyone isn't extraordinary. They are — you know, there's incredible talent everywhere and the ability to access that talent has really been declining. And I think about it as — I call it talentism. That we have to really start to focus on talentism and credentialing in a very different way. And so you see a lot of tech companies trying to address this issue and what a credential is. Do you need a B.A. or were there other — Google has just announced their programs around credentialing and qualifications based on a series of schooling that you take that isn't traditional schooling, that isn't college that gets you into all kinds of debt and you wonder whether it's worthwhile. The actual things that companies — then you can take to a job and this is just as good as a B.A. What you've got to do is get companies, maybe starting with tech companies, to accept which have been notoriously — you know, the big joke at Google is you had to go to Stanford or MIT or you didn't get to — maybe MIT — you wouldn't get into these things.

And so the idea of what is a credential and what is a qualification and what is at training. And I think it's been sort of off to the side and been done by companies in a haphazard — and often tech companies to do this. And so think a lot of that is really promising, especially the Google programs, to give certification and credentialing and so employers can feel that they are getting the final skills they need.

You talked earlier about this idea of lifelong learning, and I know one of you said it was like oh, I just throw that in, but really I mean right now the job market is about that because what we've got to start to get used to is this idea of not just lifelong learning, is if you don't continue to upgrade your skills, you're going to be held back rather significantly. And then secondly that you don't have these opportunities to do that, you become useless as an employee over time. And I think that's the other side

we don't pay attention to, is the lack of ability to move upwards and to continue to train. I think most workers are now going to have 10 jobs. Or there's some number. I forget the last one I saw, but especially young workers.

And then the last part I think we should discuss is this idea of what gig worker is and what it means. Every single person is going to be a gig worker. I mean I just did an interview with the Cameo, which people make fun of because it's like (inaudible) work of wishing you a happy birthday or — you know, it's celebrities doing all kinds of things. But it's about gig work. These people get — one person who was on The Office is now getting paid \$1 million to give greetings. And I know it sounds dumb, but you could see this start to — Patreon, OnlyFans, all kinds of things where you sort of collapse the ability to earn and everyone becomes a worker in a different way, removing the gatekeepers and the ways that you got into jobs. And so we have to think about what that means for healthcare, all kinds of benefits, and the ability of companies to hire.

And then the very last thing is, obviously, impact of the pandemic around where work is. And I think that's going to be a massive issue because I don't think we're going back. I interviewed the head of Tata. I'm thinking of having him on the podcast. I just talked — I called him up. I think he employs hundreds of — I forget the number he employed, but he said that 15% of his workers were remote at the start of the pandemic and now it's 85%. You know, they're a conglomerate, they employ — it's one of the biggest employers in India. And he doesn't want to go back. And so many employers really do understand the financial efficiencies of not having people in workplace.

And so what does that mean for different levels of workers, and especially workers who have to physically be present in places. One of the things that really struck is Nicole Hannah Jones — I did an interview with her — and instead of calling them essential workers we have to start calling them sacrificial workers at this point for the economy. And they're largely — a lot of them are people of color, they're people who are poor, they're people that have to be present, they have higher incidences of the virus, of catching the virus. And so we are designing a system, a pandemic really, for rich people. I mean it really is in terms of testing, in terms of benefits that pharmaceutical companies get. Those tests you take that cost \$200 really actually cost them \$6, their tests that cost \$20 cost \$0.50. there's something going on here that's really problematic and designed for people who can stay home. But that's

going to be the — that's a big issue, is technology is more and more allowing us to stay — certain workers to stay home and others not. And so what do we do about that.

MR. REEVES: Yeah, I think it's interesting the previous panel there was an agreement that, you know, we haven't had this massive change as a result of automation, but ironically the change that we all thought was happening and now didn't think and might now be to (inaudible).

MS. SWISHER: Well, automation is going to kill a lot of jobs.

MR. REEVES: Right, well, that was part of the conversation.

MS. SWISHER: It never went away. That's — there you could — Amazon just talked about this monitron. I don't know if you've seen this new thing they're coming out with, which is it monitors factory workers and machines.

MR. REEVES: There's nothing good about the word monitron.

MS. SWISHER: Well, exactly. I know. (Laughing) What room were they coming up with — but they're (inaudible) to everybody.

MR. REEVES: That's terrible branding if nothing else. Okay, I'm going to move on. There's a lot in all of this so far from both of you, but, Nicol, I want to bring you and then I'll kick things back.

DR. TURNER LEE: So thank you, Richard, for having me and it was so good to see Marcus on the first panel. I actually listened to that first panel. And let me just caveat my remarks by saying I'm a sociologist, so I'm all about structure. So all these economists and educational specialists on this panel, I'm just going to tell you I'm coming out a little different in terms of what I actually propose.

I mean I want to actually just deal with the people of color, particularly African Americans who are going to be affected by automation. When Richard asked me to join, you know, whenever I think of equity and opportunity I go back to what is most familiar to me, and that is the fate of the Black worker. And in particular we already know that automation was coming. I mean this is not new in terms of the shifts that affected African American workers. We saw it with the manufacturing revolution, we saw it with the early stages of technology. Today it's a little different because of what Kara said, the pandemic has accelerated the fact that now people who were essentially front line workers, or sacrificial workers, right, are now in a space where they're not getting the skills that they need to actually survive outside of this.

I mean there are 100,000 small businesses that are going to be closed as a result of this pandemic because they were not agile enough to adapt to new technology. Those folks that were employed by those businesses, particularly Black businesses, will not be coming back to a job. And so now we have this place where we actually are going to have this mismatch between supply and demand, which I think is really important for Black workers.

One, I think it's — I'm preaching to the choir when I say that we already know that African American workers without a college degree will be disproportionately impacted. Black men in particular, Black women next. We also know, as the other panelists have suggested, that there's this multiplier effect that comes with this accelerated loss of revenue among businesses, wage disparities, the fact that we have educational achievement losses.

Let me leave you with one statistic on what I've been working on as well, which is broadband access and school aged children. McKinsey just recently came out and said that Black children, Black K-12 students who are disconnected from school, whether virtually or in person, will be behind 10.3 months in learning. Those learning losses are going to show up for low-income kids by a year and Latino kids by about eight months. What that means, I've been telling people, that in the next decade when those kids go out to work, they're not going to be able to have the skills necessary to compete in the new economy, which is interesting me, because technically they're doing all of this, so they may actually have some of the skills necessary to work in disaggregated work environments or to be decentralized, right, in their work functions. I have a 14 year old daughter who says to me every day, if I have to work like this I don't want to work. But she doesn't realize that is the future of industry.

When you begin to pile on these other system inequalities, you have to wonder what do we do next. And I am really taken by the earlier conversation, as well as what my fellow panelists have said, the intention toward people of color is going to be most important because often times they are not in jobs that actually have those types of training benefits that allow them to upscale. And so as a result of the rapid acceleration and digitization in our society and world, they're going to be left behind. And that's really dangerous for us because that means that the only roles that Black and Hispanic workers can take are roles that have these other very, you know, consequential activities related to the public health pandemic.

MR. REEVES: Right.

DR. TURNER LEE: Depending on the age, they may not be vaccinated. Depending on where they work, they may not be upscaled towards technological skills.

With that being the case, I would also add to this — and I'll just close out with just a couple of things to just think about for this conversation, they also don't have broadband access. So as we move systems of training from in line to on line, you now have workers who are disserved because they can't get on line to connect. So I'm doing — Richard actually helped me with this — so, Richard, I changed the title of my book. So it's "Digitally Invisible: How the Internet is Creating the New Underclass." It comes out next year, Brookings Press. What I found after doing qualitative interviews across the country, is that many of the workers that we're referring to who have been impacted by automation don't even have the minutes to take them through the entire month to connect to a new job or to connect to workforce training. So that in and of itself is another problem.

So what do we do? I mean I'll just throw this out for conversation. Again, I'm the outlier when it comes to broadband access. First and foremost, we have to accelerate broadband access. With automation comes the assumption that people will have access to technological tools. We cannot be in a space — and I was just on a panel prior to this — where using in line, in person old archaic service delivery models to get people to a place where they can be repetitive and receive livable wage scale jobs doesn't work anymore. Everything is on line and we have to figure out ways to accelerate broadband access for that purpose.

I would say the second thing we need to do, and this is something I'm proposing in my book as well as my work, is we need a need a tech New Deal. Decades out we should be thinking about the relationship between broadband infrastructure, workforce development, and the various industries that we are going to see come out of this new economy. Why is that important? When you have a tech New Deal you begin to look at the Department of Labor apprenticeship programs as way to sort to jump shot how people get into the new economy.

I'll give you a perfect example. A couple of years ago — or five years ago now — when I was at a previous job, the Department of Labor had the apprenticeship program. There were no monies allocated to things like wireless infrastructure training despite the full gamut and robustness of wireless

ecosystems and the emergence of 5G. Three groups got together, civil rights organization and industry organization, as well as another association, to sort of come up with a plan to train Black men and women on how to get into these industries, which are livable wage scale jobs. What that taught me is that we tend to focus on coding and other computer science engineering jobs when really we have an infrastructure much like the dams and the roads and the highways of the past that need to be built. To me that's an important pivot in automation.

And then I would say the third thing is we need to train across and not out. So there's this assumption that only Black workers have to be trained in ways where they have these credentials to actually compete with space. I love what Peter said, in some cases the skilling is the most important thing and maybe the credentialing might be more important than actually trying to figure out what kind of degree you have. When you train across, you have the potential to actually bring in people who have to just change the way of thinking about work that is very different than what they're used to.

So I'll give you a perfect example and then I'll shut up. So when I go back to the example of the car industry, you can train people out of new models of automation and innovation and variety of sectors, but when you train them out you also lose the type of expertise and talent and knowledge retention that will also be able to provide support. Because at the end of the day, the car still needs a shell, it still needs an engine, and it still needs people to understand the supply chain.

I wrote something for Robin Kelly a couple of years ago when she was interested in this whole thing about the future of work, and what they could not reconcile in congress is well where do we put those resources so that we can allow people to train across rather than to train out. For Black workers that is so particularly important because what it suggests I that we're not putting resources in places to invest in the workers where they're at. And I think somebody said that earlier, meeting people where they're at, and allowing them to grow with the industries, not grow on the margins of the industry. And that to me is the most important part of this, Richard, and hopefully in this conversation.

MR. REEVES: Okay.

DR. TURNER LEE: Automation is not passive. There is an ideation process and a production process that unfortunately on the equity side millions of Americans who do not fit the profile of big tech are actually excluded from participating and we're seen almost as a group of people that need to

stay in one vector versus being able to adjust our behaviors, our leadership skills, our work skills to be able to participate.

MR. REEVES: Okay. Thank you. All right, let's —

DR. TURNER LEE: So that's my story and I'm sticking to it.

MR. REEVES: Let's stick — there's a lot here we could dig in, so thank you, all of you for your comments.

Let's dig in a bit, because I think there are distinctions here between we want to lower the stakes of what happens earlier in life, we want to change the skill distribution, its current inequality. We also want to reveal the existing skill distribution as it is rather than camouflaging it with credentials. So I'm trying to sort of break down some of these kind of different challenges a little bit and come back to this kind of issue.

I want to be clear, Kara, when I sort of said like I'm sick of saying lifelong learning, it wasn't because I don't think it's hugely important, it's because I think it's just become a glib thing for policy people to say without ever actually doing it. You think about all it actually requires.

So, Kara, can you say a bit more about the difference between talentism and credentialism? And then maybe I'll come back to you, Peter, as well and say how do we kind of un-camouflage the skill distribution even as it is, even before kind of start changing that skill distribution?

But, Kara, back to you first because I want to ask this before, but didn't want to delay the movement, but talentism.

MS. SWISHER: Well, I think they're not unlike each other. They're different things obviously. Talentism is the concept that I keep talking about, which is that there's talent everywhere and it needs to be accessed. It's like precious minerals in the ground that never get out. Like the little girl in Syria who has the answer to cancer or whoever is — where do you find and how do you access talent. And I think that in technology does — could facilitate that if it's used properly. Because you begin to train people in places that they weren't — that they're not able to get out of, wherever it is, or give them access to things. And I think the issue is we decided that certain people deserve access and certain people don't. The fact that we don't have widespread broadband is — it's like saying we didn't have universal telephone service. It's literally like here's two tin cans and a string, good luck people, and then wonder

why they're not as good. You know what I mean? It's just this — we design the answers to be the answer we want to have, which is not to give people — the fact — we're a third world country in broadband access. The other countries take this — this is a serious national security issue too because it's really important, even though there's issues around hacking and everything else. The inability — and this pandemic has shown it perfectly — the inability of everyone to get good access for education for these kids, we are setting people back like you can't even believe. Like the impact of this is going to be so vast, especially in people that were already — had problematic school experiences — and problematic I'm being nice — shitty school experiences. And, by the way, even if you have money and means, it's still a terrible experience, right. And so they're getting set back emotionally, from an educational point of view.

And so that's one issue, that's one issue of where talent is and how we access it and give it the kind of support that it needs to get and we find the people. Because we're just wasting our time. Like when you look at — Tesla just came out with numbers — I think it was Tesla or Space X — 87% white men at the top of the management. Are white men just smarter than the rest of us? I don't know. It seems like if you looked at the hiring practices they must be, because they seem to get all the jobs. Wow, that's amazing. Good for them. It's ridiculous. It's a ridiculous waste of talent.

The second part around credentialism is that we have to be able to get people to get credentials that matter if they can't go through the various gates we set up for people. And so how do we get them credentials that count to put them onto the chain that gets you from one place to the next, get them on the — I don't want to use ladder — but you know what I mean, it's the same thing — how do you get them credentials so it counts as much as a kid who is probably — wouldn't make it anywhere else, gets into Harvard because his dad gets him in or whatever. I guess some schools don't let that happen anymore, but it happens, it happens in other ways. And so how do make credentials and how do companies value credentials on the same way? Because right now we're designing an economy that has — how many people are in the United States right now? What's the population?

MR. REEVES: 300 million.

MS. SWISH: Right, okay. We have like 10 million lords and 290 million serfs. That's what we're doing, that's the economy we're creating. And it's a problem. And it used to be you had the —

– what you have is the very top, you have obscenely wealthy people, the top — and I'm sorry to say this, but \$160 billion one person should not have on this planet — I'm sorry, it's just like — even if he's smart, it's just beyond belief. So they have all this money, this very small group of people. And then you have this middle class — a class in between, and then you have the middle class. And then the people who have been screwed and screwed and screwed over. They're mired in opiates, in lack of education, and now conspiracy theories, and everything else. And it's lack of information, lack of anything. And it used to be the middle class, right, in the middle who would pull those people up and they would be pulled up, the middle class, by the people above them. That's not happening. Everyone is getting stuck in these things.

And so the idea of credentialing and giving people acknowledgment of their skills and training of their skills and putting them on useful paths to be able to move up is really critical or we're going to create this —

Let me finish by saying — I always say Silicon Valley people who complain, like we made it on our own and — you know, of course not understanding they started on not just third base, they were like five feet from home and they managed to hit a home run, is they — I always say to then you're either going to have to invest in this — invest in this and in people and getting them talent and giving them reasons to want to move upward, or just invest in armor plating your Teslas, because that's what you're going to end up doing. You're going to end up with a society where you are going to have to put yourself in small little areas of protection against the vast majority of people. And it's not a — this rage is not — should not be a surprise.

MR. REEVES: Or they're buying up parts of New Zealand so that they can run to New Zealand.

MS. SWISHER: I don't think New Zealand wants them.

MR. REEVES: No. Well, apparently if you put enough money in —

MS. SWISHER: She doesn't play. That woman, (inaudible), doesn't play.

MR. REEVES: I'm struck by some of the work that Joseph Fishkin has done on bottlenecks and the opportunity structure. So you've talked about economic inequality, but there are these inequities in the opportunity structure as well. And this idea of bottleneck is that there's this narrow

space that you have to pass through in order to get to good things on the other side and the kind of gate keeping around those bottlenecks in the U.S. is — not only is it very — has significant bottlenecks in its education system, but the consequences of not getting through that space are greater. The stakes are higher in the U.S. labor market. And then you get this equity disaster we're seeing now with COVID, which we'll see kind of playing out over the next 10 to kind of 15 years.

And so I think part of your work, Peter, is about — and to some extent trying to lower the stakes in the labor market by allowing skills to be more revealed and cultivated so there's not game over at 23 or 24, or whatever it is.

Can you say a bit more about how? We got into that a bit with Byron, but because — again, it's easy — okay, I get it, but how? What does it mean in terms of like switching our financing of education and the labor market more generally?

MR. BLAIR: Yeah, I'm really glad that you bring this up, Richard. And I have my list on my reading listing too on opportunity hoarders.

And I just want to share a little bit about my own personal story. So I grew up in the Bahamas, came from a really large family of six older brothers, sold fruits and vegetables as a kid. And I went to community college before I came to the U.S., and from community college went to Duke and then Harvard and then Wharton. And then I taught at a great public institution, Clemson University, and now I'm back on the faculty at Harvard. And so like a lot of my research has really been driven by seeing the ways in which people engaged with me very differently when I was Peter Blair the student at the community college versus Peter Blair the student at Harvard or Duke or Wharton or the faculty at Harvard, right. And in a lot of ways what struck me about this was I was essentially — I was the same person, but it was — there was something about the credential that changed the way that they looked at me, changed the opportunities that they gave me access to. And I always wrestled with this question, as both a consummate insider and a consummate outsider. Thinking about how many others are out there who are not here in this moment, and more so, how many of my colleagues have not — or not so much colleagues, but students and other, have not interacted with somebody who does not come from the same like socioeconomic or educational stratum as them, and how does that color the way in which they think about the skills of those folks too, right.

And so this is like a very foundational kind of conceptual problem that we have to really fix. And that's one of the reasons why I was really excited to partner with Opportunity@Work to say, look, we need to really change the way we think about who is skilled in the labor market. Most of us learn by doing. Somebody who comes out of the best law school in the United States, when they show up day one at the firm, they do not know how to write a brief and they have to be taught how to write a brief. When I showed up as a faculty member, I had to learn how to teach. I had to learn how to be a mentor. And so my Ph.D. really gave me the opportunity to learn more.

And so one of the motivations behind our work is saying how can we allow other people who don't have college degrees, but who are STARS, they are skilled through alternative routes, how can we allow them to get their foot in the door where employers in turn say, let's give you an opportunity to like learn and earn and then let's also valorize the skills so that could translate into future opportunities for you to move through the labor market.

And so this is a really deep conceptual point about how we see people, both in terms of what skills they actually have now, and also in terms of like what skills they can potentially have in the future.

And I want to end by saying the following point. Firms are both the recipients of talent and they're also the creators of talent. And we need to create a more interconnected ecosystem whereby companies are thinking about how can I develop the talent that's within my current firm in anticipation of the future needs that my company is going to have. I think that it's such low hanging fruit to develop that skill in house. And then, secondly, to recognize that I'm going to be the beneficiary of somebody else training a worker who's coming to me, and so I need to pay it forward in terms of making sure that workers who leave my firm, either voluntarily or involuntarily, that they're leaving better than they came in. And so this really requires them — and, Nicol, I like the point that you raised about having a different set of social relationships. We need to really think in a really fundamental way about how we alter the social contract. Because one of the things that really has me very passionate about this work is that often times various actors in the ecosystem are just thinking about how do I see students as tuition revenue or how do I see workers as somebody who is going to move this widget from here to here tomorrow, not recognizing that when they are using someone, if they're not replenishing in a sustainable way the skills

and the talents that somebody has, that the entire ecosystem is going to collapse unless we cooperate.

And so I really wanted to say that we have a surefire way to get in through companies, to think about ways that they can re-skill their existing talent and to make sure that they're being contributors in this kind of like broader labor market ecosystem.

MR. REEVES: Okay. So I want to actually throw the same question back to all three of you I think, because in different ways you pushed to this. And I could ask it in kind of a challenging way to some extent, which is if it's clearly an employers' interests to develop talent within their companies and look at people — I should say you — actually this idea of looking at people is very important. For me, and I look out for this stuff, when President-elect Biden say we need to see each other again, there is this interesting part, who do you see. And, Nicol, the fact that your book is about invisibility. But seeing someone goes beyond just the idea of seeing them. It's like seeing them.

So let me just play the cynical employer for a moment, right. If it's obviously in my interests to develop my people, then I would be doing it, right. You are not well placed from Harvard to tell me how to run my business. Or, Kara, if it was really my business interest to not have 75% of my senior people being white men and more diversity, I'd be doing it. And kind of, Nicol, if it was really in my interest to be taking equity more seriously, I'd be doing it. And so I'm the employer that's sitting here running a business, listening to a bunch of people who don't run businesses telling me what's in my economic interest and kind of saying to me, well, you're being a bit stupid aren't you. You should do these things, so diversity, development, equity. They're all in your business interest.

But if that's true, wouldn't I be doing it?

MS. SWISHER: No, they don't — the statistics show very clearly that diverse workforces are better businesses. I mean — by the way, I run a business, so let me just say I actually —

MR. REEVES: So why don't they just do it then if it's in their interest? What's preventing them?

MS. SWISHER: I was saying everything — because they have this ridiculous narrative they tell themselves about a meritocracy when it's a mirrortocracy. They just see who they see and they think those people are better and they don't design systems that bring out the talent in everybody. We don't know what they're leaving on the table. We don't know just because they managed to make money

in this one place that they're doing the very best they can. And I think most of this — I mean it's just like people don't always follow on actual data, they actually just follow on what they think they know, and that's anecdotal. And so they see — you know, I had one person say to me, you know, if there was a Marsha Zuckerberg maybe we'd take women CEOs seriously. And I literally didn't know what to say to them. I just — like women aren't on the cap tables of tech companies, they aren't on the top management. Cap tables are critically important, which is who makes money in these things. And if they don't get there, there's a whole bunch of people being floated around Silicon Valley, largely white men, who are not talented, who manage somehow to do okay because they get floated upwards on the stream.

And so, sure, you know, it's pretty easy to be talented when you're there. It's just — they just — it's just a lot. It's just a lot.

MR. REEVES: There's that old saying, god give me the confidence of the mediocre white man. I kind of hear you saying, it's like god give me the wealth of the (inaudible).

Nicol?

DR. TURNER LEE: If I could jump in. I mean I don't want to be a white male and I don't want the wealth of a white male, I want the wealth of a Black woman who is successful as a white male.

So I think part of the challenge is that we keep going into these conversations knowing that structural racism and discrimination already exist. I think the challenge that we have whenever we have conversations about opportunity and equity is that we don't start there. And if we start with the fact that this is already a structurally flawed system, then it actually allows us to move the blame from, in all honestly, a lot of big tech founders who didn't even finish college in terms of it posing a double standard on other workers who may have the same type of creativity and genuine exploration of their mind, to actually create the next Silicon Valley creation in the alley of their community in the Bronx.

I mean part of the challenge when I think about these issues is we've got to develop — and I think Peter sort of mentioned the ecology, the ecosystems that allow people to thrive where they are. So, for example, that's why I talk about Black businesses. Black businesses tend to be higher in terms of their employment of other Black people. If that's the case, then we need to fund startups in tech communities who want to create the alternative to Instacart. Startup founders get 60% less in terms of venture capital than other founders. Black women get more, Black men get less. And these are,

according — you know, Richard, you said this a lot — these are in line with persistent inequalities that affect people. But the challenge is if we stay in this mindset, we're only going to have governmental policy that tend to still be pathological, still rely upon the good will of white men and white workers, white leaders, to make those kind of decisions and ignore the fact that people come with their values, assumptions, and norms about the world.

What I think is actually the case is I think you have to invest in local community infrastructures. And you have to allow workers — particularly at a time where automation is rapidly changing the rate and speed at which we create things — allow people to also be part of this economy in a much more aggressive or proactive way. We make the assumption — and I have an 18 year old that started his first year at college —
— we make the assumption that every Black boy should be forced into coding. And I didn't have a coder, I had a writer. And for all intents and purposes, that wasn't his route. He wants to be a journalist. But when we went through that process of what kind of scholarships, who would be interested, we found ourselves back into the same box that is often talked about when it comes to the opportunity metrics. And in my opinion I think — and, Peter, correct me if I'm wrong — I think what you're suggesting is we just need to break out and actually have some breakthrough ideas on how we think about bringing people who are marginalized into this new realm of automation. Not every person out there has to be a genius, as it has been demonstrated. Just read Malcolm Gladwell's book. What we need are the ecosystems that allow for that genius to happen wherever a person may be in their lifespan.

MR. REEVES: Right. Yeah. And you shouldn't have —

DR. TURNER LEE: That's why credentialing is important.

MR. REEVES: And you shouldn't have to be extraordinary to come back to work.

So, Peter, I'm going to bring you in. Peter's putting in a bunch of econ talk in the chat, which people who are watching publicly you can't see, thank god. (Laughter) So, Peter, if you could put all this stuff about prisoners dilemmas and coordination failures into English for our audience in terms of this specific issue around employer incentives, that would be great.

And then I'm just going to give each of you like a final sentence and we'll have to wrap, unfortunately.

Peter, go.

MR. BLAIR: Yeah, sure. And I just want to touch on what Nicol mentioned about structural racism and really inject a hopeful note. I think one of the silver linings of what has happened with this COVID moment and George Floyd's very tragic and unfortunate murder, is its' really opened the eyes of so many people to some truths about America that Black people in America have known for a very long time, and it's no longer ignorable, right. And so we have this moment where people are realizing, oh, my god, this is really terrible and this is structural. And so how do we then use this moment to really do the kind of structural work that needs to be done.

One of the things that I did with one of my colleagues at Opportunity@Work, Shad Ahmed was we wrote an op-ed in the Wall Street Journal really addressing corporate America and saying to the CEOs who were at the time saying here's \$100 million to help with structural racism, to say there's something that you can fundamentally do, which is change the way that you hire, right. Because when we look at the legacy of education in the United States, it's been a legacy of exclusion of African Americans from the process. So when you layer on top of that degree requirement for jobs that don't need degree requirements, it becomes a form of structural racism.

So that was our appeal to them, and we know that a lot of employers are now starting to rethink their degree requirements. In fact, the federal government recently issued an executive order saying that the federal government, the largest employer in the United States, would hire based on skills and not degrees.

And so I think that we are really making progress in terms of reshaping the way that people are thinking, right. And so I'm very hopeful from that standpoint.

To touch on kind of like why is it that we don't see more firms rally having this more ecological view, this more sustainable view of like where they fit into this ecosystem, or like the circle of labor I would call it, is often times it's about what are peers doing. And we see that a lot with universities as well too. So in some sense there's this coordination failure where if I do it and I'm starting to think a lot about diversity and inclusion and excellence, not just diversity inclusion from a representational standpoint, but really in hiring people of color because they are the best, right and I'm seeing the skills and talents that they bring to the table. But if I do it and nobody else does it, then when folks see a

workforce that's diverse, they're going to think, well am I getting an inferior product because none of the other people are doing this. And I think that's the problem, it's a coordination failure.

And so what we really need is for either a leader to emerge who is going to say I'm going to do this with my company even if it means that others don't follow and to really go long on that strategy, or a team of business leaders to say this is going to become an industry standard across Google, Facebook, Tesla, so on and so forth. And this is a priority for us.

And I think when you have that happening and it becomes normed, then all of the sudden it's no longer I'm the one company that looks like the odd woman out or the odd man out.

So I think that's the fundamental issue. People look to their peers for cover, for doing the right thing.

MR. REEVES: I loved your piece in the Journal, by the way. And I think a sharp point about credentialism is a form of structural racism, and really kind of bringing out that connection is good.

So I'm going to take that as your last word, Peter. Unfortunately we're kind of — we're sort of — we're a bit over time, so I'm going to get in trouble if we don't shut now, but just 30 seconds, Nicol and Kara, if you have any final thoughts.

Nicol?

DR. TURNER LEE: yeah, I would just say what Peter is talking about. I think it's disentangling this whole idea of corporate responsibility from the business effective diversity and really making sure we're having a clear conversation of that.

And then I would just say the last thing is making sure people have what they need to participate in this economy. Broadband, internet abled devices, training, and those social networks that allow them to be better integrated into this full scope of the society.

MR. REEVES: I love this idea of a tech new deal with the infrastructure, so you can then — participation. Great.

Kara, any thoughts you want to send us away — final thoughts from Kara?

MS. SWISHER: Yeah, I mean I think we have to think about it, that we have to rely on businesses to do this, because when it's imposed from the government it really does have a problem on a lot of — one of the things we have to do is not thinking about it as a tech, but we have understand ways

to teach our citizens to be entrepreneurial. We were entrepreneurial for a long time and it has sort of gotten lost. And so the idea of entrepreneurs is critically important.

The second thing is when you talk to these companies, and these are where a lot of the changes come, if you look at a lot of changes, social changes in our society, they were all wrought by corporations, IBM, Apple, around gays, around people of color, all kinds of things, did start at that level.

And I think it really does have much more of a resonance if corporations take a lead here. You need the social justice and everything else to push up on it, but it's really critical that they do it because what they do now is when they have diversity they stack rank these things. If you think of stack ranking, if you want to understand tech people, think stack ranking. And so they have a list of 14 things and diversity's always 7.

It's never one and it's never done by the CEO. It's always sort of in the group. And so they say the words and then it just doesn't happen and it doesn't filter down. And so you have to get them to stack rank it right at the top and it has to be coming from these — unfortunately, nothing tech people like more than a society where there's a god on the top. So let's get — let their particular tech gods decide it and push it down.

And that's where the pressure has to come from. It doesn't come from below, it just doesn't. And so that's really important, is to change their stacks.

MR. REEVES: Well, I love the way we've ended this conversation with a call — this is not just a public policy, but more broadly I think particularly those who work in public policy you tend to think, oh, government, oh, congress, oh, administration, whatever. And of course that's hugely important, but actually policies made in boardrooms and policies made by employers and the norms and practices and assumptions and prejudices —

MS. SWISHER: Well, let me just say Jeff Bezos just hired 500,000 people during the pandemic. Let's start with him. Like —

MR. REEVES: Right. That's a pretty big — like if Joe Biden had a public works program that created that many jobs, they'd definitely get on the front page, right. And so I think this kind of idea about employer policy and corporate policy and how it interacts with public policy is just a great place to finish. We must finish.

Thank you all so much. Check out everyone's work. Nicol, can't wait for your book.
Peter, congrats on your work in the *Journal*. Kara's podcast and writing is unmissable in this space.

So thank you all for joining us. I really appreciate it. Thank you everyone.

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