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ECONOMIC MOBILITY ACROSS GENERATIONS  
AROUND THE WORLD

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## P R O C E E D I N G S

MS. REVENGA: Good morning everybody. Thank you for joining us today for this session. My name is Ana Revenga. I am a senior fellow in the Global Economy and Development group here at Brookings and I am going to be moderating this event on economic mobility across generations.

I don't know if you all had a chance to watch the little background presentation that was playing while you walked in. But traditionally around the world, education has always been considered a main driver of economic mobility. And in that PowerPoint, there were some very heartwarming stories about Tari, or Anisha, or even Jim Kim, the World Bank president on how through education his family moved up and children had better opportunities.

And I think in many ways, this is a story that resonates with everybody. Probably many, many people in this room feel the same way. I know that, you know, my Spanish grandparents had respectively three and two years of education and my father was able to go to university. My siblings and I, we have graduate degrees and our life chances were very much revolutionized by the fact that my father was able to get an education.

So, I think for a long time we have taken it as granted a little bit that this process of children doing better than their parents through education mobility was something that is there to stay. And unfortunately, just yesterday, the World Bank launched this new report that is entitled "Fair Progress? Economic Mobility Across Generations Across the World." And for the first time this report compiles data on economic mobility as viewed through the lens of education especially for a large number of developing countries for over a 140 developing countries.

And when the team analyzes these data, they find some really striking and sobering findings which is that educational mobility and economic mobility presumably has stalled in many parts of the developing world since the 1960s. And

obviously, this raises real concerns about the ability of countries to reduce poverty, reduce inequality, and offer its citizens better opportunities in life in the future.

And this not just a problem in developing countries. I think in high income countries also, we see in some places a similar phenomenon including the United States, the fact that mobility is stuck and that children are not necessarily doing better or going to do better than their parents.

So, with the occasion of the launch of this report, we thought it was very timely to host a conversation here at Brookings and we are very pleased to be able to have with us both, the two lead authors of the report as well as two distinguished panelists. And what we hope to do is have a conversation first with our presenters, and our panelists, and then with you, with our audience around this topic of economic mobility, education mobility, but also income mobility.

So, let me say a few words about our panelists and presenters and then, I will hand the stage over to our two main authors of the report. So, first we have with us Miles Corak, who is a professor of economics and a senior scholar with the Stone Center on Socio-Economic Inequality at the Graduate Center City, University of New York. He is an expert in inequality, social mobility. He has written extensively on these issues on child poverty, on child rights, on inter-generational mobility. So, we are very happy to have him with us and count on his expertise.

And we also have with us Rebecca Winthrop, who is a senior fellow and the director of the Center for Universal Education here at Brookings. She has again a long list of publications and expertise in area of education and learning. She was the former head of education for the International Rescue Committee, and she is a member of a large number of advisory committees, global initiatives on education and learning. And so, she in particular, I think, can give us a very interesting perspective from the educational side.

And then, we have our two presenters, Ambar Narayan who is one of the

lead authors of the report. He is a lead economist in the Poverty and Equity Global Practice of the World Bank. And most of his work has focused on policy analysis, research on the micro aspects of development including equity and equality of opportunity, poverty reduction, and the impact of economic shocks.

And our other presenter is Roy Van der Weide, he is an economist with the poverty and inequality team in the Development Research Group of the World Bank. So, he sits in the research arm of the World Bank. This is a collaboration between those two groups and his work focuses on the empirics of inequality, poverty reduction, poverty and inequality mapping, spatial econometrics.

So, they are going to give us a brief presentation of what is a very long and comprehensive report. They have 15 to 20 minutes. Following that, we will ask the panelists to join me on the stage and we will start our conversation. Then we will turn to you in the audience to continue that conversation.

So on that note let me hand it over to, I think, Roy who, in addition to presenting, just got married. So, I am going to take the opportunity to congratulate him on his marriage. I understand he interrupted his honeymoon to be here. So, I hope the audience lives up to the expectation of interrupting a honeymoon. So, thank you very much, Roy.

MR. WEIDE: Yeah. It works. Good morning everyone. My name is Roy, for those who don't know me and as Ana mentioned, Ambar and I, with the help of our team are the authors of the report launched here today. Let me take this opportunity also to thank our team as well as Brookings for hosting us here.

The report titled "Fair Progress" provides estimates of economic mobility across generations on a global scale. It also identifies factors associated with higher mobility in order to draw implications for policy. If you wish to tweet about this event or the report, which we encourage, of course, we reserve the #FairProgress without the question mark.

In the lead up to this launch, we ran a social media campaign under the #InherentPossibility. The story shown here by Irene is one of many stories we received and provides an inspirational example of upward mobility across three generations of women. It however, also highlights the important role played by parents in shaping the future of their children and their grandchildren. Let me just highlight the last sentence from Irene's story that nicely illustrates that. "All this because my great grandmother, someone who didn't finish eighth grade, made sure that every single one of her children, grandchildren, and great grandchildren understood the unmeasurable value of a good education."

Stories like this are about the triumph of human spirit to overcome odds helped by families, mentors, as well as appropriate public interventions. It should be noted, of course, that not all children are fortunate enough to receive the help needed to overcome their odds. There will be millions of untold stories of unfulfilled potential due to lack of opportunities. And this in a way, motivates our report.

Economic mobility across generations is a key element of human progress linked to inclusive growth and fairness. The report distinguishes between two distinct concepts of mobility. Absolute, whether individuals are better off than their parents and relative, how closely individuals rank on the socio-economic ladder is tied to their parents' rank.

Absolute mobility can be viewed as measure of progress, while relative mobility indicates whether this progress is fair or not. Hence the title of the report "Fair Progress?" We measure absolute mobility as the percentage of individuals who surpass their parents in terms of education. Relative mobility is measured by a coefficient that captures the strength of the relationship between individual education and education of the parents. The stronger this relationship, the lower will be relative mobility.

Know that we can have a society where absolute mobility is high without relative mobility and vice versa. Everyone can be better off than their parents while

individuals and parents occupy the same positions relative to their own generations.

The database we compiled for this report is, in all modesty, unprecedented in coverage. This is the first time, I repeat, the first time we have empirical evidence for almost a 150 countries in the world, representative of roughly 96 percent of the world's population. In contrast, the largest empirical study on inter-generational mobility to date covers 42 countries. For a 111 countries in our database, estimates of mobility span a period of five decades from those born in the 1940s to those born in the 1980s.

We primarily focused on mobility and education firstly, because human capital is a key component of economic welfare. And secondly, the global coverage of education data across generations is what makes it possible to measure mobility consistently across a 148 countries in the world.

Examining the trends and patterns in mobility from this global database, a number of key findings stand out. Let us highlight two of them here. First mobility, both absolute and relative, is on the average lower in the developing world compared to the high-income world. Second, education attainment of people in large parts of the world is too closely tied to their parents' education.

The fact that absolute mobility is lower -- is found to be lower in the developing world is somewhat surprising given that the scope for improving upon parental education is higher there. The blue bars in this figure measure inter-generational persistence in education. Higher values indicating lower mobility, lower relative mobility, I should say. The pink dots measure absolute mobility. In this case, higher values refer to higher levels of mobility.

It can be seen that both absolute and relative mobility is lower in the average low-income world, the third bar from the left compared to the high-income world which is the second bar from the left. A similar ordering can be observed within the developing world, observe the cluster to the right of this figure. East Asia and Latin

America with higher mobility on the left of the cluster, and Africa and South Asia with lower mobility on the right of this cluster.

Here we can see estimates of mobility at the country level for the 1980s generation. Absolute mobility in the top panel and relative mobility in the bottom panel. In both maps, darker colors indicate higher mobility.

Sub-Saharan Africa seems to stand out with low levels of mobility both, absolute and relative. In this figure -- this figure shows the time trend in relative mobility, for the average developing country on the left and the average high-income country on the right. Again, higher values in this case indicate lower relative mobility.

It can be seen that at any point in time, relative mobility is lower in the average developing world. So, not just for the 1980 generation, but all the way from the 1940s to the 1980s generation, relative mobility is lower in the developing world. And what is more, there is no sign that this gap is closing. If anything it appears that the gap is getting larger.

Note also that for the average developing country, it appears that relative mobility has been stagnating since the 1960s. This slide shows the time trend for absolute mobility. While absolute mobility is also lower in the developing world compared to the high-income world, here the gap in fact is closing, despite, I should note, stagnating mobility in the developing world, and this is because absolute mobility is declining in the high-income world.

Note that inter-generational persistence, the measure of relative mobility, does not distinguish between upward and downward movements. An example of relative mobility measure that does is that the likelihood that the individual reaches the top quarter of his or her generation given that his or her parents are from the bottom half of their generation.

Upward mobility defined this way is found to be low almost everywhere. Yet, and importantly, 46 out of the 50 least upwardly mobile countries are developing

countries. The figure on the left here shows this measure of upward mobility for the 1980s generation. The blue bars referring to developing countries and the red bars referring to high-income countries. The feed on the right shows the time trends of this measure of upward mobility. For the average low-income country in the top panel and the average high-income country in the bottom panel.

Note that if individual success were independent from parents, we should observe a 25 percent likelihood of making it into the top quarter of one generation. It can be seen that our estimates are visibly lower than that. And it can also be seen that the lowest values are predominantly for developing countries, observe the concentration of blue towards the bottom end of this bar chart.

Observe also that upward mobility is declining, slightly declining in the developing world while it is slightly increasing in the high-income world, these are the brown lines in the time trend graph on the right. The two worlds show very similar trends however when we disaggregate by gender. Upward mobility is decreasing for boys and that's blue line that you see there, but increasing for girls and that's the pink line in the time trend graph.

It should be noted that it's not all doom and gloom. Large increases in mobility observed in East Asia, Latin America and MENA suggest that change in the status quo is possible with appropriate policy action. Furthermore in Sub-Saharan Africa and South Asia, where mobility is particularly low, enrollment rates are showing notable increases in recent years suggesting that perhaps future generations might be reporting higher rates of mobility there.

And while trends in mobility for the average individual may be muted, in many cases, visible improvements in mobility for girls can be observed. It should also be noted that estimates of mobility are reflective of past policies. My co-author, Ambar, who will speak next will talk about income mobility but also about how policies, appropriate policy interventions can shape mobility for younger and future generations.



MR. NARAYAN: Thank you, Roy, and thanks everybody for being here, and many thanks to Brookings for inviting us, and Ana for the introductions. So, I am going to start talking a little about just changing our focus a little bit to relative mobility and income for which we have also done some work, and what we have managed to do is to compile estimates for a fairly large number of countries, 75 countries combining estimates from existing studies as well as our own.

And the first, sort of, headline finding we have is that for the 75 countries for which we have estimates, we find that the patterns of relative mobility and income more or less are similar to the patterns for relative mobility and education. In other words, the developing countries on the average tend to do worse. But we also noticed the second bullet here which is that there are parts of the world where education mobility really lags -- sorry, income mobility really lags behind education mobility. And the next graph is going to show this.

So, the top panel shows you the map for income mobility across the world and if you just remember the map from -- if in your mind, you have a picture of the map of relative mobility of education, you can kind of see that the patterns are similar. You have low mobility in Africa and so on. But then if you see the graph at the bottom, what you will find is that there is -- first of all there is a strong correlation between education and income mobility but there are major outliers.

And I will just point you to a few examples. The one -- you see the point for Colombia, for Ecuador, for Egypt, these are countries which are outliers in terms of the relationship between education and income mobility. In other words, given the correlation between these two, these seem to have much lower income mobility than what would be quote unquote predicted by the education mobility.

So, two facts here. 24 of 25 economies in the bottom third by income mobility, remember we have 75 countries and 25 is bottom third, are developing countries and these are examples of countries which are outliers. And we will talk a little bit about

the relationship between mobility, and growth, and inequality just to motivate which we actually spent a lot of time in the report doing that why is it important to address inter-generational mobility.

Just to keep one thing in mind, I think the basic message that I want, sort of, to come across is that what, in general, what is good for long-term inclusive growth is also good for improving inter-generational mobility both, absolute and relative. So with, you know, that's kind of the broad message.

Why is mobility important? First of all, we find and other studies have also find that greater education mobility is linked to higher economic growth and lower poverty days during adult years of the generation. Now what is this -- why is this happening? It's very intuitive and there is a lot of literature on this. In a more mobile society, human potential is harnessed more efficiently. In other words, the family that you are born in, the privileges that you are born in matter less than your actual ability and effort. And the resource allocation is also better because it's allocated to people who have the more potential to succeed as opposed to being determined by the circumstances at birth.

One little statistic, just back of the envelope calculation we have, shows that being in the top quartile of economies by relative mobility associated with roughly at 10 percentage point higher GDP per capita compared to being in the bottom quartile. But this is just to demonstrate the extent of the relationship. It's not meant to be a, sort of, a causal statement.

It's a circular relationship because we also know that economic growth, in turn, is going to increase mobility and that happens because credit constraints are weakened. The reason why you have inter-generational mobility according to, you know, sort of the very classic literature, the major reason is to do with credit constraints and so on, and that is weakened as countries develop, and of course, as countries develop, they can generate more resources to spend and invest on policies which help in mobility.

But an important message that we have from the report is that there is plenty of evidence to show that economic growth does not automatically lead to greater mobility. It's almost the same as saying -- or it's similar to saying the economic growth does not automatically lead to lower inequality. So it's a similar kind of statement but it applies to mobility.

And what we find is that once you control for a country's level of development actually the amount of public spending matters, and of course, the quality of public spending matters. So, and this is just to make the point that it's about deliberate policy choices. More mobile economies tend to have higher public investments in education and public spending in general.

There is a similar, sort of, a circular relationship between mobility and inequality as well, and this the famous Great Gatsby curve updated for a larger number of data points, and it essentially shows that countries which are less mobile are also more unequal, and we see a similar relationship whether you use education mobility or income mobility.

So, the point that we are trying to make here is that, it is possible to create a virtuous cycle, what happens to be a vicious cycle of low mobility, high inequality, and therefore, a lower rate of inclusive growth can actually be transformed into a virtuous cycle of higher mobility and more inclusive growth through the right set of interventions, and broadly these interventions can be categorized under this whole idea of equalizing opportunities attributable to the circumstances that one is born in, as well as reducing difference in circumstances. And by that what we mean is, of course, moderating extreme inequalities in income and wealth.

So, I am going to go over this very quickly and you can read the report. The main message is for pathways to greater mobility is first of all, as I said, reducing inequality of opportunities, and in doing so, first of all, building ladders to opportunities starting very early in life. And as we go through the literature and review the literature,

we actually find something which is quite interesting which is that even the programs like CCT, conditional cash transfer, and some other programs which are widely used and well regarded, the evidence for their long-term impacts -- because this is what we are looking for, long-term impacts on learning, on, you know, on earnings and so on -- evidence on that happen to be very scarce in case of many of these programs.

The kind of programs which survive the scrutiny of a critical review of evidence are listed here. And they are essentially about reducing gaps early in the lifecycle, starting with mother's health. So, maternal health and then, of course, early childhood development, and so on. And the graph here shows that countries with lower rates of stunting have higher mobility both, absolute and relative.

This is about public spending for education and again the amount of spending matters. We also show correlations showing that the learning outcomes -- there is a correlation between the learning outcomes, and mobility, and similarly for teacher-student ratio, and other measures of the quality of spending in public education matters. The evidence is also strong -- by the way, there is one area where the evidence is strong, particularly from developed countries, which is that education tracking which tends to stream students very early on into different streams by 'ability' tend to lower mobility. And actually reforms which have reduced tracking have managed to improve mobility.

I am not going to talk about -- much about this but the report, there is a lot about, you know, translating education mobility to income mobility and of course, factor markets are important, promoting competition is important, protecting workers against discrimination is important. The graph basically shows that in countries with higher labor force participation the relationship between education and income mobility is stronger. And that, to me, is an indication that if your labor market is working better, education mobility can be translated into income mobility. And the reason why it's probably not happening in Egypt, and Tunisia, and Morocco, and some other countries

that I mentioned as well may have a lot to do with the functioning of the labor market.

We know from research in the United States that localized actions mattered for mobility. The neighborhood that you grow up matters, and therefore investments in improving the neighborhoods and social environments in the form of infrastructure, social capital, and so on, all these things matter. This is evidence mainly from the United States. Across the world what we find that mobility is actually associated with the extent of concentration or socio-economic segregation -- as we call it -- or the extent of socio-economic segregation by education within a country. In other words, more the inequality between the different regions within a country in terms of education, less mobile the country tends to be.

And finally, fiscal policy. I mean, all this is possible through progressive policies which, of course, need to be funded and resourced. So, a fiscal policy to support greater economic mobility, the report argues, has three basic, sort of, fundamental, sort of, objectives. Reducing inequality in circumstances, income and wealth, mobilizing resources to finance progressive public investments and, of course, does not impose a high cost in efficiency because growth is important for mobility as well.

One pattern that I wanted to point out, we find that's a pretty strong result, that economies with higher tax revenue and share of direct taxes in total revenue tend to have greater relative mobility, which basically means the more progressive your tax system. You know, all these correlations are -- they are sort of hints of something going on and we just want to point them out not as causal or robust results but as patterns in the data which should, of course, motivate further research.

And I just wanted to end on this note which is the question of evidence. Of course, better policies need better evidence. And one of things that we encountered in doing this work is, is the fact that it's actually very difficult to measure education mobility because you lack information about the parents of adults in the household basically. Long-term panels are almost non-existent in developing countries. So, a low

cost service solution would be to actually include information about parents.

We have the Human Capital Project which is started at the World Bank which can be an impetus for better data particularly on learning because we measure everything by education attainment. We don't know anything about the quality of learning and that's, of course, not ideal.

And we also want to, you know, make the point that sometimes it's not just the lack of evidence which leads to sub-optimal policy making, it's also because the poor and the disadvantaged often lack voice in policy making. And therefore, power asymmetries and this invokes, you know, the World Development Report of 2017, those things matter to create the virtuous cycle that I just spoke about.

So, I am just going to leave this slide which is a summary of the main messages of the report. I am not going to go through them and thank you very much.

MS. REVENGA: Okay. Thank you very much Ambar, Roy, for the presentation and also for sticking to the time limitations. It's a very rich report. I encourage you to read at least the overview and I think you did a very nice job of summarizing it. But it doesn't quite do justice to richness of the report.

So, let me turn to the panel and let me start, maybe by asking Professor Miles Corak about -- this report Ambar talked about income mobility and he hinted at the relationship between education mobility and income mobility. The report, a big part of it does focus on education. And I want to ask you -- a two part question. First, you know, how well does education mobility correlate with income mobility? I have a sense that it is a prerequisite but is it enough?

And second, if we are talking about educational mobility, why do we care about relative educational mobility? Should we care just about absolute educational mobility or is relative also important and why?

MR. CORAK: Oh, good. Thank you and congratulations to the authors of the report. As you suggested, this is a report that goes to 300 pages and a big chunk

of it is dealing with educational mobility. I think they document very clearly that there is a strong relationship between educational mobility and inter-generational income mobility. I think one of the graphs that Roy showed, showed a correlation of around 0.5 and that's a pretty strong -- that's not to say that education is a guarantee to economic success but it's certainly a gateway, a very important gateway.

And we care about it, I think, both for intrinsic and extrinsic reasons. But maybe I could just, sort of, pause on one part of the concluding section of the report that, sort of, stuck with me. The report seems to speak very clearly to the fundamental aspirations of citizens. What do all parents want? In some deep way, they want hope, they want progress, they want their children to live in a better space. And absolute mobility speaks to that. My children are doing better than I am. Absolute mobility in education clearly is an important part of that.

Now as readers of the report, we always -- I caught myself a couple of times -- we always have to be careful. Everything here is in comparison to starting points. So, we are not necessarily talking about what the absolute level of education is, which, you know, growth theorists and macro-economists are focused on and that's terribly important. But relative to the education level of parents, have children made progress? And in its intrinsic way, it speaks to what I value in what I want to.

So, in that sense I think the report is -- and when it speaks to absolute mobility, it's speaking to a fundamental concern of citizens. What do children want? Well, they perhaps have a different perspective. If you are a parent of teenager, you appreciate that not all of their preferences line up with yours. But they certainly want to see themselves making progress beyond what their parents did. But they also want their full talents, energies recognized. They want a place in their hierarchy that is independent of their starting point - that reflects their energies, their talents.

And hence, the intrinsic importance of relative mobility in that sense. But as a very nice presentation also illustrated, there is a lot of drivers here and it's not just

the structure of the education system that matters but also the structure of labor markets. And I was struck by the comment you made for some of the MENA countries.

Maybe there is a real social challenge for countries that have fulfilled that educational opportunity policy challenge. Telling their citizens that they can go off and get all the education that their talents and energies merit. But then, not offer opportunities in the labor market. If the allocation of jobs remains networked, remains unfair in some fundamental sense, whereas you have created all of these aspirations, maybe these two things come together and raise the risk of conflict and a social fabric that begins to be stretched.

MS. REVENGA: And that's a very important point and I am going to come back to that point in a second. But before we move to the labor market, I just want to dwell a little bit on the educational side. And, you know, one way, I think you put it very powerfully, speaking of aspirations as parents for their children in terms of better chances, and their own aspirations of children themselves. You know, one, sort of, simplified way of summarizing what you said is educational mobility, absolute and relative, does not guarantee inter-generational income mobility but it's almost a prerequisite. It's very hard to imagine income mobility without that.

MR. CORAK: I think the authors of the report would agree with that. Educational mobility is not the only aspect of human capital but it is certainly a fundamental one.

MS. REVENGA: So, Rebecca, I want to turn to you. If we are talking about educational mobility and it is the finding that absolute mobility has stalled in many parts of the world, particularly in developing countries. I mean, it's striking. It's almost counter-intuitive to what we think is going on in terms of greater access.

And there are some positives, you know, there is a story of variation, so there is a lot of mobility in East Asia, there seems to be a closing gender gap. But are some of the reasons for that inside the educational system? I mean what is it -- what can



the educational system itself do in terms of addressing that problem? And then, we can talk about what everything else that also needs to happen. But if we just look at the educational system first, what's your view?

MS. WINTHROP: Yeah. I have lots of thoughts on what we should do within the education system to address this. But can I come back to that because I first have a question based on what you just said that it seems counter-intuitive, the findings that educational mobility has stalled and yet we have been telling ourselves, and thinking, and tracking that we have had a lot of educational progress with the Millennium Development Goals, et cetera.

So, I, if I may, I have a question for Ambar and Roy first and then, I am happy to back to education policies. I thought the report was super interesting. I think it's really interesting to highlight the, sort of, economic mobility, social mobility component. It's a good angle to bring to the conversation, particularly in the education sector, we don't talk about it that much. We talk about, sort of, the last mile, those we can't reach. So, I really like that. But I noticed your data set and maybe I missed something. It stops at the people born in 1980. Is that correct? Right. So, they would have gone through school and more or less depending on if they start on time, finish right before the year 2000.

MR. NARAYAN: Yeah.

MS. WINTHROP: And so, I pulled right before coming down, I pulled the gross enrollment ratios at primary and secondary level just for Sub-Saharan Africa because I was really like blue. And I am sure you have looked at this. But it really is after the year 2000 that the massive uptick in enrollment starts, right, in Sub-Saharan Africa. You know, let's just take secondary level. It's basically more or less the same gross enrollment ratios in Sub-Saharan Africa. In 1980 it is 18 percent, 1990 it's 23 percent, in 2000 it's 26 percent. Fast forward, 15 years of the MDGs where you really have big policy juice to get kids into school, it's 42 percent. So, a big uptick. Same, sort

of, picture with primary gross-enrollment rate.

So, I could imagine, if you had a bigger data set and looked at, you know, generations after -- born after 1980, I would imagine that those light blue countries would be colored darker blue. So, I am sure you have looked at this. I am sure you have thought about it. I would love to hear your answer because the big message doesn't seem either, you know, a bit misleading or yeah -- I am curious about that.

MS. REVENGA: Yeah, why don't you answer that and then I am not going to let Rebecca off the hook. We are going to cover policies, education policies and then I want to go back to --

MS. WINTHROP: Yes. But I am really curious about this. Yes.

MR. NARAYAN: No, that's absolutely true. The reason why we didn't measure absolute or relative mobility for the generation beyond the 1980s because they wouldn't be old enough for the education to be completed by the time the service came. So, we have the data, we have the enrollment data. We stopped at 1980s because these are the people who would have finished their education.

But having said that, because of the reason what you just said, so we looked at the data for people who may not have finished their education yet. We can't measure their absolute and relative mobility in the same way but we can measure something else. And we can do predictions. And based on the predictions, what we find is that for Sub-Saharan Africa and South Asia, absolute mobility under reasonable assumptions is going to go up because of this reason. It's going to go up to an extent that it's going to approach the developing economy average in Sub-Saharan Africa. It is not going to catch up with it completely. South Asia is going to be, you know, is going to be the head of the developing average.

So, that's on absolute mobility using these assumptions. But on relative mobility, things don't improve because on relative mobility what we do is that we take a proxy measure and then, we measure relative mobility in that proxy measure. And there

the gaps are between the rich and poor, and so on, or are more educated. They remain. So, in fact, we see very similar patterns of gaps between for 12-15 year olds in Sub-Saharan Africa which is very similar to what we see for people who have completed their education in the 1980s generation.

So, therefore, we are comfortable with a message that say the mobility, not only has its start, but even if you look ahead, people who are growing up now, the relative mobility --

MS. WINTHROP: The relative mobility, not absolute mobility.

MR. NARAYAN: For absolute mobility, it is slightly better, but again it is not something which shows major progress in Africa.

MS. REVENGA: So, I think one of the risks -- I am glad that you made the point about the data because it is a question that comes up a lot but things must be getting better in the last 20 years. But I think one of the messages I took away from the report is let's not be too complacent about the success that has been achieved because certainly, relative mobility does not look very successful in almost anywhere, and actually, that is, kind of, why I have -- except for Scandinavia, everybody else looks pretty bad, no matter which the country is.

And I think there is a risk for complacency and that is why I wanted to talk about to what extent -- there are many factors of plant -- but to what extent is the education system itself part of the problem?

MS. WINTHROP: So, I would point to -- there has been a lot of work on this, of course, including from great people inside the World Bank. So, I would point to the latest World Development Report that focused on education and what their big message is that it is fine to look at attainment -- like you said earlier, everyone measures attainment. And in fact, there are lots of people who measure learning globally, and we need to align, sort of, the incentives within education systems to improve learning. And that means a lot of different things.

There is another interesting report that just came out again from World Bank colleagues looking at Sub-Saharan Africa called 'Facing Forward'. And again, they point to the same question of learning. So, you can get kids into school but they don't necessarily learn well for lots of reasons. There is some light statistics around this just to amplify it for folks who might not be familiar with this problem.

You have -- this is from the 'Facing Forward' report that some of your World Bank colleagues put together. In a bunch of a Sub-Saharan African countries -- we'll stick with Sub-Saharan Africa because they were so light blue -- three quarters of second-graders couldn't count to a 100. And that's in second grade. They just didn't even know basic numbers past -- they could get up to 80 or something. They couldn't answer a simple question. 50 to 80 percent second graders couldn't answer one simple question based on a very simple text.

So, attainment isn't the same as actually learning skills. And if you don't master basic skills in the early years, you are not going to continue on. So, access and quality are absolutely tied together. And there is lots of things and the education sectors spends a lot of time thinking about how do you make this better. And one of their appointed two more reports that I think that if people are interested in diving into the education policies around these, are really good sources in addition to the ones I mentioned.

There is a global effort called the Education Commission which has, which was a big global task for us, and really tried to set out, sort of, a big agenda for a 'learning generation'. How do we really change the trajectory which is quite a slow pace of change, I think, to your point, Ana? And they had, sort of, four big transformations.

One is performance, like education systems have to do a lot better with what they are delivering today. They have to be a lot more efficient. And there is very basic things. And this gets to why you have still this deep inequalities. Basic things like mother tongue instructions. Most kids -- again, I am sticking with Sub-Saharan Africa

because that was kind of one of the outliers in the report -- most kids in the Sub-Saharan Africa and many other developing countries are not taught to read in the language they speak at home. All the evidence says this is not going to help kids and they are likely going to drop out. So, quick policy change, it takes time, it takes efforts, it takes textbooks imminently doable, not a problem, should be invested in.

Other pieces, again, around performance, is alignment within the education system. All of the reports that I have just mentioned, the WDR, the Facing Forward, the Educational Commission Report, talk about the need to align the education systems around learning goals, not just about attainment, and attendance, and enrollment goals. So, assessing learning is really important. There is lots of ways to do it and one should do it.

But you can't just assess learning, you have to align three big things. Your curriculum, what you are telling teachers to teach and what students are supposed to learn has to line up with how you are training teachers, and has to line up with how you are measuring learning. Most countries in the world tackle one of those, and not the other two. And so, there is an important alignment exercise. So, that's performance.

The other three I think are important to note, innovation is really needed - - and I am going to come back to that -- and then, there is financing which was already discussed and you made a really good point. And then there is this idea of progressive universalism. Basically, send money, and effort, and attention to the areas that are the most marginalized for the most marginalized kids first. And then, expand up.

I want to take a pause on innovation because I think, this is an area that could really help us with this question of particular relative mobility. Some of the work that we have been doing here at the Center for Universal Education is really diving deep into this -- that sort of second transformation that the Education Commission report puts forward and says, which basically is that you could do all you can in improving education performance but you won't actually get to where you want to be, which is massively

increased relative mobility and much higher standards if you don't do things differently. You certainly have to do it quicker.

So, some of the research that we have been doing is looking at education innovations around the globe. We have surveyed 3,000 in 150 plus countries and really tried to focus on those that are, in our words, the most leap-froggy. The ones that can massively accelerate progress. And there is lots of things that you can do with blended learning, which is how you bring in technology with teachers, where there is a huge teacher gap. So, how you can fill that teacher gap, again with technology and community members. There is a whole bunch of, a suite of, sort of, set of innovations that can actually rapidly accelerate progress. So, I think those are the types of things that could help.

MS. REVENGA: That's all very encouraging. And as you said, there is a lot of momentum to focus on quality, focus on learning. I am a labor economist by training -- I suspect, Miles that you are also a labor economist earlier and of course, I am left with those big questions in my mind which is okay, we can improve quality, we can improve performance in the education system. The return to that may be very low, both in terms of growth and mobility if your labor markets are not functioning well. So, I want to come back to the point that you raised and particularly refer to that graph that I put out forward at Columbia. High absolute education mobility, very persistent income, inequality, and low mobility.

And particularly in developing countries, where you have segmented labor market, you have got big informal sectors, you perhaps have family connections that matter. How do we tackle those? How do you -- you know, it is one thing to say, hey, let's get your labor markets to function better. But in practice, what are some of the things that we should be thinking about in terms of making the labor market more fair and that playing field more even?

And let me start with maybe you, or Ambar, you can jump in as you want.

MR. CORAK: Let me go but please do jump in because we are talking about 140 countries.

MS. REVENGA: Let's just talk about one. Pick one that you want to talk about.

MR. CORAK: Maybe what I can do is give people a sense of what the underlying drivers are and how they overlap. And you can see that this report, this building had a scaffolding, and that scaffolding has a certain theoretical perspective. And they have taken the scaffolding down but it's still embedded in the structure.

And education is not the only dimension of human capital. So, there is a lot of importance certainly attached to health as well, and some of that is mentioned, and the start in life. Migration is an aspect of human capital as well. And that relates to labor markets. The idea of -- I think where you see very high inter-generational elasticities. That really struck me to be as astounding, point 8, and some countries even 1. So, if the inter-generational earning elasticities is 1, it means that across the generations, inequality is going to get worse, and worse, and worse.

And if we are in a situation like that with, I guess, more than half a dozen countries, there are just some basic barriers in the labor market associated probably with ethnicity, national origin. So, you think of aboriginal people versus the mainstream in some countries, discrimination. Those kinds of things, in and out of themselves, should be eliminated regardless of the intrinsic value of those. So, I think that would be sort of your first direction for policy. If labor market is driven by ethnicity rather than talent, then you have got severe problems.

And I don't see how inter-generational elasticity is a Point 8 or higher, a Point 6 or higher, exist with those kind of barriers, and kind of sustain, and change without breaking down those fundamental barriers. I don't know. Do you want to --?

MR. NARAYAN: No, you are absolutely right. I mean what -- and again, it's hard to talk about 140 countries -- but I think if you look at some of the outliers, and

particularly, in the Middle East and North Africa region, I think you have a combination of two things. One is just inadequate job creation, right? So, it's a rational market. And when you have a rational market, and we have evidence from other reports and other sources, that's where networks should really matter because private sector jobs are very scarce. It is also segmented, they are also paid lower. So, even if you get it, it will not help your mobility much.

So, I am caricaturing but this is kind of the story quite a bit in Egypt, Morocco, and Tunisia. These are the countries which are out lashed. But then, you have this ration-harping jobs where networks matter a lot to even get a foothold in the market to the extent that there are -- there is often, you know, sort of, Mitie generation employment of a family. To me, it is the ultimate indicator of this kind of stickiness. You get an entry if your father had worked in a public sector. So, it's not necessarily ethnicity, but it is something else which makes this.

But at the same time, I think that the fundamental problem are, of course, the networks and the outside influence in the networks. But even more fundamental, it is this lack of enough job creation. And therefore, competition among employers for a job because one thing we have to keep in mind,

I think, in general, it is inefficient to discriminate and that's why, we see in countries like India, there is recent work which has shown that as India has gone through growth and more competition, and so on, as it has opened up competition discrimination against the scheduled castes and tribes in the labor market have actually decreased over time. This is because even if you leave everything out, I think it's just less profitable if you are discriminating because an employer wants to reward productivity and so on.

So, I think the broader point that I am trying to make is that it's the overall health of the labor market which matters a lot and then, there are these influence of networks. These are also very country-specific. I am not very familiar with Columbia but another country with low-income mobility is South Africa, which has again made a lot of



improvement in education and mobility. And in South Africa, we know, it is again, it's not an over-discrimination which is of course outlawed but there is a historical sort of a persistence which I am sure still matters as well as where you live -- that matters a lot. Yeah, I think I would stop there.

MS. REVENGA: So, just to make it a little less comfortable, I think you both tackled two very obvious labor market barriers of discrimination and family networks. But you could argue that other things that happens in many developing countries is that they have very large informal sectors that are not necessarily the result of discrimination or family networks. They are the result of regulations, law institutions. Sometimes, if you believe Santiago Levy, the result of well-meaning institutions. He would argue that proliferation of non-contributory benefits in a place like Mexico, create an incentive that maintains informality at large.

So, some of the very same programs that you are trying to use to promote, to fight poverty and promote mobility, he would argue, are getting in the way of that creation of formal quality jobs where education and income are more tightly linked. You may or not agree with him but I think the tougher question, and I don't know if any of you want to jump on that one is, okay, obvious barriers, discrimination, networks, yes. But how do you -- that big 100 million question is -- how do you actually get developing countries to create more quality jobs? Is the question that hasn't been totally answered and I am not sure if we are going to answer it on the panel but Rebecca, you wanted to jump in.

MS. WINTHROP: I would like to jump in. I will let Ambar answer the question on how you get developing countries to create more high-quality jobs with good pay, and life with dignity, and maybe benefits, good luck.

I just want to say couple things. One, from an educationalist's perspective, of someone who works in education, it's always heartening and refreshing to have a conversation about where and what education can do within our sectors stops,

and where we need to link up and work with other sectors. Only because often there, at least in discourse, if not in policy, this idea that education is a panacea for everything. You just give them more education and there will be better health, and wealth, and you know, women will be empowered, and there will be less domestic violence. All of which is true empirically but is not like poof, just like that. So, I appreciate that.

Secondly, I feel that there is a role that the education sector can play when thinking about how do you better prepare young people for the economies and the opportunities that exist today? And the potential avenues that don't exist and they can help create, right? So, there is a big focus on entrepreneurship skills which most of the education systems -- again, I am harping on Sub-Saharan Africa because it was such an outlier in your study -- most of those education systems are not preparing kids with that at all.

And so, I often think that in big general terms, because I work on education globally that education, over the next several decades, education system face to big twin challenges.

The first challenge is addressing what we call skills and equality. Skills are knowledge and competencies which is what we have talked about that current education system, what's on offer, for current education systems are not delivering equally to all kids, which is what your relative mobility shows. Really poor kids get a lot less than rich kids, and particularly, in rural-urban, et cetera. So, that's one thing. How do you close that gap in terms of skills and equality?

The second big problem -- and this is for the rich kids as well as the poor kids in these education systems -- is how do you prepare young people with the rights skills for the jobs of the future? And that's really sort of skills uncertainty. How do you prepare kids to be able to take in knowledge and information, which is what most education systems are focused on, and use that -- have the skills to use that knowledge and information in different context over their lifetime? And having those skills, to

manipulate and use knowledge and information in different context over their lifetime is vastly missing. But I think it is a piece of what we could contribute.

MR.CORAK: Ana, could I dove tail off of that?

MS. REVENGA: Absolutely. Absolutely.

MR. CORAK: Hopefully from some of this conversation. One of the things that struck me in the report were the gender differences, which is both I think, cause for a great deal of celebration, also some concern. So, to the extent at least in the rich countries that absolute mobility was stagnating, it had a lot to do with the decline of boys. We saw a very significant increase also in the attainment, however you measure that absolutely -- of women.

So, talking about the skills for the future, you wonder which sort of groups is best placed to capture that and whether there might not even be a growing problem if younger boys are in some way become the subject of policy attention as the world of work is changing in many ways, and perhaps, we are in a more position to even seize those opportunities. So, I just wanted to --

MS. REVENGA: I am glad that you brought that point up because I was planning to raise that a little bit later. So, I am glad you brought it up. I think what I would like to do, if you agree, and I am going to let Ambar off the hook on the big question, but I would like to start bringing the audience into this conversation, give you all a chance to ask questions. I mean, as a moderator, I'll also take the liberty of throwing a few additional questions their way if we don't get enough questions from the audience.

So, if you want to ask a question, just raise your hand. We'll get you a mike. Please identify yourself and please let's try to keep this a conversation. So, make it a question and not a long comment followed by no question if you can. If you want to make comments to the team or the panels, you can do so after the event. But let's try to make these questions and keep the conversation flowing. If you want a particular panelist to answer your question, please tell us. Otherwise, I'll give them a choice. Any

questions from the audience?

MR. CRAWFORD: Mike --

MS. REVENGA: You will get a mike right now. Just be a little patient.

MR. CRAWFORD: So, this is on. Good. Thanks.

MS. REVENGA: Please, if you don't mind telling us who you are.

MR. CRAWFORD: Okay. I am Steve Crawford. I am a research professor at the George Washington University, Institute for Public Policy. And I am concerned about the implications of your discussions and findings, especially the report itself for the debate going on in United States because we are struggling with the notion of college for all. There is a growing disillusion and I think for good reason with the notion since in the end only a third of our young people are getting college degrees. But more importantly, there is a huge stratification emerging among college graduates. So, those who go to selective colleges, do much better and achieving a BA which is a kind of measure you use seems to mask a whole lot of variation among colleges by the quality of them, and also among the majors that the students have.

So, I just think probably for a global study, you can't get into those kind of nuances but we are starting to think more about work-based learning, and apprenticeships, and these skills that Rebecca is talking about being a transparent -- I just wanted to see if there is more to say about, you know, about ingénieur diplômé in France versus kids who went to a public university. Is this an issue as more people get more education that you need to consider?

MS. REVENGA: Let's see if we can keep it going and I'll come back to the next question. Any --

MS. WINTHROP: I think that is spot on and I would fit that into this category of improving performance in existing education systems which would -- you know, higher education is kind of a beast in itself, can only get us so far. If we are really looking at expanding either the last mile of the developing world, or expanding upwards in

places like the US in terms of higher education, and I think that really need to think much more innovatively and quite differently about our entire education workforce, who teachers are, who they have supporting them, what constitutes a higher education degree, there is lots of really interesting innovations happening in that space.

I just came back from Arizona State University which just beat Stanford for the number one for the most innovative university in the country and they are doing all sorts of things like blended learning and higher education, and trying to really open up that on ramp. So, I think you are right. It has to be part and parcel of --

MR. NARAYAN: Very quickly. First of all, I completely agree with what you said including the fact that in the global report, it is very hard to -- you know, we can't really measure these nuances. But one thing to remember is that, which perhaps I should have emphasized more is, when we talk about this gap between education mobility and income mobility, some of it is explained by the variation in the quality of education. And that's precisely because we are not taking that into account when we are measuring attainment.

So, what that gap, I am sure includes is not just the labor market, but it also the fact that you are not equipped well enough for the labor market even though you have a BA degree. So, it kind of implicitly comes in and we do talk about the quality a little bit but not to the extent we would if we were to do a country or even a regional report. So, point very well taken.

MS. REVENGA: There's a question back there.

MS. SANDOVAL: Hi, Chellie Sandoval. I am an agent at UDC and I am a Ph.D. Geography student as well and my question is about language, looking deeply into language, and how it fits into both education and the labor force because it's not just countries, but people also use language for mobility, and also for jobs and networking, social mobility.

So, I am thinking how does your report really -- the methodology of using

language as indicators of both labor and education. And even across borders, because even in the US, we think of us having one language but really there is like Native American tribes who also have their indigenous languages that they are using their websites, and they are using technology to keep that going and educating their population. So, how we can use languages in education?

MS. REVENGA: Take a question, take another question. Two of them.

MR. MORGAN: Hi, Shawn Morgan, ma'am. I am a researcher with the Department of Housing and Urban Development. I used to work for the Labor Statistics. So, I understand the relationship between labor markets and mobility. My question is in your report, and I really haven't read the overview entirely but do you account for cross-border mobility for the obvious countries? I guess that's my question.

MS. REVENGA: Okay. There is one other question, and then, we'll go back to that one.

MS. EVIRA: Hi. My name is [Evira]. I am a lawyer in Mexico City. So, I would love to hear the answer to her question and your question.

Also, regarding innovation, I would like to hear like to hear three specific items about just not innovation or defining innovation, but three specific examples could we have. And regarding education policy and employers, I haven't read the report but I think, would you believe it should be set as a system because education, and its own policy, and its own employers on its own, like everybody is doing what they think they have to do.

We have that in Mexico, as you said. We have a lot of big informal sector but we have education, we have public education, but people are not getting jobs at all. I am not even talking about better jobs. We don't have enough jobs for the people in Mexico. So they come here. So, would this be addressed in your report?

MR. CORAK: I am sure the report is going to be --

MS. WINTHROP: Really long.

MR. REVENGA: Ambar or anybody else would like to responding to the

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MS. WINTHROP: Sure.

MS. NARAYAN: So, you can go on the innovations and then --

MS. WINTHROP: Sure. So, on the question of specific innovations, I'll give you just a couple of quick examples and if you are interested, I can refer you to more.

So, one example comes from Brazil, from Amazonas state which up until a couple of years ago, did not have secondary education for their kids living in Amazonas state. Then, Brazil passed a law saying, every kid needs to have primary and secondary education. That's their right. So, State Secretary of Education got very creative because the average Amazonas state is larger than the Amazon jungle with the capital city, and they had, no way, enough trained teachers for secondary schools and science teachers to every tiny little village.

So, what they did was take the teaching profession and split it into two types of teachers. They were all teachers but they had the lecturing teachers, who were in the capital Manaus, and then, the primary school teachers and others served as sort of facilitating teachers and they connected the kids with two-way video uplink. So now, in a matter of very -- in a couple of years, all kids have access to secondary school. I mean it's really actually a TV studio where these teachers lecture to a thousand little classroom at a time and they can interact.

And that is a much quicker -- to me, that's a great leap-frog example. A much quicker way to get access to quality secondary school and the learning outcome seems to be quite on par with the rest of the country which is quite positive.

Then, the traditional way of -- the normal way where you would build secondary schools, you would wait for several years and decades to train secondary teachers to get them into a pipeline, and then, you would deploy them. That would take a

long time. So, that's a great example. And there are lots of examples I can give you.

MR. CORAK: I think the language and the migration question might go together. These are both dimensions of human capital. So, having language skills, particularly perhaps in English, in French, or other languages might facilitate mobility both within and in between countries. I was actually wondering as well to what extent can we expect that to catch up between rich and poor if there was a good deal of mobility between them. And if some of the most educated or potentially individuals who could get more education move between regions. So, its great strength is the scope of this 148 countries but there are also interactions going on here that we should be aware of.

MS. REVENGA: Ambar, do you want to join in or --?

I have a question that I want to throw to the panel. I think the policy discussion on the report is quite careful. It talks about equalizing opportunities for individuals whether we are talking about education or in the labor market, or credit markets, it then talks a lot about spatial -- equalizing spatial chances. I would like to hear a little bit more about that, and your views on that.

But then, you also make a very big pitch on progressive fiscal policy, and you say that you have some strong correlations between the amount of revenues and mobility. This is a nice policy package. Some countries implement those policies and some do not. And you know, the US has relatively high tax revenues by global standards but doesn't do a particular good job in terms of supporting all this mobility.

Ana, you alluded to the end that the tools are there but there needs to be a political willingness and political support for using those tools. You didn't talk a lot about the voice of different parts of society and the political process.

And I wanted to ask the panel in general about that. To what extent does this lack of mobility or this persistence at the bottom, persistence at top -- to what extent to that in itself pretty much constrain the political process to be responding only to certain voices. How do you break that?



To me, it's almost like a -- you called it a vicious circle where you don't have mobility, these people have no voice, or only the top has voice, and then, you don't have the policies even though we all know what should be done. So, some thoughts on that particular problem. And then, I am going to go back to the audience.

MS. WINTHROP: You want to start it, Ambar? I have plenty of ideas but I am sure --

MR. NARAYAN: Sure. I mean I am going to try to stick to the report mainly and just highlight a few things which I think speak to that. But of course, we don't really directly address the question of why. Why is it that countries with potentially the right set of tools may not be doing that well on mobility? We don't really answer that. But I think there are a few things that are useful to keep in mind.

One para that we find, which is fairly strong, and that is also supported by a lot of literature from even behavioral experiments and games, and so on, which is that in more mobile societies, people tend to be more hopeful about the future of their children, and they tend to be -- they are more optimistic about fairness in the society. It's not a perfect correlation, but it generally tends to be the case. There is a whole literature of the relationship between perceptions of mobility and real mobility. So, think about as three things: Actual mobility, perceptions thereof, and then how those perceptions matter for how optimistic people are and so on.

The reason I mention this is because I think one can draw a connection if you were to believe that actual mobility were to matter for perceptions at least to some extent, and perceptions matter for how optimistic you are, and therefore, how you participate in society. I think that has an implication for how policies are formed and how social consensus can be formed around the kind of policies which will lead to improvements in mobility.

One thing to keep in mind is that when we talk about improvements to mobility, in a lot of the things we spoke about, equalization of opportunity, these are long-

term things. So, you invest in early childhood development today and we didn't talk about it enough, but some of the most powerful evidence is about intervening really early and including programs in the United States. There is actually a lot of research is from United States and even the head-start program, with all its faults, there is compelling evidence to show that there are long-term effects.

But this is investing in future and for that, you need a social consensus around this progressive policies for which mobility matters. As you rightly say, it is a bit of a chicken and egg problem. And I see this chicken and egg problem is, in a way, one can frame it as one of having a short horizon versus a longer term horizon. So, short horizon, you are very much focused on -- if you think society is unfair towards you, I think it is just much harder for the society to get that consensus around the policies which are going to make a different in the long run. And I would stop at that.

Of course, there are all these issues about redistribution preferences. I will leave you with one factoid which also comes from Alesina and other's recent work. The United States actually is, in reality, much less mobile than other high-income countries but the perceptions of mobility are much higher than many other countries. So, actual and perceptions are not all -- you know, they don't follow each other. That's not necessarily a bad thing but you know, it is just one of those conundrums.

MS. WINTHROP: I would just add to that, just picking up on the United States. That certainly within the education -- if you are thinking about the education mobility and kids from poor backgrounds on being able to get better levels of education than their parents, sort of, relative mobility.

One of the sort of just a nuance to dynamic -- Ambar, you talked about it -- one of the problems that we face in education is that once parents make it to sort of middle class or to higher levels of education, they have much more voice in society. And then, they do what a colleague of ours talks a lot about in his recent book, opportunity hoarding. Where they sort of, orchestrate at the local level how to make sure that their

kids, and their sisters' and brothers' kids, and the kids in their community have the same access to good quality schools. And it really is mutually exclusive, like you can't sort of have a heterogeneous mixed population and just make sure that all of your kids and your kids who you know, get a good quality school.

So, I think there is a big piece of work to be done around parent demand.

MR. NARAYAN: Why don't we line for a question --?

Ms. REVENGA: I have a question. Yes, I see a question right there and another one in the back. Let me start over here with the red stripes.

MS. CRAVEN: Thank you. My name is Catherine Craven. I am a visiting scholar in the Policies Department at GW and I have a Policies Ph.D. at the SOAS University of London. And my question is not so much related to my research but my sort of personal background and experience, and it's kind of -- my question is related to the different evaluations of different forms of labor, and it relates a little bit to what the gentleman here who was saying earlier, the emphasis on having, you know, a kind of education that prepares students or the labor force for uncertainty and emphasizes innovation and entrepreneurship is all well and good. But we also need to basically re-value the under laboring that is required on the apprenticeship-based jobs.

So, I come from Germany, a country where with an apprenticeship, you are kind of valued in society much like someone with an advanced degree. I know for example, also in the Nordic countries, and engineer doesn't really make much more money than someone who has an apprenticeship. I wonder whether we already -- we know the answer if we look to the American context who is -- where do we need to look to find this sort of barriers to creating good jobs and it's the private sector that is trying to profit rather than actually pay a decent wage. So, I think this kind of responsibl-ising the private sector and large multinational corporations is important. And maybe you can comment on this. Thank you.

MS. REVENGA: Let's take the other question and then, go back to the

panel. We are running out of time. Another question and if there is any more, we'll take it out.

MS. GRIESGRABER: Hi, my name is Jo Marie Griesgraber. I am with a non-profit New Rules for Global Finance. I wanted to turn the attention to World Bank as an instrument and how well you measure, how well the World Bank is doing in reducing inequality through education, and through early childhood and maternal mortality and morbidity, I think it's called? Thank you.

MS. REVENGA: Okay. Any more questions. Otherwise, I am going to turn over to the panel to answer, to respond to the two questions and also to offer us any sort of last set of comments that you want to leave the audience with. We'll actually start with Miles, and then, go that way.

MR. CORAK: Perhaps I can speak a bit to the question over here and to sort of summarize some of the other conversation. My own view is that the inter-generation mobility, at least in earnings is influenced by three basic institutions, the strength and the role of families, the functioning of the labor market, and the role of the state, and public policies, and community.

And we want families to be strong and to give their children all that they can and allow them to get a good head-start. But families have to interact with labor markets. And if there are inequalities embedded in the labor markets, that's going to make that voyage upstream much more difficult for some families. And that's the role of the state to provide progressive supports through redistribution, through insurance, and through human capital investment to permit families in less-advantaged situations to see their kids advance.

But we should always be concerned about the structure of the labor markets and if they are embedded in labor markets, different types of inequalities, they will cast their shadow onto the family experience.

MS. REVENGA: Ambar?

MR. NARAYAN: To your question and it's hard for me to summarize World Bank's work on early childhood development and maternal health and so on. But it's certainly, it is an important focus for us. It is a part of the human capital project. It is about measuring and rating countries consistently on the basis of certain human development indicators where these things matter. And I don't have the numbers in mind but we invest a lot in this. And we also do a lot of knowledge work, some of which I am aware of more than I am aware of the projects, and so on. So, it's very much at the top of our agenda because it fits.

Just to have my sort of last word on this a little bit, it fits very well into the narrative of inequality opportunity that we want to talk about and this report is about inequality opportunity because the way you get inter-generational mobility is by equalizing opportunities. I also wanted to say one thing which is in that report, we talk a lot about -- and this is very deliberate -- about progressive policies, and we use the word 'inequality' a lot. Not just 'opportunity' but also 'inequality' of circumstances. Because I think sometimes what we forget is that you can reduce inequality opportunity not just by making sure everybody gets the opportunity but also by making sure that you do not have so much inequality of circumstances that people are born in in the first place.

And there is a balance of course. One is not talking about doing it to the extent that damages growth or so on. But I think that's one of the points of this report to focus on both sides of the story. So, it's not just about health and education, and labor markets, but it is also about the fiscal policy which reduces extreme inequality.

And we talk about property taxes and inheritance taxes and so on which are not meant to be a prescription to all countries because it never can be in a global report. But it is something that we hope governments and our institutions will keep in mind as potential options for progressive fiscal policy, and I know IMF uses it well if you look at their recent documents.

MS. REVENGA: Rebecca?

MS. WINTHROP: I guess just a quick response to the question on apprenticeship and why are different jobs valued differently in the society which is a pretty deep question.

But one of the things that may be to say is I do think you are going to see over the next decades, a shifting perception around this idea of apprenticeships. I think there is going to be many different models. There is a great model out of South Africa, again the scale is very tiny but you can combine. They have a big job labor market pipeline shortage in construction and it's usually project foreman, and engineers, and architects, and they work with kids from really impoverished parts of the country, and sort of do a combined secondary school. And then, the company goes on -- if they have the right sort of soft skills, the company goes on and pays for their higher education training, and they go back and work in that company for at least two years.

There is more and more of these examples and I think you are going to start seeing a change in perception because of that. Because people are going to start -- the line between the education and the higher education is going to blend a little bit more, particularly at secondary levels, my prediction. If you want more examples, I am happy to share the research with you. We have a book coming out called 'Leap-frogging in equality'. We will launch it on the 21st of May here, right here at Brookings though. There are many, many more examples from where that came from.

MS. REVENGA: I would like to thank the panelists, the two presenters for joining us today. I think -- I am no longer in the World Bank so I can actually say this from outside the Bank. I think this is a really important and useful report. I think the work that has gone into compiling that database with all its limitations is phenomenal. Roy wasn't being very modest but he is right. This is a rich source of data and it is now going to be available to all researchers to work with. And I think the spotlight and the focus on inequality of opportunity, on economic mobility is very important and very welcome.

I joined the Bank in 1990 and the World Bank and the IMF today, and

their attention to inequality, the fact that we talk about inequality and attention to inequality, poverty, to human capital, and to fairness, it may not be perfect. But it is a lot better and it's gone a long way from where it was 25 years ago. I think that's very, very important.

I also, you know, want to have some optimism so I look forward to seeing at least absolute mobility improve and we are able to get the next cohorts. I think the world is making a big effort around education, around learning, around human capital. I am hoping the payoff for that will be a fairer chance for children all around the world, and not just in high-income countries with progressive policies today.

So, thank you all very much. Please join me in a round of applause and if you want to talk to the presenters, you can grab them as we leave the room. Thank you.

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