THE BROOKINGS INSTITUTION

GIRLS' EDUCATION RESEARCH AND POLICY SYMPOSIUM:
LEARNING ACROSS A LIFETIME

Washington, D.C.
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Opening Remarks and Panel:

MODERATOR: CHRISTINA KWAUK
Fellow, Center for Universal Education
The Brookings Institution

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ROBERT JENKINS
Chief, Education
Associate Director, Programme Division, UNICEF

LEANNA MARR
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MARTHA MUHWEZI
Executive Director, FAWE Africa

Intervening Early: Bringing Gender Into Early Childhood Education:

MODERATOR: DANA SCHMIDT
Senior Program Officer
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PRESENTER: SAMYUKTA SUBRAMANIAN
2019 Echidna Global Scholar
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VRINDA DATTA
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SUMAN SACHDEVA
2015 Echidna Global Scholar
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Empowerment at Adolescence: STEM Skills for Girls' Leadership and Innovation:

MODERATOR: SARAH GAMMAGE
Director of Gender, Economic Empowerment, and Livelihoods
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Entering Adulthood: Technical and Vocational Education and Training (TVET) and Girls' Transitions to Work:

MODERATOR: KEVIN CASSIDY
Director and Representative to Bretton Woods and Multilateral Organizations
International Labour Organization

PRESENTER: ANIL PAUDEL
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RAMHARI LAMICHHANE
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Breakout 1 - Bridging Policy and Practice: Lessons From Early Childhood Education Program Implementers:

MODERATOR: DANA SCHMIDT
Senior Program Officer
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KIM FOULDS
Senior Director of International Research & Evaluation
Sesame Workshop

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JOAN LOMBARDI
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Breakout 2 - Bridging Policy and Practice: Skilling Girls' for Better Life Outcomes Through STEM:

MODERATOR: SARAH GAMMAGE
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Breakout 3 - Bridging Policy and Practice: Gender-Transformative TVET to Increase Women's Workforce Participation:

MODERATOR: KEVIN CASSIDY
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MARIA BRINDLMAYER
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Echidna Global Scholars' Reflections:

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P R O C E E D I N G S

MS. KWAUK: Good morning, everyone. If everyone can start to take their seats. Can you all hear me? Good morning, everyone. My name is Kristina Kwauk and I am a Fellow here at the Center for Universal Education here at Brookings. And on behalf of Rebecca Winthrop and Emiliana Vegas, our co-directors, I wanted to welcome you all here today to our annual girls' research and policy symposium. So great to see familiar faces and some new friends in the room, as always.

So today we're launching the reports of our ninth cohort of Echidna Global Scholars, whom I will introduce to you all throughout the day. And for those of you who aren't familiar, the Echidna Global Scholars program is a visiting fellows program aimed at amplifying the work of grass roots girls' education leaders from around the world, and to also generate and communicate evidence-based solutions to improving learning opportunities for girls.

We have now hosted 31 fellows from 18 countries. And this program would not be possible without the generous support of Echidna Giving. This year the Echidna Scholars research allows us to investigate three critical entry points for improving girls' learning opportunities across her lifetime, which is the theme of this year's symposium. We'll be looking at the early childhood years with Samyukta Subramanian's research in India, STEM education for adolescent girls with Nasrin Siddiqa from Bangladesh, and finally, girls' transitions to work with Anil Paudel's work on TVET in Nepal.

We'll also have the opportunity to engage these entry points throughout the day in discussions at the policy level with our distinguished panelists, who are also joining me this morning here, and also after lunch, as well as some breakout sessions that will get into more of the implementation implications in the afternoon.

And importantly, the Echidna Scholars research poses to us a critical question of what it means to reach a little higher in our aspirations and actions when it comes to achieving gender equality in and through education. Each year we try to tackle the question of how do we, as a global community, reach and achieve systems change for girls? And this year we hope to

look more critically at what it means to aim for a gender transformative agenda, in which the social norms, the relations of power, and the policy environment that undergird gender unequal relations of power are dismantled and reconstructed anew.

So to help kick us off on this day and to hold us accountable to this critical agenda, I am pleased to introduce our first speaker, Robert Jenkins. I won't read his entire bio, you have it in your agenda packet in front of you, but I will say that Rob joins us at the apex of a long career in international development and humanitarian assistance at UNICEF. Rob is now the chief of education at UNICEF, as well as the associate director of UNICEF's program division.

So if you will all join me in welcoming Rob to the stage.

MR. JENKINS: Good morning. Thank you very much. Let me also just from UNICEF appreciate the invitation. Thank you very much to Christina Kwauk, to Emiliana Vega, and also to Rebecca Winthrop for the kind invitation.

I am really excited by the discussions of today. I love the way it's been framed. I'm going to have a few norms that I'm going to present. I only have 10 minutes and I'll stick to that, but let me start by saying I think we should not spend too much time talking about the importance of girls' education. Some of you may be surprised I would start with that, but I figure you've come today to this meeting convinced girls' education is important. And having only been on this job in headquarters for three or four months, I'm amazed at how much time people spend at the global level reassuring themselves that what they do is important. (Laughter) So I think if anyone is not convinced of girls' education, you've come to the wrong meeting. Where I think we do want to spend time is talking about solutions and how to transform systems. And those are heavy lifting words, and I'm going to spend a little bit of time on that.

I do want to maybe just take a second and frame this by saying we absolutely have a global learning crisis. And I mean global, I mean within a mile of this building. I come from Canada, definitely very much a learning crisis in Canada, but also in the countries where UNICEF works more intensely. And there's tons of statistics that will prove that we have a learning crisis. And, indeed, we're using that word on purpose. But one of which will be announced more formally

in a few days, but the talk about the percentage of 10-year-olds that can read, many of which have probably already heard some of that statistic. We're into more than 70 percent in low- and middle-income countries, 10 years cannot read. And 50 percent in Latin and South American, more than 74 percent in Africa.

So we also within that learning crisis to mention we obviously have very real statistics globally about the challenges, particularly for girls. So how do we transform a system that that's in crisis? What I would suggest is we need to do things differently. What we are currently doing is not working. And when I mean "we", I mean all of us involved in education, and that includes parents and children themselves, but also what UNICEF would name the duty bearers, people who have duties to rights holders. And those in this meeting and in the next couple of days are going to focus in on girls.

So the duty bearers need to do something different. One tension, at least with in UNICEF, is going to be how much do we spend strengthening systems, and the new UNICEF strategy talks about system strengthening, system strengthening. But what if the system itself is perpetuating inequities? So then instead we're looking at disruption. And I see a lot of people nodding, so we're in the right crowd. I see a lot of familiar faces too, which is nice. That's also interesting.

Now, coming to headquarters after many years in various postings, it seems like there's about 40 or 50 people that attend all these meetings. So they're here. (Laughter) So how do we disrupt education systems in a constructive way. These are all big words and we have to now unpack those. Maybe a better question is who has done it and where, and therefore what can we model in other countries that may be applicable? Now, some of you may go, careful, you can't take a case study from Thailand and import it to Canada, or you can't take from Zambia and take it to Viet Nam. I think that's true. However, there may be some lessons that we can draw, which I guess is what we're going to spend time now in the next day figuring out. What are the lessons that can be drawn from some positive deviance -- if you like that terminology -- from examples of where systems have transformed themselves?

Now, first of all, what do we mean by system? For me an education system is as broad a term as possible. It's everyone and anything that enables children to continue on their learning pathway. And I'm sorry, it's going to make people uncomfortable, but more and more that is not necessarily going to be sitting in a room with four walls with a teacher at the front telling them what to think and what to learn. And that is -- even as a parent, that's worrying because you start to increasingly see that children will have access to many different ways of learning. Now, that's worrying, like I said. It also is an amazing opportunity for us. Us again, collectively, those who are involved in providing learning opportunities for children. It is an amazing opportunity to disrupt, but that is going to mean a mind shift for all of us in leveraging these new actors and new players that are coming into this space with lots to offer. And that will be the private sector that will be other non-state actors, it will be community groups, it will be et cetera, et cetera, et cetera. And I think it's going to be very important for those of us who've come from the public sector as almost an exclusive lens, for us ourselves open up and be inclusive.

Obviously, in the best interest of the child, there are lots of caveats, but if we start with a crisis, needing to do something different, I think being inclusive in the discussion and being inclusive of who has good ideas and who can help us disrupt constructively, it's a no brainer. We need to be inclusive, we need as broad a net as possible. Anyone who has anything to offer to this crisis, let's welcome them to the discussion.

Now, what does a transformed system look like that is inclusive of girls? And all of us probably have our own ideas of what that looks like. It's easy to see it at the child level. I think if you kind of close your eyes and think what does an empowered 18, 19, 20-year-old girl look like, it's just something that kind of exhibits itself. They're empowered, they're expressive, they're dynamic, they engage, they push back, they have lots of opinions, et cetera. But what does a transformed system as a whole look like? I think we need to recognize, we need to proactively address barriers. So there's a positive side and a negative side, meaning we need to remove the negatives and promote the positives.

Maybe let's talk about the barriers on the negative. So what are the barriers that we need to table in the next day to realize the rights of every girl? One absolutely is violence. And this conversation cannot really begin unless we talk about violence. And that again is going to make people uncomfortable, but I'm sorry, it's time to uncomfortable if you haven't been uncomfortable already. Now, violence in all its forms. That includes your physical violence and threat of sexual violence and actual perpetration of sexual violence, but it also is verbal violence within the school violence, on the way to school, in the home before you even leave towards school.

So where has a system transformed itself to address violence? Absolutely critical. That's a question that needs to be answered. The good news is there are examples of that and those are going to come in the next day.

Another big barrier are the beliefs -- and it was mentioned in the opening remarks -- the beliefs in social norms of parents, of children themselves, of schools, of teachers, of communities, et cetera. That to me is overcomeable in that we can leverage social media, we can leverage other ways of interacting with children, we can promote a new way of thinking of girls and of gender discrimination in order to transform communities and transform the social norms. I often see, oh, people think social norms take time. There's lots of examples of where it's absolutely dramatically changed itself in a very short period.

There's an expression, the world will never move as slow as it is today. And that's true, right? We think it's fast now, just wait. And again, that's also an incredible asset for us to address this crisis. So let's embrace it and let's take on social norms head on.

On the positive side, I've already mentioned what we can reinforce in terms of new actors and new players in this space. To me, I also think maybe it's time for the system to almost get out of the way and let -- maybe just to sum it up, let chaos reign. But what I mean by that is there are so many opportunities now for girls, boys, et cetera, if we just enable the assets to reach these children, whether that be on line, whether that be in person, whether that be through their parents, whether that be in schools, whether that be outside of school. So I am very --

I've got to stop. I'm going to conclude with I'm incredible optimistic about the future. There have been many positive trends. The challenge is enormous, but with all the new speed of change and all the new assets we have, I think a room full of people like this can make a real difference. But let's not reassure ourselves that what we do is worth it, let's take that as given. I think now let's move into the uncomfortable space, ask some tough questions, but also let's model those who have made change happen.

Thank you. Thank you very much. (Applause)

MS. KWAUK: Thanks so much, Rob.

While we're all getting mic'd up here I'm just going to go ahead and get started with some of our introductions.

To my left I have Leanna Marr, who is the director of the Office of Education within the Bureau of Economic Growth, Education, and Environment at the U.S. Agency for International Development. She also joins us after a long career in education as a foreign service officer. And then to her left is Hugo Gorst-Williams, who plays an instrumental role in the UK's leadership of girls' education efforts as the Girls' Education team leader at the Department for International Development in the UK. And a fun fact for you all, before Hugo joined the civil service -- I thought this was great -- he worked to help locate and recover stolen art. So I think that's very (laughter) -- you don't see that in our space of girls' education. And you all know Rob. So his left is Martha Muhwezi, who is the executive director for FAWE Africa, the forum for African women educationalists, where she heads up FAWE's regional secretariat. She has risen to this role after a long career at FAWE Uganda, including serving at its executive director. And then to her left is Bhagyashri Dengle, who is the Asia regional director at Plan International. And before entering this position she was the executive director of Plan International India where she expanded the organizations reach, scale, and impact on girls through gender transformative programs.

So I wanted to start off this conversation really by piggybacking off of Rob's remarks around the need to really trigger this system's wide change and a disruptive transformative systems change. And in the girls' education community, especially in the last year

or so, we've really seen this space shift from focusing solely on girls' education to thinking about gender equality in and through education. And through that we've heard the discussion shift from ensuring that systems provide a gender sensitive education to a gender responsive education, and now to a gender transformative education. And so I want us to unpack what that means, because I think language matters and discourse matters.

So I wanted to start off maybe first with Leanna to tell us what does this shift in language mean amongst our stakeholder communities, especially from the bilateral community?

MS. MARR: Great. I think for me, I'm really happy to hear people talking about a systems approach as opposed to just talking about getting girls into school, because if we stop and think about it, what we're doing is pipelining girls into a male dominated system, education system, and everything that comes along with that, whether it's school related, gender based violence -- and we all know that it's female students and female teachers that are often the victim of that gender related violence in the school systems. So when we look across the board, we see a lot of women teaching at the primary level, but very few at the secondary and tertiary, even fewer as head teachers, even fewer as inspectors, and fewer yet at the ministry levels.

What would it do if we had women's voices at the table at all of those levels when we talk about gender education? I believe the dialogue would be completely different. I believe with more head teachers and more female teachers the accountability of teachers who sexually abuse students would be much greater. I think that our discussions around what it would take to protect teachers and get more teachers into the field at the secondary level would be very different. I also think we'd be having stronger dialogue around encouraging women to study for male dominated jobs, which let's face it, ladies, they tend to be better paying jobs and more stable jobs.

So I think it's one of the things that makes me so excited about the Brookings programs, encouraging female leaders in the education system across the board. So I really hope that as donors and others we'll take a look at how we can more systemically address the leadership gap in education.

MS. KWAUK: Great, thank you. Yes, definitely the leadership piece I think is one of our sort of core pillars in terms of how we see systems change happening.

Bhagyashri, I wanted to maybe throw the question over down to you at the end of our row here. Plan has done some groundbreaking work in gender transformative education. And amidst that, and I think all of us in the audience probably have heard this question come up all the time in every girls' education event, is what about the boys. So we hear about the need to really address violence and decrease, eliminate violence against girls and women, and often times that is perpetrated against boys, but then in other cases in some context boys' learning outcomes are poorer than girls. And so a focus on girls' education itself often times raises this question, what about the boys.

So how does this question affect your own strategic agenda around girls' education and how does that really bring us to this question around creating a gender transformative education?

MS. DENGLE: Thank you.

For Plan International -- I mean I have personally seen the whole revolution from -- and we were just talking about gender responsive, sensitive, and transformative. So we have gone through all those phases of responding to the needs of the communities. And currently we are deeply rooted in designing programs in the most gender transforming way. And gender equality is not just about girls, it's about girls and boys, men and women. And if we focus on equality for all, the men also benefit. So I'm not going to get into the theory of it, but I'll just cite some examples from my own experiences in communities and how it benefits even men and boys.

So just a few months ago I met this girl from Plan program communities, she came from a snake charmer's community, and typically none of the girls from that community went ever to school. After Plan's interventions we had most of the girls attending school. Social norm was early child marriage, but because we were able to invest in building girls' agency, she was able to push back, influence with the help of her peers, her parents to delay that marriage. She was the first girl from that community to complete her 10 years of schooling. And when I met her

she was married, she had a daughter. She did marry early, but after the age of 16. Her husband was a snake charmer who was illiterate. She was able to influence him to go back to studies through distance learning. He gave up his profession of snake charming, which was anyway illegal. He joined a security agency. She has a daughter and her daughter is studying in school. And that's for me truly the impact of all the work that we do. And we have thousands of such examples in Nepal, in Bangladesh. So it benefits girls and boys both.

The second example -- because you asked a question about boys -- same for cities. I mean it's a gain of global initiative for Plan International and we are working in a number of cities. And I was interacting with these adolescent girls and boys and I asked these boys, what's in it for you, because Safer Cities program is seen as benefitting girls. And they told me their story, they said how much they have learned from this program because for them it was masculine to tease girls, to go after them, to scare them, wait for them after school, follow them. But they said as they became part of this program, and along with girls, they started doing safety audits, they started learning about how girls felt about safety issues, and started identifying with it. And this was completely new to us. It was cool for us to tease them, but today we don't want to do it. In fact, they are peer educators and leaders in their own communities and are passing that message off how girls feel and why everybody should be working towards safety of girls and boys both. And that's the impact we can create and see on the ground in Plan International.

MS. KWAUK: Thank you. I think it piggybacks off of Rob's point very nicely too that we have this notion that change takes time and I think in cases like your programming, I mean evolution may take time, but change can happen in one generation in terms of just simply addressing some of those social norms and some of the beliefs and attitudes.

MS. DENGLE: And empowering communities, girls, and boys, and helping them take charge so that they can make those choices and lead that change in their own communities and their own lives.

MS. KWAUK: Thank you

Martha, maybe I can ask you to -- I mean FAWE has been extraordinary work promoting gender response of pedagogy across the African continent. How does this attention towards gender transformation and transformative change, systems change, how does that get reflected in the work that you all are doing at FAWE?

MS. MUHWEZI: Thank you so much.

I want to start by saying at FAWE we've been into promoting girls' education for now over 27 years. And I will gladly say that I never apologize for promoting girls' education. And why I don't do that is because I'm convinced there is still a very great need to do that.

We've been in forums where of course discussions have come up about boys. I personally do appreciate that when we are talking about gender, we're not talking about the girls. Gender is about girls, it's about boys, it's about men and women. But when we are focusing on girls' education, it's like we are looking. The boys have unique needs. The girls have unique needs. And so are the men and the women. And when we are designing intervention it's very good to look at what are the challenges of the girls, what are the challenges of the boys, and what is the rightful intervention. And when you're intervening, who are the key players. These are the men, these are the women, these are the girls themselves, community, policy makers. All of them. And therefore, when intervening, it's about coming up with a holistic approach.

In FAWE's work when we focus on girls' education, it does not in any way mean that we leave aside the boys or the men or the women, not at all. But what we do is, the interventions that we put in for girls are very different. I'll give an example. When we say there are those girls who are very intelligent that would perform very well, but they are not able to do so because of resources. But when we go to a community and we realize -- because remember, our work is normally funded by research -- you will know that in such and such a community even the boys are equal at risk. And what we do, it depends on the magnitude of the problem. We design a program in such a way that all persons benefit from the service.

We shall say, for instance, in community X, we have scholarships going to 70 percent girls and 30 percent boys. And that is arrived at because of looking at the magnitude of

the problem, they kind of challenges that the girls face. And I'm sure you will all agree me that if

we want equality in education we start with equity, we start by trying to level the platform and make

sure that all benefit from whatever service that is available. And because of that I want to say,

even as we are talking about gender equality, it does not stop us from focusing on girls, it does not

stop us from focusing boys if the need is there. But in all that we do, we have an employment

program for girls, which is (inaudible), it means speaking out. In that program the target are the

girls, but with boys as their allies and tapping in the wisdom of the adults.

So each and every person has a role to play. And taking it from that onward, the

boys come to appreciate the challenges that their sisters are facing, they appreciate the

challenges that their mothers are facing. So they walk along, and they support. But it's not about

discrimination, some are not about leaving the boys behind, because it's something that has come

up. But I want to say I still subscribe to the school of thought of saying girls' challenges still exist

and we need to pay specific attention. We don't need to be moved because someone has come

up with something that they want to promote.

Thank you.

MS. KWAUK: Thank you. Yeah, I mean it's a testament to the need to really pay

attention to the gatekeepers, the decision makers, and to ensure that that system level change

happens from that entry point, right. And I think that goes very well to the question that I wanted to

ask you, Hugo, in terms of how this gender transformative agenda, what does it mean for DFID in

terms of your global leadership in girls' education? You all just launched last year I think this

global platform for girls' education. How does this align with your agenda?

MR. GORST-WILLIAMS: Thank you. And thank you for this already rich

conversation and for inviting us here.

So I think girls' education is right at the heart of what DFID's approach to the

Sustainable Development Goals is, the UK's approach to poverty eradication, to prosperity, to

empowerment more broadly. I think that the transformative narrative links up to what Rob was

saying in terms of the need to be radical, the need to be -- I wouldn't quite say chaos reign -- but

go into that sort of recognition that even angry type responsive is by definition a little bit passive. And actually we need to be active and we need to be activists and we need to motivate activists to be prominent in that space.

I think when I think about a suite of interventions that we do as the UK, we have the obvious sort of ones, which are the sort of programmatic ones, so the girls' education challenge, which is the world's largest fund on girls' education through which we make a huge suite of fantastic interventions at a project level across 17 countries, 41 projects, running since 2012. But there's also what we do through our bilateral programming, say through our country offices. There's then the interventions we do through our multilateral interventions, so working with anyone from UNICEF to the Bank to others in terms of how do we engage with multilateral activities, so those actions by others. But then there's that broad entrance pace that actually if we want to make a systems change, we want to make an impact, it's about leadership and it's about leadership at all levels. It's about regional, local community leadership, but it's also after that, that sort of (inaudible) political leadership angle.

So last year -- I think it as last year -- 2018, the sort of platform for girls' education with particularly a commonwealth focus was something that the UK launched alongside Kenya, co-chairing with Kenya, which a focus really on how do we build a political narrative, a momentum around girls' education. And I know much is what's already been said about I think girls' education is a bit of a shorthand. And actually often what we are talking about is gender equality through education and it brings in all those multifaceted angles. We know in this room what we're talking about when we talk about girls' education, but we do have that necessity to explain at times.

And quickly, on the boys point, I've had it said to me both at that political level and in a school room in Sierra Leone by a boy himself, what about the boys. And I think we've had a really strong suite of answers, which are absolutely spot on in terms of we do do stuff for boys, both for themselves and to support gender equality. You can't make the progress we need to make for 50 percent of the population if you don't tackle the other 50 percent in terms of the conversation, in terms of actually addressing the sexual violence, addressing those norms,

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because they are right at the heart of it. And it's not just in the most fragile context in the world. We run a program called Connecting Classrooms where we connect classrooms in partner countries with UK classrooms. And we have conversations there about gender norms. We bring in -- whether it's sort of female mechanics or male hairdressers, to say there isn't a set way of doing anything and at that really early age understanding what those perceptions are that need to be challenged.

But in terms of what we are doing, I think it's that political level through things like the platform, through engagement of UNGA, through engagement of the G7, the commonwealth, continuing to make noise, but not unproductive noise, but to maintain momentum and attention in a way that mobilizes yes investment, but with it activity and action, and what Rob was saying earlier, about bringing on new partners, the private sector, innovative actors who don't necessarily have the same structures and baggage and ways of thinking that the rest of us have. It's something we absolutely ought to be doing. So I think we need to be radical. That involves addressing the systems. To do the systems right involves learning the lesson that we're doing at project level.

So, for example, yes, we have the girls' education challenge with all of those projects, who do we build on that knowledge in a way that when we have a conversation with government X or governor Y, or a teacher said, that we bring that learning into that setting. So we know this works in that place, try this, here's how we can support you.

MS. KWAUK: Great. So it sounds like, you know -- my original question around what does this shift in discourse mean for girls' education stakeholders, it sounds like, at least at the individual and organizational level, there is this underlying sentiment that it's already sort of aiming for gender transformation or gender transformative change and that perhaps the discourse is merely catching up to some of that underlying sentiment or not.

But, Rob, I think you sort of highlighted in your opening remarks, you now, you've heard this discourse for many years now. And so if that underlying sentiment and the recognition that change needs to happen at a systems level, radical change needs to happen, but systems

don't like radical change because systems are intended to maintain themselves, you know, what do the organizations here on this panel need to do, or the people in this room need to do, to really ensure we don't in 20 years have the same questions and the same questions and the same conversations but perhaps with a different term?

MR. JENKINS: I think it's a great question. I am worried that we're all just talking to ourselves, and we definitely need to talk to people not convinced. I'm going to be trying to be more disciplined now. I've got five quick responses to this.

One is we need to be evidence based. And I think a lot of things that are happening our organizations, including my own in UNICEF, that we're investing a lot of money in areas that are not based on solid evidence, or to say it nicely, there's a lot of room for us to shift to clear interventions that have had an impact.

Secondly, there is absolutely a resource gap issue here. To address girls' education it's going to require resources. Public, private, community, parents, et cetera. And so we'll need to leverage more resources. So all of us from this room to be more convinced on the need to leverage our platforms to generate more resources to address the barriers that girls are facing. Number two.

Number three, we need to adopt a life cycle approach in our interventions. Now we're getting kind of into this terminology, but basically, I don't think in the conversation around STEM or in livelihoods you can take that -- you're going to solve a problem for 18-year-old girls when you're not looking also even at early childhood education. So I think we all agree that we're going to need to look across the age group. And so starting from early childhood education or before to transition your livelihoods. And I've seen it coming from the Middle East in the last 5 years, girls graduating from medical school and 80 percent of which are unemployed in Jordan after 5 years. Even if you gain in certain space in education, if society is not changing in the labor market -- so life cycle.

Number four, it has to be multisectoral because there is no way you're going to fix the education system. Again, back to violence, back to poor healthcare, female hygiene within school, sanitation, security, et cetera, et cetera. So we need to look multisectorally.

And lastly, we need to look at scale. So this is like the gold star that I think again, the number of interventions and the amount of money we spend on small project approaches that will reach 50, 100, 200 girls, or in 5 communities, or in 1 specific sector or in 1 specific age group, that by definition is not transformative. So it's a tall order, but I think again with the resources in this room and the resources of all of us, we follow that -- as my suggestion, I think we have a chance at not being back here 20 years from now having the same conversation.

MS. KWAUK: Mm-hmm. Thank you, Rob.

Martha, what about you at FAWE? What do you and your colleagues think or see needs to happen more quickly?

MS. MUHWEZI: Yeah, thank you.

I think some of the issues have been raised by Robert, but I would just add to me what seems very critical is we need to walk the talk, be more practical. Because there is usually tenets of talking and having all the good policies, but then they're not implemented. And who is to implement it? It's us. We are part of the team that needs to make that happen.

And we also appreciate like there is the shrinking space, the fiscal space, in terms of investment in girls' education. Priorities change every other day, and that comes with leadership. If my interest is not in education, I will ensure that there's a shift from education. And that also affects what is done. Just like he said, in terms of investment, increase the investment is what makes us move. If we talk without investment, then it means the results will not be there and every other time, we shall keep coming back and talking about the same.

It's about the political conversations, what's happening, what is our space in those political conversations. Do we have the ability -- and when I say "we", I mean we as civil society, I mean as multilateral organizations -- do we have the space to get in there and also make proposals in terms of what needs to work? There is a funding aspect, there is the implementation

aspect. Are the funder and implementer talking -- are they talking? Is it a dictatorship or is it

bilateral? Am I telling you do this, or are we saying can we do this? And we do this because it has

proved that it works.

There is also the issue of -- he has mentioned it, but in times of building synergies,

who is doing what and where? Are we competing or are we looking at ourselves? For instance, if

I talk about civil society, are we looking at ourselves as complementary partners, or are we looking

at ourselves as competitors? If we build synergies, if we know who is doing what and where, if

there is documentation for lending purposes, sharing information across the board. If I'm working

in India why can't I share the same information of what I've done and what has proven to work? I

share it to somebody else in Indonesia, and that way we are able to create a stronger voice and be

able to move forward.

There is what he mentioned about education without deliberate effort into

transition into the world of work. I think that's why we keep talking every other day, because we

are not breaking the vicious cycle. We are getting educated, but what does that mean, what does

it translate to? Am I able to get that education and come out productive, like contribute to the

development of that nation, to the development of my neighbors, of my community? If that is

lacking, then the chance is that we shall continue talking about the same are very high.

And I also want to say some of the interventions that we come up with may not be

sustainable or may not be impactful. I know that we have given (inaudible), I know we've built

capacities for teachers, but like it was mentioned, it's the whole system. We need to look at the

whole system. By supporting the teacher I may not be creating the impact that is expected

because the teacher alone is not going to perform miracles. If I'm supporting the girl without

looking at the community, without looking at the family, it may not, because one will disrupt the

other. So it's about the whole system.

And, lastly, it's about having the affected persons being on top of the whole

planning and decision making. Do we have the young people as part of the process, are they able

to contribute, are they able to talk and say what they feel they need, or shall we continue planning

for them, going into roundtables and deciding, this is what the youth need, this is what the girls

need, this is what they need to do, and this is how it should be done? Let them be part of the

planning process. And I feel if that is taken, then the chances of us -- I mean reducing the number

of times that we come back and talk about the same issues will materialize.

Thank you.

MS. KWAUK: Thank you, Martha. I think your point about the building synergies

is just spot on, because I think in a system where especially when you think about the need to

differentiate and to set one's self a part in a system of girls' education actors, that incentive to

differentiate inhibits the ability to collaborate. And I think competition just emerges from that. And

I think that's something that the girls' education community really needs to begin to look internally

and to figure something out, because that's a big hindrance.

And in thinking about this, that system and the system of actors, Bhagyashri, I was

curious if you see the issue, at least from your work in Plan, is it a capacity issue, it is an

organizational capacity issue, is it the capacity of leaders, is it the capacity of implementers? What

might be hindering quicker action?

MS. DENGLE: Surely, it's capacity at all levels. So when we talk about quality

education, gender transformative education, how do we really build the capacities? I mean when

we talk about engaging with multiple stakeholders, duty bearers, young people, we need to

definitely do that capacity assessment. And one example is like at school governance level, how

do we build capabilities. We talk about teacher training, but that not adequate. Particularly in

South Asia there are these mandated school management committees, that's the school level

governance.

What is it that we can do to build capacities of those committees because they are

so much closer to the school and directly responsible for education quality? And that's where we

have a lot of successes, whether it's Bangladesh, Nepal, or India. Thousands of schools where

Plan has played that critical role as a catalyst to ensure that there is participation of multiple

stakeholders, be it children, teachers, principals, communities, and government, as part of the

management committees, and then having training on gender transformative education. That's where they start challenging social norms, they start looking at barriers which stop the girls from accessing education, the root causes. And it's not enough, that one training is not enough.

So in parallel, also what we do is how do build girls' agency, how do we build leadership of girls and boys where they start challenging and they start actively taking part in making a difference? At Plan where we are also very excited about this research or study that we have done on girls' leadership index, which we will be publishing in 2020. And we have looked at enabling environment across 16 countries in Asia. So we have looked at protection, education, health, and it all has an impact on learning outcomes. And that is something which we can use as an advocacy and influencing tool with the government to engage governments, to address all those barriers that the girls are facing or even boys are facing, within their context.

Because unless we address, as Robert mentioned, I think that is the (inaudible) life cycle approach. Where are the barriers and how are we doing to address, and then build those capabilities of key stakeholders? I think that's what is very critical.

MS. KWAUK: Thank you. And on your point of governments, I want to ask Hugo, from your perspective at DFID, do you see whether -- I mean are governments attuned to the need to really change systems for girls because, you know, like I said before, systems and governments want to maintain status quo in some ways, right? Are we at government systems level at risk of just talking the talk and not necessarily following with the action and the noise and the attention and the momentum, the resources?

MR. GORST-WILLIAMS: We are. Yeah, we are absolutely at risk of that. (Laughter)

So I think it varies wildly in terms of the individuals, the organizations. But I was -- that's, you know, some of what's already been said, and that so much is about incentives, what are the organization and human incentives of people to make a stand, make a change, be disruptive. And in places where political cycles might be quite short, that the impact might be -- I mean they can be radically rapid, but maybe not within a political cycle. And that is a challenge. So where is

the incentive for an individual to challenge their own system, if you like? And that applies not only at the political level, but also at the regional and local level, school level.

I mean well, no, you go to schools and you have exactly the same system on paper in place between one school and another school, but you have an inspirational head teacher or wonderful female teacher in one place and you go to the next school and it just doesn't have that capability, though on paper they look exactly the same. But individuals can make such a difference. So a lot about the sort of narrative of influence sounds very high-falutin and sort of (inaudible), but it's about individuals and how do you identify individuals within government or outside government who can influence the influences as well. Who is going to make that change? But yes, it's a real challenge.

I don't think it's just a challenge on girls' education. I mean so I worked on negotiating SDGs and it's not just girls' education, it was particularly sharp in girls' education, but it's a challenge that we face across the development community. And again, there's incentives there. If you're an NGO organization and you're competing for your next contract with the one doing a similar project in the region next door, how much are you being candid and open about what isn't working and what is working? How much information are you really sharing?

You go into a school in some of these places and you see the stickers from a wild number of organizations there and you think, well, we're all here. But then you're not quite sure when you get the results what you think of the results. Is that because of your intervention or is that because of the other organization's intervention. How do you ascribe the results that you're getting to specific interventions? And that goes right to the heart of the knowledge gap, or knowledge challenge, on what works and what doesn't work, and why. And no one is doing it out of bad intent. We're all intervening in locations where we think there is great need and they're most marginalized girls and communities and so forth, but we need to get far better at knowing what we know and who's where and to be a broader coalition and a community within this space rather than tripping on each other's toes. And then, if you like, smudging on knowledge of what works and what doesn't work.

So I think incentives are the heart of it. I really do. And I think that's not an easy thing. It's about individuals, it's about organizations. And you need exemplars. You need to be able to point to one or two places, maybe more -- hopefully more eventually -- where it's worked and someone has been rewarded. Again, we're all human. If you get someone who has shown a positive spotlight on because they've tried to challenge their own system, that can make an impact for the governor next door, the national government down the road in terms of what they want to do and what good looks like for them.

But I think incentives are at the heart of all of this.

MS. KWAUK: Yeah. I mean your point about how important it is that the individual leadership, political leadership -- that's the point that Martha was saying too -- political leadership, leadership within implementing organization, leadership within donor organizations, bilaterals, multilaterals, all of this. It really comes down to really ensuring that you have that inspiring person who really believes in that vision and can make the same policy in two different places manifest into transformative change.

So thank you for that.

So, Leanna, I want to maybe turn it over to you. We would love to hear your thoughts in terms of what at USAID gives you hope for USAID's contributions to lifting up girls' education globally and really trying to achieve this gender transformative systems wide change for girls.

MS. MARR: So I would say in addition to the five things that Rob talked about are necessary, that focus is really a necessary element. And I think sometimes some of the risk or challenge with talking about whole system change is that we risk watering things down. And I look at USAID and the fact that gender is supposed to be a cost cutting issue and in some ways that means that gender is everywhere, but it's nowhere. And I think what we learned from our last strategy where we focused on early grade reading with that intense focus, we really were able to move the global dialogue around learning outcomes. And the shift in that dialogue in just five

years still astounds me. And so I think how do we do that around gender and gender transformative systems?

But what I think really gives me hope at USAID is with our new U.S. government strategy, our new USAID education policy that as launched in March, is the focus on equity and inclusion. Again, it's cross cutting, so I think our challenge will be how do we take that and run. But we're looking at those questions of gender and equity from preschool through secondary, tertiary, and then the transition to livelihoods, employability.

And I would say what really gives me hope are a couple of the large initiatives and the focus that USAID has recently put. So the Young Women Transform Prize we launched last year, I had the honor actually two weeks ago to meet several young women leaders that have received grants through that program, working at the grass roots. And I think those small private sector partners in some ways are able to really be tailored reached audiences that maybe larger systems are not and really address some of those barriers.

So, again, looking at all of the key actors who are out there, whatever the level it is, and where they can really have an impact.

And then maybe we just mention the Women's Global Development and Prosperity Initiative. It's a whole of government initiative for the U.S. government and our goal really is to reach 50 million women by 2025. So having that kind of intense focus on gender.

MS. KWAUK: Thank you. So we have just like two minutes left. So I wanted to just throw a question to all of you. And this was also something that Rob had mentioned earlier about looking across the girls' lifetime, right, and that's the theme of our symposium today.

It's how do we ensure that dilution doesn't happen, that if we're focusing across the entire girls' lifetime, how do we ensure that our efforts are not diluted across organizations and institutions? And then also how do we ensure that we adequately bridge the transitions from critical entry point to critical entry point across the girls' lifetime? So how do we achieve that balance between that.

And I'll throw this out to any of you who wants to answer. Maybe we can get like two responses and then we'll wrap up. Anybody want to take that one?

Go, Martha.

MS. MUHWEZI: One thing that is critical is there is no level of education that is independent of the other. It's a fit in system, and that means we need to look at the whole education system in totality, starting at childhood development. What happens at childhood development determines what happens at primary school level, and what takes place at primary school level determines what takes place at secondary and transition into tertiary institutions, and eventually into the world of work.

So it's about looking -- that's what lifelong learning is. So it means looking at the whole system in totality, one fitting into the other and one supporting the other.

MS. KWAUK: Great. Last response from Bhagyashri.

Thank you.

MS. DENGLE: It's just a question -- I mean not just related to what you ask. I mean as in this space of gender transformative education, as we are taking ten steps forward, we are also taking five steps backward because the way governments are thinking, the policies -- I won't name the countries, but I think those are now new challenges that are coming up and I think it's quite challenging for organizations like us to really think about that. And that's where our entire advocacy, influencing and working together to ensure gender transformative education becomes very, very critical.

MS. KWAUK: Thank you.

All right, please join me in thanking the panelists for their great parts.

(Applause)

(Recess)

MS. SUBRAMANIAN: All right, so before everybody starts to getting up. We're going to go ahead and go straight into our next panel. We'll have a coffee break in an hour and a bathroom break, I promise, but I wanted us to go ahead and start launching into the first of our

three policy conversations. Each centered on a key entry point in a girl's life. Each of these panels will be anchored around the research of the Echidna Global Scholars and who, they'll actually kick us off with a brief presentation of their research findings and recommendations.

In this panel, Dana Schmidt, senior program officer at Echidna Giving, will moderate a discussion on the policy implications of bringing gender into the early childhood education space with a special focus on India. I should note that while Echidna Giving helps make possible the really great work that we get to do with our Echidna Global Scholars and through the Echidna Global Scholars program, I'd like to mention Brookings' commitment to independence and underscore that the views that Dana might express today on the panel are solely Dana's herself.

On the, in the panel, the panel will also include Suman Sachdeva who is education specialist at UNICEF India and I'll, of course, let Dana introduce all of our panelists more fully later. But I'd like to note that Suman was also Echidna Scholar in 2015. So, we're really happy to have her home again and then also the panel, and we'll be joined by Vrinda Datta who is the Director of the Center for Early Childhood Education and Development at Ambedkar University in Delhi.

And finally Samyukta Subramanian is our Echidna Global Scholars this year and she will be kicking us off with a presentation of her research on bringing gender into the early childhood education space. First, I should mention that she has also not only at a Brookings Echidna Global Scholars this year, but she is also the program head at Pratham in India where she leads problems, early childhood education partnership with the Delhi government as well as elementary education initiatives across several States in India. So, please join me in welcoming Samyukta to the stage. (Applause)

MS. KWAUK: Thank you, Christina. Okay. So, my research at Brookings focused on early childhood education and gender. But I must share with you that I began to look closely agenda when my organization, Pratham, rolled out the middle school initiative a few years back. Almost as soon as we began, we started talking about how to prevent girls from dropping out. What are the skills that girls and boys need in middle school so that they can look and treat

each other equally? And I began to wonder why we don't do this in the early years. We know that the roots of gender inequality are in the early years. We also have evidence now to say that gender stereotypes begin at age six.

And so this led me to try and find out if the early childhood education space in India actually wears a gender lens and found, in fact, that we do not. And so then I began to explore do we really need to wear a gender lens? And if so, how? And so my qualitative case study led me to a different preschools in Delhi, in India, interview mothers of preschool children, preschool teachers, and observe preschool classrooms. And I must share here that there are two kinds of government supported preschools in India. Those that are community-based, we call them un-invitees and those that are within government schools. And in Delhi alone, there are about 10,000 such un-invitees and in the school system that there's this rapid expansion happening with preschools are beginning to open up within schools.

And so I want to share with you some of my findings, all my findings, of course, in the policy brief, but I want to share with you some of the things that struck me most. And one of the first findings that I want to share with you is that when I went to mothers of preschool children and ask them, should you girls and boys go to school, do you think they should get a job? Mother said, of course, girls and boys are equal today. Girls and boys should go to school. Of course they should get jobs. Many in fact said that children should be allowed and be able to decide what they want to do.   And so this was to my delight, this is what all the mothers were saying. Yet when I asked them about what the children play with, they started telling me about girls tend to play with dolls and teddy bears; boys like to play with bats and balls and cars. Girls like to play inside the house; boys like to play outside the house when we know that all children love to play everywhere. And this made me realize that when mothers are gender equal aspirations, there seems to be a gap between what they actually practice. And some way, we need to think about how to bridge this gap.

And I also realized that children often bring what they see at home into the school, into the classroom. And what they do is when teachers, for instance, in class ask children, what

do your parents do? One child said, my mother cleans the house and my father's an electrician. And the teacher moved on to the next child. She did not ask this child, what else does your mother do? What else does your father do? How do they help each other? And that made me realize that either the teacher did not realize that this is a point at which you want to stop and question assumptions, or she realized, but she really didn't have the tools to open up what was happening in class for discussion. So, these were my first two findings.

And the third one, which didn't exist 20 years back is around technology. So, India has a population of about 1.3 billion people and about 67 percent of them use phones. But to my surprise in the most under-sourced communities that I went, every home had a cell phone. Every home had a television set and children would often wait for their fathers to come back because when I would ask, when do you spend time with your fathers? It was about fathers coming back home and children and fathers watching TV together or the child using the smartphone that the father had to play games on it. And this is something that made me realize that even in my -- we have to look at this digital space as something that is entering the ecosystem of the child.

So, to share with you my recommendations, which would be to the Delhi government, but, in fact, I think two different state governments in India and perhaps in different countries. I want to begin by saying that we really need to talk about this platform that we have in front of us. We have this ecosystem of the child where we have adults that are parents, there are children and there's a digital platform. And this platform really needs to be leveraged in order to reach out to parents, mothers and fathers, but also in terms of not only sending out information, but using educational entertainment to question assumptions, gender stereotypical assumptions that we may hold. We can also use the same platform to think about the kind of games we want to have on cell phones that children are actually playing with.

We know that we need to gender sensitize teachers and parents; and teachers particularly so that they have the tools to look at what happened, needs to happen in the classroom and at home. And the teacher's role really needs to be re-imagined if we because I

think she is the bridge between the community and the classroom. She is a bridge between the child and the parents and the constant dialogue and communication that she has with parents is actually going to help to shift gender norms.

I'd like to end by saying that this is a critical moment in India's history. In June of this year, India released the National Education Policy, the draft version and that policy of, we'll be talking about it further on the panel here. But that policy talks about early childhood education in the first chapter. It, in fact, talks about extending the right to free education to every child in the age of three to six across the country. Around the same time, I remember reading a report which came out in India, which said that every hour in India, 26 crimes are committed against women. And I think if you want to cut the roots of gender inequality, we really need to look at the early years here. And if there is a time to do it, to embed the early years with the gender transformational approach, then the time to do it in India is now more than ever. Thank you. (Applause)

MS. KWAUK: So, I'd now like to invite Dana, our moderator; Suman, from UNICEF; Dr. Vrinda Datta from Ambedkar University on this panel to discuss this further.

MS. SACHDEVA: Thank you. Okay. Well, first of all, thank you, Samyukta for sharing the fruits of your many months of labor here at Brookings and before. It's always exciting to see the research of the Echidna scholars come to fruition and excited to continue the dialogue on this with our panelists. So, as Christina said, I'm Dana Schmidt. I'm senior program officer with Echidna Giving, not to be confused as a public master of Brookings, which I very much am not. Their work is very independent.

I'm joined today by Suman Sachdeva who is, as Christina mentioned, an Echidna Global Scholar herself, a few years back, and is now an education specialist for UNICEF in India. Vrinda Datta is the Director of the Center for Early Childhood Education at Ambedkar University. And then, of course, we have Samyukta as well. And I want to start off actually with um a quick audience poll. So, you all get to participate a bit here. I would like everyone who would consider their work to have a significant focus on girls' education to raise your hand. Okay. That's not at all

surprising and keep your hands up for just a second. For those of you who would consider a significant portion of that work focused on early childhood education, keep your hands up. Okay. So, we have very few, we have a few sprinkled in there.

You can, you can put your hands down now. but the first question I want to throw to the panel is really a question about why we see such a small proportion of the focus on girls' education looking at early childhood even given what you, Samyukta found in your research, which is that gender bias sets in very young; that the fact that girls and boys play with different types of toys might mean that their brains are developing strengths in different areas. And so to the panelists, why do you think it is that the girls' education field has so much more heavily focused on adolescence? Suman.

MS. SACHDEVA: Okay. First of all, great to be back home. I call this as my second home and first in the India panel, this is really a Bonanza for me. So, I'll begin by saying that let's start by policymakers, for example, or decision-makers that we have and so on that influences what we do in the field. Actually, it's not a very low hanging fruit to work on ECE. It starts, so to say, a very sexy topic to work on. So, that's something not as part of a hundred days, thousand days, agendas of most government, even government over here. That's one reason that it gets neglected.

Secondly, it is a very challenging, very, very challenging domain, especially in India. I can say that it's here where you need to challenge the power norms. You really need to shake up those ancestral very, very, very deep-rooted seating patriarchal structures in our society. Because you're talking about challenging gender norms right from beginning where masculinity's entrenched. So, this is another very, very important reason why we don't talk about EC. This is a very complex process. You see, you have to work with all the stakeholders. They are like a very small baby after all, but you have to walk with the family; you have to work with the community; you have to work with everybody in that ecosystem. So, it's expensive. Who wants to put in so much of money into a system which is actually resourced splotched? So, that's another reason here.

And thirdly, it's all about oppressed not having voice in our country. Girls don't have voice; women don't have voice; how much ever we say that we want it for us, we don't really have raised voice to demand when there is no demand, there's no supply.

MS. KWAUK: Do you agree Vrinda, are there other elements you would add?

MS. DATTA: I would look at it a little differently. I would say gender might be neglected in the sense, in the early childhood phase, but we are trying to work towards gender equity by looking at the kinds of programs that we have evolved. Because we are fighting with very fundamental issues like declining sex ratios, getting children into the early childhood programs. So, at that level, I think we have been very successful to bring about equity.

So, today we have at least 80 percent of children participating in early childhood programs and near equal girls and boys are participating. But what we find is today a little other kind of gender difference that even though children are in the early childhood programs, the longitudinal study that our center has done, we find that girls and the very low-income children in the government schools that has the boys and the slightly higher income children in the private sector, but I sometimes believe that the parents have that, the fee-paying schools have a better-quality education and they would prefer boys to go for that kind of -- so these kinds of subtle changes you do find. So, the attempt is there, but such kinds of problems often again, windows back to the same place (inaudible).

MS. KWAUK: Yeah. It gets back to Samyukta's finding, right, of kind of movement in the right direction. The aspirations are there, but then in practice --

MS. DATTA: Yes.

MS. KWAUK: -- there are still some of those gaps. Samyukta, what are you, what do you think in terms of this fundamental question of why early childhood has sort of been left out of the girls' education conversation?

MS. SUBRAMANIAN: So, I think this understanding and importance that we give to early childhood education is quite nascent in India. Fifty percent of children at age three are outside any preschool system. So, we are not -- and when people are not in a system, we don't

know how to see people. It's almost like they don't exist. And I think the second thing, which it's

just practical. I think we react often to what we can see. And in the earliest, we don't see it. It's in

the later years that we actually see it. And so immediately we say, hey, we got to do something

about it. In the early years you say, hey, they're really small. Everyone's fine. (Laughter)

MR. KWUAK: Yeah. Well, let's get we have three experts on India on this panel.

So, I wanted to get a little into kind of the specifics of the Indian context and dive into what this

means for that. And so, to start, Samyukta, you mentioned that there's this new national education

policy that's been proposed and Vrinda, I wonder if you could tell us a little bit more about what

that policy includes and encompasses and any other relevant things that are happening right now

on the policy front in India with regards to early childhood education.

MS. DATTA: Yeah, I would like to mention two policies because the 2013, we had

a policy on early childhood care in education, which also was a landmark because before that we

didn't have any very specific directions towards the early childhood program except that we had

the ICDS program. So, that policy was very helpful in bringing into focus the integrated approach

that we want to take for early childhood programs. And also how to clear those kinds of

environments which are enabling for these programs. It also helped us to get a national

curriculum framework and also quality standards. So, that was another of the landmarks in 2013.

Now, in 2019, when the draft new education policy, national education policy was

released that gave a very, very important focus to early childhood development because one is

that it has very clearly recognized that if you have any learning crisis in the primary grades, I think

the policy very clearly says it is an indication that we have not been able to give quality early

childhood education to the children. That's one of the reasons for having this crisis. And,

therefore, how do we go about addressing this?

So, one of the positives of the policy that we find is that it has given us the

important stage of foundational stage of education, which it calls that all children from three to

eight are in the foundational stage. And now, the early childhood education will come into the

school system. That's what it is advising. There are different reactions to it because when it is

saying that it is saying that the community based ICDS program now should shift to the primary schools. So, there's a kind of little restlessness in the community in the professionals that are community-based program had very, very different at one day just that we had because it catered to parents, zero to three children and three to six children and really accessible to the community for using all the kinds of services.

Now, when did (inaudible) into the school system, the distance might deter the younger children and the parents from using the services. And second, people have coined the term called school education, where they say that the downward extension of the curriculum is bound to happen because that's why we function in India, that we formalize education very fast. So, the three-year olds are also going to get into the formal system.

And secondly, we will stop tripping in these three-year olds also as children and we fill the grownup and treat them as they have to get into the formal system. So, these concerns are definitely coming up from the policy.

MS. KWAUK: And what about, Suman, so when in terms of the policy, do you think it is a gender transformative policy? Dare I even go that far or even gender informed?

MS. SACHDEVA: So, let me begin by telling you that India actually is a Lando's (phonetic) policy. Two of them have been mentioned. You have a national policy child; you have national policy for ECE; you have national policy for education; for disability focusing on children. But if you look at all these policies, these are thematic based, very broad based. If you were to look around the software agenda or social equity, that's very important for a country like ours because it's not only gender because there are issues around social cause class minorities here, it's not embedded.

I realized that when I was asked by Christina to look at all the policies that we have in the country from a gender lens last year and I realized, hey, actually most of them frankly are gender blind. Remember? There were a few I could say that, well, yes, sensitive and then I said, why is it so? It's been happening for two tickets or maybe more they've been working on various policies, why? I realized that most of the policies are informed with by evidence which is

data-based, and the data is what we want to look at. What we look at, we look for interpret as

something that guides a policy. If we are blind to the issues of the girls, we will not look at that

data. Definitely, they see data doesn't say there is a disparity. It says that, okay, both boys and

girls are entering school. That's been some of the practitioners and researchers said, well, it's

everything is going on so well. Why there is a problem for girls later on in life? There is so much

of vulnerability. There is safety, security, violence issue. Also, girls may have been even learning

in India, for example, our National Assessment Services at (inaudible) girls are learning, but

maybe not so appropriate in terms of gender gap. It's not so high, but actually they're not

comprehending one of my policy brief stocks about the same thing.

So, there was definitely something going wrong. And when the implementers and

practitioners, researchers circled it back, they said, hey, actually the math is not right. We have

not been focusing at the right age, ECE. So, that's when this policy started looking at, I'm not

saying with the gender lens perhaps, but when I started looking at the new draft policy, I realized,

well, the word gender is used more often than what was used earlier in the policy documents.

Across chapters, you have a gender innovation fund; you have an inclusion chapter; you have all

kinds of genders sprinkled there. But I wouldn't say that it's actually transformed. It's moved from

blind to maybe in between sensitive and responsive, but the how part is absolutely not decoded

over there.

MS. KWAUK: Yeah, which is so often the case, right? There's a -- you can have

beautiful policies on paper and then what happens in practice is quite different. I guess I'm

wondering, given some of the sort of challenges and the policy that had been raised by both

Vrinda and Suman, Samyukta, what do you think this policy is going to mean for young girls in

India in the future?

MS. SUBRAMANIAN: I think that there are challenges with the policy, but like you

said, there's policy and then there's practice. And in India we're very good at keeping the two

really distinct. (Laughter) So, I think the practice actually needs to influence policy and over time,

no matter how much we start saying the policy says this, we are going to need to change the

practice.

So, for instance, we have the community based preschool centers and we know that children go there. Yes, we need to strengthen it, but we don't have to break what doesn't need fixing. We don't have to try to mend what doesn't need fixing. So, if there are community based preschool centers and you know the children are going there, then build off of that is what I think practitioners would need to think about.

And the way to my mind, the way we need to do it is look at it from the lens of the child, not from the top, but actually from the ground. A three-year old child can only walk so much. You can only do so many things. So, if you open him or her out into a huge school space, then we don't need to focus on special skills in the early years. That's already done. But instead, if we could break up this age continuum between three to eight to say, three to four is where children are with their mothers, they need to be closer to home and they need to -- the community based preschool centers sort of answers that need. And as children are growing, if you look at the age five and six, that one year before school, then you need those preschools before school so that children are ready for grade one. So, it's not an either or. It's about bringing it together. And I hope that policy makers and practitioners are able to see this; that we need to bridge, this connect through our practice.

MS. KWAUK: And I guess for both Suman and Vrinda, do you think that's realistic in the current environment in India? Do you see the opportunity to kind of bridge what -- that would really be two ministries also coming together in terms of the, the School Ministry and the Women's Ministry, what do you think?

MS. DATTA: I think that is different.

Ms. SACHDEVA: Challenge.

MS. DATTA: Very challenging because so far, it's not happened in many occasions when we would want the ministries to come together. But yes what's some Samyukta has suggested is more workable because we already have a very well-established, community-based system and if that can be used to help families and children of the younger, up to four years

as she has suggested, that will be a very, very important point. And having a school readiness kind of a program or helping children for one year in the school system for early childhood would be more beneficial, or one or two years depending on where we are placing the child. I think it will be a very important change.

MS. SACHDEVA: So, I feel actually this is the moment for us, the policy is very pragmatic, but if you really look at the policy document, it's really not only policy, it's a whole plan of action. Huge plan of action, which will demand a lot of resources, which I feel may not be adequate for the country at this point of time to make them. So, that's one fear.

The other of course is the convergent approach. We're struggling with it day in and day out. And the third, what you are suggesting out of school is something what Robert was saying, education is not going to be in school maybe. So, how do you get people to accept that? How do you deal with children outside school? That's going to be a very critical agenda. But one positive thing which I feel is that the agenda of the policy has changed. It is completely focused on learning. That's why we have foundational years.

We have for the first time attacked what we were looking at as systems in the education, preschool, primary, elementary, secondary, so on. We now say that we are going to be reconfiguring that system. So, the agenda of the policy, reconfiguration of the system for learning, which means the foundational stage who will have three years of pre-primary plus two years grade one and two as a foundational stage where the whole curriculum at least is envisaged pedagogy, measurements, everything is from bottom up. So, that's a very promising moment I think if it works well. Identifying every stakeholder in our process.

MS. KWAUK: Yeah. So, definitely a good window of opportunity for things to begin to shift. Yeah. Well, it's exciting that actually this is the second year in a row that the, this symposium has actually looked at preschool education. I think the conversation was opened last year and now, we're continuing to think about what does it mean in preschool education to think about the gender dimensions? And I've seen this starting to bubble up a little bit more in the girls' education field.

And in part that's because I've been looking for it more as we, at Echidna Giving, within our strategy, have started to make some grants around early childhood education and started to look at some of the themes that you brought up in your research, Samyukta. I'm wondering given where you got in your research and where the conversation is, what you see as some of the persistent research and policy gaps, where do we need to take this conversation next?

MS. SUBRAMANIAN: I think one from the input point of view. So, when we have government systems working with preschool systems across scale, there's a huge emphasis on input, so on curriculum and uniforms and so on and so forth. And I feel like for the curriculum, in particular, we really need to open it out to so that we can give teachers and children a chance to look at diverse role models. Role models that they don't see at home, but exposure to -- there are other kinds of people in this world. So, in Delhi, for instance, I worked with the Delhi government on the curriculum, but I must say that when, as part of my research or when I analyzed it, I felt like we did not look at it with a gender lens. And there is a need to do that in the minute we begin to do that, we will focus more on who are the characters; what are the songs saying; what are the stories saying; and who are those figures in the who come alive for the children in class.

The other thing that I felt again, as part of my research was we need to state gender transformation as an outcome in the early years. So, for instance, we talk about all around development; we talk about school readiness, but if we don't state it as an outcome, we are not going to aspire to achieve it. It's going to be like a panelist said earlier, it's going to be lost somewhere. It's everywhere and nowhere. And so I think we need to look at that.

And the third thing, if we begin to look at it with a gender lens, then things like, for instance, in schools, you have uniforms in the community-based centers, you don't have uniforms. So, in schools you have girls wearing skirts and you have boys wearing pants. And every time I would go into a school, I would find the teacher reprimanding the girl and saying, sit properly. Now, the girl didn't decide what she was supposed to with the system did, but that stage of reprimanding actually begins right there. You begin by saying sit properly, you then try to tell them

who you want to -- who they can talk with. Then you decide when they should get married and which school they go to. And so I think we need to really think about what is it we are imposing on children and communities when we look at it top down.

MS. DATTA: So, I think both the boys are not perfect. We are not living in perfect world anyway. Both from research I'm saying and from the policy angle. There's a lot of research which is available, which needs to be put to use to inform policy. Whereas, there is, there are a lot of areas that need to be researched. I would say -- so, I'm adding onto something different. I would say that we all know that involvement of fathers is very important, of men in this whole business is very important. But we do not have enough research to guide that policy and not even the policy making in action.

Two ways, well, it's not only in parenting, but also how to attract men to this area. How many of us are working here in that area? You may say that culturally also it is not accepted, or it's not encouraged to have more men to ECE domain. But let's see why not many of the countries have good examples. That's one very, very important piece. If everything worked well, then the policy should understand that there is a clear pathway which is really missing. How do you ignite that? Mothers are the igniting force, but fathers are the one who pushed them back. The teachers, the functionaries, how do they change their attitudes and move forward? That's going to be a research gap. So, I would look at both these areas need to be strengthened in this point in time.

MS. KWAUK: Would you add anything Vrinda, to that?

MS. DATTA: Yeah, I think what does some of the issues that Samyukta has identified as happenings within the classroom which bring about the gender dynamics, I think in the sociology of education, one talks about the hidden curriculum, which I think is something which you need to explore in the context of early childhood because there are lots of values, norms, standards that are unwritten, but passed on to children to the behaviors and practices within the school and the within the classroom in the school system.

So, identifying all of these areas in which the hidden curriculum is influencing the

child and then trying to see how we can bring this about in the gender transformation kind of changes if we are going to bring in. The second thing is that when we are working with the teachers and parents to understand the gender equality and moving from there. I think one or two experiences that I would like to share is that in the literature we find that two, three things that become important for changing social norms is basically the ability to -- the self-efficacy of the person, the decision-making power, and also the dialogues that one has about that issue.

So, one of the things that I've found in one of the students of mine who did a PhD on seeing how self-help group, being a part of self-help groups changes the mothers or the parents at mother's attitude towards her adolescent girls. And we found a tremendous difference in the way that aspirations changed for the parents, for the adolescent girls in they invested in the girls' education and the way they are looking forward to the girls' development. But what are the processes that happened was that because of the self-help groups functioning, it gave a lot of scope for leadership skills. It exposed to lot of understanding of those social issues that all of those are facing and how to create decisions within that. So, all that I think made a very lot of difference.

So, whenever we are working with even the preschool teachers, I think I have been all the time saying in our training programs, that we need a whole lot of time on self-development, which doesn't happen because, and then that helps us to bring in the attitudinal change in gender also, which is not happening.

MS. KWAUK: Yeah.

MS. SACHDEVA: And if I may add --

MS. KWUAK: Sure.

MS. SACHDEVA: Even for the previous panel and for this panel, I think one thing which we did not probably realize this is a very human centric design we're talking about. Everywhere we're talking about dealing with human attitudes, breaking those, building new things, positivity, et cetera. But one thing which probably we haven't really explored much and we should is, building accountability at all levels. We may have passion, we may have best inputs, but if we

are not accountable, and I really feel at times too, I really wonder how do I do this? Because despite working for over two decades in the field, we are still talking the same language and I owe it a lot to the whole lack of accountability. So, that's something we really need to start working on.

MS. KWAUK: Yeah, I think what's interesting about the examples all three of you have raised now is that many of the ways in which gender shows up in early childhood is still rather invisible. You've talked about the hidden curriculum, right, it's right there in the word. You've talked about the lack of visibility earlier, Samyukta. And Suman, you've said, we make policies around things we have evidence and things that we can see and tangibly touch. So, I think you're really pointing the way to a future side of things we need to be thinking about and making more visible.

I'm wondering sort of beyond that heightening the visibility of these issues, what else you would point to as a way to begin to shift decision-makers and get more attention around this issue in preschool? And Samyukta, maybe we can start with you.

MS. SUBRAMANIAN: I think working with the community is probably a big part of what we are going to be doing. And in the early years that becomes even more important. Like Suman mentioned, working with mothers and fathers and the adults around the child's, in the child's eco system. I think that becomes very important because it's not the child taking the decisions. The child doesn't have the agency, it's the adults who are there. So, I think considering that and beginning to think about how to work with them would be very important.

MS. SACHDEVA: So, I think I led the UNICEF perspective. One needs to be strategic. You have to identify the right stakeholder, the decision-maker at the right time and you have to present the right data or maybe the wrong data present rightly to the decision-makers at that point of time. That worked for us. I can share, even in this new education policy, we collected all our evidence and data and met the -- Mr. Dr. Castudi Unger who was leading this whole team. He was writing the policy. We had a kind of a closed-door meeting with him for three and a half hours where we presented not only Indian context, but we presented global, national, regional, whatever we had done Brookings and suggested that this is the way forward. We made 48

recommendations and I'm very happy to state that all these 48 recommendations find space in this new education policy. So, the thing was to actually make this right move and strategic move at the right time.

The second piece was around girls' issues. Since there's so much happening, which needs lot of attention right now. We made an attempt about two years back to meet the Education Secretary upfront and said, you've talking about learning; you're talking about everything, but let's focus on girls. As you said, focus is important, and this is the data. This is the evidence. He said, no, I don't need all this. You have all research. You have all data.

I know you don't have to talk about and say that, okay, girls need attention. Tell me what should I do? I am a bureaucrat. I am not an educationist. I worked from agriculture to electricity to wherever, horticulture. Tell me what should I be doing? Who should I get to do this? When and what are the resources that we'll take? So, that set us on a very tough course. We sat for almost a year. We worked on eight to nine workshops, got almost 180 people, academia, practitioners, government people to come and deliberate on these seven, eight workshops and came up with a strategic, national strategic action plan for girls. But India is a very diverse country. One plant will not work. So, that has to be contextualized, adapted across, but the Secretary took that on us and he shared it with the States and now we have this task of monitoring the implementation of the plan. At least the beginning has been done. I'm saying that you really need to make your choices correct, but time is a big factor.

MS. KWUAK: Do you have anything to add?

MS. DATTA: No, I -- yeah, moving in a positive --

MS. KWAUK: Yeah.

MS. DATA: -- way because I think the last two, three attempts on policy has been very participatory in that sense from the community. The people who are in the community working with people and also getting here who participate in different forums to help the policy formulation. So -- and I think the draft national policy got some 20,000 --

MS. KWAUK: Recommendations?

MS. DATTA: -- recommendations from different community groups to look into the issue. So, from June to now, the policy is not finalized because they are still looking at them. It is a new recommendation coming from the field and from the people also. So, I think it's moving in a positive way, I would say.

MS. SACHDEVA: And we're all guilty of between 19,000 and 20,000, we all sent our recommendations (Laughter) --

MS. KWAUK: Forty-eight from UNICEF.

MS. DATTA: So, we're all guilty of that, but I think one thing to add to what you're saying is probably learning from our mistakes of the past. It may be important to begin to build the longitudinal evidence from now on. We're going to reach -- five years later and it's going to say, hey, that was great, but where's the impact? Where's the evidence? And we know already that in the early years we may not see the result of what we are doing right now immediately. We may see it in the long-term.

MS. KWAUK: Mm-hmm.

MS. DATTA: So, I think maybe beginning to put in place mechanisms for that to happen.

MS. KWUAK: Yeah. And I think what's interesting, we talked about what it takes to influence decision-makers at a policy level, but Samyukta, you were talking more about what it takes to influence decision-makers, very local decision-makers who are much more proximal to the child.

MS. SUBRAMANIAN: Mm-hmm.

MS. KWAUK: I think what's interesting about this space is that you have an opportunity -- that in order to shift what's happening for very young children, you sort of have to begin to shift the gender norms of the adults who are caring for them. So, it's in sort of by definition sort of an intergenerational approach. And I'm curious whether you all have thoughts about what does it take to begin to shift those decision-makers who are very, very close to children and whether you've seen any promising strides in that direction?

MS. SUBRAMANIAN: Well, very tough question. (Laughter) Okay. So, I've been working at grassroots of past two decades actually at (inaudible) new entry three years ago and realize it's not easy. It's really not easy because again, I said, at least in our country where you are attacking the gender norms, you're attacking the power structures. It's not easy. But a reflection is a strategy which I thought worked. Reflection meaning, the process is very intensive. It's time consuming. You cannot have very quick answers to things. If you need a change, you need to work intensively process oriented and get people into a reflective mode, use their context, their situations, and have a conversation that is something able to do it to a limited extent. But definitely it's a huge, huge -- look at everybody making faces. Change is possible, but you need to put in a lot of effort there.

MS. DATTA: I also feel though it is difficult, but what we had tried the, this thing with the practitioners -- reflective practitioners, a process that we have gone make them go through to become reflective practitioners. I think that is where we can see changes happening. I think the same principle can be applied to working with bureaucrats. But I think the practical problem in most of our systems in India is that the bureaucrats keep changing.

And therefore, when you create a rapport, you have built some kind of a change in the system, in the thinking and working towards the change. You suddenly find they don't exist in that system anymore. They've gone into silence. Again, you start the process again of doing the whole thing again. So, it takes away a lot of energy and the situation doesn't change very easily. So, working with bureaucrats, it's a very challenging task.

MS. SUBRAMANIAN: And we just had the change this morning.

MS. DATTA: Yeah. We just had a change from this morning.

MS. SACHDEVA: Yeah, the secretary was, I think, transferred out of the department --

MS. KWAUK: Multiple changes, apparently.

MS. DATTA: So, you asked about examples. I must say that I know there are examples from Norway and Sweden and Canada. While doing my research year at Brookings, I

also visited preschools in D.C. Different kinds, I found out that there are charter schools; are

public schools; there are private schools that work with charter schools. And I learned -- when I

asked them about, do you look at it with a gender lens? I could see a little bit of people squirming

a little bit, saying, we don't really, but you could.

So, I realized that for us, like we do aspire to take the best of what happens in the

United States. And to me it was a revelation that we are not looking at early childhood with a

gender lens in this country and perhaps in many other countries in the early years for sure. And

so to me, I feel like India could lead the way here. Like we have a policy which is talking about

early childhood education. We have a policy which is talked about free and compulsory education

across this country, across the country. Not many countries in the world have that. And we could

be the pioneers for this too, to show the way to the rest of the world.

MS. KWAUK: So, on that very hopeful note, I would love to open it up to the

audience for your questions. I think there are roving microphones around and we'll take a handful

of questions before turning to the panelists. So, yes, right here.

QUESTIONER: Hi. Thank you very much. My name is Aripha. I was a former

National Assembly member in Pakistan. So, it's a very a good approach you have shown. And I

heard your speech too. I remember Malala coming to one of the occasions for a speech. She was

not the Malala we know now. She just came as a small young girl, as a student, one of the speech

competitions and even she was talking of gender empowerment at that time. So, what happens

that when we grow up, the same girls, they lose that sense or whatever happens that the gender

equality is never there in South Asia. I mean, it is there. We still have a few prime ministers in

South Asia, women prime minister, which I don't see even in USA. But anyway, I'm just saying

that what happens that women become different all of a sudden when, as a young child they keep

talking about even coming from a remote area, they talk about empowerment, leadership qualities.

And I would really like to know from the panel because they're experts and they know better.

And definitely I agree with the early education because that is the time when the

doll is given to the girl. The motherhood is exaggerated to the extent that the father who just

disappears. So, what happens and when do we act -- what happens that the child as a girl when she grows up becomes a compromised woman in a set of men.

MS. KWAUK: Okay, great.

QUESTIONER: Thank you.

MS. KWAUK: We had another one in the very back. Hi.

QUESTIONER: Thank you. Actually I'm Lucia from Malala Fund, coincidentally. Yeah, I wanted to ask the panel to reflect a little bit -- it was wonderful panel by the way -- about the issue of the sort of relationship between the gender transformation in early years and the situation in India where women's labor force participation is low and declining and whether you see potential in fact for early childhood education. Yes, to create foundational skills. Yes, to begin the process of gender transformation through education at the early stage where it's evidently very needed, but also to relieve some of that unpaid care burden that young women, sometimes young women of school age, or adolescents are taking on for families. Either as sisters or mothers and so on. And thus, to create a kind of virtuous circle in which more girls, more girls and young women get into, are able to pursue careers they have because they're not doing that caring role. They create role models for other girls. They create incentives for families to send girls to school because they see that young women will be able to go into employment later.

MR. KWAUK: Great. All right we'll have one more up front here.

MR. MCCRAY: Hi. Christian McCray. So, the free practical examples, which I think have already scaled, which are on the South Asian continent. One would be Montessori. Montessori, if it's done properly is peer-to-peer. So, why don't you have peer-to-peer girls? Half of Montessori are girls. Why doesn't that start at childhood education Montessori? You have as many girls as boys who are teaching each other.

The second thing would be sort of consciousness movements like Maharishi, but I'm sure you each might be able to choose a better guru. The reason I mentioned that is that the new university in South Africa, when it started in 1999 found that girls were coming to the university with worse profiles from GIs from Iran and the Maharishi or consciousness movements

gave them back a sort of love of self. But why can't you do that as early as possible in schools. But the third thing, most of all is Bangladesh and Brac, 10 cents, the technology group is giving the main education price just as far as they bet this year. December, Hong Kong, he's started 25,000 pre-child schools.

So, you do have these models of the scales, but it seems that we don't go and look at them to see how to translate them or is there some other reason why these are being talked about even though they come from South Asia?

MS. KWAUK: Okay. So, we have a question about how despite strides and girls' education, we still have these big gaps when girls become women in terms of their outcomes. A question that links to that in terms of would using early childhood as an opportunity to provide childcare be a potential solution both on the child development side and allowing women to then enter the labor force and help to shift some of those dynamics. And then a question about what some of these other examples might have to offer in the Indian context. Suman, I'll turn to you first.

MS. SACHDEVA: I'll take the first one --

MS. KWAUK: Yeah.

MS. SACHDEVA: -- which was about what is happening to girls, right, that was the question. Okay, so, I think I'll just repeat myself and repeat what other people have been saying that in India the stereotypes are very, so very entrenched that people fear to let them go. So, girls and women also, as they grew older, they brought in this kind of a scenario and masculinity is so entrenched that you just can't get, let it go. So, you see that on the whole course of development, girls like learning skills and transferable or life skills. They have very poor self-esteem and body image. So, they are really not prepared to be in workforce. I'm kind of linking with the questions. So, that's where the gap is.

If you need to work for girls, we have to begin early and you have to make all these linkages across the entire continuum. Work on the transferable skills because learning alone will not work. At the same time, integrated in a manner which is easily understood and you

have an enabling environment to support it. What if the entire society is not letting you do anything

that you want to do? You will never be able to get to that.

MS. DATTA: So, regarding the first question, I feel the school system is a

reflection of what does society is propagating. So, if gender stereotypes or gender differentiation

is very high, the school system is a typical, traditional schools will do that. In the Indian context, it

is very common that it is very difficult for a school to be very different because parents will start

questioning that, why are you creating this kind of a problem? So, people prefer to reflect what the

society is doing. So, generally you find schools and parents agree and they for the gender

stereotype continues to meet. So, that's the reason why we're not find the change happening.

In terms of working women childcare, I think these are issues. I think what our

problem is that 90 percent of our working women are in the unorganized sector. So, developing

childcare in that kind of a setting because of -- then you are an organized labor one is that many of

them are maybe daily wage laborers and may not be wanting to spend any of their income on

childcare. So, they sometimes prefer any formal arrangement where they do not. So, one has to

create kind of incentives and very easily acceptable daycare services, which we are trying to do.

There are family daycares and there are community with decades, but very few. And that is

something which we have to increase to be able to help girls try to be released from that kind of

responsibilities.

In terms of having other kinds of programs, I think one of the things changes that

we are seen in our schools is many of the schools are having life skills program in their in their

school settings. But again, I would say life skills program is not having gender focus. So, that's

where I think we can bring in about some changes because we know programs which are starting

from pre-primary and primary, and ways in which to help children cope with the social dimensions

of things. But I think gender is not been such a big focus in that. So, one could look at that.

Definitely.

MS. SUBRAMANIAN: Yeah. I think one of the tasks to respond to what Aripha

and Lucy from a Malala Foundation, I feel like the task for early years is to be able to lay out that

choice, that element of choice for children. Children can then choose what they want to become.

They may choose not to enter the workforce. They may choose to get married, they may not want

to work. That's up to them. But to make that choice now, to have the choice imposed in the

absence of any other option, I think that's what we are sort of fighting. And that begins in the

earlier years.

And so, yes, you could have leaders, you could have supermoms and that both

are fine. To respond to the other, I think there are examples and yes, we are, Brac, we are in

touch with them to find out what's happening, especially with fathers. But I think in my research

here, what I was looking for specifically was, is there a gender transformational approach

embedded in early childhood systems and systems are yet to recognize this. The only actual

concrete example I found was fathers' gender responsive toolkit for early childhood education in

Africa. That's the only example I could see.

And if I -- and one could see more such examples, one could then begin to think

about and grapple with how to take that to scale.

MS. KWAUK: We're coming to the end here. So, as a final question for each of

you I would love to hear what you hope to see kind of building off of Samyukta's point that India

has this chance to set an example for the world. What's the one thing you would most like to see

India take on board to do that?

MS. SACHDEVA: Okay. I think we've said over and over again, but

implementation is the key. Implementation with quality would be really the key and at all levels.

And so that will be one takeaway point. We can, we've always had good policies go and look at all

the black and white papers, we've done all the right to work. We are good at it. But what we are

not good at is the implementation. I'm not using the word corruption, but accountability (Laughter).

It's all recorded, right?

MS. DATTA: Apart from the system and bureaucracy, I think we have in India too

many players in the field of early childhood. So, we have the private sector within that, there are

many dimensions of private sector and then we have the voluntary sector. The school also is

looking into early childhood and, of course, we have the government sector. So, all of them are functioning at different levels or different understanding of quality early childhood programs.

The hope is that this new education policy will bring some kind of quality -- common understanding of the quality indicators and how we want to take our programs forward. And that's the hope of the policy that we will see that every child is able to get this quality early childhood programs.

MS. SACHDEVA: I think the policies also given the regulation --

MS. DATTA: Yes.

MS. SACHDEVA: -- they do that for the first time, both private and public.

MS. SUBRAMANIAN: I think if we could look at things from the child's point of view and you look at collaboration in every aspect. It's about teachers and parents collaborating. It's about children collaborating with each other and it's about ministries collaborating with each other. You brought this out briefly, Suman, the Ministry of Women and Child Welfare looks at the community based preschool centers in India. The MHRD, the Ministry for Human Resources and Development looks at the schools. What sort of collaboration can they bring to the table? I think so, for me, the key word is to recognize and collaborate at every level.

MS. KWAUK: Great. Well, thank you all so much and Samyukta, again, congratulations on your wonderful research and bringing it to the floor. (Applause)

MS. SUBRAMANIAN: Thank you.

MS. KWAUK: And Christina, I think, am I passing it on to you, or -- okay. I'm not passing it on to anyone. I have the great pleasure of welcoming you to a coffee break.

(Recess)

MS. KWAUK: Welcome back everyone. This next panel takes us into the adolescent years with a special focus on: *Science, Technology, Engineering and Math*, or STEM, as the policy entry points empowering adolescent girls with the skills needed to lead and innovate in the 21st Century.

So our Moderator today will be Sarah Gammage, who is the Director of Gender,

Economic Empowerment and Livelihoods, at the International Center for Research on Women. And joining her will be Maliha Khan, who is Chief Programs Officer at the Malala Fund; Meighan Stone, Senior Fellow of the Women and Foreign Policy Program at the Council on Foreign Relations; and Nasrin Siddiqa, who is joining us as an Echidna Global Scholar this year from Bangladesh, where she's the Founder, President and CEO of Education and Cultural Society.

Through her organization, Nasrin has done much to expand rural girls' education access, to STEM education in particular, including the establishment of science and environmental clubs across the country. She'll lead this panel, with a presentation on the findings of her research which sought to identify, systematically, the barriers to accessing STEM education for rural girls in Bangladesh.

So, please join me in welcoming Nasrin Siddiqa. (Applause)

MS. SIDDIQA: Thank you, Christina. Good morning everyone.

AUDIENCE: Good morning.

MS. SIDDIQA: The world is moving fast with Fourth Industrial Revolution, emerging technology, artificial intelligence, the robotics, and so on. Bangladesh is a developing country, which is one of the world's five fastest growing economies, second-largest readymade garment exporter, and recently has committed to be the middle-income country by 2021. And high-income country by 2041 sounds wonderful.

My experience working for girls' quality education for many years, and here, my research as an Echidna Global Scholar, states that, still, maximum number of our rural adolescent girls do not know where the Start Button of the computer is.

So, my research here is to unveil the barriers to educational opportunities rural girls in Bangladesh, focusing specially on science -- on STEM education practiced in a space that the science, technology, engineering and mathematics.

We know readymade garment industry of Bangladesh has changed Bangladesh economy from the poor status to the developing status. Garment industry workers basically they came from the rural areas, and 80 percent, more than 80 percent garment industry workers are

women.

Nowadays, these women are facing challenges due to the automation. Report says that within very few years these women are going to lose their job due to robotics, automation, machineries. The question is, with this little knowledge of technology and digital skills, whether our rural girls can save this industry or not.

We are expecting that they will lead the industry. They will do the exploration of other industries. So, why our rural girls can't embrace STEM in their life and career? To get to the answer in this research I did interview, focus group discussion, and survey with 500 rural secondary-level school girls, 100 parents, 75 STEM teachers, 30 school administrators, and 30 different rural schools.

All the stakeholders have mentioned multiple challenges, and most of them had mentioned these other challenges as safety, poverty, social norms, teacher quality, early marriage, infrastructure and resources. So depending on these challenges in the policy paper we further had broken down the barriers in three distinctive categories. That is, the individual level barrier, institutional level barrier and societal level barrier.

In the individual level barrier we talk to the students, the rural girls, and try to know their problem and challenges. Let me say something about the institutional and societal level barriers, where we found that teachers are highly demotivated with the low salary, low status in the society.

We have found some good schools too, but the number is very limited to mention here. And then we found one of the girls' secondary-level-school where 120 students are sitting in a single classroom, and there also no teachers, students are roaming around in the field. Senior students are conducting the class for junior students, technology is stealing their textbook, they're just memorizing it, no laboratory, no library.

One of the teachers said, he was so frustrated that, I will never encourage any of my student, not even my daughter, to be a school teacher in future. One head mistress said that, I found so many talented girls in my life, but none of them could make a good future or career.

This is the scenario of the schools. I have talked to a girl who is the first girl of grade nine, and her parents are planning to get her married soon because of the poverty, and she has high ambition, but the teacher say that her in-laws house people are very happy to know that she's a brilliant student and she could be a very good housewife in future.

So, where is the problem? Definitely, we have to find a solution. We, again, try to give the recommendation exactly based on these three levels, the individual, institutional, and societal level recommendation.

Just let me mention some of that. That in the societal level barrier, so what we gave to that, it is the time in this adolescence stage, rural girls face lots of social criticism, fundamental attitude and huge household workload, radicalization, stereotype attitude, these are the things. So, based on all these challenges our recommendation is for the policymakers, civil society, NGOs, community, education institutions.

So, let me mention some of that, that we need high-quality education curriculum and systemic accountability. We have to ensure investment in school infrastructure, and teacher's training. We need to get a corruption-free education system now.

My organization, ECS, has formed, Education and Cultural Society has formed 30 science and environment club all over Bangladesh. That was a successful program, and I think my organization will continue with that along with other organizations.

It is not possible to help each and every school right now, but we can make a community-based STEM Center for the underprivileged rural students, for the poor children. So, these are the recommendations, and you can get some more recommendation in our policy paper.

I have to mention thing that STEM is not limited with some subjects or some laboratory equipment only. STEM is a vast field, STEM is required for everyday life. STEM is for everyone.

If we cannot give our rural girls proper support with STEM skill and knowledge, the country, Bangladesh is going to miss a key opportunity, and if we can do that, STEM exactly can give them the 21st Century life skill, work skill, and the STEM activities like club activities, project-

based learning, STEM Olympiad can give them some transferrable skills, soft skills also, like leadership, communication, time management, decision making, et cetera. And then these rural girls of Bangladesh can keep the brand name of, Made in Bangladesh. (Laughter)

I had started with the Start button. It is not at all their fault that they are facing hundreds of challenges. Not at all their fault that they're not familiar with technology, but it will be a great mistake, if our policymakers they do not know which one is the right button.

We have to ensure quality education for all children, keeping rural girls at the center, and I have to say to this research, that the right button is STEM. Thank you. (Applause)

And now I would like to invite Sarah, and my fellow panelists to join me up on stage to begin the panel. Thank you. (Applause)

MS. GAMMAGE: Well, good morning everyone. It's a pleasure to see such a full room, and it's a real honor to be here to have this discussion with you. And I hope that we have a lot of very active audience participation.

So, I'm Sarah Gammage. I work at the International Center for Research on Women, and I lead the Economic Empowerment and Livelihoods Program. And today we are very lucky to have three extremely knowledgeable and thoughtful panelists with us.

We have Meighan Stone, who is the Senior Fellow at the Council on Foreign Relations, and she works on women and foreign policy. We have Maliha Khan, who is the Chief Programs Officer with the Malala Fund. And we have Nasrin Siddiqa, who has presented her findings to you.

So, I just open this by thinking about the critical role that education plays in both individual advancement, but collective advancement and wellbeing. And I think we know from our work in the field and development that investing in education is fundamental for women's economic empowerment, it's critical for their labor force participation, it's critical to close gender wage gaps, it's critical to reduce labor market segmentation, and sorting into different professions and occupations, which reinforces those gender wage gaps.

So, without investing in education, without investing, particularly, in girls to ensure

that more girls can get into different types of fields. We are going to be reinforcing many of those gender inequalities that we are so disturbed about, and we won't have Nobel Prize Winners like Esther Duflo. I just have to say today, that I'm terribly, terribly proud to see that our field, and in particularly the field that is concerned about gender inequality, is embracing this very centrally, and saying we need to get on board with STEM education.

So we are very lucky to have today, people who will tell us about the centrality of STEM education in moving the education field forward and in closing some of these gender gaps.

I'm going to start with Nasrin because her paper is incredibly rich. If you haven't read it, please read, there are some really thoughtful pieces in there about the challenges that we observe in the education system today, and the opportunities that exist to really change the potential of girls and their ability to enter the labor market and stay in the labor market.

So, in your paper you discuss the garment sector, and you look very specifically at the role that the readymade garment sector has played in Bangladesh. And you see it now being at risk, as we see automation, as we see sort of the new ingress of technology in that sector. You see very much that many of the opportunities for women in this sector are now at risk if we don't also invest in STEM skills.

So, can you talk a little bit about the threat of automation, but also the promise of investing in STEM, and also the importance of STEM for new sectors, and new industries in Bangladesh?

MS. SIDDIQA: Thank you. Total automation, yes, we had already started facing it. Recently in that area where I did the research, in Bangladesh, with the starter schools, we came to learn that already more than 30 garment industry has shut down, and around 30,000 women already lose their job. This is the scenario.

So, due to this automation, and machineries, and challenges, I think we have to give the focus right now, we have to give them some quick training, we have to take initiative, and we have to think for the next generation. I mean after four, five years, when our rural girls are coming to save this industry.

So, for that reason, we have to give focus on STEM education, if we can make them develop, so then it is possible for them to come and save this industry. And I'm pretty sure they can do it, because of, before 20, 30 years when our women came from their household status to the garment industry they had faced lots of challenges, and discrimination, and also touched on violence.

But they did it. They made it. They had transformed Bangladesh economy. So if their mother can do it, why girls can't do it in future. I think they can do it, but they need the support from all of us.

MS. GAMMAGE: Wonderful. Thank you. So, Maliha and Meighan, we'd really like to hear how your work has intersected with STEM, and how you see STEM may be critical for women's economic empowerment, and the labor force participation going into the future. Maliha, please?

MS. KHAN: I'll start. Thank you. First of all thank you for putting together this great panel, and for the previous panels.

I think Malala Fund has been, you know, working for about five years now, and we are looking at STEM in terms of offering girls quality education, and education that builds transferrable and transversal skills within girls that, you know, allows them to be active participants in the workforce, and active citizens in their own lives.

So that's where our sort of, you know, intersection with STEM comes in. I think STEM is where you start to see a lot of the breakdowns of the system that we were talking about before. Because it's the area where the least number of girls are active, in the area where the least number of women transition to the workforce, and so on.

And the fact that, you know, so few Nobel Prize Winners, for instance, are women, which you referred to, right now, and previous to yesterday's announcement there were going to be just one literature I think this year, so that was just abysmal, all across.

So our work looks at quality education, and how we can increase quality education for girls up to the secondary level for 12 years, because I think that that's the crucial stage. I think

as a sector we've done quite well at getting girls enrolled in school, we've done much worse at getting them through to secondary education, and much worse about getting the secondary education and translating into workforce and jobs.

And the one thing I will point here that was talked about a little bit in the previous panel, which I thought was really inspiring, was the connection between the work that we're doing, and the advocacy at the policy level work. It's something that's critical and crucial.

The first part I'll talk a little bit about the role that we in the room play around this, and as much as I'd like to inflate our own importance, you know, if we think about this room as being the international education sector, we have 3 percent of the investment in education, 97 percent of the investment in education comes from the domestic sector.

We spoke about the girls' economic -- sorry -- education challenge, the biggest investment, 800 million pounds, huge, right? Madhya Pradesh annual budget in education, that's one state in India, for one year it's 3.3 billion.

We are a drop in the bucket, so what role do we play? I think we have to be very, very, you know, focused on that, it's not about -- it is about creating pilots and creating -- and generating evidence, but really, it's about then convincing the government about the right policies, and I thought that the previous panel spoke very well about that.

MS. GAMMAGE: Wonderful. Thank you. Meighan?

MS. STONE: Thank you so much. And congratulations to Nasrin again about her incredible report, that was a great and spirited presentation.   I think we should all be all so excited about her work, right.

You know, I'd say our work at the Council on Foreign Relations, is really focused on girls' STEM education, particularly for adolescent girls, just because common sense.   I mean I use my phone and my computer every day, don't you? And I think time and time again we have to talk about girls' and women's issues, or girls' education, and we, you know, twist them to making economic arguments.

And they're powerful, you know, we are already losing in human capital between

15 and $30 trillion globally. And that's not my number, it's The World Bank's number. You know, we wrote a report girls' STEM education at CFR, and a male colleague, of the 11 male colleagues, saw that number and put in the track changes, "A number too big to be true." (Laughter) I said, oh, what a lovely discussion this is going to be.

And, you know, the people who were overseeing the report at think tanks were like, oh, we've got to get the deadline done. And I'm like, no, no, no, I really want to go sit with this superior of mine, and talk at The World Bank's data on this. And I very kindly was like, hey, you know, it turns out when you systematically disenfranchise half the population, the numbers are going to add up, you know.

So, I feel like we want to use those numbers. You know, another number that just kind of puts the fear of God in me, is that in least developed countries only one out of seven women are even using the Internet right now.

So right now when we look at policy which, to me, is not talking points, which was really easy to say, hurray for girls' STEM, oh, my, gosh, like here's a picture of a girl's computer. Isn't it great? But how are you spending money, and what policies are you really enacting. You know, and policy is always about, show me the money. You know, what are we funding? What are we not funding? What percentage? I thought these numbers you just shared were so powerful.

You know, so I think of this kind of in terms of climate change. It's like we need to deal with the impacts in communities today, and then we also need to invest in the future, because the technology that got us here, is sure as hell not going get us where we need to go, right. So, I think we need to start changing this narrative about, you know, we can't do a yes/and.

Yes, we need to deal with all the issues we're all familiar with, and we need to plan for the future, because automation as you wrote about is here, it is happening. This not a future story, like this is happening today. So, we need to find a better way to leverage our investments, and it has to be yes/and.

MS. GAMMAGE: Wonderful. And that's a great jumping off point I think for us to

really consider how pivotal the role of STEM is going to be, both in defining the workplace in the future, but also presenting new barriers to engaging in that workplace. Is it going to contribute to formalization? Is it going to contribute to informalization of work? What is the quality of work that we're looking at, as we think about the way STEM, and particularly the way technology is changing the workplace?

But whatever happens we know that we want everybody in the room. We want everybody in the room when we are talking about these policy decisions, and the investments, and how much money there is to mobilize to really change the educational system, and increase opportunities for everyone.

I think for me, one of the really powerful pieces of our work, Nasrin, is where you discuss what the particular barriers are and challenges that continue to plague Bangladesh's schools that are emblematic of the same challenges and barriers in many other school contexts. And I think for me what was really powerful was our understanding that there're infrastructural issues, there are incentive problems, there are just administrative problems, there are payroll issues.

So, if we are going to get everyone on board, we are going to be talking about STEM as leading the way forward. I think we are also going to be talking about STEM as framing an opportunity to invest in quality education.

So, just thinking that you've done very, very detailed work on what the challenges are, when you were doing this, did anything surprise you in particular, or was this, you know, I'm really just uncovering what I thought when I went into this. Many things surprise me.

MS. SIDDIQA: I have to say that none of the girls said that, I'm not capable. I saw their dedication. I saw how brilliant they are. Teachers sometimes say that, no, it is not for girls. They are not capable or not good at mathematics or science, and students say, as we don't get regular classes, as we don't have teacher, just give us the opportunity.

I did not find anyone in my experience of working for girls, and in districts that they are disappointed. They say that if I could meet one astronaut, if I could see that women are

getting Nobel Prize, and they say, that one day I can also get that.

So this surprised me a lot, they have dream, with this lots of challenges; they still know how to dream for future. And the condition of the school that in 1985, government said to the laboratory of the school, after that they had not purchased a single equipment of anything for the laboratory, and surprised me a lot, and it is closed almost full year so students cannot use that laboratory.

And the coaching center business for teachers' side, I have to say they do not teach in the classroom, and they force the students to go to the private coaching center, it is a business, and I have to say, as teachers they're getting very low salary. Month after month they're not getting salary, so they also -- they're also bound to do that, I think. And this is a huge pressure for our poor parents to provide it for their girls, and boys as well.

And one more thing that surprised me, that social law (inaudible) attitude it is so real in the rural area, that I said, why don't you do the project-based learning, we had introduced it also for some projects, and science fair in the school. So you can make a team with the boys, as boys are sometimes attending in different programs.

This is how come we are even -- are not allowed to talk to them. We work side-by-side after school, but we don't know their name, if we talk even, society starts criticism for that. So this is the thing, ultimately, when they go for the job, they cannot take as a colleague, or they cannot work together in the office environment also. So these things surprise me a lot.

MS. GAMMAGE: So this points to profound systemic challenges that are not just about investment in STEM, but are actually about how we design educational systems. Meighan, can you tell us a little bit more about how your work has looked at some of these systemic challenges? And what you would surface as being critical as we think about them?

MS. STONE: Yeah. I mean, first it's looking at the data, so like the three numbers I like to think about are 35, 3 and 5, right. So, 35 percent is the number of women who are enrolled, you know, in STEM Studies. By the time they finish tertiary education, let's have a big caveat. If they are even able to get to the access for tertiary education, they're down to 3 percent

of graduates.

And then when we look at tech leaders across, you know, STEM industries, and they're only at 5 percent of all years. So, clearly, it's not working. First of all, we need to say that, and I think again this is why we need to have really robust efforts, and not just a few talking points about, like, coding in school.

You know, like we need a gain to get really deep into the policy. You know, systemically, I would say donors aren't funding it, you know, at CFR our focus is really looking at U.S. foreign policy. You know, when we worked on our report, on girl STEM education over at CFR, with my writing partner, Rachel Volgelstein, we called USAID and we said, hey, do you know how much money you're even spending on this? And the answer was, no.

You know, and so in our report one of the recommendations was, you know, before we start all this burden on teachers and students, which we call unfunded Band-Aid in this town; you know like, why don't we see what the inputs are. If we are not even getting the inputs right, I think it's pretty unfair to talk to overburdened teachers, underpaid teachers about how they're supposed to now take on technological innovation.

You know, so I think we have to start with what we are doing here. You know, we would love to see the U.S. Government dedicate at least 100 million to this, which is a pretty small number, but it's bigger than what's probably being spent now. You know, and we think this is a place that's a yes/and again, it's not a, let's carve out money from other parts of the education portfolio, which I know all of us who work in advocacy start to get nervous about.

Hey, don't take, don't take our funding, we are barely getting what we need. I think it has to be additive. I mean if we did that it would represent less than 10 percent of what we're spending on U.S., the development aid around education right now.

So this seems like a worthy investment in the future. It's a good leveraged investment. Over time it's going to yield savings. Because hopefully, we'll see girls and women having agency, which is what education is supposed to result in, right, agency, financial agency.

MS. GAMMAGE: Absolutely. Thank you. Maliha, what would you say to how you

are working on these systemic challenges, and what we need to really hold as a loadstar, when we talk about these investments and overcoming them?

MS. KHAN: Right. So, I think that, you know, picking up just on what everybody has said, and reinforcing that. There's essentially three things that we would like to do and continue to do, and we would urge, you know, the international education sector to focus on also.

One is the quality of education in the classroom. What are we -- what is being taught? Education is one of the biggest investments that anyone makes. You know, you spend 10, 12, 14, 15 years depending on, you know, how far you get, of your life sitting in a classroom. It's one of the biggest things you're ever going to do.

How do we make sure that that's something that results in more than just, you know, students being disciplined and told what they shouldn't do, and so forth? If students are emerging without being able to learn -- being able to read, if girls are emerging with just what they are considered to be skills that are going to make them good housewives, or mothers, they're going to be able to educate their sons going into the future, then that's not, you know, a terribly great investment for them.

So, quality education and the education that's transformative. And that was spoken about before in the previous panels, but can we actually, you know, talk about what does that mean, because it talks -- it's addressing structural change. It's saying that, you know, fundamentally what we believe in, in our belief systems, and how we perceive things, what we think is our role in life, needs to change.

And that is a powerful thing to try to get through a very, very large, very, very bureaucratic and robust system that doesn't want to change. So that is one piece of what we would like to, in a very small way, contribute to, and obviously with everybody else.

The second piece, and it's already been spoken about in great details, is the social norms, right. The fact that it's not considered to be appropriate, or it's not even considered to be a choice, or it's not even considered to be in the realm of possibility of, you know, girls going on to do certain things.

And the fact that what happens within the classroom, that reinforces the social norms, and what happens outside the classrooms that's brought into the classrooms, and there was mention of gender-based violence, which is a huge one, but other things that we don't necessarily even think about, as being huge barriers.

So, for instance, STEM happens at secondary education levels. The secondary schools, you know, one of the biggest issues is distance, right, because primary schools tend to be closer to communities and, you know, where children live.

Secondary schools tend to be further away, secondary schools specializing in STEM to be even further away, and distance becomes a barrier for girls because it's not considered appropriate, or it's considered dangerous, or girls are considered to be too weak to walk 2 miles or 3 miles to school. Two miles, 3 miles for water or firewood, or other things, it's absolutely fine, but school suddenly becomes a problem, so, those types of social norms.

Or, one of the biggest ones, and Meighan, you mentioned this just a little bit, is the lack of access and the lack of engagement with the digital technology that's happening right now. And if we think about it, it's not just, they don't know how to turn the computer on, it's also that they don't have access to smartphones. The example that was given in the previous panel of, you know, children wait for their fathers to come home.

The smartphones, it's very telling it's the fathers who have the smartphones, not the mothers or the sisters. You know, a boy in India, and adolescent boy in India is twice as likely to have access to a smartphone or digital technology on the mobile phone than a girl is.

And that's not justified, you know, getting information or being Facebook. We've got the whole, you know, datafication of society. It is the way your identify is formed, is your -- it's how you access health information, or health services now, even. We're using all of this as, you know, as leapfrog around infrastructure. So, that becomes a real, you know, social norm that we think about. And that's one of the things we want to address.

And the last one, and I won't get into too much detail, is infrastructure, and the lack of -- and the gaps around that. The fact that, you know, labs haven't been updated, or there's

distances, and so forth, and that has to do with the investment, and has to do -- yes, I mean, USAID investing that would be wonderful.

But like I said, it's to do a domestic investment, and the fact that, you know, almost all of domestic investment in education goes to establishment cost. It goes to salaries, and other things that are not investing in the infrastructure of the future.

And so how can we change that? That's one, the starting base, right, but also how can we make sure it's gender sensitive? That's raising the bar even higher, to make sure that, you know, what you're doing, your policies, actually your taking girls, and particularly the issue of adolescent girls. And we forget that. We first think that adolescent girls are either, you know, just younger women, or older little girls.

And you forget that there's this whole notion around adolescent which has to do with changes in the body, reproductive age, the additional burdens that come on them. That's when violence increases, when burdens in the household increases, it's when self-image issues start to come up, and a whole number of other things.

And yet, in our sector, we don't really talk about adolescence as an issue. We talk about adolescent girls as a category, but not adolescence as it's imagined and constructed in social context, as something we need to address. It's something, you know, I think Rob spoke about in the beginning, it's one of the things we are uncomfortable with, but maybe we should get a bit more comfortable around that.

MS. GAMMAGE: Thank you. So, going back to some of these structural challenges, and the way in which the educational system is set up. The way in which teachers are trained, the way in which teachers are deployed, the way in which they're paid, their ability to understand a curriculum, or even input into changes in that curriculum.

I think one of the things that was so powerful in Nasrin's work was how rote-based a lot of the learning was, and that the creativity took place outside of the classroom. And the creativity often happened in the private tutoring sessions. So, if we go back to thinking about, how do we provide support to teachers so that they can become protagonists in their own system to

change that system, but also so that they can be part of the solution in ways that enhance the quality of their work, and the quality of their teaching?

Meighan, do you have something to share on this?

MS. STONE: Yeah. I mean, I'll just say, like I think it's really important to start from a place of humility. You know, like we haven't figured out how to train teachers in STEM in the United States. You know, like I spent time this summer in indigenous communities, you know, in Indian Country and, you know, there's no Wi-Fi, there's no broadband access for STEM education. Even if you go to a socioeconomically disenfranchised school, you know, within the city, they haven't figured out how to do this.

Why? Because they don't have the funding and they don't have the training. So, I just want to say that out loud, because I think it's so, sit in these in panels and, you know, point out the problems, when with all of our resources, and all of our privilege in the United States we still don't know how to do it here.

So, I think we need to own that it's really hard before we start uttering -- other communities and pointing out faults. But I -- you know, I think again, we are putting the most burden on the least strong part of the system. I think, you know, my colleagues on the panel will be better able to speak to specific examples. But again, like if the it inputs aren't there, if the policy changes haven't happened, if the funding is not there, I don't see how this succeeds.

And you know, I think there maybe, you know, specific projects that we see highlighted that are very small in nature, but how to scale is going to require the whole constellation.

So, I just want to be careful about putting too much pressure on a teacher that's already, maybe not even getting paid, you know, to be able to carry this. I think we have some extraordinary stories of incredible individuals, but this is a systems problem, and a local-level problem, but we have to have both. You know, both solutions have to be happening for any chance.

You know, and I'll just say, you know, I think we just have to have stringent

testing. Because, like, I think sometimes we see, you know, solutions that are put into the hands

of teachers, but when we really unpack the analysis and the outcomes, like maybe it's really not

there.

And then I think we need to invest more in these tools. You know, if we spend as

much on girls' STEM education tools as we do on dating apps, I think would probably be doing

better. But, you know, we spend a lot of money on some interesting tech development, and other

things, it's like bottom of the barrel. It's a charitable program that maybe a company takes on and

they don't put their engineering on it, or they don't really put a lot of money on it, or they kind of put

another wrapper around it.

You know, so I think we also in the field need to be really careful we don't get like

press release partnerships where, you know, a tech company is like, hooray, you know, this is not

for young women, and for adolescent girls, and maybe the testing hasn't happened, or it's really

not purpose filled from that community, or for that community.

MS. GAMMAGE: Thank you. Nasrin, you've worked very closely providing

support to teachers, through your organization, ECS. How have you seen that really change

opportunities, and help them really provide much more quality education, but engage their system

and say things need to change?

MS. SIDDIQA: Thank you. I have to say -- still I'll have to say that I'm a teacher.

I was a teacher, a science teacher, school principal for more than 15 years, so it was an English

medium school of urban area, so I found that they're privilege. My son is here, and he's going in a

good school. They have swimming pool, basketball ground, teachers from -- four, five teachers for

a single subject.

So, I can't say that good schools are not there. They're getting the privilege. But

we need to bridge the gap. We have to ensure the equal opportunity for all school. So, I came in

the USA in 2010, for the program of International Leader in Education Program as science

teacher.

I'm very much privileged, and I'm grateful that I have learned a lot of the education

methodologies, systems in a sensitive classroom. And I try to implement this in my classroom as well, and then had formed my organization, and had trade more than 1,000 teachers through our organization.

And the partnership I have to say that U.S. State Department, and American Center of Bangladesh, I can see George Mestosa here, he was the Cultural Affairs Officer at that time in 2015 to '17, yeah. So, at that time we had introduced the exact time that STEM for the urban teacher. So, we took 20 urban school teachers and asked them what is STEM, none of them could say it at that time, but afterwards, they formed the same STEM Club in their school, and we had spread those STEM Center, STEM Club in different schools in Bangladesh.

So, I think that now it is the time that government is giving only 2 percent budget for our GDP in our education. So we have to increase our budget definitely for teachers' development and school infrastructure. And that's not enough, we have to work collaboratively that we can do the exchange program, that urban teacher can go to the rural areas, rural teachers also come to the urban schools.

And we did one program, but it was very limited, and now urban and rural students, also can do the exchange program, so that the rural teachers can know that how the school system are going on, what are the facilities, and how they teach in the classroom.

And I have to say, I found fantastic teacher in the ethnic community school. He was the chemistry teacher, and he's using the natural resources to make them understand the different models. So, he's amazing teacher, so we can also bring him, so, in front of our urban students.

So these types of exchange programs can help them to transfer the life skill as well. Just we need some initiative, and BRAC is doing wonderful work, I have to say, so this type of organization, along with this government, and other community people we can work.

We have to give the message to our community leader that, spend at least some money for the education development. Why we need so many fast food, and restaurant, and shopping mall? So just, we can spread this for our education, and we need to motivate them for

that.

MS. GAMMAGE: Wonderful. Thank you. So thinking a little bit -- thinking a little bit about the critical role that STEM can play, but without instrumentalizing it too much, I think this is sort of one of my concerns is that we are seeing this as being instrumental to inserting women in a labor force, inserting women in different sectors.

And we're seeing it very much as something that sort of contributes to the growth of economies, and not necessarily to the wellbeing of individuals, and just the intellectual development of whole cultures and communities.

So, sort of bringing it back to that, how can we use STEM perhaps and the critical need for investment in STEM, to actually expand the quality of education, and improve the quality of education for all across a number of different areas? And to really invest in transferrable skills, that go b beyond just a narrow focus on STEM.

And I'm going to ask Maliha, I'm going to ask you to talk about that, because I now that you've really thought about this quite deeply.

MS. KHAN: Yes. So, I think it's really, really important. I mean, that's the entire focus I think of Malala Fund and the work that we do, is the role of education in transforming a girl's life. Giving her choice and the ability to, you know, be an active and empowered -- and I hate the word empowered but I'll use it anyway for lack of another one -- citizen within their own context.

And I think that, again, STEM is an interesting case point right now, because one, there's a lot of attention to it, people understand what it means, you know, whereas you said, like just a few years ago, people didn't even know what STEM was, but now at least it's a talking point, so let's use it.

And the lack of girls in STEM education, you know, is an important element, but it really points to the systematic challenges, that girls still face that, you know, the previous panels talked about, in getting quality education, in getting an education that brings about transferable skills.

Now, as we were speaking about before, it's not that boys are getting the best education in the world either in many of these contexts, right. So there isn't that much of a difference between girls -- what is being offered to girls' schools, and what is being offered at boys' schools, it is the issue of what they feel is appropriate for them going into the future, in terms of what they see as their aspirations, and what their families, and their context see as correct aspirations for them.

I think there's a statistic out there, that I read recently which was that, for instance, in the next, less than six or seven years, 12 percent more of jobs are going to require some form of digital skills, going into the future. So it's not just automation, it's the fact that even basic jobs, even if you're going to go work with the government, whatever you're going to do, you need to have digital literacy.

SPEAKER: Me (inaudible)? (Laughter)

MS. KHAN: I didn't want that out as a low bar, but still. (Laughter) And so if we are systematically disadvantaging girls through what has been offered in the classroom? What is being thought as appropriate to them? What they perceive as their limitation and aspirations, then whatever we're facing right now, is going to be multiplied many-fold 10 years later.

And so if we don't want to, as another panelist had previously said, if we don't want to be having the same conversation, just using slightly different words, 10 years from now, then these are issues we need to really start to address in a meaningful way.

Having said that, I just want to add one thing, because I think we've -- the tone so far in all the panels have been slightly pessimistic, and there's all these challenges, like, challenge, challenge, challenge. But it's also optimistic, because we are actually talking about these things, right. And there is severe backlash, and I know it's perverse to be optimistic about backlash, but backlash means you're actually poking the things that matter to people.

SPEAKER: Yes. Yes.

MS. KHAN: Because if you're not doing that then no one is going to backlash against you, it's like, yes, you are helping us maintain the status quo, so carry on. And so, you

know, I think there's a lot of optimism too. The fact that, you know, when I started my career, and I won't say when, I used to go into villages in Pakistan, I was one of those local enumerators, asking people inane questions, that are like -- (Laughter)

And I used to be asked two questions as I would enter a village and try to introduce myself. And they would be like: Are you here for family planning? And I'd be like, oh, no, no, no, no; because that would just get just like thrown right then.

The second question I'd be asked is: Are you here for girls' school, and luckily, I was working on agriculture, so I'd be like, oh, no, no, no, no; because that would get you thrown out of village in Pakistan too. Now, that's completely and radically changed. The fact that we are actually sitting here and talking about girls' access to STEM education in Bangladesh is a hugely optimistic thing. But there's still a lot of work to be done.

MS. GAMMAGE: Thank you. So, I'm going to open it up to the audience, because I know that we have a lot of very thoughtful people here from the education sector. And I would love to know who you are, where you're from, and can you please be very targeted and focused about your question, please. Please stand up. I think we can do it without mics, or unless there's a mic close by. Oh, lovely. Thank you.

MS. COCHRAN: Hi. I'm Judy Cochran with SIL International. And there are a myriad of obstacles to even reaching girls in rural Bangladesh, and so in some of those cases, it in honesty seems -- it seems like talking about STEM with them, really falls down pretty far on their list.

So, my question is, in those cases, what are some practical things that can be done in the meantime? Like I'm thinking about the possibility of maybe the delivery system, maybe teaching girls to read on tablets, doing math games on cell phones. What are some of those intermediate things that can be done realistically tackled?

MS. GAMMAGE: Nasrin?

MS. SIDDIQA: Thank you. Yes. I have to say that, yes, with the limited resources how we had started. From my experience I can say that, when I went back from USA,

from the U.S. State Department I got USD5,000 and I had organized community-based science fair in five areas. And all the communities that was the first-time science fair in their life.

Many schools had joined, and huge parents and community people came to see the projects of the students. Then again, after that the CEO (inaudible) of that time, he said that, okay, now we do the extension of that, with USD10,000. Then we say that, yes, we can now form the science club, the environment club, and the students also got the State funding, which is 200 to 300, USD500. With the State funding, not only they made the project, they had implemented it in their area.

They made environment-friendly oven for the rural women. They did vegetation in the school feed, rooftop gardening, these were the challenging, and I mean very optimistic thing, we found that they took the challenge to do this. So with this little initiative, we could bring the change.

We went to ethnic community school, and the rural girls, they were thinking that how could I be the member of the science club. But we say that either the President or Secretary of the Science will be a girl, and the girl was the President, and after three months when we went there, in the science fair, I found that girl who was shaking to taking, she is leading the team and speaking in front of microphone. That's the leadership skill she had developed.

So a small initiative can give the big change. So I think that's not obstacle, we have to work collaboratively, that's the thing. And we have neighboring countries, India, Nepal, now we all are working together, so why can't we take help from other countries also, with resources and also some talented people, they can come, and they can at least, if someone come, and deliver a lecture in front of the girls, it can encourage them a lot. So, I think from my example, I have to say it's possible to bring that change.

MS. GAMMAGE: I'm conscious of time, so I'm going to take two more questions, and then come back to our panelists.

SPEAKER: Hi. Good afternoon. Thank you for such an interesting panel. My name Emery Vaso, I'm actually a scientist, I recently completed my PhD at MIT a few months ago.

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So, I'm here in D.C. because I'm -- thank you -- I'm here in D.C. because I'm doing a Science Policy Fellowship, and I'm really interested in STEM education outcomes.

And one crucial issue I see, once we get girls and I guess in this development of STEM, is STEM persistence. And someone touched upon as we see 35 percent, winnowing down to 3 percent, and then 5 percent of leadership. So, I'm curious if the panel has any comments on how to generate systems of -- across the educational spectrum, as it's conducive to keeping young women, girls, in STEM ones we actually get them interested in STEM.

MS. GAMMAGE: Thank you. Now there was another woman at the back.

SPEAKER: Hi. I'm Heather, with Room to Read. I was wondering, as you've been doing this research, are there some STEM IT or mathematics, or other content expert organizations, technology organizations that people in this room could partner with, and has strategic partnerships. We bring the girls' education, and transformative education knowledge, and we can partner with organizations that bring this other content knowledge. I'd love to hear your thoughts if there are some really excellent organizations out there we should be looking at.

MS. GAMMAGE: Thank you. So, I'm going to start from this end. Maliha, please?

MS. KHAN: Great. I'll talk a little bit about the second question, if that's okay.

MS. GAMMAGE: Mm-hmm.

MS. KHAN: Because I don't know the solution to the first question, so I'll pass it on to someone else. (Laughter) So I think there's a lot of local -- we work with several national-level organizations in the countries that we work in that use technological solutions to address girls. So, we have a great partner in Lebanon that's working with Syrian refugees, that's trying to, you know, create a way, a low-cost way for schools to be able to access the Internet, and therefore online teaching and learning for Syrian refugee populations.

We've got an organization in Pakistan that's trying to encourage government to really encourage maths and science skills, particularly with girls and having the sort of gender responsive education around that.

So, I think there's a lot of solutions out there, but my caution would be that we tend to think of technology as a solution, right. And then that goes back to my -- the first couple of comments which was that technology has to be offered in the context in which it will be received by the person it will be received by. And we also have to keep in mind the teachers and the school system and their perceptions of the individual.

So, you know, a long way of saying, make sure that (1) the technology is appropriate, but (2) that we are keeping gender norms, stereotypes and access in mind. One of the things, we have a partner in Pakistan that's working for using, you know, tablets to reach students that are out of school, and offer them an enhancement in the numeracy and literacy skills, et cetera.

There's a lot of backlash against that, and one of the things that's been used is, oh, my, god, they're distributing tablets to girls, and God knows what the content is, and then all the social norms around girls' access to the Internet, to information and to things like, you know, every South Asian here will understand when I say that, you know, (Speaking in foreign language), the girl will be spoilt if she gets access to all of these things.

And so, that I think has to be kept in mind, because we tend to think of technology as gender neutral, it's not. We tend to think of content within that's delivered by technology as gender neutral, and it's not. And we tend to think about engagement through technology, and that is a minefield at the moment, and we need to need to really start thinking about these things.

MS. GAMMAGE: Thank you. Meighan?

MS. STONE: You know, I think the question from our esteemed colleague who is from MIT, you know, talking about technology not being gender neutral. I mean, who is designing it, right? And it gets to that question that you shared about. How do we keep women in the field?

You know, I think the researchers, we have to start earlier, we can't just like try to catch up, you know, by the time they're almost going to secondary school. And then that handshake between finishing whatever education you have that's STEM oriented and going into the workplace, and then continuing to develop; I think that's the place where we have to work well

on these partnerships with businesses, and again, hold to account.

It can't just be like announcing that you've selected like 10 leadership fellows who are women in tech. You know, it has to be a really focused effort to make sure that whatever education those girls, you know, young women, by the time they finish and leave school, that they can actually take that into the workplace.

And I would argue also, all the other problems that happened in the workplace for women in this country, and all kinds of countries, in terms of sexual harassment, or job description, discrimination, over 100 countries still have laws on their books that have at least one gender-based job restriction.

You know, and so, all the issues that generally women take into the workplace with them surround sexual harassment. But there are even tech -- although imperfect -- you know, we see women in terms of the Me Too Movement calling out discrimination and harassment in the workplace across industries all over the world and, you know, that's an issue we have to grapple with too.

So, just showing up with the skills is not enough. Most women when you interview about why they leave, it's not because they didn't have the skills, right, it's because the environment is one that is not empowering -- although also I'm allergic to that word and I love hearing you say that -- because it's hard to measure empowerment, but, you know, the environment is not one that allows them to succeed, and in some ways it's even stacked against them.

You know, so I think we have to start looking at that, and then hold our colleagues in industry, and in business accountable for that, you know, in all the countries where they work, not just here State side.

MS. GAMMAGE: Wonderful. Thank you. Nasrin?

MS. SIDDIQA: I want to say something about the research that, yes, we need for the research based on our work, future work demand. So, now we have to think that whether we need more doctor or fashion designer. So this type of research is highly required, which can help

our policymakers to redesign that what are the job sectors, and in which sector we have to be giving place for our students, and especially rural students because maximum number are rural students in our country.

And what you say, that yes, we have a tendency that the women will be the school teacher. That is a very good and safe profession. Well, in case of early childhood, we see 100 percent are female teacher, but when we'll go higher, so in the secondary level very few STEM teachers in the classroom. And go to the university, how many professors are there from female side in universities?

For the question about the partnership, I have to say that, yes, from a teacher, and then we had worked with the State Department, we are working with DISHA for preventing violent extremism, we are working with UNESCO. And don't you think that now I'm here as an Echidna Global Scholar, with Brookings, it's a very, very big partnership and platform to move forward with the girls' education,

And I have to say that recently we sat Simi Foundation, so who is working, that is the New York-based organization, working for the Bangladeshi Government women worker to transform their digital knowledge and skill, and also, they gave a very wonderful term that is "fashionology". I loved it.

So these are the partnership we are trying to build, and I think lots of talented people are here, and (inaudible) to everyone. Yes, increase the partnership more.

MS. GAMMAGE: I think we have time for one more question before we go to lunch.

SPEAKER: George Mestosa, State Department and Conflict Stabilization Operations. Nasrin, I'm so proud seeing you here today. As an exchange program alum, I know one time we kind of showed our cards at the Embassy, and figured out who is actually spending the most money in secondary education, the State Department came out number one.

We've spent -- it took a multi-million-dollar investment enter that $5,000 grant, and now all those people being trained are doing great work, and doing lots of wonderful things across

Bangladesh. What's the one thing that you would pick, that said, okay, this is the initiative that we want to scale up from the State Department side, you know, people with the money out there -- what's the one that you would pick to say, yeah, let's put our time and attention and money in that.

MS. SIDDIQA: From the State Department?

SPEAKER: Right, so, if someone else wanted to fund it.

MS. SIDDIQA: All right. (Laughter) So, yes, here I have to say one thing. In your term, in 2015, so you know that -- what was the Government on that time also -- (Laughter) -- we got lots of funding, support and many, many new design and program. I think State Department and U.S. Government will continue with, will not cut the good programs and funding.

And exactly now we have to ensure the quality education. So we have to give funding for that quality education, and STEM is a basic thing for non-STEM field and STEM field. So to ensure the quality education for each and every child is highly required.

If the generation is not strong now, again and again, they will face the challenges. Automation challenges, language barrier, leadership development. So, I will always say to invest more for the education.

SPEAKER: Like what, but teacher networking, direct to students, rural, urban, where would you (crosstalk)?

MS. SIDDIQA: Yes. Teachers' networking that U.S. -- in the U.S. our teachers are regularly coming, and the students are also coming for the YES Program, that the 15- to 17-year-old, the students are coming, and community college initiative program, the college students are coming to the USA. So, I think this type of exchange program we can increase, and every year, six to seven teachers are coming to the U.S. I think we can increase the number.

And there was a program that host teachers from the USA, who were supposed to go to Bangladesh and spend six months, one year, and they taught Bangladeshi students. I don't know. Why did you stop that program? I will say you all -- to start that program again. (Laughter)

MS. GAMMAGE: Thank you. Meighan?

MS. STONE: Yes. I mean, I would say as a U.S. taxpayer I think you should pay

for it, and I hope you'll pay more. (Laughter) You know, but I will also say that structural change, you know, more money is to go to local country leaders instead of USAID, and you know, U.S. contractors and, you know, it continues to be a huge problem. And I know that you are not responsible for that, but please carry this message internally, with your colleagues.

But yeah, I think that's one, that's really difficult especially in many other countries that we talk about really caring about doing work in, and like it's very easy to find many, you know, encountering violent extremism, at the same time they're releasing prisoners, you know, in North Syria, but we can't seem to find more money for local education leaders.

You know, it seems like that's a place where we can maybe increase investment, and it's a good investment, a solid investment, all the data is there. So, I hope that will consider reforming. And I'm so grateful to our bipartisan leaders on The Hill that continue to protect this funding. We have some great heroes and heroines up there, and I hope that they'll increase the funding that we spend on this issue, profoundly.

MS. GAMMAGE: Thank you, Meighan. Maliha?

MS. KHAN: Again, as moving from USAID and the State Department, as the international education community, there was a talk about we need to focus on evidence-based programs. I'll just push back on that a little bit. As the international community, I think we need to invest evidence generative programs, and ones that aren't tested.

It's the domestic education sector, that's going to do the scale up. Already it's 97 percent of investment, right. They're ones who are going to reach the millions and billions of kids, not us. We are not going to do it. We can reach a few thousand, maybe 10,000, maybe 20,000, whatever it is. But whatever programming we do, do, has to be pushing the edge. It has to be something we haven't tried before, because what's the use of trying stuff that's already been tried, and it has to be generating evidence that's compelling to the people who eventually have to make decisions.

And as we heard from previous panels, it's isn't always the type of evidence that we think is compelling, because they're bureaucrats, or they're politicians who are working in their

own local context, and they have to, you know, enact change in a specific type of way. So

understanding that, rather than coming from our own context, and our own thinking, I think is

really, really important.

MS. GAMMAGE: Thank you. Wonderful. Well that has been a really great panel.

Do we have time for one more question? No.

MS. KHAN: She's been holding out that red thing for a while (crosstalk).

(Laughter)

MS. GAMMAGE: I'm very sorry. Maybe you could do it at lunch time. Right now

I'm going to give some housekeeping, and logistics. So we have the opportunity to talk and

mingle, and get a chance to talk to the panelists at lunchtime. I want to invite you to our lunch.

You will find lunch boxes in the foyer and in the (inaudible).

SPEAKER: (Inaudible), yeah.

MS. GAMMAGE: Thank you. And we will reconvene here at 1:30. Hopefully on

time, and ready for the next thoughtful debate -- discussion. Thank you. Thank you everyone.

Great panel.

(Applause)

(Recess)

MS. KWAUK: Welcome back everyone. Good afternoon. So we are now going

to enter into our third entry point in a girl's lifetime and focus specifically on the girl's transition to

work.

This panel will investigate technical and vocational education and training,

otherwise known as TVET and its role in helping to bridge the gap between schooling and work,

especially for those girls who drop out of school.

Moderating this discussion will be Kevin Cassidy, who is the Director and

Representative to the Bretton Woods and Multilateral Organizations at the International Labor

Organization. And joining him will be Ramhari Lamichhane, Director General of the Colombo Plan

Staff College, Nancy Taggart, Senior Youth and Workforce Advisor at the US Agency for

International Development and finally, last but not least, Anil Paudel. Anil is an Echidna Global Scholar this year from Nepal, where he is also the CEO of Right For Children.

There, he has led their Child For New Schools initiatives to enhance school environments for girls and other marginalized children in Nepal. He'll kick off this third policy panel with a presentation of his research findings and recommendation on the barriers to participation in TVET by girls in Nepal, and especially those who have dropped out of school. So please join me in welcoming Anil to the stage. (Applause).

MR. PAUDEL: Good afternoon, everyone. It's an honor to present my research with you all here today. My research is about strengthening girls' transition to work through quality, technical and vocational education and training, TVET's programs in Nepal.

As you all know, education has become one of the top priorities both for the people and the government around the globe. The increased investment in education has brought massive progress in sending children to school. In the case of Nepal, we are very close to achieving universal primary education. The enrollment rate at primary level has increased from 80 percent to 97 percent in the last 18 years and more girls are now in school but is that all what we wanted? Is this the end now? What about the promises, the returns and the outcomes of education? So it is these questions that bring us to the other side of the picture, which is quite sad.

The school dropout is still a problem, specifically for girls. More than 80 percent of those who are in primary school, they never complete secondary level and the other sad thing is that the school to work transition rate is very poor, specifically for women.

Only 26 percent of women are in the labor force. When they make up 56 percent of the total working age population. And because of this, so we can say the education, the link between education and employment is very poor or it is missing and sadly, TVET, Technical and Vocational Education and Training, which is considered as one of the important instruments in strengthening this transition is underemphasized, underinvested. Only around three percent of the total educational spending goes to support TVET, which is very sad. So this is the context out of which the interest of my research emerged and here I would like to share a story of a girl named

Lakshmi who I met around six years back and she was only around 16 or 17 at that time.

And she had left school when she was studying at grade 8 and I asked her the reason for leaving school and she said "Education is no more a priority for me and my family now. Survival and livelihood is more important than education for me at this stage" and that was very hard to hear. And she was living with her parents in the slum of Poharasati, where I live and work. I'll come back to this story later.

So continuing with my research, the objective of my research, the focus of my research was to find out the barriers for girls to participate in technical and vocational education and training and for that purpose, I collected both secondary and primary information and to collect primary information, I visited ten TVET institutes, I talked to the administrator of those institutes, girls, some of them with current students and some of them with graduates of TVET programs and similarly, I also talked to some educational and TVET exports, private sector employers and also I conducted some focus group discussions with 28 public school teachers. And my study found out that there are three major barriers that limit girls' stances to participate in these technical and vocational education and training programs. The first one is education which includes very limited investment in TVET and that's why the access to TVET is very limited and there are no alternatives in the formal system for dropouts and similarly, there is lack of career guidance because girls, they have less access to information about the occupations because they don't have career guidance at the school level. The second factory is societal. As you know, Nepal is a strong son preference country, so girls get less priority, especially in education and career and also, they have very limited access to -- limited freedom to mobility and often, to take part in these TVET programs, they have to travel and parents are unwilling to send them.

And the stereotypical gender roles. TVET is perceived to be the education for working class men and so there are very few girls in TVET and where there are females in TVET, the participancy is skewed mostly in gender stereotypical courses such as nursing and caregiving, tailoring, these kinds of courses.

The third factor is the labor market. The labor market environment is also not very

encouraging and welcoming for women and that also helps to prevent them, limit their chances to join TVET courses. And here, I would again like to come back to the story of Lakshmi. Actually, I had met her in the process that we had this vocational training program that my organization used to run and still runs and the program was designed for someone like Lakshmi. People from disadvantaged, especially youth from very disadvantaged backgrounds and so we wanted to offer this opportunity to her but she said she needs approval from her parents and by that time, she was working as a child laborer so her job was to collect sand by the riverside and carry it to the construction site and we went to talk to her parents, they were unwilling to send her to participate in this program because they said they were thinking of her marriage.

Later, we were somehow able to convince them and they agreed to send her to do the course and she chose to do a housekeeping course for the hospitality industry. And, as you know, there are these barriers, we need to remove these barriers and my study has suggested some policy advice and there is an urgency to act. When I say act, ACT, A stands for access, improving girls' access to TVET programs by increasing investment and by (inaudible) scholarship programs. C stands for completion, enabling girls to complete the TVET programs by making TVET gender responsive and gender transformative because we need to ensure that there is equitable participation of both boys and girls, men and women and T stands for transition, so we need to facilitate girls to transit to the workforce. And for that, we need to ensure that there is a match between TVET and the industry and the labor market is also regulated so that the labor market becomes welcoming to girls and women. That's it. I am sure you must be very curious to know what happened to Lakshmi next.

Well, she completed six months of her training program and then we helped her to find a job in one of the five-star hotels, an entry level housekeeping position. And now, after six years, she has the executive of the housekeeping department of the same hotel. And not only this, she made a house of her own and moved her family out of the slum. And on top of that, she is investing for the education of her siblings, two sisters and one brother. And, I am sure you are delighted to see her. This is Lakshmi today.

(Applause)

And here, both the story of Lakshmi and my research. They suggest that we need to improve our education system so that the education does not only give hopes and dreams to the youth but it also essentially helps them to fulfill those dreams and emphasizing gender transformative TVET for girls could be the right alternative pathway. Thank you very much.

(Applause)

So now, I would like to invite on stage, the moderator, Kevin Cassidy, along with the panelist, Ramhari Lamichhane, Dr. Ramhari Lamichhane and Nancy Taggart.

MR. CASSIDY: So, Anil, thank you very much for your presentation there. I think we have seen, due to a range of macroeconomic developments, technological investment, lifelong learning agendas, demographic shifts, that TVET has risen to the top of the education policy and agendas across the world. In your research, you've centered on why it's so difficult for girls trying to educate through the TVET system. So how can it be potentially transformative and why isn't it working to its full potential?

MR. PAUDEL: The first thing, as I said, is there are several barriers. First, when we say education, we only think about education that is provided in the school, the general. At the basic level, it's focused on basic education, achieving basic education and at a high level, the education is too academic so it has very poor link with the employment industry, with the life outcomes. So that is one of the core problems and also, I mentioned about these different factors, educational factors. A lot of children and young people, they leave school, mostly girls and also, there are other social norm factors, like these stereotypical roles. Education is very less a priority for girls and on top of that, TVET, which is supposed to be market oriented is underemphasized, underutilized.

Only around two percent of the post-secondary level students are in TVET programs so this shows the problem and again, the labor market is also not very welcoming and so the need is to impasses, give impasses on TVET and increase investment in TVET and also to make it gender transformative. When I say gender transformative, it is like -- it entails all those

factors that ensure equitable participation of boys, girls, men and women in TVET. And so far,

TVET is considered, as I said, the education of men. Not only men, education of working-class

men so it's taken as very inferior type of education, that's also one of the problems.

MR. CASSIDY: Right. And can I just push you very quickly on that. How are you

engaging with the private sector to anticipate what those skills are that are necessary in these

programs?

MR. PAUDEL: Yeah, I think that's very important, especially in TVET. The

partnership and collaboration with the private sector within the industry is very important otherwise

the transition would again be in question. So in my (inaudible) what we are doing, the program is

so far quite successful, considered as a very successful program so we partnered with private

sector, especially groups. They finance the program, as we realized they also provide placements

after the training and that's what makes it a success.

MR. CASSIDY: All right, good. Ramhari, if I could ask you, you've been working

on TVET for many years in Nepal and beyond and you've heard Anil's research. Any problems

with his research? Do you see that it's consistent with your findings and why hasn't it moved

forward, from your perspective, sir?

DR. LAMICHHANE: Thank you, Brookings and (inaudible) for these initiatives and

especially inviting me here. I am very thankful to the Brookings institute. I think regarding his

(inaudible) it's in the right track and what he has mentioned here, the barriers -- all these barriers

are still valid in the case of Nepal and most of the Asian context, like South Asia and some South

Asian countries as well.

In addition to that, I would like to tell that there are some barriers, like you know,

some attitude barriers from industry attitude and -- like a societal attitude also, and barriers

(inaudible).

We produce a lot of graduates, even, you know, when I was in Nepal, I was the

CEO of the TVET system of Nepal. Back then, even we provided training for this (inaudible)

operator, like a heavy equipment operator training for (inaudible). Out of that, only 10 girls got

jobs, you know? And I asked to the contractor who operated it and they said, "Because our (inaudible) sometimes it has to operate in the night, even early in the morning so girls cannot stay for a long time but boys can stay." Like that type of attitude there. That's why to make more access, not only access to TVET, retention in TVET and provide gainful employment for the girls and women. We have to conduct different orientation programs, awareness programs for employers.

MR. CASSIDY: Mm-hmm.

DR. LAMICHHANE: Parents, society. That is very vital. If we think only the classroom and curricular things it will not work. We have to think like a strategy beyond the box. There are some barriers which are beyond the box. Those barriers, like attitude of employer, attitude of parents, even like you mentioned the hotel. Like recently it's good but if we talk about 5 or 10 years ago in Nepal, nobody -- no single parents wanted to send their daughters to the hotel job because -- my background is also in the tourism sector. I was also in (inaudible) and that time, they did it differently if girls go to hotels, it's a negative connotation but now it has changed. It changed because of education. That's why we call education is the key to development but TVET is the master key.

Like TVET can open any room. Education can only open one room. So nowadays, I am experiencing, because now I am working in Manila, many Southeast Asian countries also -- if you go to the TVET program even in Philippines, you will find about 50 percent are students from master's degree holders. For certain six months training, about 50 percent are from the graduate of university, that's why TVET is a master key.

MR. CASSIDY: I see.

DR. LAMICHHANE: That's why there are some barriers, beyond the box barriers, social attitudes and other things, you know. One experience we did, when we were in the -- like a policy label (inaudible) provided (inaudible) to TVET and education.

They came but we found that later on the dropout rate became very high because to receive that scholarship, they came to the school classroom but later on, after that, when the

parents or the girls -- spend that money for snacks and other things, pens, pencils and parents didn't send them but later on, when we found that and we provided five liters of oil to the parents, then the girl enrollment increased. See, that is a very practical incidence because parents were greedy to have five liters of oil rather than these scholarships.

It means we have to provide a lot of information and training to the parents, that is very important so barriers, parents, employer and culture, otherwise his point is right. So in addition to that, we have to think that way.

MR. CASSIDY: Very good. I was going to ask you about culture and how that can actually impact upon TVET as well.

Nancy, I would like to turn to you and USAID's approach to programming, targeting youth employment and why is it a gender issue?

MS. TAGGART: Well, I think I am speaking to the converted, as someone said earlier so I think we all know this but I can restate some of the ways that I think it resonates with me.

I mean the way we approach or we have now tried to emphasize more recently how we approach employment programing is by looking at the labor market demand so TVET definitely has a role but that has to be within what the demand is for the -- in the labor market and based on that, what the needs are, skills training and other interventions, looking at some of the socio-cultural norms and the enabling environment, if you will, mentoring, access to finance. All of these forms kind of a package of services that we typically offer but we have to start with looking what the labor market demand is, rather than just pushing the skills training but certainly, there are gender issues throughout all of those types of interventions and when you are looking at the labor market demands, you have to understand how gender plays out and of course, as we've talked about already today in several of the sessions, what types of careers, women and men or young men and young women are attracted to and seek out or what are the barriers within certain careers and occupations that we've talked about all have gender issues so it's very relevant.

I will say that within this sector, I do find it challenging to always bring a gender

lens. Well, let me restate that. I think a gender lens is not often or sufficiently brought into looking at TVET programs. I feel like as we get older -- as young people get older, and we get to higher levels of education, I don't see consistently a gender lens being brought to workforce development and employment programs and I think we need to do that more and as a donor, that is something that we are trying to move towards more significantly but we recognize that it is one but it is not always the first thing on top of the mind, unfortunately.

MR. CASSIDY: Right, and I am going to press you a little bit more on this. It's -- not only just the numbers of jobs or the numbers of training and the graduation process, it's the quality of those jobs as well too. We see a lot of times that the work guarantee programs there -- it's unproductive work. How is USAID looking at that element of voice in the workplace and to ensure that the workers themselves have a quality job with opportunity and room for advancement?

MS. TAGGART: So I mean I think Ramhari made the point about working with employers and raising awareness so it's not just on the educators and it's definitely the families and the parents and the spouses but it's definitely the employers as well in raising their awareness and working with them in partnerships and we can talk a little bit more about the role of private sector in various aspects later but I think that's one key component is engaging with them and then raising their awareness about their responsibilities but also engaging young people and that is certainly something that USAID is embracing much more with our youth and development policy several years ago that we've been building on with a lot of our work in the past five years around youth force and youth engagement so again, we need to take those approaches and that philosophy and really apply it to the sector of TVET and workforce in terms engaging how people advocate around this area so connecting all these things that we do, I think is something we still need to continue to work on.

MR. CASSIDY: Great, you have mentioned youth and Ramhari, I'd like to go back to you here. What do you see other governments doing to address the employment gap for youth? I mean it's so important to get young people to work today. The educational level of course

are very important but how do they transition from school to work and you know, looking at an

agenda lens as they've done in Nepal. What can other countries learn from this experience?

DR. LAMICHHANE: A very important question. If we have to minimize the gap

between demand and supply, we have to think from pre-training stages. Most of the country, they

think only in the during training stage. Like pre-training stage, my concern might be curriculum

development, like teacher development, classroom development. Now the industry is working with

the IR (inaudible) industrial revolution (inaudible) but if you go to the lab of the training institute,

you'll find TVET 1-0. It means that there are equipment like lead machines of 1962 and if you go

to the industry there are CNC and automated cements and in Bangladesh, there are (inaudible)

one in the garment sector and the other is a call center. Even in the Philippines. Maybe after

years, all the millions of call center people will be jobless so what will be the retraining for them.

So the TVET provider has to think many many females are working here.

So in that case, curriculum development, classroom and teacher development -- in

the Philippines now, I'll tell one example. Garment decided to go for TVET teachers should be

industry experienced one. Like in Malaysia, Singapore and Thailand, at least two years' industry

experience teachers should be TVET teachers. Philippines also did that but even there, they don't

have 20 percent (inaudible). The Philippines are a good country in the participation of female. I

have to say, they are male deprived in the Philippines.

But even though -- like industry experience -- policy led industry experience

teacher for TVET but no one female instructor has industry experience, that's why for that they

have to work for industry very closely. For three months, six months, nine months or one year, like

a gradual basis. And another program is most likely Singapore, Malaysia, Thailand and

Philippines, they are working closely with industry in a dual training system like General Motors.

That is one of the best (inaudible) they do aptitude tests and most of the institute, the students

select by the industry. They select the student and they send it to the TVET institute and after

graduation, they provide a guarantee for 100 percent job. Like they are partnering with Toyota

Motors, Samsung and many others so that is one of the good models and another is the

Philippines government recently started RPEAL, recognition of prior learning assessment even in the workplace, like in Saudi or Dubai, Hong Kong because many Filipino -- about 10 million -- 20 million Filipinos are in foreign lands. Now the government goes to different countries to test them there and provide certificates there. This means they are more focused into the target market with partnering with industry to this type of work will -- like an apprenticeship model is increasing and because of the Korean and Japanese influence in that area and even China. China is supporting a lot. If we go to the Chinese TVET system, I think that is one of the best TVET systems in the world.

MR. CASSIDY: I think Germany may push back on that.

DR. LAMICHHANE: Because I have seen -- China is not as exposed as other countries but their system is very strong with industry. Every polytechnic, they have these business incubation centers, and those sorts of things. So that will link with the job markets so I think these are a very good part of that.

MR. CASSIDY: You've raised a lot of good issues there on pre-training. We are looking obviously also at continuous professional development for the TVET trainers as well too. And also the adaptation to the social economic conditions because what works in Germany or what works in China may not work in other places.

Just to sort of push a little bit here on the TVET as a strategy, governments get it. They know that they have to increase women's workforce participation rates. That's the only way in order to increase economic growth in these countries and to address poverty. I mean the best way out of poverty for the ILO is looking at decent work, having a good job for oneself. What can civil society do? NGOs like yours, what can you do to push that agenda forward to create better TVET systems?

MR. PAUDEL: I think civil society organizations like NGOs definitely -- even though -- they can't do a lot but they can do some things that are very crucial and important. I think especially for NGOs, they can provide a model to the government. So, an example which government can replicate or scale up and everything about the education policy so -- because we

have been doing these programs and there are other NGOs in Nepal that have really become very

successful and impactful, like the case of Lakshmi. It's not just Lakshmi. There are a thousand

other girls like Lakshmi who are in need of such opportunities who are normally in school but who

are in need of such opportunities. And NGOs can't provide opportunities for all but they can

provide a model so a very good model, a very strong model, a powerful model which governments

can take on and especially also we are talking about this partnership with the private sector so

NGOs are doing it because there are other NGOs doing it -- there are others who are doing that so

government has to learn from those programs and then make necessary changes, reformulation in

the policy so that all such girls get that opportunity.

MR. CASSIDY: So give me one or two qualities of a really effective TVET

program. And one that creates a transformative agenda. We hear about gender responsive and

so but transformative is an entirely different --

MR. PAUDEL: Yes, yes. I mean when I say TVET, it's not just the technical skill

or worker skill. I think there are other important factors as well so together with technical skills,

worker skills, social skills, life skills are also very important things. So we need to consider and

combine that and there are these technologies these days and youth should be familiar with those

technologies, IT skills. And yes, we need to look at the factors that limit the chances of girls,

especially.

MR. CASSIDY: Mm-hmm.

MR. PAUDEL: So we need to make the infrastructure girl friendly and women

need to have female instructors. So there are these kinds of things and role models. So this will

help to ensure girls' participation and when reformulating policies, even developing curriculums,

pedagogy, they need to be sensitive and responsive. So we need to, I think, look at these things.

I think they are very critical.

MR. CASSIDY: Very good. Thank you very much. Nancy, I am going to come

back to you and look at an international sort of framework. So for USAID, what is the role of

bilaterals such as USAID can play and what are the lessons that you have learned in the youth

economic empowerment programs that you run?

MS. TAGGART: Yeah, I think Anil touched on a few of these. I think taking models that are often started by an NGO and then demonstrating that so proving something works and then getting -- working with the government to scale it up and doing that effectively usually -- and we touched on this in the morning as well, the whole concept of leadership so having that buy in and the will to reform or to innovate on the part of the government really does make a difference so that's a huge lesson. So scaling through government systems is usually -- or private sector but I think government is really where it's at but demonstrating innovation first and getting that good will from the government or tapping into leaders where you think you can have an entry point to innovate and then the other is getting trust between businesses and the private sector and the government and that is maybe a kind of ongoing effort sometimes but showing to businesses that government is willing to reform, innovate -- and is open to working together to getting input from private sectors so I mean I think there have been different strategies. Again, the leadership makes a difference but that trust, I think, is really important.

The other thing that I think is interesting that we've seen in some USAID funded work but work funded by others is this issue of making the businesses case to businesses and I love hearing how you are already getting financing from businesses to pay for the training. I mean that's a whole area that I think is really exciting to think about. How you scale it may be another discussion or a continued part of the discussion but how you can get businesses to help pay for it or invest or cost share, what have you, or co-invest within kind support but making the business case to them, along the same lines as we make with governments where they recognize that there's an economic value of investing in women's education, showing businesses that their bottom line can benefit by getting more women in quality jobs and to stay on the job so there has been some interesting work in the Middle East. I think AUF and CIPA have been documenting some of that so I think that there are some interesting lessons to learn from that as well. Not necessarily USAID but things to look at.

MR. CASSIDY: Right, so maybe to speak broadly about that. I am sure in the

room there are a number of NGOs and they have had discussions with governments, sometime even with an international organization like the ILO. We sometimes don't find that it penetrates into a lot of the thinking. Have civil societies been successful? Can you maybe give a few examples on that or do you think it's just a lost cause?

MS. TAGGART: Civil society in terms of demonstrating models that work?

MR. CASSIDY: That's right, yes.

MS. TAGGART: Yeah, I mean there are a few countries where USAID has been investing for quite a while where I would speak to maybe some of you guys have heard -- I won't talk about them too much but I think the case of Rwanda is an interesting one where you had government will and you had NGO models that were doing soft skill training primarily but also some of the other interventions around internships and job placement and the government took parts of that and has been scaling that up and then they've gone on to kind of adapt it for different contexts and for more rural youth but that's a great example.

MR. CASSIDY: Okay. We are now going to shift to the barriers to adulthood here. I mean a very difficult transition from school to work. It's something that the ILO has imbedded in its program and budget for the next biennium and coming out of our review of the future of work. You've mentioned, Anil, in your reporting that some of the challenges that girls face. Educational, labor markets, society, and that there is a preference for boys in these programs seen as a working man's -- even the language itself, right? The working man's area but can you speak a little bit about how your study revealed challenges that both young women and men face alike?

MR. PAUDEL: Yes. So when I talk about these problems, the barriers, there are three but like -- but again there are two other barrier problems, major problems. One is systemic, which is both for girls and boys. When there is (inaudible) in TVET, when there is very little access. It's both for girls and boys. It's not only for girls; it's also for boys.

So to give you an example in Nepal, so the access to TVET is very limited. Dr. Lamichhane knows. Only around -- there are only around 50,000 spots annually in formal TVET

whereas there are more than 500,000 new entrants in the labor market every year. So it's not just

for girls. It's also for boys but for girls, it's more limited, given the social norm factors and gender

norm factors. So girls are underprivileged. Yes, they are more deprived so especially when we

talk about education to livelihood or childhood to livelihood, the other thing is the education.

What type of education are we talking about? Have we -- sending children to

school, is that all? That's not enough because there are -- we want something from education

because parents, they don't want to send children to school just for nothing so there are

expectations, there are hopes. We want education to help us in improving our life outcomes. So -

- but focusing on general education or when education is too academic, this does not guarantee --

I mean especially we need to link the education with the need and demand of the market, which is

lacking in our case.

I think it's also in most of the other developing countries; the problem is the same.

So we need to reconnect education with the industry, with the market and that would ensure -- that

would give hopes and that would also help to ensure better life outcomes and yes -- so there are

systemic challenges, which are both for girls and boys but there are more societal, social, gender

kind of norms, barriers that are more for girls, that prevent girls, that limit their chances. That's

what my study found.

MR. CASSIDY: Do you find that traditional education may be crowding out TVET

or there may be a stigma attached to TVET in any way in your research?

MR. PAUDEL: Yes, because education has become so important. We want all

our children to go to school and not only school because every parent, they dream of sending their

children to private school.

MR. CASSIDY: Mm-hmm.

MR. PAUDEL: Which is very expensive but the question is again the same. Why

do we need education? And yes, definitely, the education system is lacking this connection, this

link, which we need to look at and focus and redefine education.

I see the need of redefining education and improving the system. The current

system, it has very little opportunities for the children, to prepare them for the world of work.

MR. CASSIDY: Thank you very much. Nancy, in terms of USAID, you focus quite a lot on the support for youth and the transition to the workforce and including not just the basic skills but also, some people call them soft skills or cognitive skills, this could be communication and teamwork and innovation and problem solving and so based on what Anil has shown in his research, how could this broader sort of swath of skills help improve TVET and the performance for young women.

MS. TAGGART: Sure, well at USAID, we have invested for several years on looking at the links between soft skills or social and emotional learning and workforce or employment related outcomes as well as other positive outcomes for youth and socioemotional learning. It's still a mouthful for me to get -- because I just use the soft skills because it is shorter.

Soft skills and socioemotional learning are fundamental to our education policy which Lianne mentioned this morning so yes, these are very important for us and I think for TVET and how to make it better or to contribute to what we are talking about today. I think soft skills are very important because they can help young women, young men, navigate some of these challenges in different pathways for work and careers.

They can make them -- I mean there is plenty of evidence that shows that it makes young people -- it helps them be more resilient to challenges that they may confront and they are portable so they are not tied to a specific sector or industry to as gross sectors may change and come and go, these types of skills can be taken and apply to different opportunities that may come down the road so I think soft skills and that kind of a broad approach, along with foundational skills such as literacy and numeracy depending on what type of cohort we are reaching, what their needs are, I think are very important to be investing in. I don't think skills are the only answer --

MR. CASSIDY: Right.

MS. TAGGART: So I do think they have to be accompanied by some of these other interventions we have talked about but I think those are -- those types of skills are pretty

important and the evidence shows that.

MR. CASSIDY: Alright. I mean there obviously are underlying social, economic sort of issues that need to be addressed as well too for these programs to be successful. Can I just push a little bit on that as well? We talk about STEM quite a lot and I think what we see when we speak to employers, these sort of soft skills or cognitive skills, I mean that comes from a different part of the brain. The artistic side so there is a move to move STEM to STEAM so we add the arts in there as well.

Do you have any experience in USAID programs and looking at the sort of arts element into this or is it really just -- you mentioned beyond just the technical skills so I am wondering if that's a part of it as well?

MS. TAGGART: I can't speak to the arts in particular but I feel like we have shown through a lot of our programs in the past, I would say three or four years, in different countries, some in actually Southeast Asia where you were trying to integrate. It's not just about the technical but you are trying to integrate the soft skills into the technical curriculum so you are not teaching the soft skills in isolation and that really reinforces the ability to apply these two specific trades or tasks and so forth so -- and it's about the internships and the work based learning, as we call it so all of that helps reinforce the soft skills in addition to the technical.

MR. CASSIDY: Great, I am really glad to hear that. Ramhari, let's come back to you. We see here in the Nepal example that the general education system serves a very small percentage of about 20 percent of the student population and TVET, even just one tenth of that as well too. So, addressing these structural bottlenecks, what are the policies that you have observed that can help get around these problems and help the girls continue to graduate from these programs and have success in the world of work?

DR. LAMICHHANE: The main thing is, you know, access is definitely the key issue but today's key issue isn't access, the quality TVET. In the name of number games, in many countries there are many institutions. Like I'll give you one example: once upon a time, there were 700 institutions in Malaysia and the government decided, very bold decisions and they brought in

33 polytechnics and one polytechnic is now providing 50,000 students per polytechnic but now their quality is good.

So not only the access, definitely for access, like the physical access, like a geographical access, financial access. Are they able to do that? Another is time also is very important for girls, you know? Especially in those countries like South Asia.

In my experience, when we conducted training programs in the morning shift and evening shit, the participation was less because they have to be involved in the household work because females are great. They are doing 300 percent more work than men in South Asia but they are not considering good (inaudible) because of household work.

When we change the timing like 11 to 3, there are more participations because that is a free time. Normally, in South Asia, except official work, we will take brunch, not breakfast and not lunch. So after brunch, they can join the training and if we leave them around 3 or 4, more participation so timewise, also access is very important. That is one part.

Another is the main thing is quality. Like you know, I can give one example. In Nepal, the enrollment is 20,000 females, the total program. But if you see the pass rate in diploma programs and technical (inaudible) school living, the pass rate is only around 10 percent. This means the training program is not good. In the name of access, we provided technical schools everywhere in the mountain but there is no teacher, there is no lab, there is no internet, there is even no electricity.

MR. CASSIDY: Mm-hmm.

DR. LAMICHHANE: Most of the people, because of the context, we have to conduct training programs in 5,000 like near the base camp of Mount Everest so we have to take the help of the solar. If the clouds come, then solar will not work so then how can we think about it? So quality is very important because if we do not think the quality TVET today will make disadvantaged people, especially like poor people but poor training programs, making poor -- readiness for the poor employment, that is another injustice for them. That's why quality has been important and for access definitely financing and societal and you know, one main barrier now,

even like us, educated -- I'll give a very good example. If there is a proposal for waiting in the society, one candidate has a master's degree first, a master's degree but no job and another is a plumber, 100,000 Rupees, 1,000 dollars per month but the parents will choose that master's degree unemployed one so that's why the main barrier is the mindset of the parents and society.

If we change that, definitely the girls' education will improve. That is my experience. It's still -- we talk in the program like this but if you go to the real implementers and even the educated people, they do that type of thing so we have no respect like developed countries like the US, Germany, Switzerland. They are respectful to the skills. There is no matter. Do you have a job? Yes. But in our country, they will ask another question "What type of job?"

MR. CASSIDY: Exactly, and thank you --

DR. LAMICHHANE: In the US, nobody will ask what type of job. Do you have a job? Yes. That is the barrier.

(Laughter)

MS. TAGGART: Unless you are in Washington.

MR. CASSIDY: Student loans to pay so I think any job is a good job for a lot of parents for their children. I think now the time has come to Q and A for the floor. Some of the issues we didn't raise here, you know, family responsibilities, the sharing of those responsibilities may go a very long way in helping that, this sort of cultural customer or maybe the misuse of cultural (inaudible) and some instances that we've seen around the world. What happens if there are no jobs? You have so many talented and trained people and that becomes a national security issue if you don't have employment for people and also learnability, right? Learning for the future of work.

So I'd like to open up to the floor and take a few questions. If you tell me your name, your affiliation and please keep your question to the form of a question, please. Please?

MS. YU: Hi, my name is Soo Yu. I am from China. Right now I am a grad student at GW. My major is international education program. It was really interesting, TVET's education because right now I want to do research on vocation education about China so thank

you for praising the Chinese.

And I have a question about internationalization because you talked about quality of TVET education. I want to know what kind of relationship of cooperative programs in TVET education. I mean, for example, in China, if a student has a better choice to go to public universities but they would not choose to go to the TVET educations so that's kind of a second choice for students to go to TVET educations. Sorry --

MR. CASSIDY: Please conclude, we just want to get to a few others please.

MS. YU: I just want to know the internationalization in TVET education and the dynamic of public institute and private institutes there.

MR. CASSIDY: Okay. Xiexie, thank you.

QUESTIONER: Hi, good afternoon. I am Conception with Age of Africa. I just have a really quick question. In the past, our organization has trained young ladies participating in our life skills program in solar panel installation so I was just curious to see what TVET is offering with regards to opportunities or where do you see it exists with the intersectionality of girls' education in contributing to the climate change agenda.

MR. CASSIDY: Thank you very much. I believe the lady here in the first row please?

QUESTIONER: Hi, so in India, the Ministry of (inaudible) in our country started a huge program for youth in terms of giving them vocational training, et cetera, et cetera. Six months of a lot of money, 500 million or so -- yes, and 500 million World Bank pledged. We saw that after six months, all the youth were getting trained. There was an attrition rate; only 30 percent remained in jobs of market. The rest all dropped out.

We were trying to look out at what is the problem, what is going on and we realized coming back right from the early years, it needs to be linked in the school system. That means there are four phases probably. You have to look in the education system, aspirational building starts as early as primary years when you are looking at your mothers and your parents and communities. Then you come to orientation on careers and vocational.

You come to planning on that in the older ages and then eventually decision making. So that's the whole tragedy. That means the education system has an extremely extremely important role to play --

MR. CASSIDY: Alright, your question please.

SPEAKER: I want to know, from Nepal, how are you looking into this education system because it is not just one program or model that has worked that government has to scale up but it is a collaboration that they need to do it with the private --

MR. CASSIDY: Thank you. Sorry, we just want to make sure that everybody has a chance to speak. Let's address those first three questions and then we will have a second round. So the panelists, please, we have had three questions on corporate involvement, internationalization of TVET systems. We have talked about solar panel installations, climate change and how it speaks to that issue and talking about the youth retention in jobs.

DR. LAMICHHANE: So regarding the first questions, like regarding the internationalized activities in China -- like the main thing is we have to respect the blue-collar job. The idea that the societal and cultural barriers that's why the first important thing is we have to change our mindset. I already mentioned like developed economies, they never categorize -- even if they categorize internally, but not exposed like what we are doing. Like Germany and the US even. But in our part, TVET is still considered a second category so to change that, first we have to change our mindset. Then only we can respect TVET because for that, we have to show students from the employment perspective. Outcomes, outcomes of the education. If you go to TVET, the result will be about gainful employment chances about more than 90 percent but if we go to general education, that is about 50 percent because of the informal economy, more TVET graduates will get jobs and even employment opportunity is also very high. So from that perspective, we should link with the education and then people's motivations towards TVET -- that is my suggestion.

And regarding the other issues like why written (inaudible) dropout rate is very high because I am very sorry, even USAID support programs because Madame Nancy will at least

stay here but the programs will be implemented by different NGOs and different consulting forms and even government. I am not blaming the NGO only. Not just the government.

What they implement, the grassroots implementer will do, their focus will be to the number game, not the quality. Like a report, we completed 100 percent training for 5,000. So what type of training? How many percent gainful employment? We never evaluate our output, outcome and impact. We will go early to the immediate output, number game, that's why most of the training needs to focus not on the selection.

MR. CASSIDY: Right. Our time is becoming very --

DR. LAMICHHANE: That's why retention rate is very low. That's my experience.

MR. CASSIDY: I'll pass to Nancy, please.

MS. TAGGART: Well, just to build on that. I think particularly looking at gender issues and retention and plenty of other regions looking at Central America and the Latin American region, you see these very high numbers of completion but then they either don't transition or they don't stand the job for many of the reasons we have talked about, discrimination, harassment, et cetera and one of the things I was going to recommend, if we have a chance where we ask that question was the fact that we need to collect more data to generate evidence, as I think Rob Jenkins was speaking about this morning and we don't tend to do that with a gender lens. At least I have not seen that sufficiently within USAID so I would like to see us do that more so that we can analyze what is happening after the program.

In terms of the climate change question, we tend to try to avoid picking a sector so I think yes, there are definitely opportunities for environmental jobs. Plenty of regions have gross sectors based around renewable energy but -- so I think that can dovetail well, partnering with the industry to offer those types of trainings but usually we want that to be derived by the context or the economic context.

MR. CASSIDY: Right. Anil, I am going to give you the last word, please.

MR. PAUDEL: I just want to add a few things here. I think my study found out one very important thing which is the lack of vocational orientation at a school level because many

of these young people that don't know about their carrier choices and when suddenly they have secondary degrees and they are confused as to what to study next so I think what is really important is to provide this vocational and professional orientation or career guidance at the school level when they are in maybe grade six or seven so that they have informed choices when they finish their school so that's like -- and I think it also has to do with the respect for the work because we need to educate them early so that they respect every type of work.

I think that's missing and it would (inaudible) when I talk to a lot of these girls who were in TVET programs, they had never even heard about those courses like automobile engineering, geometric sciences engineering so that's one thing. That's also limiting their choices and opportunities and the other thing is the match.

When I talk about the match, it's not just the match between supply and demand, it's also the match between the program and the target group because we need to make sure that these programs go to the right people who need this. And when I was doing another study, it was a project supported by Asian development bank. There were these skilled development training programs for youth and there were a lot of graduates who were doing at least three months of training and they never wanted to become plumbers but they were doing the course. There were other benefits and they were enrolled to get those benefits, not to become plumbers. So that's also one of the things. The retention rate is also because of that I think.

DR. LAMICHHANE: One thing that I forgot. Because policy, written things, definitely girl participation will increase. I'll give the example of Nepal. Now in our constitution it is well written in every program, every aspect, there should be at least 33 percent participants that are female.

That's why Nepal is the country with the highest percentage of female parliament members now in the world. We have a President, a female President.

MR. CASSIDY: And we have broken that rule on this panel, only 25 percent.

DR. LAMICHHANE: That is a very important thing.

MR. CASSIDY: I do apologize. Time is a cruel master here so I am afraid we will

have to stop.

I wanted to thank Anil Paudel and Nancy Taggart and of course Ramhari. You've given me a lot to think about here. I wish we had another hour but I am afraid we don't.

I want to thank Brookings very much and thank you very much for your questions and interests. Thank you.

DR. LAMICHHANE: Thank you.

MS. TAGGART: Thank you.

MR. PAUDEL: Thank you.

MS. KWAUK: Thank you so much to the panelists. While everybody is shifting. I am going to just give you a little bit of housekeeping logistics.

So we are now going to transition into our concurrent breakout panels that are each going to be focusing on bridging policy and practice so the different conversations that we've had around early childhood, around STEM education and transitions to TVET.

So if you are interested in digging deeper into TVET, you will be staying in this room, in Faulk. If you are interested in going a little bit deeper into the implementation issues around early childhood and gender, you will be going to Summers, which is past the lobby, towards the steps in the back and to the room on the right. We will have some CUE staff members who can direct you.

And then if you are interested in STEM education, we will be in the Saul Zilkha room right next door. So there is going to be CUE staff members with name tags. If you get lost, look for them.

There is also going to be signage up around as well so we are going to go into a coffee break right now for about 15 minutes but we will see you all at 2:45 in those rooms and then back here at 4:30. Thank you.

(Recess)

MS. SCHMIDT: All right, hello everyone, can you hear me? Good afternoon.
Thank you all for joining for this afternoon session where we're going to take it a little bit from the

policy perspective that we were focused on this morning in the big auditorium to bring it down to the level of practice. My name is Dana Schmidt for those of you who weren't with us this morning I'm a senior program officer with Echidna Giving.

I'm joined today by three wonderful panelists. We have directly to my left is Kim Foulds who is senior director of international research and evaluation at Sesame Workshop. Next to her is Joan Lombardi who is the director of Early Opportunities. And last but certainly not least is Samyukta Subramanian who is, of course, an Echidna Global Scholar this year and is also the program head of early childhood education at Pratham which is a large NGO based in India.

So, as I said, we're, you know, this morning what we really focused on was thinking about the policy environment for early childhood education in India and how to think about a gendered perspective in early childhood education. And this afternoon, what we want to dig into is on how that can be done. So, how do we translate from policy down and into practice. And what I want to start with, actually Joan, a question for you. Which is given your long experience in the early childhood development sector, what have you learned about who some of the key stakeholders are for making things work in early childhood development and how you reach them.

MS. LOMBARDI: Great. Thank you for inviting me and I'm sorry I missed this morning because one of my favorite people, Vrinda Datta, who I've learned so much from over the years spoke and I got to catch up a little bit. Before I answer your stakeholder question though, I want to congratulate you first. Congratulations on doing this and to Dana for supporting this work. I think when Dana first called me, I've been in the field of early childhood for more years than I can count. And when Dana first called me about this topic, do you remember this, I said, it wasn't that long ago. I said oh, gender is not -- it's not an issue, it's access in early childhood but I'm glad you're interested in your own children.

So, how wrong was I. Because I took a very narrow focus on the issue. And I think what this report does is tell us well, of course, that was the wrong thing to just think about access and equal access of early childhood where we do have more parody than in the rest of the education world. And so, I think this report, first of all, is timely for three reasons.

First, the field of early childhood is just exploding all over the place but there has not been a focus on this issue the way it should and the way, I think, she did in this report. Secondly, that we've got much more focus on equity right now so it's timely that we're talking about this issue. And third, because of what you heard this morning, the changes in India, the potential, I say potential because I'm told there is resources, it's just potential. To really make a difference on the early childhood side which we've been waiting a very long time.

I think the biggest breakthrough in the report, before I talk about stakeholders, is the notion of transformation. That wonderful graph that she has in there that really talks about gender responsiveness, gender neutrality, moving towards transformation. And a much more active approach to the issue which, I think, has a lot of implications for practice. And we're seeing that with regards to race and ethnicity also which, I think, we should talk about a little bit with regards to gender and the integration of gender and race.

I think what's exciting to me about this report from the practice side is the comprehensive nature of it. That it talks about curriculum, that it talks about teacher preparation, that it talks about the home as much as the school and it talks about community and technology. And we can have a whole conversation about what the implications of that are for the tools that you should go home and develop based on the report.

So Dana, to your question. I think that we, because early childhood is such a broad topic and it crosses sectors, we need all the stakeholders that are out there. Because, you know, we always say, it has three mothers, health, learning and behavior or it has no mothers and so, no one really owns it.

And so, I think the way that I've always felt about stakeholders and reaching out to stakeholders is to stay open and not try to control them but take them from where they are, right. And move them forward around the importance of young children from whatever platform they're in. So, that's a long answer to a short question, sorry.

MS. SCHMIDT: That's great. And as you said, there are many different stakeholders within early childhood, some of whom are critical and this came up this morning as

well, are the parents of young children. And I wanted to turn to you, Kim, around your experience with Sesame and how in your work both on television and in radio, how you've thought about engaging beyond just the child and with the broader community, including with parents.

MS. FOULDS: Great, thanks Dana. Hi, everyone. As Dana mentioned, at Sesame, we try to create what we call the enabling environment starting with mass media as an entry point. And so, often in many of the countries we work, that's through mass media whether it be a television show or radio program where television is less accessible to many families.

And what we do is that we have found that Muppets allows us to be someone we're not always comfortable being. Muppets allow us to talk about things that are sometimes very difficult to talk about and that's children and adults alike. If we had a Muppet walk in here, surprise, no. We would all sort of kind of become children again. And the same is true for children as well. There's a sort of displacement where Muppets can broach culturally difficult topics.

And so, how we do this in our programming is we create the enabling environment starting with mass media. And then we work with partners on the ground who know communities far better than we do and we provide content to help them address these topics. And so, we do this through workshops, through ECD centers, through listening circles through which we incorporate television program, radio program, print materials that draw in both parents and children alike. And in a lot of the countries where we work, we know, for example, at home parents are watching TV with their children.

So, in Afghanistan, we have a television show Baghch-e-Simsim. And more than 80 percent of television owning households watch Baghch-e-Simsim. We have what we call co-viewership where parents and children watch together and it's in the 80 percentile as well. And so, we know that this is an important opportunity for us to be able to reach parents as well as children around all kinds of different messaging, including around challenging some gender norms.

So, that's one of the key ways and in areas where we don't necessarily have a television presence, we do a lot of work with our partner World Vision through water health and sanitation in a lot of rural communities across the world. We're in countries where people don't

know Sesame Street or whatever the local co-production is. We still found that Muppets are still a really important entry point.

It doesn't take a long time for children to become really close with Muppets that look like them, that sound like them and that are dealing with a lot of similar issues that they deal with. And so, in those cases, we still provide that sort of enabling environment through a much more concentrated way in which it's really important for us to include parents, community leaders, all of those key figures in young children's lives.

MS. SCHMIDT: Can you give us some concrete examples of the types of gender norms the Muppets are able to challenge?

MS. FOULDS: Yeah, that's a great question. So, in Afghanistan which, I think, is probably where we've done most of our work internationally. We have focused primarily initially on representation. And for us, representation has been a really key starting point to again, build that relationship with the community. And so, our Afghan Muppet, Zari, she loves sports. And we've seen in evaluations that we've run on the television show that through her modeling playing cricket, playing football, different kinds of sports, that we've actually seen some changes in beliefs around girl's ability to play sports at a young age.

We also, I was just in Zimbabwe last week looking at one of our projects, Wash Up Girl Talk, in which we are supporting changes in knowledge and behavior around puberty and menstrual health management for girls and boys a bit older, ages 10 to 14. And what I saw there was incredibly powerful and I hate to use these sorts of hyperbolic statements.

There were parent support groups where there were fathers talking about how they did not want the program at first. They openly said that they were worried that this project would make their daughters promiscuous if now they're talking about periods and the boys are getting this information. And now they're standing in a group talking about periods and making reusable menstrual pads.

And parents from neighboring schools are coming over wishing that they also had this programing and how can we expand it. And so, that for us even though that was not an initiative

that we would consider part of our gender equity programming, it was absolutely challenging gender norms.

MS. SCHMIDT: Great, thank you. So, Samyukta, turning to you, one of the things that your research, and for those of you who haven't read the full report that we're referring to, I hope this is enough of a teaser that you'll grab a copy and really dig in because we're, you know, scratching the surface. But one of the things that you really highlight in your report is the role of mothers, obviously, in shaping their young children. But also, then the relationship with the anganwadi worker and her, often her role and her role and extending into the community. So, can you talk a little bit about kind of the role of mother, the role of anganwadi worker, where one begins, where the other ends.

MS. SUBRAMANIAN: Sure. But before I get into that, I have to talk a little bit about this program through which the anganwadi actually came about. So, the ICDS, so the Integrated Child Development Services scheme rolled out across India in the early '70s. And the idea was to have community based preschool centers in such a way that each center reaches out to about 250 homes, mothers. And today, the program is probably one of the largest in the world. It reaches out to about 1.3 million anganwadi, you know, children. 1.3 anganwadi's are actually spread out across India and that number is increasing.

And the program, what it tries to do is it tries to look at the health and nutrition of women. It looks at adults and girls and educating them, health education and awareness. It talks about (inaudible) services which means if there's a problem, where do you take your children, adults and girls or mothers. It talks about immunization which means providing, you know, the polio drops and other things on time. And it talks about early childhood education.

And the one person who does all of this at the anganwadi is the anganwadi worker. We don't even call her a teacher but, you know, she is actually the first teacher for every woman in that community. Whether it's the child, the mother or the community, there's this lady who is taking care of all the health needs of all the women there.

And almost before, it's almost like as soon as the child comes into the stomach of

the mother, it's actually this lady who starts saying, where are you going to have your child, what are the medicines you're having, what are the vitamins that lactating mothers need. And when we go into the anganwadi, like for instance, when I went, she would say, oh this lady, you know, because I was looking for the mother of the preschool child.

So, she would know where that mother is having her second child. Which sometimes even the fathers wouldn't know, you know, where their wife is but the teacher would. You know, she'd be like oh, she had a fight today, she's gone to this one's house or you know, she's decided to have her baby at her mom's place or not at her mother-in-law's place, you know, which says a lot. So, it's this teacher who, you know, she would know all these little details about these communities and I think that's where that bond, that connection is formed.

And so, when it comes -- this program provides food free of cost to every person who walks into that community center. So, mothers would often come in to say, you know, with a bowl for the child who is attending the preschool but also for a bowl for all the food that her other children at home need.

And so, you can see there's this bond which is not just need based but an emotional bond which is already there. And that's why I feel that this is something that we can build off of. I'm not sure, I've worked with schools also in India, but I'm not sure that school teachers shared this bond with mothers. I think this is a very special bond and so that's why we really need to think about who in the community connects in such a way that they can then influence what people are thinking.

MS. SCHMIDT: And so, I mean it strikes me as you're listing all of the things that the anganwadi worker does. She's expected to almost be a miracle worker at very low pay, as I understand. And just building off of Joan's point, I mean, if we're adding to her list of duties, transforming gender attitudes, that's a big ask, right? So, building off of Joan's point about meeting stakeholders where they're at are there things that you see as kind of the easy, you know, low hanging fruit in terms of the first place to meet the anganwadi worker and help her in this journey to kind of support greater gender equality?

MS. SUBRAMANIAN: Yeah, I mean, I think you're absolutely right. She is a miracle person. She has this person who helps her. She's known as the anganwadi helper with the food and everything. But rather than say that you need to do this one additional task, I feel like she has numerous conversations with people in the community. And it's not a forced conversation.

But how do we channelize that conversation in such a way that we change attitudes and mindsets. And, of course, we need to begin with that anganwadi teacher and to see what she's doing and how she's doing it. But I feel like she's with the child in the class and she's with the moms on their journey. And so, that conversation which is anyway happening, how do we influence that.

MS. LOMBARDI: Well, it's very interesting to think about the ICDS program. How many of you are familiar with the ICDS program in India, most of you, a few of you? I mean, it is the biggest in the world early childhood program without a doubt. I ran in the national Head Start program here in the U.S. and I thought that it was a lot that I had a million children let alone how many million children in the anganwadi system is serving. So, it is a very important gateway to all of these issues.

One thing I think we should think about when we think about gender equity is the gender equity for her. Because one of the reasons she's so low paid is because she is so low paid. And so, the traditional work of early childhood is a gender equity issue in and of itself that, I think, we have to begin to recognize.

I have a so much respect for the potential of Sesame Street and what they can do and what they have been doing and congratulations on everything you've been doing. You know, I think our -- the way we approach parents, I'm a little bit concerned about the way we approach parents in general lately. Because we're acting like they're empty glasses of water and we just fill them up with information and then they're going to be transformed. Rather than supporting them, empowering them and reaching out to the fathers. I was so glad you mentioned that.

I mean, to me, one of the most gender transforming efforts going on is the

MenCare Campaign which Promundo has launched and is doing it in early childhood programs. So, I think we need a whole new think about parent involvement, parent engagement that's more empowering.

MS. SCHMIDT: I have two questions. I want to go in two directions at once. I'm going to start, Joan, with just a follow up on that. Because you talk about sort of the gender issues for the anganwadi worker. And the other actor in this system that comes to mind is the mother, right, who is often left with the primary care responsibilities.

And one of the questions that came up in the morning session was around whether thinking more broadly about early childhood. In terms of not just leaning on mothers to do more for the development of children but providing services that can -- like childcare, that can really unleash mother's opportunity to then work. And not have quite -- not have more on her plate but have, you know, a broader support for her own well-being and for that of her children. Can you say more, I know you have some experience with Mobile Creches in India and can you say more about that model and the ways in which they engage with parents which, I think, brings in another dimension to the conversation.

MS. LOMBARDI: So, Mobile Creches is a childcare program that emerged and does a lot of work around construction sites and other venues that women are now coming into urban areas and working in and more and more inner rural areas also. What's interesting to me about childcare is the dichotomy between preschool and childcare.

And so, let's take the case of India now where there's real interest in preprimary. I'm sure that was talked about this morning. But if we create preprimary programs that are three or four hours a day, they don't fit with the needs of working families. So, in every one of these and I've seen that happen here and I've seen it happen all around the world. Because one is thought of as education and one is thought of as a work support for women. When, in fact, they're both settings for young children where you can promote learning.

And so, you've got to have a gender lens to all of these policies otherwise, I think what seems like you're doing something positive for children may become more difficult for

parents. And you don't want to pull people out of a program like Mobile Creches which is a wonderful quality program and put them in a three-hour preschool. It doesn't make any sense.

MS. SCHMIDT: Yeah, thank you. The other thread I wanted to pick up on is this point about fathers. And Kim, I know that Sesame has also been thinking a little bit about father engagement, particularly in South Africa and I wondered if you could share a little bit more about that.

MS. FOULDS: Yeah, absolutely. We through our partnership with Lego Foundation for the last couple of years, we have been looking at caregiver's knowledge around the value of play as part of children's healthy development, cognitive, physical, socioemotional. And to Joan's point, assuming that parents are empty vessels is not the way to go.

So, through a series of needs assessments, we found that many parents do know that play is an integral part of how children learn. It's the way that young children learn but play is women's business. Women play with children. This is not a space for men. And so, when we factor all of these things in that childcare is considered a women's domain, play is a woman's domain, play is how children learn, right. So, there's all these different points in this thread.

And so, we have some work now where in South Africa, we've held a series of play workshops to support caregiver confidence in their role providing play opportunities and playful learning moments. Because even though we found that parents knew the value of play, they didn't feel confident in their ability to deliver those moments.

And so, we carried out a series of play workshops to support that they are almost exclusively attended by women. Mothers, aunties, grannies, other primary women caregivers in children's lives. And so, because of the value of including fathers, we are moving forward now with having fathers only play workshops to really pull fathers in to see how important their role in their children's healthy development. That father's playing with their children is a part of a long-term healthy pathway for many reasons. For children's long-term success, for children's economic success, socioemotional success, the list goes on and on.

And so, this is very new work but we are really excited. And a lot of it is coming

from what we're learning from what others are doing in these spaces on how fathers have to be engaged in these moments.

MS. LOMBARDI: Is there a father Muppet?

MS. FOULDS: There is a father Muppet. Elmo's father Louis, he's international now. We do have a lot of caregiver space in video where Louis models these sorts of behaviors. We also have a series called I Heart Elmo which is largely focused on socioemotional and child protection. And it is moments with Elmo with his parents but mostly with his father and his father sort of models that nurturing care. And what we hear is that mother's love it. They love it so much even if there is not a male role model in their children's lives because it is modeling that behavior through Muppets. Again, Muppets present these opportunities that it's very difficult to represent with regular folks like you and I.

MS. SCHMIDT: That's great. Samyukta, in your research and report, you kind of draw out some thoughts about father engagement particularly around this technology piece. And I wondered if you wanted to unpack that a little more.

MS. SUBRAMANIAN: Yeah, so the fathers, I talked about this in the technology piece. Because I talked about this in the technology piece because I said that, you know, I did find that there are cell phones at home. But the internet phone which is a smart phone, the fathers often have that.

And so, that's why, you know, children would wait for their fathers to come home because then they could play games on the smart phone. So, they could access games basically, on the phone. And when I asked mothers of preschool children, you know, do your husband and your child spend time together, they would say yes. They watch television together or they play games on the phone together. And some of them would say, you know, my husband doesn't have time. Like he's busy outdoors all day so, you know, there's really no time.

So, I think, one, there isn't much time spent between, you know, with the child, the young child and the father. And two, the quality of time spent is poor, in my opinion. Because when you watch television, it's not active engagement, you know. Everyone is just happy that

everyone is quiet, you know. But it's true with children. I think the whole day you're dealing with them and they're crying and you have to get them to play. And here's this thing that comes along where everyone is like, oh my God what's happening.

And what is it that's happening on TV or what is that game on the phone. I don't think any of us really know. But we know for a fact that this is already in their systems. It's all over. And I've seen that, you know, in the olden days we would give toffees to children, you know, just to keep them quiet. Now the bribe is, you know, the phone. The minute the phone comes in their hand, you know. So, I feel like this piece between fathers, technology and children, that's something that we really need to explore.

MS. SCHMIDT: Kim, do you want to come in?

MS. FOULDS: I agree. I mean, TV can be a very static medium, certainly. And, I think, that's not just in countries outside the U.S., right? Many of us rely on television to -- sorry, can you hear me now? I was just saying that TV is a very static medium. And I think for our formats because we have seen this and we don't want TV in this case to be something that's just a time waste, we want it to be an educational moment. Because we do know that parents are going to put their children in front of the screen whether it's a smart phone or a television or whatever it may be.

So, a lot of our formats now have become more interactive where it's call and response. Where a Muppet will say, you know, how many lions do you see or something along those lines. And we really do want it to be much more engaging. And again, the television show is seen as an entry point for us. It's not intended to be an end all be all of the experience. We want it to be an entry point for us then to have these more high-touch mediated experiences, absolutely.

But I absolutely hear your concerns. And we don't want that experience either for young children just to be something where they just kind of sit glassy eyed in front of the television. We want it to be a really highly valuable experience for both parents and children.

MS. LOMBARDI: I'm just sitting here thinking that we all, all of us that are parents

in the room remember us using media in that way. I mean, I'm sitting here thinking that myself and I used to put my son in front of video -- it wasn't cell phones then, videos of Raffi. Does anybody remember Raffi? He was a musician. Well, my son ended up a musician. So, I always figure that maybe he got something good out of that but that wasn't my point. That was just to allay my guilt because we all do it.

One thing that I've learned on the father engagement part is it is kind of what you're doing with Lego and the purposeful workshops for fathers is that you have to be intentional about it and you have to design programs with them in mind. And in the beginning, it may be that they're separate and that you have a male that's doing the male involvement. We found in Head Start that that made a huge difference. And then you can do more integrated efforts but I think in the beginning they get fathers and men, it's not just fathers involved, we have to be more intentional and design programs for them.

MS. SCHMIDT: One of the points that came up in the last panel I think it was the differential in access to technology between men and women and youth. I think the statistic was male youth in India are seven times more likely to have access. I could be misquoting this but seven times more likely to have access to the internet than women, young women. Are there any studies or data that you all know of around differential access for young children and or is that sort of a potential risk of leaning into the technology side.

MS. SUBRAMANIAN: No, I do know of data with early years and little children. I don't know about that kind of data. That's probably because we're not looking at young users of data because the phone actually is in the hands of the parents.

But in all the years, I do know of a, you know, boys having access to cell phones. And unfortunately, I also know of a community in Gujarat and this was in the news recently where the (inaudible) the people, the local, you know, leaders of the community decided to ban cell phones for the girls. It was like a retrograde step and that's why I know about it. Because they said, you know, this is what is corrupting our system and our society and so, you know, we're just not going to have phones. Except that it was no phones for girls.

So, there are stereotypes around who can have access to information. And then, of course, there's information out there that boys have more access to than girls and then there are language barriers also in the kind of material that one is seeing on any digital platform. And we need to be mindful of it and more so for little kids. Because I don't think there are conversations around what children are seeing with little kids. Perhaps not even with older kids but definitely not with little kids.

MS. FOULDS: The data that we've seen particularly working with displaced Syrians in the Middle East is very much in line with this. Is that they're a highly connected group more so than many other displaced populations globally. But then when you dig a little deeper, it's yes, there is a smart phone or some type of mobile phone in the community or in the household but the father controls it.

And so, that's been an interesting point for us because we are really trying to consider how digital platforms can be used to provide content to families. And so, how can we -- the only phrase that's coming to my mind is, get around this, but that's not the right phrase that I want to use. But sort of how can we figure out a solution to get content to young children where television access may not be the way to go when fathers are ones controlling the content?

And another thing is also, when you're looking at content that is working to ensure that girls also have access to a quality education. When we ask parents what they want from an early childhood education experience for their children, it's literacy and numeracy. Socioemotional skills are not near the top.

And so, that's also sort of both of those things, how do we sort of present that this is a traditionally academic content to get parents to watch it on their smart phones to then let their children watch it. And so, there's so many steps along the way and we haven't figured it out yet but we're still sort of iterating and working to try to figure out what the best solution is.

MS. SCHMIDT: Great, thank you. So, it's after lunch and we thought that the best way to keep you engaged is to actually turn the spotlight on you and ask you all to contribute to this conversation. So, this is your warning that you sort of need to wake up your brains at this

point.

And the question to all you is, you know, given some of the issues that we've been talking about here on the panel in terms of how integral the family is for shaping gender norms in early childhood. What are the opportunities for actually being able to intervene in this space and what are some examples, promising examples that you may have seen in your own work or experience? And there is a mic.

QUESTIONER: Hi, I'm Anisa, I'm an intern here with GCUS. I'm a student, a psychology student at FIU. And I had a quick question kind of still on gender and ECD. So, with my experience, I grew up in Mexico and I remember now that you guys are talking about technology that we had a choice of like computer time growing up or outside time. And usually, girls were not allowed to get the computer time, it was only guys. So, I remember I would get really mad about that because I wanted computer time but they wouldn't let me.

So, my question is so like there's more -- it's more likely for boys, let's say in India, to have access to technology than girls. So, if there was access to technology to these girls, what would they do with it because they're still lacking that education and the literacy and numeracy. I don't know if that makes any sense.

MS. SCHMIDT: Great. So, Samyukta, do you want to take that? And actually, I'm in the awkward position as a moderator who is usually saying only ask questions to say actually, we also want input and comments. So, this is an opportunity for all of you who want to say something to make comments as well.

MS. SUBRAMANIAN: So, I mean, so what digital platforms do is that they don't follow a linear path. And I think that's why what a girl can do when she has access to that is something that you and I cannot predict. Just like we can't predict it for a boy. But to not have, it's like a making, you know, a decision in the absence of choices versus making the same decision in the presence of them. It's an informed choice or it's an informed decision.

And the other thing about digital platforms is that you don't have to be dependent on, you know, even if you cannot read. For instance, when I went into the under resourced

communities where I was working or where I interviewed people, the mothers, I mean, the children actually that I saw, the preschool kids are first generation learners.

So, these mothers and fathers, many of them cannot read. And yet, the phone is a medium through which even if you cannot read you can still understand and appreciate what's happening. So, that's why today if we look at the sort of backlash across the country for things that have happened, it's not because you're dependent on a newspaper to read, it's because there are videos that you can see and hear and react to, you know. So, I think the same would apply here.

MS. SCHMIDT: Thanks. Okay, I see one here.

QUESTIONER: Thank you, thank you very much, it's a very interesting conversation and very educated it has made me. I think we were discussing the father role and mother role a lot today. And today's discussion has given me some -- an idea that motherhood is probably -- it's probably too highlighted in our system, especially in South Asia. Because the movies are for motherhood, the songs are for motherhood, the expectations are for motherhood. The doll in the hands of a girl is for the motherhood preparation.

So, when we grow up with this motherhood, as a woman I'm saying, and I was a politician as I told you in my earlier session for 10 years in Pakistan. I realized that all the time my motherhood was always my barrier. I have four kids. I've been a good mother, I think, as much as I could.

But at the same time, I'm guilty, even today, after being whatever I could do for my mother-in-law, for my children, for my mother everything, still my motherhood is guilty. What is this system which has educated me in this kind of woman? Even though I was working for woman empowerment, I was conducting elections, I was trying to encourage people in rural areas to go for girl education, everything done. What about me? I still feel guilty I'm not a good mother.

So, what is this motherhood concept? I think that I really need to know from someone that how do you explain, probably you have a lot of experience and maybe if you can tell me about this.

MS. LOMBARDI: There's a simple answer to that but, you know, I share that and probably everybody in this room that has been a parent, mother in this case, shares that sense that we constantly feel guilty about the multiple roles we play. You know, I think it's going to take more and more equality in the home to change that. I mean, I still felt that way and I had a very egalitarian husband. But I come from a very traditional Italian family. So, it took a long time to get over the fact that I worked and that I worked when my children were very young. And I just think these things take generations but I don't see the same level of kind of guilt over things in the next generation. Things are changing. I think things change it just may take a long time.

MS. SCHMIDT: Yeah. All right, I saw Nora over here and then we'll come up.

QUESTIONER: Hi, Nora from ONGI. I wanted to raise a different issue. When some of us from ONGI were in Nigeria working with the northern states maybe three weeks ago, four weeks ago. We held a visit on sector planning, very boring, don't worry I'll get to something more interesting. But we were having this like side event on monitoring an evaluation, what was it, how do we do it. And something was about an indicator on the number of men in early childhood.

And all of the sudden, that spiraled off into this huge debate. And the Nigerian women were saying, well why do we care about that anyway, who wants to count the men in early childhood. They shouldn't be there. And I was really struck by that. Now, I'm Canadian and in Canada, there are men teaching kindergarten, teaching three and four-year-old boys how to get their shoes on and that kind of stuff. And that relates to what Joan referenced in terms of the men care movement.

But in the school system, there's also, at least in Canada, a lot of anxiety about men as teachers of young children. And the parents of the teachers, men teachers of children in kindergarten classes where there are men teachers, are nervous about it. And so, there's a reality, maybe a tension between early childhood teaching, learning spaces where women have found at least they've got some ownership there like our grandmothers in the kitchen.

And there's a sense of safety which comes with women looking after children. And at the same time, we know we must bring men into that space so that they can model what's it like to

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help a boy put his shoes on. And we can model the differences about men and women in schools in early years. So, it would be helpful to just reflect on that together as we're all trying to move this ahead but I think it's a really fundamental one.

And, I guess, another one I was connecting to these community teaching and learning spaces which are, I'm sure all about women. What would it take to get men into those community environments where the focus is on women's health, women giving birth safely, women's knowledge, and yet we've got to get men into that space too. So, I think it would be great if we had a few more thoughts. I'd appreciate if someone else could think about this too with me.

MS. SCHMIDT: Anyone want to comment on that specifically? Barbara.

QUESTIONER: I don't know if I can answer that but I can give you an example that I saw in Rwanda last year was fascinating. I work for a group called ABSE (phonetic) and our group there is working with UNICEF to build these early childhood centers and they've been very successful about it.

So, the moms have come and that's been very interesting because then the mom's start to form groups. And then the mom's started to form savings groups. And then the dad's got all jealous. So, we started to see the men coming to the center to form these savings groups as well.

So, I think you have to have something. First of all, jealousy is a very good thing. It moves people, what's going on there, there's something new. And they were interested enough to ask for themselves, to ask this for themselves. So, there we saw that there had to be really something that where the men perceived an interest for them. And I think if we think a little bit more in those terms, that will help draw the whole community together.

MS. SCHMIDT: Thanks. The other one data point I would put out, Promundo does a large state of the world's fathers report every year. And one of the things that they find is that actually when fathers are engaged, it ups their level of satisfaction. And so, there is, you know, men are missing out by not taking on some of these caretaking responsibilities. So, when you can find ways to engage them, I think there is kind of a virtuous cycle that can come into gear

and hopefully then the fathers will fill equally guilty as the mothers. I don't know if we get around guilt entirely but it becomes more of a shared responsibility.

SPEAKER: (off mic)

MS. SCHMIDT: Yeah. There are a few in the room. Jennifer.

QUESTIONER: Hi everyone, Jennifer Wrigg with the Global Campaign for Education U.S. Thank you for such a critical conversation that we're having here and how can we keep this going outside of this room since you're asking for inputs and ideas. From what we've seen, the youth engagement work in the community of practice on inclusive early childhood development and inclusive education that we've been doing and expanding at GCEUS. Thanks to Anna in the back and Anisa and others.

Plus, in a previous life, I was able to lead a venture fund that focused on ECD. And what we're finding more than anything is, you know, we have to be starting at birth if not before, right? Because we know that there are so many amazing programs around the globe in multiple communities working on girl's education primarily adolescent age groups. But that's actually much too late and we know that the not only are the gender norms often set.

But the work that you all are doing is really helping people to realize that we can't wait until children are in school. Or perhaps in some cases for millions of children, they're still not making it to school in part because of the biases and the discrimination stigma beforehand.

So, the other piece that we have found as well is that there are so many factors at play but early intervention across education, health systems, parenting, women's empowerment et cetera can make a huge difference. And I absolutely agree in terms of making sure all parents, all caregivers are actively involved. So, for example, not only gender but disability is that, you know, young person living in a crisis setting or dealing with trauma and also language. So many childcare providers often might actually be speaking a language that's not the national language themselves.

So, we need to make sure that we're thinking about how we reach and build that network of childcare providers. Thank you, Joan, for as a working parent, making sure that we're also

building it in a way that allows people to work and get a full day's work in hopefully without the guilt. But the earlier we can start the better. And, of course, we welcome anybody that would like to partner across the coalition, the small coalition we're already working with and other networks. We'd very much like to help make sure that in the mobilization, the youth engagement, the work that we're all doing together, we're helping to make sure that we're being proactive in this way. Thank you.

MS. SCHMIDT: Thanks. So, I'm going to turn back to the panel, but there will be another moment for your engagement and even another moment after that at the end for questions, so stay on your toes. So, Samyukta, I want to turn now to this issue of teachers.

So, we've spoken a lot about parents but in your research report and also this morning, you alluded to that fact that when you were observing classrooms, you saw some teachable moments that teachers missed out on, right? You saw gendered issues coming up in the classroom and teachers not necessarily picking up on that and expanding the conversation. Can you talk a little bit more about what the opportunities are for kind of shifting that landscape around teaching, particularly given the limited teacher training that is currently happening in the sector?

MS. SUBRAMANIAN: So, when I talk about the anganwadi's in Delhi or across India, 1.3 million teachers in anganwadi's are all women. So, to Nora's point about can we have, you know, male teachers. It's all, I mean, it's women all the way. Like the teachers, the people who supervisor them and that's how that ladder is except at the top and there's a mix of men or often there's a majority of men making decisions for all the women.

So, I'm in the education system too. I've seen rooms full of men taking decisions for girls and boys in school. So, you know, that's, I mean as a woman it feels very strange that, you know, one can assume that they really identify with all the issues but one does wonder why there aren't more women in the room.

And so, but the teachers too, the teachers sees her role as gender neutral. She doesn't see it as a woman who is bringing something to the table. This is what I have, you know, taken away from observing them. And so, she does a great job but she doesn't have that lens on.

And in class, yes, there are these moments which come up but she doesn't explore it. Because one, you know, she's not wearing that lens and the other that she thinks the children are too small which is what many of us thing. It's too early to start talking about these kinds of issues. I mean children, you know, gender identities have just formed at age 2 1/2, you know, why do I need to get into all of this.

And the teacher training, I've been part of the, you know, training that we do for teachers. And so, early childhood care and education, there's a whole, there are more rules on that and there's training around that. But, you know, training, there are bureaucratic delays in the training itself. But if you were to design what goes into that training, whenever that happens then, you know, this aspect could be covered so I'm optimistic about that.

That's the other reason I'm optimistic about preschools expanding in schools because I'm hoping that there will be male teachers and female teachers because we see that in our school systems. Is that something that they can bring to the table as something that we need to look out for.

But, I think, in general, the whole teachers in school thinking they're teaching the curriculum and women in, you know, anganwadi's taking care of the children. We need to come to a middle part where everyone is, you know, agreeing on what we are teaching, how we are teaching it and the fact that we bring our own personalities when we are teaching, our own lens when we are teaching. That needs to be recognized but we're very early on in that.

MS. LOMBARDI: My first comments to you was the tools that can come out of your report. Because I think how you integrate those concepts that are in your report, the transformative nature of teacher education still has to be developed now that you've documented that these are the issues.

So, we need tools on how to assess classrooms so that they're gender transformative. How to develop courses that for teacher training. So, I think you've just begun to document the issues, now we need tools to transform it into practice.

MS. SCHMIDT: Great. And then expanding beyond teachers and beyond parents

to kind of the wider community. One of the things that I've been interested in lately and starting to

see come out in the research is the impact of siblings. In the U.S. context, we often think about

siblings, too many siblings having a negative effect on child development outcomes.

But there have been some recent studies, for example, in Pakistan, which find that having

an older sibling is actually predictive of better executive function. In Kenya, there's some research

we've been involved in where they've looked at the composition of the household and for young

children who have older sisters, in particular. They have better development outcomes.

And the sort of hypothesis behind this is that siblings are actually playing an

important caretaking role for their younger siblings and helping to stimulate their development in a

way that's really important in some of these contexts. And so, I would love to hear, maybe Kim

first from you, in terms of what you've learned about the role of siblings and how you've played off

of that in some of the work that Sesame does.

MS. FOULDS: So, through television, we do it mostly through modeling. I

mentioned Zari, our young girl, Afghan Muppet. She is six years old and she was a really

important representation of sort of what girls can be. And in the following season, she was

introduced about two and a half, three years ago. In the following season, we introduced Zeerak,

her younger brother who really looks up to her for many different reasons. Because she loves to

learn, she loves to go to school, she loves sports.

And the intention for that is to again, model those healthy behaviors. And the

research you were just citing, I love that because it's very much in line with, I think, what the intent

was around first modeling and making sure there was representation. Certainly, that's not enough

but it's a really important entry point.

In other ways, we include the broader families through community events. We

often do a lot of mobile community viewings where it could be a refashioned apple cart or some

sort of device with a solar powered generator. To power whatever, a TV screen, so that

communities with not a lot of infrastructure access to any kind of medium can watch the show.

And so, we include families to make sure that we're also getting at older siblings who can

still benefit from the television show even though most of our television content is geared toward children's 3 to 7. We know that older siblings are often watching. And so, we tend to age our shows up to the older end of that spectrum because if you make a television show for a 3-year-old, a 6-year-old is going to think it's too baby. But if you make a television show for a 6-year-old, they'll watch, they'll also encourage their younger brothers and sisters to watch. And so, that's sort of the thinking about making content to make sure that we're including the broader family.

MS. LOMBARDI: You know, Dana, I don't know that research, I think it sounds really interesting. I think the thing that comes to mind when I think about siblings and gender and I think we need to say gender, not girls. Is that all over the world, girls are dropping out of school at third grade to care for younger siblings.

And so, this childcare issue is an issue that's gender for the mother but it's also a gender issue for the girls that can't go to school. I mean, I think if we looked at why girls aren't going to school in a lot of places, it's because they're caring for younger siblings. And that has not been part of the education discussion as much as it needs to be.

MS. SCHMIDT: And there's some other forth coming evidence that I can't yet send you a citation for but got a preview of. I mean, this is probably being recorded but it is coming. But there's been some research done in India by an organization called Breakthrough which works to actually -- works in middle schools to start to shift gender norms among middle school children.

And what they're finding is that their intervention has been effective on shifting a bunch of norms. Getting young boys, for example, to recognize that their sisters are taking on larger burdens in the household then they are and actually starting to do more household chores. And other norms are starting to shift but the one that's actually, they have not seen movement on is caretaking.

And so, boys just view the caretaking so much as a girl and mother responsibility that it's much more stuck than some of the other gender norms. So, that suggests that this could be a challenge for, you know, a longer period of time. Samyukta, do you want to add anything in

terms of wider community and the role of the wider community in terms of shaping gender norms?

MS. SUBRAMANIAN: I think the only thing I really want to add is that sometimes it stems from what everybody just said. So, you know, the sense of confidence, this lack of confidence that we have, imagine a mother in rural India who cannot read and who has only seen this around her all her life. So, it's like multiply what's happening in this room by that, you know, all the sort of disadvantages that she is faced with. And so, I think that, you know, increasing that mother's level of confidence to say, you can be a part of your child's learning and you can show the way, I think that requires some work.

So, for instance, in my organization, Pratham, what we are doing now is we go into communities in rural areas and we have these fairs which we call school readiness fairs. But our condition is that there's only one condition that the mom and the child have to come together. So, that's the only way you can take part in the fair.

And so, you know, the traditional people who are called, like the fathers and the grandfathers, they come in and say hey, why can't we come and we're like this is for the mom and the kid. Because a mother knows her child really well even though she may not be able to read. And for her to then realize that she can show the way and then for the father to say, you know, I want to do it too, it could be it's a little bit like maybe people are getting competitive.

But increasing the confidence of the people with whom the child grows up, I think that plays a big role in what we actually do with the community. So, for mothers, if I give the example of literacy and numeracy, mothers used to say hey, we can't read so how do we know our children can read. And we used to say, do you know when your child has fever, and they'd say of course we do. But you're not a doctor.

No, I'm just saying, this is what we used to say to the mothers. So, you know when your child is not well but you're not a doctor to do that, you just know it, you know. So, if you know that your child is not learning, you don't have to be someone who can actually read a book and yet there's so much else that you can do. So, I think there's a lot around confidence building going back to what everyone here was saying. That everyone comes with their own set of

experiences and one needs to build off that.

MS. SCHMIDT: That's great. So, again, opening it up to all of you. In your work and experiences, who have you seen as the key allies to bring in on this work to shift gender equity in preschools? Other thoughts from the audience.

QUESTIONER: Sorry, I'm like hogging up all the questions. So, I have a quick question because I work in the RBT field and like in early intervention with younger children.

MS. SCHMIDT: What is RBT?

QUESTIONER: Registered Behavior Technician. So, children with disabilities, autism mostly. And I find it funny that, not funny but I find it interesting that usually mothers are the ones to be the ones to meet with me afterwards to see the progress of their child. But I wish fathers would also be more involved. Because I feel like children obviously feel that and they understand that there's something lacking and that's going to affect them, like you guys were saying before, throughout their lifetime. So, I think there should be more, like Nora was saying, involvement of the male side of things as well. I don't know if anyone can build on that.

MS. SCHMIDT: Yeah, important thing. All the way in the back.

QUESTIONER: Hi. My name is Acshad (phonetic) I work at JPAL (phonetic). And I just wanted to add to something you said about the Breakthrough study. I think there's a paper that exist which shows, that's already out, that shows, I think, that girls who got access to the program changed attitudes a whole lot but weren't able to change behaviors as much as boys were. And, I think, that at least speaks to the importance of engaging men.

But also, I think it's important to think about engaging men to change norms but it's also important to, I feel like, think about who has more agency and so what are the levels for changing norms. And maybe engaging men is a more effective way to pursue that goal and I think that's something that's worth thinking about.

MS. SCHMIDT: Yeah. It's a good point. And I would add as a footnote to that though that I have heard some concern among folks who think about women's empowerment. Around leaning into that fathers having more agency too much around realms where women have

traditionally had more agency and what unintended consequences of that might be. And so, just saying that that is an opportunity and also a potential threat in thinking about the ways that we do that without having unintended consequences.

QUESTIONER: My name is Courtney. I am a student at American University studying international education and training. But I'm a previous Peace Corps volunteer and a Folk writer. And one of the things I wanted to just kind of put out there is something that I noticed through both of those experiences was the males that were in our group. That were going into the schools, that were working with the teachers in the host countries. And the reaction to that was both very positive and very negative for kind of what we were just talking about.

In one side, the students were getting for the very time, to interact with a male in the classroom which was huge. It was so beneficial in terms of students were coming to the male teachers and actually speaking to them. And because we were required to learn language, they were able to speak in their mother tongue to a male about issues for the very first time in a lot of ways in their school experience. So, that's extremely positive.

On the flip side, we had a lot of pushback from the host country educators saying this is our space, this is our home, this is a place we have agency and we have control and we want to keep it that way. So, in terms of the double-edged sword, I think that is something to keep in mind but I think it does open that door for especially young boys and males to see males in their lives in different roles. That was in Republic of Georgia and Taiwan.

MS. SCHMIDT: Great. I think we had a hand at the back.

QUESTIONER: Hi, I'm Alice Thomas from the Central Asia Institute. So, in our programs in Tajikistan where we're doing early childhood development programming, often it's the grandparents who are taking care of the children. Just because there's so much immigration, particularly where we work in GBAO which is incredibly remote.

Also, there is absolutely no access to internet or wi-fi or anything like that. So, I'm wondering, I mean, there's this very positive affect of these programs allowing to work and then to migrate. Because a lot of those women are migrating but it's leaving grandparents behind. And

I'm wondering what the research is showing about, you know, how grandparents play a role in early childhood development.

MS. SCHMIDT: Does anyone want to come in on that?

MS. FOULDS: Yeah. We've seen that particularly in our work in South Africa where there's a lot of, in the communities that we're working in are single women headed households. And oftentimes, it is the grandmothers because the jobs that mothers are able to get require them to be away from the home for extended periods of time. So, oftentimes, it is the grannies.

And so, that doesn't necessarily shift our approach but it's to be more mindful of who is taking care of the child, right? To look at that ecosystem and I'm just speaking from Sesame's point of view. But to make sure when we create this or being mindful of the enabling environment, the ecosystem of who is contributing to children's development, that focusing on biological father, mother is really a small percentage of the story.

You have to look at aunties, aunties whether by blood or by name, grannies. Whatever constitutes who is determined to be family. We're very mindful in our representation and our language with giving, making sure that the tools and the quality of content and the intervention remains the same. I don't know that I've answered the question but we try to be as mindful of that as possible as well.

MS. LOMBARDI: I turned to her at one point and said what about men in the anganwadi and she talked about grandfathers. And I think all over the world, we're seeing more and more responsibility. Grandparents taking care of "left behind" children. So, I think this point that she's making about that it's about men not about dads is we've got to keep reinforcing that. Because father and mother is kind of a one view of the family, it's not the common view of a family. And so, across generations, I think, is particularly important.

MS. FOULDS: If I could add something else. I think too, it forces us to sort of remove it from the individual not participating fully in a child's life rather than looking at the structure of toxic masculinity and how that interferes, right? I think, there was a really memorable

quote from a father in India when we did the play needs assessment if you play with your child. And the quote, I will remember it verbatim, of course not, what would other people think.

And so, the dangers of being an engaged parent in a system that does not support that because there are some very serious consequences. You know, you have to sort of remove it from this is an individual choice and that these are structures within which people are operating. There are very real consequences to them providing the nurturing care that we know the research says a child needs in order to be healthy in their first 1000 days.

MS. SUBRAMANIAN: Yeah, just to add to that, that's so true, what would people think. Here when I visited a preschool, I think near George Mason University, it was a private preschool. And the teacher told me, you know, I let the children play with whatever they want. I have parents coming in and saying why do you do that. Why did you let my son dress up in a princess's clothes? And then there's a whole economy around it, you know. Because it's a private preschool, you know, they withdraw the child and there's money involved. There is so many other things happening. So, you know, there is a pushback there.

But, I think, I just want us to think about one thing. In India, for example, I talked about gender-based violence. And on one hand, we see men as the perpetuators of, you know, the perpetuate this violence against women. And on the other end, because there is that kind of violence, there are stringent laws coming in. Whether it's at the workplace or anywhere else around, you know, the kind of punitive measures you need to take if people do this but actually it's read as if men do this.

And on the other side, we're talking about, you know, how do we imagine men as people who care or, you know, want to take part. So, there is, I think, I mean, there's a huge gap that we need to bridge here between toxic masculinity and positive masculinity. Because a lot of people act out of fear.

And so, for example, if you have a preschool teacher who is male, the people who make decisions are going to say, let's not get into that. I don't want to get into trouble with my 10,000 classes because of that one man who may just do something and there might be an accusation

against them. So, I mean, what sort of environment do we want to create so that we can build this kind of caring behavior is something we need to think about.

MS. LOMBARDI: Well, you know, I was going to say this at the end but I'll say it now because of your mentioning the environment. The environment that we're in here, in India, in Brazil, around the world, is one of intolerance. And so, we're here talking about gender equity but the truth of the matter is, there is racism that's very pervasive. And we have to combine this conversation with the fact that you can't be anti-one kind of religion whether you're in India or you're here and be for equity and for equality.

And, I think, combining the conversations, whether you're being prejudiced about children with disabilities or because of the way somebody practices their religion or because you're a girl or a boy. They're all the same intolerance and that's the role of early childhood is to try to transform that kind of thinking.

MS. SCHMIDT: Great. I saw one more hand in the very back.

QUESTIONER: Hi, my name is Claudine and I am a student at (inaudible) University and I'm doing (inaudible) program. So, my question is, you know, girl's education. So, you guys do like mostly like globally. So, my question is what is your research on, you know, like children who are like in refugee camps?

MS. FOULDS: Yeah, so in the past couple of years, in large part because of support from Bernard Van Leer Foundation, we have been supporting Syrians displaced by the Syrian civil war in Syria, Iraq, Jordan and Lebanon. Sesame has been working with displaced communities for many, many years.

But that crisis in the Rohingya displaced Rohingya living in Bangladesh are the two main displaced communities that we're serving right now. Gender is absolutely a component of that as it's integral to ever intervention we do. I'm not sure if there was a specific in terms of how we're approaching certain content areas.

QUESTIONER: I wanted to know if you guys do work with some refugee children. Like if you guys do have that program with refugees.

MS. FOULDS: Oh, yes, sorry. I made her question much more complicated, I'm sorry. There was also a major grant given by the McArthur Foundation about a year ago of $100 million to IRC and Sesame. Yeah, so there has been sort of an uptick in interest in what happens in refugee context, particularly around education which often gets left off the agenda.

MS. SCHMIDT: Nora.

QUESTIONER: Yeah, can I just add to that. That's an extremely important point to be raised. Because it's providing an opportunity for the safe spaces for learning which UNICEF does. And it allows for kind of a difference. Children need a safe space in the middle of crisis and conflict refugee camps and that can provide impetus to allow quite young children to be interacting with each other. Not necessarily with a curriculum but at least in a safe space and in learning intention.

Education cannot wait which is one of the biggest funds now designed specifically to address the needs of children in conflict and crisis. Has a priority focus on early childhood. And that one of the best examples is in Bangladesh but there are others. And so, it's something for us to look to. What are we learning from that? I'm really glad that was presented to us and we need to be watching out for that in the next number of years as more funding comes into it and we can start to collect examples of what's going on.

MS. SCHMIDT: Great, thank you. So, I have one final question for each of our panelists and then we will have a little bit more time for questions from all of you. I know we've been sort of intermixing the questions and comments but we will have a little bit more time for further questions after this last one that I pose to the panelists.

Which is given that, you know, we've been talking a lot about how do we begin to challenge gender stereotypes in early childhood. If each of you were to write a book for 3 to 5-year-olds that could help to challenge gender -- they did get this question in advance so I'm not springing it on them cold. What would your book be about? Can I start with you, Samyukta?

MS. SUBRAMANIAN: So, my book for the communities with which I work would be about stories from their own communities of people who can inspire and lead the way, men and

women. I believe that, you know, sometimes it's in our own history that the solution is embedded.

And so, to go back to in my village, you know, who did what, who are my heroes and heroines. And to be able to bring that out in a book for the children of that place is something that I would like to do.

MS. SCHMIDT: Kim, do you want to go?

MS. FOULDS: Similar to that, absolutely. I don't know that I would be the author of the book. I would pull from stories existing in communities. I think a lot of times in development, we make a lot of assumptions about what the story should be told without realizing that many of the stories exist. Communities are subverting gender norms in so many different ways that are not always obvious to us.

So, that's why it's really fundamental to see what stories the community is already telling themselves. How to incorporate those sorts of practices, how do they want to be represented. How are they subverting gender norms? How is gender defined in these contexts, right? Because how I define gender equality, how you might define it is very different than how communities that we also work in might be defining it. So, I don't have a book, I guess, is what I'm saying.

MS. LOMBARDI: Well, it's probably not one book it's probably many books, right? And, you know, for me again, I think it's all about feeling good about who you are but being able to accept everyone else. And it's that basic concept of child development that really is essential to early childhood. That we have to continue to reinforce so that there's more tolerance in understanding and appreciation for diversity.

MS. SCHMIDT: Great, thank you all. So, now back open for any final questions from the audience. One back there.

QUESTIONER: Thank you. My name is Jess Soben and I work for Pratham USA supporting the work that Samyukta does and other Pratham programming in India. But my question is, you know, we are all convinced this is an issue. But what would be your suggestion or what do you think the best strategy or key information to share with, you know, these key stakeholders in early education. Would be in order to kind of convince them that gender

transformative education should be happening in the early years.

Because I think we, you know, all see that in order for people to really change their behaviors and adopt new methodologies, they need to be convinced that there is a problem. And that acting differently will lead to better outcomes and this is kind of a tricky issue to show that.

MS. LOMBARDI: You know, that's a really good question. I brought this report with me. Does anybody in the room, do you know this report on gender bridges? I assume somebody's --

MS. SCHMIDT: Have you seen it, Nora?

MS. LOMBARDI: -- done it. Early childhood's not in here enough. And so, I think one of the things we need to say to UNESCO is that when they do a report like this, reporting on gender equality which is a fabulous report and exciting. That we have to start with integrating early childhood because we are part of the SDGs.

QUESTIONER: Lucky I didn't answer it. It was from the GEM report guys saying, how are we going to shape the gender review for 2020. So, I will say that.

MS. SCHMIDT: All right. And Nora, you've got some inter-generational stories to tell that came out in this panel as well.

MS. FOULDS: Could I also add to that question. Sesame Workshop just published findings on a study done domestically on the role of identity and how that's influencing children's world views. A nationally represented sample of kindergarteners in the United States. And it wasn't just gender identity but a whole host of identities. And, I think, what came out of that that is very surprising is how early identify effects the way children view the world in the way that the world treats them.

And I think that that is, that kind of research is really needed globally around all sorts of identities, certainly gender, to say it's never too early to discuss this. I mean, it's fundamental that we are talking about gender identity at early childhood development.

MS. SCHMIDT: Great. Question here.

QUESTIONER: Hi, my name is Shiman (phonetic), I'm a GW alumni. I have a

question for Kim. It's more related to the process of the work that you do. How do you choose

which communities in Afghanistan, for example, you would go as an international and western

organization? Given that Afghanistan is very diverse and very large country. Do you go to

communities that are already well established, sort of have relations with western, you know,

people before? And if you go to areas that are totally untouched, they haven't been in contact with

westerns before, what are the challenges that you have to overcome with as an organization?

MS. FOULDS: Yeah, this is a great question. So, mass media is nationally

available. In Afghanistan, it's available in Pashto and Dari, the two dominant languages of the

country. For on the ground implementation, we really rely on the knowhow of in country

implementing partners.

We are content creators. We don't pretend to know cultural context. We don't know local

communities in the same way that our implementing partners do. So, we really rely on them to

advise us on where are key entry points for us, where is the greatest need. And our implementing

partners and our advisors really shape the direction of that.

We truly do see it as a collaborative process. We create content to be

implemented. If it can't be implemented effectively or it's not going to be received in any sort of

impactful way, then we need to change our approach. And that's definitely how we see all of our

work in Afghanistan and beyond.

MS. SCHMIDT: Other questions?

QUESTIONER: Thank you. I think I have learned something that, in my life, that

as women, we have to take a little more assertive role and a little extra step to be there wherever

we are at the end of our career or in the middle of our career. So, probably in the early years,

what do you think, do we need to teach that from the preschool education. We need to teach them

that you need this extra step. It will take very long to be there. So, what is that assertive role we

need to teach them there?

Because I remember we tried to change a school's curriculum and we went there

as a group of women and we faced a lot of problems. Even our cars were thrown with stones and

they were written, there were bad remarks written that they are trying to change the girls but the girls want to change. So, how do we -- what do we do? I mean, these are the questions which even I cannot answer.

MS. SUBRAMANIAN: We do need to take that extra step. But I feel we need to take it with the adults, you know. So, that what are we trying to do? We are trying to create an equal playing field. It's not like life is not going to be tough but that extra step, like you say, that girls need to take, that's because there are disadvantages that they're surrounded by.

And so, it's that, you know, what is that, how do we mitigate that is, I think, what we need to think about. And in the early years, what we really need to actually focus on is a lot like what Joan said. To be able to treat each other as equal begins from right there. And so, the people, why does life become more difficult for a girl, it's because the others don't, you know, you're not able to see people with that lens. So, I think we need to start there but the adults are the ones I would start with.

MS. SCHMIDT: Great. In the far back.

QUESTIONER: All right, so my question is, you know what kind of advice can you give like to young people who are like immigrants and refugees who finish high school? When they fear to go for college because of like bills that they have to help their family members to pay. Or if they have to go to college, then they still fear about like the loans that I have to pay because I don't have any family income in the USA.

MS. SCHMIDT: I'm not sure anyone on the panel has a lot of expertise at that level but Joan.

MS. LOMBARDI: Is your question about a gender disparity in that kind of issue?

SPEAKER: So, I'm talking about like issues of like young people who like, you know, they wish to still continue their education but because their family member, they cannot afford it. And since like girl's education objective is to help young people develop into better leaders, right? So, like how can you help such people?

MS. LOMBARDI: Well, it's particularly hard for girls, right, because traditionally

they're the ones that have not had the support to continue their education. So, I think it's a basic issue that we have to keep working on. But in this context, again, I think that we've got policies and public rhetoric that's not helping the issue and I don't know what else I can say.

          MS. FOULDS: Kind of related to how we were talking about the importance of fathers. The research does show, I don't know this answers your question explicitly. But fathers are sort of the driving motivator for when girls finish school. And so, again, I don't know that this answers your question but when we're looking at long term effect of engaging fathers at early childhood level, fathers are often the reason why girls finish secondary and then often go on to tertiary. So, again I don't think it's answering your question directly if I understand it but I do tie it back to the earlier conversation we were having.

          MS. LOMBARDI: Yeah, I think the question is, what makes the change. You know, I grew up in a family, first generation to go to college. Both my mother and father dropped out. And if it wasn't for my father being supportive of my education I wouldn't be here. But, you know, I often think about what was it about him that he made that leap from believing that I should go to college when someone else would not. You know, I don't think I have an answer to that except for he wanted his family to move up. You have to get over gender stereotype to do that.

          MS. SCHMIDT: Any, there was one, yes, go ahead.

          QUESTIONER: So, I'm now very aware it's almost the end of the panel and I'm going to do the typical male thing of having the final word which is not what I intended at all. I think there's a fragility point which, I think, we touched on which is very important. And I don't think we've touched on enough across the day actually about girl's education and fragility and that particular context. And it's really good that it's being raised at all, I think that's really, really important.

          I just think about role models and whether it's Louis and Elmo or the male teachers or whoever it is. That I don't think we have enough and I don't think we're there in the education space, the family space, the leadership space. I think that makes such an impact whether it's on the screen or in day to day community life. But I don't know if there's any that you,

the panel, can think of are there prominent go-to role models that we can point young people to.

And to reinforce what's been said, this is not a developing country issue, this is everywhere. And I've got a nearly 3-year-old son and I sort of live it day to day as his primary caregiver as well. So, I see it day in and day out and I worry about calling his toys he or she or which one is which and making sure we're doing that right. And I get the joy when he refers to the pilot as she rather than he in his wooden toy set.

But I don't feel like we have enough role models out there to make as much change as we want to make. So, how can we cultivate that as leaders in our space, in our arena ourselves. Because I think that can make such an impact and that's not just, as I told you, that's across women's economic empowerment and that's across girl's education and that's across this space. But if it was particularly prominent in this space.

And to reinforce this so early, I mean, I think the slides that you presented earlier were brilliant. But I think you said at one stage it was as early as six. I think it's far before six. I think it's really, really early on that those perceptions are being cultivated and made. Thank you, it's been really, really powerful and instructive.

MS. SCHMIDT: Great. Do you want a quick word?

MS. FOULDS: Yeah. We actually have some research on where parents look for role models for their children on TV. And it's mostly through children's television shows but the characters overwhelmingly are kind and help other people. Spiderman because he helps people in need. Batman, because he helps people in need. Again, there's a theme, right, it's all male super heroes and there are issues there.

But sort of thinking about what are the characteristics for role models that parents can find on TV particularly when there is not a lot of media for children to consume. That was very promising to us in terms of kindness, healthy relationships, helping others. How that can then translate to modeling positive parenting behaviors and nurturing care among fathers and other male caregivers. We're still figuring out beyond Louis and Elmo and I love that you already figured that name. So, if that's all you remember from me today, I think my colleagues will be very happy

with me.

MS. SCHMIDT: Great. Well, I hope you all will join me in thanking our panel. And I want to thank all of you for being a very active and engaged audience. Kim sort of whispered to me, I could go all day, and it's true. This is a great, great discussion, thank you all. So, we're wrapping up here and the fellows, the Echidna Global Scholars are having a final conversation back in the main auditorium so we'll meet you back there. Thanks.

(Recess)

MS. GAMMAGE: Well, good afternoon, and welcome. Thank you for joining us again. It's lovely to see everyone here -- and you too. So, we had an enjoyable and, I think, very rich discussion this morning; so I hope we get to pick that up again this afternoon. I'm going to introduce the panelist; and we have here Nasrin Siddiqa; and she's an Echidna Global Scholar, and she's also the President and CEO of the Education and Culture Society; and it was her report that we heard from this morning as we framed the issues around STEM.

We have Kara McBride, who is here. She's the Senior Education Specialist with World Learning; and we have Masrura Oishi, Manager, at the Innovation Ecosystem and Partnerships, with BRAC. So, three very, very studious and thoughtful people who've been working in that sector for a long time.

I wanted to sort of recap the highlights of what I thought were the most compelling parts of our discussion this morning, and probably frame them in a little bit of a reductionist way as an economist. So, please forgive; we can correct that later; but for me, I think, what was really powerful about the discussion this morning and what's relevant to bridging both the policy and the sort of the practice -- that I think is what we hope to discuss here around STEM -- was really surfacing a lot of the structural challenges both on the demand side but also on the supply side.

On the supply side, it wasn't just about the nature of STEM and the content of STEM education itself, but it was actually the system in which STEM is being unraveled, unfolded, and shared and used as a device to really engage people and engage critical thinking. What we found was really we're talking about an overburdened and underfunded system with very poor

school infrastructure, and a lot of lack of support for the teachers, themselves, who are supposed

to be providing STEM education; and I think this is really challenging; and this lack of support

comes through both in terms of their training and development as teaches; but if you are not

getting your paycheck regularly, then the incentives for you to seek other types of employment and

to offer tutoring, that really begins to fragment the commitment to public education and universal

education are extremely high. So, the way these repercuss on the quality of education and the

quality of that STEM training are quite significant.

On the demand side, in terms of the demand for STEM education, we've talked a

lot about social norms; how technology is deeply socially embedded. There are access issues;

there are mobility issues. You know, it may be easier to get to a primary school but by the time

you get to a high school and a high school with a really solid STEM education program, they're

much further away; and this interacts with a set of cultural norms and expectations about what girls

can be and do, and their mobility and freedom that really limits that access.

And then, notwithstanding, that very sort of simplistic breakdown of supply and

demand challenges, we've also got huge rural and urban divides where these inequalities are just

magnified in rural areas.

So, given that, and also given a sort of very wise call to not over emphasize the

role of aid in education and not over emphasize the role of bilaterals and multilaterals in education

because 97 percent of the funding for this is largely domestic. And given that it is domestic

resources that are mobilized for education, how can we bridge some of this policy and practice

divide?

So, I would like to come back to our panelist and really ask them; and thinking

very much about your report, Nasrin, which spoke about the challenges for girls, individually,

institutionally, and societally. Can I ask each one of our panelists -- and I'm going to begin with

Kara -- to talk about how your work bridges the policy and practice divide, and how do you find the

challenges that you meet in the field, and in your work, regularly compare with what Nasrin

surfaced in her report?

MS. MCBRIDE: Okay; thank you. So, she did a very nice job in talking about these three different levels. In terms of the individual level, a lot of it does have to do with just how somebody imagines themselves-- whether they think that they are somebody who can do that kind of education from the point of view of the students, for example. And you found that a lot of the women and the girls were saying yes, absolutely; and they had this kind of confidence which it seems like maybe even you were somewhat surprised to find that it was so prevalent.

In some of the work that I've done, some of the programs that I've worked with were working with Syria and refugee children. That same program that I worked on then and the next stage opened up the program to some of the children who were working in the streets, who were locals -- and this was a program that was happening in Northern Iraq.

So, in terms of just that confidence, I think the program that was happening was in the informal sector, and it was one where we very intentionally had built psycho-social support into the program; and so weaving that into the training of the teachers was very important in terms of just having this kind of attitude that this is what we do; this is how it happens -- of course, you're going to be successful. And, I think, STEM education is a particularly good field for that kind of a thing because STEM education so often takes its form of here's something, here's a challenge that you want to reach -- and then you come up with your first design, and it assumes that this will be something that won't be the perfect design, and you'll find out in what ways there are flaws; and then you'll keep working on it. And, I think, that kind of building that into the activities that you're doing, sets children up for building up their confidence and seeing that failure or things not working perfectly at the beginning is actually what you're expecting and the road to success.

Then, at the institutional level, a lot of what we're dealing with are teachers who are able to work in these kinds of programs -- we were particularly working on coding; there weren't a lot of teachers available who knew that kind of a thing; so, finding ways of training the teachers -- for them, also, individually -- to have the confidence to do that. Again, the STEM model actually works very well for that. The kinds of programs that we set up have instead of this teacher/student setup, it's very much more of the teacher works as a facilitator; doesn't necessarily

know all of the answers; and is helping everyone work as a team and figure out how that can work. So, it's a way to help an institution build its own capacity through activities.

And then at the societal level, you know, in that particular program, for example, the kids who were working on the street would refuse to give us their real names so that their parents couldn't find out that they were sneaking into the STEM education programs. And so, you know, a lot of it is this whole educating the family -- as we've heard a lot today -- the parents are really key. Do they value sending their children to this kind of a program? And so, our organization that we were partnering with were really focused quite a bit on working with the parents and talking about why you would want to send them to this program.

MS. GAMMAGE: Thank you so much, Kara. Oishi, how has BRAC dealt with these different challenges at the different levels.

MS. OISHI: All right. With BRAC, we started in 1972 in a war-torn, newly born Bangladesh; and over the years -- in the last like 47 years -- BRAC has grown to be like become a very traditional delivery-based NGO tool, something now that I call a developing conglomerate. So, we have social enterprises; we have like constant -- like rooms for experimentation for our new models on delivery and also design -- that we always pursue.

And in 1972, we started out with adult literacy programs, like mostly night schools that BRAC ran in rural Bangladesh -- which was the necessary thing to do at that time, even though like there weren't any public sector entities or private sector entities present at that school that we were in; and from that to over the decades, we have sort of transitioned our models whenever like we can pick up the signals for change.

In 1993, we started out from like adult literacy; to schools; to non-formal primary education in the 80s; to like adolescent girl clubs -- so, which was mostly like we realized there's limited room for NGOs to innovate within classrooms that are highly dominated by government policies because, especially, if you're in Bangladesh, most of the times the public schools -- even if they are like run by NGOs there, you do have to follow the curriculum very strongly in order to be in the good books of the government. There's not like much room, especially in the 90s, there was

a lot less. So, we started out with, you know, what can we do after school. So, we started these community clubs for adolescent girls in rural Bangladesh and, eventually, we scaled it across both South Asia and East Africa. So, right now, we have 300,000 girls like going to these clubs, which largely used to be about just spending time; learning a lot of like skills from these different trainings that we provided; and from that, in late 2000, we realized that we can actually do a lot more to these platforms, and we went from like typical skills development training these approaches to something that we realized was happening in the community -- as like regular behavior -- and we just picked up the norms; and from that we designed another signature pilot, which eventually became an independent program within BRAC.

Right now, we have -- which is the skill development program right now -- and we, basically, embarked on the method of how people would learn naturally in rural Bangladesh when you would be assigned with like a master's craft person. So, you, basically, called them or (inaudible) -- which basically means your mentor -- and you, basically, learn like naturally. And it was mostly for boys who would work in factories; boys who would learn all these service skills -- you know, from male master's craft person. So, we, basically, took that approach that happened in the community and applied it to girls. And we started breaking gender norms, with becoming a little more bold.

I can share one personal experience like when I first joined BRAC five years ago, and I walked in and I saw female drivers parking cars -- which is not something that you see very often in Bangladesh -- I see now female lift operators, and to that like you go to these automobile like workshops -- like not typical workshops, but more like massive locations where you just have like cars and these garages that, basically, fix these cars -- and these are non-traditional roles for girls. And that's what we started doing.

We took that approach from boys, and we started, you know, kind of convincing and then incentivizing these mentors who existed in these automobile garages to take up more females, which was a concern for them because it was a safety issue; it was an issue for timing and things like that. And now from that kind of forced and convincing attitude to more of like the

success that we had with 95 percent of those graduates from our skills program being employed. And girls -- you can see into like how you can see in different, like slum areas, where the last thing you would imagine is to see like a girl in a mechanic's clothing fixing your bike, fixing your car. So, you can see your daughters and girls do that.

I feel like BRAC, traditionally, since the very beginning, has been about creating these benchmarks and then like setting new expectations, and breaking different -- I would say, development (inaudible) -- to I feel like the constant innovative modeling that we have been able to do. And I feel also a lot more of what we practice, in terms of education, I feel like as practitioners managing programs at such a large scale, as BRAC does, we feel that at times you can be comfortable with success; at times you can be comfortable, you know, with what you have; so, we constantly try to like, you know, remind ourselves of we can do this.

So, I feel like that's an internal process that BRAC always does -- reflecting not only just successes but also failures.

So, I feel like we're in a time that we strongly recognize when we don't really understand what quality education means as an industry. We don't really understand what to expect from technology -- like whether to fix the traditional education model first before we blend in technology, or to go to technology first and ask them to fix their model and make it ready for BRAC -- or like implementation.

I feel like, in terms of readiness, we are kind of in between; and BRAC, basically, creates that room for like constant experimentation -- like rapid assessments. Most of our approach to pilots to scale up is always lean, simple, low-cost models -- anything that generates, basically, evidence; and we always think of -- I feel like -- an exit strategy. That is like very necessary for NGOs and practitioners to think of. So, what happens when my five-year project ends -- so, I feel like we also engage the partners. We are blessed to work with a lot of partners across different nations and large-scale partners; and we constantly build those tools and that knowledge that we need as an industry, you know, to move to the next level. I feel like that's how BRAC has been addressing these things.

MS. GAMMAGE: Great. Nasrin, I'm going to ask you, tell me why adolescence is such a critical moment, and why intervene there; and really sort of unpack for us what you think can be achieved when we really focus on adolescence, and adolescent girls, in particular?

MS. SIDDIQA: A very critical time, and a very critical question that why adolescence is a very important age. This is the age, actually, when they can bolster their skill -- the transition time. In that time, they can develop their skill, their knowledge, and they can make their future. But in the same way, this is the age when they face all challenges -- not in the early age and afterwards if they can overcome the challenges, they can well adopt to with other things -- with the job; with family; everything; but in that age, that is the transition time to give the focus that if they can overcome those barriers and challenges, and can continue with their studies, and can make a good career, then they can get a very strong platform. So, that's why this stage is very important. Challenges are there in the same way opportunity is there for the girls.

MS. GAMMAGE: And can you say a little bit more about sort of the social norms that may make it particularly challenging for young adolescent girls to stay in school and to continue learning; and, particularly, to begin to select STEM careers?

MS. SIDDIQA: Right. So, supposed -- I can give one example that the girls said that yes, I have to do a lot of household work what my brothers don't need to do. Even I have to wash his clothes every day. So, it's the comment, and then see that yes, girls are supposed to complete all the household work and then they will continue with their studies. And in -- I have to say that boys are also suffering -- rural boys and underprivileged boys -- they are also suffering a lot -- but the condition of girls are worst.

So, at that age -- it starts from their grade 6, 7 -- for the early marriage, early motherhood; so, with that condition, it is very hard for them to continue with studies. It is very challenging in that age.

MS. GAMMAGE: And I'm going to ask you, Kara, can you talk a little bit more about both sort of how you've worked with adolescents -- but very particularly, where you think there may be some transferable skills using STEM education that allows for greater personal

growth and more flexibility in terms of labor market opportunities later on.

MS. MCBRIDE: Yeah; sure. So, for example, in the coding program, we always have two children working together on the coding; so, there's all kinds of, you know, communication that's going on and kind of teamwork that will happen between those two children who are working. At the end of each week, we have them report to the class what it is that they've done that week, even if they haven't done much. And then, depending on different kinds of workshops, there's always this reporting on what you've done, but also describing the process -- which is really being able to verbalize how you came to a certain solution helps you, you know, in terms of your own thinking process and be able to work with other people in the future; describe what it is that you're wanting to do; the self-confidence part that I mentioned earlier is enormous -- learning this iterative process of making a design; trying it out; and the idea that it's really -- the person who's finding the solution, is the one who sticks with it. So, that's really a transferable skill of just perseverance in that sense.

Then also in some of the STEM centers that we have -- for example, in Algeria, we have a few STEM centers that we've set up; and we have -- we don't have, again, like I said, we don't have teachers, but we have mentors -- and so a lot of the young people who originally started as just participants in the workshops will become interested in becoming mentors; and so, that has been something. When I was talking to some of the mentors there, really, they said, you know, this whole idea that they could get in front of a whole group and lead them through activities was something enormous that they felt that gave them a lot of confidence just in all fields in their life.

And then another thing about the youth that I talked to in Algeria, especially they particularly liked these after school STEM centers because it was education, but in a way that allows you to explore possibilities and different ways of coming to solutions. And they said that in their school and their formal education, there was very much this model -- there's exactly one way to come to a solution; there's only one answer that is correct; and so this whole idea that you can find your own solution; you can work with other people is very empowering and very much, you

know, teaches them different thought processes that allow them to solve problems in any area that they might encounter.

MS. GAMMAGE: Thank you. And, I think, there that actually bridges the discussion about are we looking at STEM to really sort of lead the educational sector forward and just putting all our eggs in that basket; or can we see another way to actually sort of feed back into the educational system through some of these STEM initiatives -- ways to actually change the all pedagogy of these institutions -- and you raised this as well in your earlier comments. Do you see the promise of STEM, and are there any pitfalls that you would refer to or invite us to, at least, hold in mind?

MS. MCBRIDE: Absolutely. I feel like it's a mix of both -- I think seeing the right things. So, it's a mix of promises and pitfalls; and I feel like it's the right thing to expect, you know, EDTEC (phonetic) to not work right now at this. I think that we are just -- we are 19; the 21st Century is just 19 years old; so, we're practically in (inaudible) of the 21st Century. So, it's like obvious for us to realize that we're going through a lot of changes and it's okay to be impatient about it; it's okay to go wrong about many of these things; but at the same time the important thing is to constantly keep trying and not giving up.

So, going back to your point on flexibility that STEM brings you, I feel like the flexibility is something that's needed in the models the way they're designed. So, whenever starting from like when you're funding them to when you're implementing them, I feel like this room for flexibility is how we should like think after like whenever we are designing an EDTEC model, we should think of that room for experimentation, that room for failure for that. So, I feel like a lot of the grants come with a lot of strings attached, you know. The indicators you want need to meet probably are indicators I thought I would be needing, but in the middle, I realized the technology was not right; or maybe I went for like very low-cost tablets that didn't last me more than three months and it just increased my costs; and now I see low returns to this investment. Probably that's not a right measure because, overall, it wasn't the right recipe.

So, I feel like for STEM that flexibility that needs to be there, and from

practitioner's side of thing, I feel like it's a lot for us to also change. So, NRGI (phonetic) is something like when we are basically transforming from our traditional education models to integrating STEM, I feel like it's okay to feel those butterflies in your stomach -- like what am I doing, where am I headed. But, I think, the right thing to do is to like think of this as -- you know, you look into the 100-year skill gap and you realize it's not about just getting this project or pilot right, but it's more like building that readiness, right. So, you basically learn something -- or someone else learns something else; and then constantly through this we sort of slow march into that new ecosystem where we will need to reimagine both technology and education; and then, basically, something will probably start working at some point.

So, I feel like we need to like learn to be comfortable with those butterflies in the stomach, both as, you know, donors and practitioners; and we need to be okay to go wrong with these things; and we need to start acknowledging that it's necessary for -- like I often hear many of the practitioners say that okay; so, if I spend $10 in this technology, it gives me 10 percent increase in learning outcomes. So, if I spent the same $10 and hired more people -- like increase my like community practitioners -- so would it like increase more returns or not. But the question is the opportunity cost of, you know, going manual is far greater than just what you see in terms of learning outcomes. It's about not being ready enough -- like not being ready enough for the skill gap that you have to march not only for the emerging markets but also for girls -- adults and girls; and girls, women in these emerging markets. I feel like it's a cost like oftentimes that we have to like be ready to take. I feel like that mindset readiness is what will help us balance between these promises and pitfalls.

MS. GAMMAGE: Ah, lovely; thank you. Nasrin, I'm really interested in how hungry the girls were for STEM education, and yet at the same they, themselves, expressed in your sample -- the people that you interviewed -- expressed incredible critiques about how rigid rote the education system is. So, do you see this, again, as an opportunity to really, sort of radiate change throughout the system. And do we have enough resources to do that, and to do that well?

MS. SIDDIQA: Okay. Of course, you have to go that education model. You'll say

that yes, now it's time to give a very good policy education system, assessment system; so, where does STEM will be there; how it will benefit technology; but in the classroom, if we go, that we find the gap that they say that from the policy level people, they give us a syllabus and very lucrative curriculum, but we don't understand anything. That's the creative curriculum we say -- we just maybe simply took from the curriculum from USA or UK that we have the English-medium school curriculum. Yes, we took some of that; and that's very lucrative, but it doesn't fit with the classroom of rural schools. So teachers said we don't understand; students said we are not familiar with this thing.

So, we have to have a good curriculum based on the local context and also international demand; and we have to reach that curriculum to the classroom. And policymakers are supposed to listen that what exactly going on in the school, teacher, and classroom, and students -- they have a gap. They just make the policy, and they don't have any communication with them.

So, I have to say that in the U.S. -- and when I came as a teacher -- I went in a classroom; I was observing that it's a (inaudible) classroom for me because in case of mine, the students like the symposium. They will sit in the classroom; teacher will tell you about the lecture -- that's the practice.

So, we have started a little bit of (inaudible) learning in our country; but that was very little on that time for me; and I asked the teacher what was going on in the classroom, that they are making chair or a table, and many furniture making, and this project best learning, students are very busy. I have to (inaudible) classroom. The teacher said it is not a gentleman's symposium or seminar; it's the student's classroom. They're learning that way.

And I got that idea that yes that is the way they can learn. So, I tried to implement it in my classroom and share that experience with the teachers. One day, I found -- I was the principal -- I found that one of the teachers -- he was an economics teacher -- he came in the class and just moved 50 percent chairs from the classroom. Students came; they are not getting in a chair; they are hiding chair from other class; and what happened, what happened. And he said,

ultimately, that I wanted to make the scarcity to understand what is the demand. My topic is to raise scarcity and demand of economics.

So, how did you get that idea? I got that idea from Internet. Those schools from different parts of the world, they are using this technique. So, the way they are using STEM in economics, in language, in other subjects too; and resources. So, that is an example that with the low resources and with the local resources is how we are organizing this thing. But, you know, that at least one computer is equal to -- you cannot fit a projector or computer in every class, but at least some. That's why I say about the community-based STEM center. So, one STEM center where there will be some STEM lab, computer lab; and teachers will be there; and role models so they can go and they can talk to their carrier so that STEM center can give support for the rural schools.

In this way we can reduce the gap, but we have not much time that we will wait; we will make a good curriculum for our next five years; then we will go and implement it in the classroom -- we start technology; we don't have much time.

MS. GAMMAGE: Thank you. Kara, you describe teaching STEM an incredible resource for contacts with children who are not even in school who have to sort of dissimulate that they're even in some kind of educational context with you. Can you describe sort of the promises and pitfalls of STEM in that context?

MS. MCBRIDE: Sure. I have to say, actually, that particular project is one of these which it was fairly well funded. We came in; there were cheap computers; two kids per computer; but it was still, you know, it was something that we were able to fund. Couldn't use Internet in the centers where we worked; and so, you know, you wanted to make sure that you've got the kind of a program that will work even if you don't have the Internet; figuring out ways if you did want to upload it, you would copy it here, and later on -- this kind of thing.

But another project, actually, that we've been working on is taking the model of these STEM centers that we started in Algeria that then kind of spread through volunteer systems just on their own around Algeria; and we have a project right now going on where we're seeing

how we can take what happens there and copy it into other context. So, we're putting together a toolkit with some of these ideas -- kind of with the whole range -- the flashy, beautiful robotics, you know, programs which -- even that though there is a way to do robotics even if you can't get the robot to do the virtual version of that, that some of the kids who never touched robots were in competition, internationally, doing that.

But we focused a lot on also including a lot of things from very low resource context. So, with some of these, for example, is this engineering challenges, where you give them, you know, you say make something that you could put an egg on it; it could drop four feet, and it wouldn't break. And then we worked with some partners figuring out like how can you describe the materials that would be cheap; that you would be able to find that kind of material that would make sense in your own context.

And so, we've been playing a lot with this idea, again, this iterative design idea, but finding ways that use materials that are familiar with the students and are very, very cheap or almost no cost at all. And, so, that has a lot of promise, I think.

MS. GAMMAGE: Fantastic. That's very important. So, I'm just going to open this up to the audience; and I'm going to think a little bit more about sort of this 21st Century workforce that we are going to be injecting these students into; and sort of are we designing education just to produce workers to make the wages in this 21st Century workforce; or are we actually, really, just trying to align opportunities with outcomes in the workplace. So, I want to hear a little bit more from you all how are you engaging with building the skills for the 21st Century workforce; and what are your concerns about the education system as it delivers people equipped for that workforce; or do you also have concerns about subjecting our education system entirely to the rigors of ensuring that we produce workers and not necessarily that we produce thinkers and critical thinkers in our democracies. So, I open that up to you all. Don't hold back. Please say who you are first, (inaudible).

SPEAKER: (Inaudible). I think to do the reverse to what you said because I'm not really sure I understand the value of critical thinking. I accompanied Mohammad Younis

(phonetic) around several places -- both in Bangladesh and also, actually, historically black

university colleges -- and his story everywhere -- this was back in 2008 to 2010 -- was look at the

statistics, you will find in any country half of youth -- at whatever stage they leave the education

system -- are not going to find the jobs waiting any longer -- there're not these big employers. So,

what these youth have to do is start up something. And, therefore, if that is where the majority of

youth now find themselves in, a system which is so biased towards critical thinking and saying if

you pass all of our exams, there will be a job waiting for you, is now the wrong way round. The

more so with each new leap of technology -- which, in a sense, values may be collaborative in

teamwork rather than individual examination -- and all the things which sounded positive about are

almost, accidentally, STEM can do because it provides a cooperative format rather than sitting

down and privately being examined for nine years -- which is what critical thinking used to do to

me when I grew up in school. So, just sort of throwing that in, but asking have I got the right sort

of wave length in terms of what the panel are trying to invent, or even -- what's the word,

transform.

MS. GAMMAGE: Let's take a couple more observations and comments, and then

take this back to the panel. How are you engaging with building the skill sets for the 21st Century

workforce? Is this the focus of what we're doing with STEM education, or are we thinking about

producing something else -- something more meaningful, perhaps? Please.

MS. MOLUMBAY: My name is Joyce Molumbay (phonetic). I think it's not what

we are trying to do, but what has evolved as some of the people that we are working with engaged

with the space. We have a problem in one of the countries where the guy was very interested in

robotics, and he went to the university, and within a time he quit. And he went and so he has

taught himself these robotics; but for him it was an interest that he was pursuing, but with time got

kids to build these robotic things without ever -- I mean they hated math; they hated all the STEM

things; and they did not want to do that -- but it became a play kind of a thing. So, he worked with

them to try and produce these robotics -- which I have seen moving. I was very shocked myself --

and then after, you know, then they took his stuff to the schools. I remember them saying they did

not realize there were building skills, but they were working on practical things. Like when a fuse

blows, what do you do; how do you fix that thing? So, the robotic-making process will pass a skill

of thinking how to connect these things; and the problem solving; and analytics. So, the kid is

engaged in -- you know, I'm doing this robotics, but what are the power elements that make this

thing fix like this; and where can I use this thing again. And before they knew it, the kids were

doing things like nobody was teaching them to do; and without money. They are now, actually, in

120 schools still working with kids, not teaching them -- working with them on these things; and it

has been completely transformative in terms of what they are willing to discover; it's caught their

curiosity.

So, when the other organizations went to look and was so mesmerized by this, the

guy did not know he was doing skills; he knew he was making robotics. But he is teaching them

lifelong way of learning; of curiosity; of figuring out things; of solving problems; and they don't need

to go and find somebody else to do it.

And then he decided to focus 50 percent on gaps; and the thing is on fire. But

(inaudible), they are using very local materials on the ground there. So, I think, part of it is

listening to what people are trying to do; how they see this; and then now he realizes that he is

actually, now, real skills development; now he's part of the school's team; and it was a laughing in

there.

And then there's a girl's program as well in Zanzibar where the girls -- the father

would never ask a girl to fix a valve (phonetic) -- now, they are fixing them valves, they are doing

things. So, you don't need to convince -- I know a father was brought a kid with a very fixed ways

of thinking because of the culture there -- now they're out there doing these things and laughing

about them, and being very happy; and their parents are (inaudible). So, how do we figure out

creative ways of really -- I don't want to say, you know, STEM for (inaudible), or STEM for

success; but STEM for life. This thing teaches you how to engage with yourself; engage with your

environment; engage with how you solve problems; and before you know it, now, these kids are

the ones who are making whatever they are making in the villages there; and serving their own

schools.

So, I think, it is the way of thinking, and we should not limit it for now because it's not happening. Let us now fix this. Let's open the space and see what happens, because some of them have more open minds than we have got. Thank you.

MS. GAMMAGE: Thank you. I think we have time for one more observation, or something to share, please -- the lady with the scarf.

MS. BLANCHARD: Hi, everyone. My name is Katherine Blanchard and I'm from the Smithsonian Science Education Center. We are a STEM-based organization. But we have recently created a program called Smithsonian Science for Global Goals. It does a lot of the two things that the previous two commenters talked about that focuses on really making sure that students understand the large issues that are facing both their local community, but also the greater world. To help really develop that global, local interconnection so that they're able to take action on these issues at a really localized level -- you know, for young students that might be picking up trash around their community to help per mitigate mosquito-borne diseases and mosquito breading grounds.

But for older students, it might mean things like lobbying their legislature, or their politicians; and so, when you, you know, fuse these ideas together of developing these STEM skills that can help young people to go out into the workplace and find a job, or to create their own job if the job that they are seeking doesn't exist. You also help address these global issues as well. So, thanks.

MS. GAMMAGE: Thank you., So, I'm going to return this back to the panel and ask you to think a little bit about the role of STEM in equipping children for the 21st Century either in jobs that require STEM skills or as entrepreneurs; and sort of is this a big driving force in the way you are seeing STEM being used in curricula and being developed inside of schools; or is it much more this sort of this is a tremendous opportunity for experiential learning that we can equip people with life skills for wherever they end up in the future? Nasrin?

MS. SIDDIQA: Yeah. Really, exactly go with you that the STEM for life. Yes,

from now onward, I will also say that STEM for life. So, it starts from the very first day of our life --

we bleed; our body; our total system, STEM -- so, we have to have knowledge. So, for the life skill

-- 21st Century skill and job market -- demand a rating, that's the reality that we need the

knowledge of technology communication.

And what about the other skills -- like the program? So, they can make the

projecting program and it helps to develop the leadership -- communication, confidence. So, these

are the skills. So, I sometimes say that our urban students they don't know how to swim; but rural

students, they know how to swim, and they know how to face the challenge of the life. So, they

know nature more than them. So, this is the life skill we have to just engage STEM with the life

skill, with the environment, climate change -- everything is dependent on that.

So, the knowledge is required. Supposed someone is planning to be a (inaudible)

future, it's very easy for them to know about other (inaudible), so STEM knowledge is there; and

nowadays we say STEAM, art and design. So, each and everything -- the color, the design, the

proportion, everything -- it is matter (inaudible) knowledge and skill. So, if you have that skill so

you can fit for any job, anywhere in the world; and it can boost your life skill.

So, you can be a good, smart -- we can produce good, smart kid, and next

generation; and I have to say yes, we have to open the door that STEM is where we can fit STEM

and it is required for everywhere.

MS. GAMMAGE: Thank you. Kara, I'm going to ask you to think a little bit about

equipping children for the 21st Century workforce; but also the other side of that. You know, what

about if you've gone through school; you've learned everything; you've done good; and you're

rejected into a world where there are no jobs, and there are no opportunities. Sort of what's on the

other side? What should we also be doing to invest in opportunities for children who graduate,

and for graduates who enter the workforce?

MS. MCBRIDE: Well, so the nature of education has really changed because of

technology. It used to be that you would memorize a certain number of facts and then you were

set for things; and now you can just look it up; so, it's not that necessary. But, at the same time,

everything keeps changing, and changing faster because of technology; because of climate change; and some other forces that are happening; so, this kind of -- I would say critical thinking is not an individual thing, it's in the team work; it's figuring out how to solve a problem; and all of that kind of creative, iterative, figuring out; finding an unusual way of finding a solution -- a new solution that no one's ever had before is exactly what we need for the 21st Century working formally or informally; and precisely because people need to come up with new solutions. The job that you may have prepared for may not exist in a short amount of time.

Yeah; so, it's more and more happening where you think you're going down this way and some things change suddenly, and so you have to be able to figure out a new way. So, I think STEM education tends to have in its essence exactly that -- this ability to change quickly and figure out new ways -- and, at the same time also, it has a little bit of optimism in it, which is also extremely important because it seems like things are getting more and more complex. So, in order to just be able to face like, ah, everything I thought was going to be here, is now gone. You have to have a whole lot of grit (laughter) to keep going in the face of that.

MS. GAMMAGE: Thank you. So, I'm going to bring us back to some of the challenges; and, again, sort of echoing what you found, Nasrin, that girls were hungry for STEM education in rural context. But there are tremendous barriers and challenges that prevent them from accessing STEM education -- and quality STEM education. So, Oishi, can you talk a little bit about those barriers; and how we need to work to overcome them.

MS. OISHI: Absolutely. I think the first barrier starts here -- I think, in the mindset. You know, girls are not the first people you go when your phone doesn't work. Like the way she was saying, they're fixing valves, right. So, girls don't really grow up seeing these role models in their community, right. So, they don't really hear about girls in engineering, like, especially, in a rural context. They always hear that okay, you as a wife, this is what your responsibility is, you know. The traditional like what we feed into the human AI is, you know, something like the first barrier that we need to address.

So, I feel like at BRAC, we constantly look into opportunities to not just engage --

like even when we're not doing direct projects with education, but let's say a community

technology adaptation, we look into these adolescent girls as early adopters; we looking into them

because that's something that happened as an accident in one of the pilots we were doing for

financial inclusion in Bangladesh where we were teaching rural women in these like village groups

about, you know, how to use their phone; how to like use (inaudible) cash, like mobile money for

transaction; we realized that there happen to be some young girls around who picked it up faster

than their mothers, and they were actually teaching them back home. And we took that approach

and we basically went ahead in our second pilot and pitched it to the donor saying that this is what

we think will work. So, we tried that and we had far greater uptake within communities.

So, like I feel like it's important for us to think of like building that gender lens,

building that technology lens, and youth lens -- these three lenses into like every community

initiative that we design to address that mindset barrier -- that's first.

Second, definitely, infrastructure -- like the right kind of technology is not yet there;

so I would say a lot of the times, we have computers, and a lot of times, we're just teaching with

like, you know, whatever -- like poor quality content that we would manually deliver -- we're putting

it on slides and calling it technology. Necessarily, it doesn't make my education experience better;

it probably makes it more difficult for me as a teacher; difficult for me as a student to relate to that;

and then like after three years, I call, okay, didn't yield much results because, you know,

technology wasn't right and these people were not learning because they were not engaged.

So, I feel like the second barrier is like having these right kinds of infrastructure

and using them in a way that works for me right now. I think understanding my present needs are

a lot more -- I would say like equally more important -- so, like having not just computers and

technology for the sake of technology -- because it's like the sexy thing to do right now, like

technology in everywhere -- but understanding if I (inaudible), like where it's relevant and where it's

not relevant. So, I feel like forcing something, like in terms of infrastructure, that's another barrier,

and that leads to a lot of (inaudible) costs.

And third, I would definitely say that when it comes to social norms -- that even

(inaudible) was also saying that, you know, I want to be part of these clubs, right; but I'm learning technology which means like I'm going ahead of my time, which means like my family or my society is going to lose control over me as a girl because I'm supposed to be controlled; I'm supposed to be maneuvered in a certain way.

So, I feel like that social norm is something that also needs to be addressed in like such kind of design that -- think of it. Who is the ultimate user of your education delivery initiatives? It's obviously the students; but most of the times, people paying for it are parents. Even if like in public schools where we think that, you know, public, good, it's free; but that comes with a cost because, you know, parents will send their children -- they're more likely to send their children to private tuitions. The research says that if they're sending their kids to public school, they're more likely to send them to private tuitions. So, there's cost associated and parents are paying for that cost. And parents are often like, you know, missing from this whole equation when we design; and a Brookings research, three years ago -- the lead (inaudible) reporter found out that, you know, none of the education innovations are actually addressing or integrating parents. So, I feel like that's another barrier that we have to think in terms of acceptance; in terms of, you know, perceived importance of change in technology and investing in new kinds of education, I feel like.

MS. GAMMAGE: Thank you. Nasrin, how have you worked in communities to address some of the barriers; and, particularly, maybe worked with parents to overcome some of the resistance to girls getting STEM education? And I remember in your report, you draw attention to issues like safety concerns; transport; early child-forced marriage. Can you talk a little bit about the work you've done around those issues?

MS. SIDDIQA: Yeah. From Masrura, I have to say that the mindsets will -- we work with our parents also. So, our common question I ask to the father that what do you think your daughter will make a good engineering future, or she will be. So, it is a common belief that yes, mother, will make our son an engineer; not likely that girl will be the engineer. So, sometime, we organize the workshop and training for the parents also.

So, we did one program from my organization, Education and Cultural Society, that was the service learning program with schools of that community where we engaged the parents, local community leaders, everyone and it was a one-week service learning program -- (inaudible) and block (phonetic) grouping. So, I can say that one grandparent came of 60 years old to know what is his block group.

So, these are the program we organized; and we are running now a program that is (inaudible), that is the (inaudible) of noble and kind initiative. (Inaudible) is the Bangla word; the English is fireflies. So, in that program we had started that we found that in that age of 6, 7, 8, 9 -- so in that age, they have nutrition challenges that they suffer from that nutrition problem; so that we thought that year we could start a program and we can provide them egg, and a glass of milk, fruit -- so, like this.

Afterwards, we found that yes -- at first the nutrition we have to take care, then we had started thinking about now we can take them to come in some class to know the art and design; to know the life skill; and other things. But, STEM is far-(inaudible) to them -- technology, and these are why we have to (inaudible) to them where they're suffering from for nutrition.

So, these are the community program; and now preventing violent extremism was another program we are running and where we are engaging the local community and people also -- that's also (inaudible), you know, in the whole world. And with the unit school, we are doing the heavy task of guarding program; so we include people from all age and level to make them understand that (inaudible) is highly required for us. So, in any of our programs, we try to keep parents and local community -- especially, we never forget to bring the local leaders and political leaders because, ultimately, they do the work, and they make the barriers; so, we keep them also.

MS. GAMMAGE: Thank you. Kara, I'm going to ask you a little bit about policy, and what sort of policy enablers do you think are more effective at supporting STEM education, and where is it happening; where is it going ahead well; where do we need more; and what do we need more of?

MS. MCBRIDE: What kind of policy? Well, so, if we're thinking about girls'

education, some of the policy is going to have to be, you know, deciding from the beginning that you're going to engage girls in the education and then thinking about what does that mean. So, I think, to get the children and also the parents interested in any kind of educational initiative, a lot of it has to do with convincing people of the why.

And, so, we've found that retaining participants in our program has a lot to do with connecting with what it is that they're trying to accomplish; what they're interested in; how they see themselves. For getting the community behind an initiative, you have to really convince the people in the community -- the parents -- but also the community leaders why is it that you would want to have this program going on, and really figure out what do these people value.

And, so, framing policy in the terms of what is valued by the stakeholders in that, I think, is key to keeping things going.

MS. GAMMAGE: Okay; thank you. So, taking that question back out to the audience, what policy enablers have you seen that have really catalyzed STEM education -- and good quality STEM education -- in the context where you're working?

MS. MCBRIDE: Difficult question.

MS. GAMMAGE: And this could be micro, mezzo, macro. We don't have to sort of think about sort of national level policy initiatives, we can think about how they trickle down and how they manifest locally. Are there things out there that you say that this was really great. These were the three critical issues that drove STEM education forward in country x with girls at this age? We have someone in the back.

SPEAKER: Hi, I'm Falinga (phonetic) from ICRW, and I'm just talking at the micro level, not really a big policy; and we talked a little bit about teachers and role models. But something that in my experience has had a huge impact, especially within the school system is principals and head teachers because I've definitely been in spaces where you have -- well, my case was a junior and a senior secondary school; right next to each other; same facilities -- but the difference in the ways the principals approach subjects; collaborate with the teachers -- that made the whole difference in how the two schools were running, and the outcomes.

And speaking, specifically, about STEM in terms of just the engagement -- how engaged are the principals; how are they engaging the teachers; are they talking to the teachers about the lessons; about what they're doing; are they making sure that the teachers are supported as best as they can. And, so, at that level, I think, when you're thinking at the school level, we often think about teachers and mentors, but not always pay attention to the impact that principals and head teachers can have.

MS. GAMMAGE: Other observations along those lines? Right in the very back -- the lady in the very back.

MR. DUNN: Hello. I'm from Turkey. My name is John Dunn (phonetic). I'm the director of a private foundation. STEM is a subject we are working on and we believe it's very beneficial way to reach girls' education. An interesting thing I want to share with you was that the government sort of looks at STEM as a way that they present that the Turkey society is becoming very modern -- technological, up to date, etc.; and it's a matter of pride for them, so they put it from the ministerial level into all the schools. I don't know -- I don't want to say because we haven't done research on it -- that they have been very successful; but at least the idea of working on STEM subjects has become popular, and now many foundations -- big and small -- are funding projects, STEM projects, coding projects for children; and private companies have mushroomed up; going to foundations and other civil society organizations to bring STEM education into schools.

So, suddenly, because the government thought it was a popular shiny subject -- I mean for a different reason -- it became a good thing to have it, you know. I don't agree with most of the things my government does, but it is also a very good, easy way for us as a foundation working on girls' issues to go to girls' schools, girls' dormitories -- all of which are state schools and state dormitories. Because if I want to go there for a program on family planning, or for a program on human rights, or gender equality it will be very difficult for me to get permission to go into those institutions and reach out to the students. But if I say I'm going there to teach them coding, teach them mathematics, whatever; then they're very happy about it.

Of course, they monitor very closely what we are teaching, but that's fine. If I can get my teachers to those remote schools in the mountains talking about mathematics to girls, I think it's an achievement. So, it's been beneficial in a different way, you know. Thank you very much.

MS. GAMMAGE: Thank you. The lady at the very back with the necklace.

MS. CONNIKER: Good afternoon. My name is Garbi Conniker (phonetic). I'm coming from a very different lens. I've spent the last decade-plus working in international health and access to care; and so, for me in these conversations and a lot of the approaches that we took in the gender-transformative work that I would be doing in a lot of mostly eastern and southern Africa, is around looking at all the layers, right. So, it's not just about engaging parents; and it's not just about ensuring that girls have the confidence to do this work; but it's looking at all these different levels, right. And from the projects that I've been in, the ones that are most successful is where you're able to tackle -- at least -- I mean changing mindsets of politicians, and parents, and cultural leaders, and religious leaders -- like doing all of that is incredibly overwhelming, but from the larger scale projects where we had access to resources -- which nobody ever does -- to really address at all of those levels -- you know, working with religious leaders to buy-in to the idea that women and girls have value and they should be invested in from very early -- those are the kind of projects where we saw the most success; and, I think, the biggest challenges is getting everyone to buy-in to that idea and then seeing that success.

So, I don't know if people have examples where, particularly, you know, this is about STEM, where they've seen that kind of more global buy-in from all those different levels and layers where building the value of girls from early on, they understand how that builds a society, a stronger society, a more prosperous society, a healthier society -- all of those things. So, I guess my question is have you seen that example somewhere, and how can we learn from that?

MS. GAMMAGE: This woman right here raised her hand. Are you going to respond to that? Yes?

SPEAKER: Maybe be out a little into that, or like challenge everyone, see what

we can get to. When a girl gets into school, it really do the family -- like Ingrid Sanchez UNICEF

girls' education -- one of the girls is in the school and find support that girl to stay in school. They

tend to be happy with whatever is going on in the school and all the subjects that she's going to

learn there. Most countries in the world -- and in most low-income countries -- have a science and

mathematics, and sometimes technology, international mandatory curriculum. So, it is there; and

we keep on having these conversations like it is, sometimes the government, or the families, or the

girls, the barrier, the interest; but we -- the international education community -- and I may be

wrong -- challenge this idea.

    The international education communities' obsessed with learning outcomes in

reading and math, only; and perceive investments in STEM sometimes as a luxury. That's for kids

in wealthy countries where they have figured out this, and this, and that. So, we cannot move

there.

    So, maybe they're moving the STEM forward for girls and for boys, and for

everyone is more about us pushing these ideas and evidence with our colleagues in our

organizations. So, I'll just leave it there, maybe, up for debate.

    SPEAKER: I have one observation.

    MS. GAMMAGE: Please; piggyback off that.

    SPEAKER: Thanks. Just to piggyback off that too -- I think one of the themes

that I keep hearing throughout the day, is that STEM education is that potential entryway to

improving the overall quality of education, right. The current focus on literacy and numeracy has

taken us very much down a narrow path to really looking at reading and math only, as opposed to

looking at how these integral skills that are a part of a STEM education can lead to literacy and

numeracy outcomes, but, even more importantly, into that broader breadth of skills. So, I think,

you're spot on in saying that.

    MS. GAMMAGE: Thank you. So, I'm going to bring it back to the panel now and

talk a little bit more to you, Nasrin, about the fact that one of the sort of policy leaders that you

emphasize and you chose to push in your report is we need to think about where Bangladesh is

going in the next 10 years, in the next 20 years, and the commitment to a much more diversified

economy, and to a commitment to equipping people for a workforce that is rapidly changing.

Now, you highlight that the ready-made garment sector -- the textile sector in

Bangladesh -- is undergoing rapid change, rapid sort of technolization and automation, and this is,

actually, going to be very difficult. It's going to be a very complicated environment to work in, and

it's likely to affect the girls that are currently working in it and those who may wish to work in it.

So, this seems to be part of that argumentation that you care about STEM,

government of Bangladesh, policymakers -- this is important because it affects. Again, it affects

how we grow and what sectors grow. Is that something that you were thinking about as being sort

of an argument that is essential to getting them interested in STEM; or is it something that is

somewhat ephemeral to that, but a useful argument to sort of throw into the larger discussion

around why we might want to invest in STEM?

MS. SIDDIQA: I have to support -- we have to bring them at the center of STEM;

we have to spread STEM throughout everywhere; so, same way. Supposed you said about the

mathematical skill and knowledge, so teachers say that if you ask them any basic question on

math and science, after two or three months of the examination, they can't answer you. So this is

the basic lacking. So, we have to centralize it that how we have to develop that and with that

knowledge, how we are going to spread it. So we have to zoom in and zoom out both of that, the

way we will utilize the STEM in different sectors -- not only in garment industry. We say garment

industry because this is the heart. We have to save that, otherwise, no way to save Bangladesh

economy and progress. And other industries like jute (phonetic) industry, pharmaceuticals,

(inaudible), tourism, furniture -- there're a lot of sectors which are developing, so we have to get

investors for those sectors too.

So, the knowledge, skill -- we are talking about that. Not likely that I'm very good

at physics, chemistry, math -- got 80 percent, 90 percent mark -- that's all. So, proper knowledge

and skill, mathematical solution, critical thinking is developing are not with the age, and whether

they can fit with any industry perfectly, that's our concern. So, we have to bring that in STEM and

we have to spread STEM in that way; and we will never make it limited -- that only for the

researcher; only to get the Nobel Prize in physics -- not like that. We have to; and we have to give

this sense right now.

MS. GAMMAGE: And how is the private sector getting involved? Are they getting

involved in commitments to fund STEM; are they getting involved in commitments to take trainees;

are they investing in workforce development with the public sector? How is that happening?

MS. SIDDIQA: Unfortunately, the private sector; so, they look for the brilliant

students who are already ready; so, they are not investing for that. So, I have to say that some

good universities are there. The students who are coming from very good school with proper

knowledge and skill. After that they're getting chance in the engineering university and high-level

university; and those students are going to the private sector -- job sector is very limited. So, they

are going for the recruitment; they take a very hard test for that. Only the brilliant students are

coming in that sector.

So, they think that yes, we were taken that way; but we have to invest to develop

the children who are not getting facilities. They are not exactly thinking in that way. We have to

make that (inaudible) that brilliant students are everywhere; each and every child has potential; we

have to have an equal system that everyone is getting the same facilities in education. So, I have

to say, unfortunately, they are not directly thinking of that.

MS. GAMMAGE: Kara -- and we're learning -- are you seeing a lot of private

sector engagement around STEM; are you looking for private sector donors; or do you have some

sort of concerns about the extent to which the private sector may be leading or shaping education

programs and outcomes?

MS. MCBRIDE: One of the primary sources of the STEM centers that we started

in Algeria, actually, was from private sector -- the petroleum industry around there. So, our center

reached out to those industries and pitched this idea that you need youth that have the skills; and

because that same center had done a lot of work in workforce development area, they had, you

know, this evidence of, you know, you're saying to us you're not getting people from this area who

have the skills that you need. We have the solution here, you know; so, please invest in our STEM centers. And we've been able to use that same kind of argument to get some funding from other -- like Boeing, for example, has funded a STEM center we're starting in Saudi Arabia. So, that's been a big source of how we've been able to get funding for things.

MS. GAMMAGE: And how engaged are they in the curriculum? Is it just here's our money, and we're interested to see what happens; or we, actually, really want to know what you're teaching; how you're teaching it; and we have some ideas about how you should be teaching it?

MS. MCBRIDE: Yeah. We've experienced quite a range of, you know, the difference -- how much they want to be involved -- sometimes even doing the same project (laughter); but it's, I think, it's just a very excellent opportunity for our organization to -- also, you know, just to engage with them and figure out how they're thinking; what their interests are; and there have been some, you know, situations where there's been sort of an open-door policy; people who work at your organization, please come by and see, you know, how this is going on; and so forth. And, so, on some occasions, the people who are working at the company came to see one of the workshops and it sparked more interest in them, you know; and it's one of the ways that we keep them engaged, and we keep ourselves on their radar; and at the same time, too, sometimes we're able to say oh, you know, here's somebody from industry who's coming by, and then giving the students who were there at the time the opportunity to communicate to a professional what it is that they're working on. That boosts their own sense of being a professional who is coming along and will be like some of these people from the funding organization in the future, as well.

MS. GAMMAGE: So, I'm going to take that back out again to the audience. Are you engaging with the private sector; how you're engaging with the private sector; what concerns do you have about engaging with the private sector; or what opportunities do you see in funding scarce environments to really increase their engagement? Please opine freely. Do we need more coffee? Please.

SPEAKER: I spent most of my life actually dealing with such big corporations and what they're doing to the next scrimmage. Pretty clear to me that big corporations sort of only see 10 percent of the world. It comes back, essentially, to what is the purpose of the market you're leading; how could it connect with sustainability goals. Let's take, you know, the garment working sector. You need to go to the billionaires who lead the four or five biggest fashion retail outlets and see if they are serious about the worker's wages in that sector, and helping train and skill-up. Those sorts of things which are sort of interconnected because when you think about it, you know, fashions are actually driven by youth, sports stars, pop stars -- all of those things; but all of these markets sort of interact; and if you're not, you know, linked into all of that, it's impossible for youth in one country to really get onto the right track.

It really is important. Let's take Bangladesh. Is a whole of Bangladesh absolutely committed to continuing to fashion and garment workers, and the whole of that sector, being its future for the next 20 years as much as it has been in the last 20 years? If so, it's not to have a policy which basically connects with the people who control these channels. Well, that's where the ILO can actually help a lot because at least one of those billionaires has approached the ILO and said it wants in several of the Asian countries to up the grades of the fashion worker's salaries. But it's -- do you see what I'm getting at -- I mean at a much smaller job with Nepal, I was at an UN event where someone was explaining Nepal is actually a world leader in hazel nuts -- and that's actually very good because if they move that market, that would make them a world leader in forestry and all sorts of ecology. But does the government and all of the education sector see that as an opportunity or not -- I have no idea.

MS. GAMMAGE: Thank you. Please, Christina.

SPEAKER: Thank you. Building on the gentleman's, Chris' point about sustainability, I wanted to bring in -- link back to another question that was asked in the previous panel -- I think it was by conception at age Africa, and really ask the question around climate change. I think many of you in the room who know the work that I do. I'm obsessed with climate change at this point; but I think there's a really interesting and important link to be made to STEM

education, especially girls' education.

One of the areas of work that we identified was that STEM education could be an entry point for investing in girls' education for climate solution, especially thinking about how the green economy will be generating jobs and industries that are from the sort of regenerative and renewal industry sectors, climate smart agriculture, thinking about how to really shift industry towards a more sustainable, you know, circular sort of outcomes.

But the link that we're not making back is that those industries are routed in STEM; girls are on the fringes of STEM. This morning, Meighan (phonetic) mentioned that only 35 percent of STEM studies are enrolled by women. If they're not there, they're not going to be in the green industries. And so, I'm really curious how BRAC, or learning education culture society is thinking about really linking climate change and STEM education for girls.

MS. GAMMAGE: Well, great question. Shall we return that to them right now; or how much time? We don't have a clock, so that's -- okay, so let's take another couple more, and then we'll wrap up with our panel.

SPEAKER: All right. Hi. My name is Carl from the Girls' Opportunity Alliance at the Obama Foundation. In terms of private sector, I think we've heard of a lot of interest from groups saying that they want to support STEM programming and they want to find a way to support our grassroots programs. However, thinking back to what someone said earlier about, you know, press release kind of support, versus long-term systemic change -- I think that STEM is still in sort of that phase right now. I'm not sure that private sector is really quite ready for that.

And, in my personal cynical view, I think, you know, a lot of like the bigger tech industry is like really looking to get a big win right now because they're under quite a bit of stress in terms of, you know, especially, larger social media and how much they have their data; and the bad reporting about them constantly. So, that's just personally what I've seen. It's like a lot of groups will come to you really quickly and say we want to like put something together; we want to put a few hundred thousand dollars, but it's not necessarily about larger change -- it's about a quick win.

So, I think what we have to think about is how do we change that conversation to how do you make this into a long-term investment, and what are you really going to do to make something different out of it. And, I think, there's a lot more things other than that are at play there -- but just for our own personal experience.

MS. GAMMAGE: Absolutely. Are there observations before we return it to the panel? Okay. So, there's a lot out here. Let's think a little about, particularly, Christina's question about climate change, climate smart technology, climate solutions in STEM. But I do think it would very helpful as well to think about how do we convert quick wins in a very sort of instrumental fashion from this sort of the appetite of the private sector for quick wins and instrumental wins, into something that really addresses long-term systemic change? Nasrin.

MS. SIDDIQA: Thank you Christina. At first, let me start from the negative point of view that those who are educated, have knowledge of technology, science that they are doing more harm for climate -- rather than the farmers, village women -- they are not doing much harm. So, like during the season of (inaudible), they know how to use the hydroponic system, but now we have to market this thing. See, in the classroom I was used to telling that yes, you will be (inaudible) engineer in the future. You have to come back and work with the farmer who has no knowledge of technology -- nothing -- no education; but he can give you the exact design that how the crop rotation and everything going on. So, you will give your knowledge, and you will take his experience; and that will be a good blending.

And when the students make the project, the common project is greenhouse effect. So, they can get the idea that what are the harmful effects we are doing here; and this knowledge of STEM -- if they can implement properly -- it will definitely help in climate change condition. But now I have to say that the bridging is highly required, so we will just give the theory or we will say that we will not do harm or no greenhouse effect or something; but we will make it tomorrow; so that's not the solution. So, we have to work for that. And proper utilization of STEM knowledge is required for climate change -- and climate, itself; environment, itself, is science. Geography is science -- soil science is science. So, why not STEM.

MS. GAMMAGE: Lovely, lovely; thank you. Kara?

MS. MCBRIDE: Well, I'm going to take a brief detour just for a moment to explain something about that but touching on this idea of the environment.

So, one of the interesting lines of research in terms of getting girls and women interested in STEM education has to do with this idea that some people are more people oriented and some are more thing oriented; and they've done research on this overall boys tend to be a little bit more thing oriented, which means an interest in how things work, like, you know, you take apart a clock or something like that. And overall girls tend to be a little bit more people-oriented in thinking about social issues.

But it differs from culture to culture; and then also when you look at the undergraduates at a given university, there will be big differences in terms of their orientation and the one's in the STEM field tend to be more a thing oriented. However, it's not that you're one or the other -- you can be both or neither. And so, engineers, for example tend to be both. There are people who are interested in how things work, but they are also doing something for people.

So, just kind of by accident in one of the projects that we were doing originally, we had two main programs that we were teaching the kids. One was graphic design and one was virtual reality, which depending on how you said it -- it was called hack Minecraft -- so, it was like a coding version of Minecraft, which is sort of this boy's video game, kind of, and it has this hammer kind of thing. The first time we ran it, the girls just absolutely never chose to work in that. They would learn it; they could do it; it was fine.

Then when we did the next cohort, one of the assignments was to in virtual reality create your ideal home; and then doing something with this sort of like thinking about the people; the purpose of the rooms; imagining your ideal self in the future really got everybody excited, including the girls. And then in that cohort, girls were just as likely to want to learn to use that coding, and so forth.

So, what I'm trying to say is that it just really has a lot to do with framing to get the interest of the student that you're working with; and, I think, since girls have this tendency to be

more people oriented, since environmental issues and climate change has whole lot to do with how it's going to be impacting the lives of everybody, there is a very rich opportunity to frame, you know, environmental science, and to reach out to girls, especially, to get them interested, you know. To show them that this kind of education that we're offering you allows you to address those issues that you really deeply care about.

MS. GAMMAGE: Thank you. Oishi?

MS. OISHI: I feel like to reflect and expand Christina's question like it's not just about climate change, it's about looking into the unique challenges of 21st Century, which basically existed in 20th Century as well; but now they are coming out to us as a crisis. So, whether it's climate change, or mental health, or, let's say, problems like algorithmic bias -- that's going to be another new challenge in the STEM world as we prepare for it. So, I feel like everything if we package it, like if we forget having technology for the sake of having technology, and package it under making education relevant. I feel like we're falling behind in that relevance game -- like education -- like right now, the way we are providing based on the 20th Century factory model, it's not really like catering to people's needs right now. So a (inaudible) labor who is going to a night school doesn't really learn how to negotiate, you know, his wages -- like, you know, or how to protect his or her assets like daily wages from being like taxed and all that; so, I feel like it's not really -- like we're failing to deliver the needs of today; we're failing to deliver the needs of tomorrow with manual education. I feel like so, as STEM, we should package it under like not for a separate feel, but more like how can we make education relevant for those who are in this spot? So, does staying in school really yield any benefits to me in my real life and in the future? I think that's a question we need to ask constantly; and I feel at BRAC -- with the technology -- we're trying to increase more and more learning at the right levels. That's the sense of quality education where in a classroom where there are 40 students, 40 different individual humans. So, I think, having that individuality; recognizing their strengths is really important and that is a great way to get help from technology because they can help you -- tech can help you really achieve that. I feel that's a different packaging; and in terms of, I think, role of private sector, the new kinds of

partnership are, I think, are emerging at least -- BRAC has been partnering with a lot of the tech giants, like Google -- we just recently wrapped up a project with CISCO where they gave us a grant to just design a pilot. So, it really helped us look inward and, you know, figure out what is it that we need to do. And you have those open conversations with our donors about what is it that we are confident about and what is it that we're not sure about.

So, I feel like it's really that time to look into financing as an opportunity to create markets. So, I feel like as NGOs, we need to be bold and tell our donors here is how I can help you gain access and understanding of this market; here is what I understand and what I don't understand -- like having those open conversations. I feel like also as donors and as private sector, CSR projects don't really yield to much long-term benefits because they don't, again, come with any exit strategies. So you feel like more and more private sector needs to be engaged, even by donors. If you want to engage, you know, if you know after five years, your projects going to end and you're not going to be able to fund, force your practitioners to look into other partners who they can drive it when you exit. I see like these are the things that should help us understand the relevance and the purpose of education and not just for the sake of having technology.

MS. GAMMAGE: So, thank you all very much. It's been an incredibly interesting discussion. It really is a pleasure to spend time with all of you. I have some housekeeping announcements. We are heading out to -- there's more coffee -- and the three Echidna scholars are going to participate in a closing panel that's in Falk. So, do we go straight there, or may we sort of dawdle on the way pass the coffee?

SPEAKER: I mean you can grab coffee in the back, if you want to; otherwise, it will be starting in Falk in just a couple of minutes.

MS. GAMMAGE: Wonderful. Thank you all so much. It was really a pleasure; thank you. (Applause)

(Recess)

MR. CASSIDY: Hello everybody in the back of the room. Do you want to move up? We feel that the cozier the better, but you can stay where you are. I don't want to force you

to move, but it would be great if you were up here.

Great. So I'm not sure of exactly what the protocol is in terms of the start of the program, but I guess we'll just get started.

We are now in the breakout session, Bridging the Policy to Practice, Gender-Transformative TVET, to increase women's workforce participation. We've had lovely examples from the previous panel, from Nepal about India, and of course USAID's experience. Now we have two additional members to the panel. And if my colleague Anil will allow me to, Maria Brindlemayer is the Senior Knowledge Management Specialist at Making Cents International. We have Martha Muhwezi, Executive Director of FAWE Africa, and again, Anil Paudel, the 2019, is it the Echidna Global Scholar, and CEO for Rights for Children.

We'll just begin with recapping some of the key points from the policy panel before, and trying to connect that. So instead of me sort of struggling through, Anil, you have this wonderful acronym, ACT. If you can just tell the audience what that means and maybe one or two of the other policy prescriptions that come out of your research.

MR. PAUDEL: Oh, sure. Thank you. So ACT, to meet the framework that I developed by Plan International Belgian.   So I adopted their approach framework so ACT, because I'm talking about vocational training programs, technical education, and in this kind of education, specifically in TVET. So ACT becomes very important component.

And I say ACT, it's again A stands for Access to TVET, Technical and Vocational Educational and Training Programs. C stands for completion. We need to enable girls not only to participate, but also to complete these programs. And finally T, which is very important, transition from school to industry, like transition to workforce. And of course the program itself has to facilitate girls, those who complete technical programs for the transition into the labor force. That's what I mean when I say ACT.

MR. CASSIDY: Great. We ended the last panel without getting into sort of other areas that I think are also quite important as well too. We talked about family responsibilities on the fringes, we talked about the sort of cultural angle on this as well to what happens when there's

no jobs for trained individuals, particularly young women. Looking at learnability, this lifelong

learning, the ability to learn how to learn. Because the job market is constantly changing no matter

where you are in the world. And also about data collection. Obviously, a lot of us here know that

metadata provides opportunities for better policies. At least that's what we believe.

At this time I would like to go to Maria. Maria, can you tell us a little bit about what

your organization is doing to increase women's workforce, you know, participation. And then really

bridging that gap. You know, we've heard the policies, what are you doing on the ground?

MS. BRINDLEMAYER: Thank you. So we are primarily active in kind of three

areas. One is labor market assessments, and I'll talk a little bit about that. Another one is as part

of the YouthPower Learning activities, which is a USA funded project. We've been working very

much with implementers of pivot programs, especially in Central America and also in Africa. And

then we have also been giving grants. Leann Myer mentioned this morning the Young Women's

Empowerment Prize. And so we were the ones that were awarding the prize. And it has been

given to many, so we have up to seven grantees, so I can talk a little bit about that.

From a labor market assessment prospective, the way that we are looking at

genders that we really want to incorporate the gender aspects already in the labor market

assessments and the need assessment. Because it it's not in there, then the programs just are

not going to implement it later. And so we are not looking just at skills, but we are primarily also

looking at the behaviors and the perceptions.

You know I think we talked already a lot this morning about that girls sometimes

select out of certain jobs just because they don't think it's a girls' job, or somebody else thinks it's

not a girls' job. And similarly the employer's perceptions where they would just not consider girls.

So we are looking at all of those barriers, not just the skills barriers.

And then when we are looking at the TVET projects with YouthPower Learning, I

can give a few more examples later on, but they have been incorporating a lot of the gender

aspects in their implementation in Central America and in Africa. And so that I think has been

really provided some interesting examples.

And I think the grants, which I think are a great example of the NGO kind of examples, so they're not fixed scalable or scaled yet examples, but I think they provide excellent examples of how young women and training for young women can really make a difference. And some of them are actually working with schools and making sure that women get the right training, technical training, soft skills training.

MR. CASSIDY: Can I just ask you to give us an example, I guess, my mic is out now, my apologies. We've heard about Nepal, we've heard about the Philippines, how does that change culturally in Latin America? Maybe just one or two ideas about how it's differentiated.

MS. BRINDLEMAYER: Quite a bit I would say because a lot of the drivers in Latin America, or at least in Central America, which is where these programs were, have been the gangs. And so a lot of the way in which the programs were set up has been by the gang environment.

So for example, when I think the program was rolled out in the most gang effected district, and what that meant is that, you know, they had planned certain training places where the youth would be trained. But then as they were looking more at the gang areas, the youth wouldn't be able to travel from one place to another if they had to cross another gang area. So certain things are just very different or very specific to the local environment. And that's just one example.

MR. CASSIDY: Excellent. Martha, in this morning's opening panel you spoke about how you felt that girls' education needs to act more quickly to achieve gender equality. I mean I think we all feel that things are moving too slowly. I think the ILO shows that with the current sort of change it's probably going take a couple hundred years for things to really change. How is your organization changing this in the field? What are the specific applications that you're using to kind of facilitate a greater gender equality?

MS. MUHWEZI: Yeah, thank you. There are quite a number of things that FAWE is doing. And one of the issues that we looked at first was to change the narrative. I think that's been mentioned from the earlier panel discussions, that in most of the countries, if not all, TVET has been looked as a cause, lack of a better word, of the failure. It's those that don't qualify to go

to university for degree course that go for TVET. And that has been one of the biggest challenges. The attitude, the perception. And what we have done at FAWE is changing that narrative.

And how we have done this is we have demonstrated by getting very intelligent girls, putting them in TVET, many of them have qualified as plumbers, as electrical persons, as mentioned. And that alone, these now become like role models. When the people see what they are doing, it has changed. It may not be 100 percent, but to a very high degree it has changed the perception. Particularly among parents because you'll compare them to those that have done a degree, and actually don't have a job, and those that have done TVET and have made progress, both in their own lives and even those around them. So that's one of the activities that we have engaged in.

And this we don't do it alone as FAWE, but we do it with Ministers of Education, particularly because the Ministers have a bigger role to play in terms of making TVET institutions a conducive environment for the learners.

And we also know that there are so many out of school youths, the young people. And many of them are out of school for a number of reasons. Some of them it's in terms of financial resources. Others it's for like in the conflict areas. So for those that are out of school for financial reasons, they are not able to continue with learning a master's degree because it's very expensive. And what we have done is to provide them with scholarships to be able to go the TVET institutions.

And I want to say that some of the students also that we have worked with who in one way or another, because they have seen someone who is going to TVET and has qualified and is working well, many of them have opted not to go to university, but to go to TVET institutions. So there is all that mix.

And the other one is working with the Ministers of Education in terms of trying to improve, I know it was mentioned earlier in terms of quality. There is more a theory as compared to the practical. And one of the things that we have worked with the governments and also with the institutions, is how do they provide quality education linking the institutions plus the industries.

What is the development? What is required outside there, and how do the industries work with the institutions in terms of letting them know what the demand is out there.

Because again, one of the shortcomings is when girls are going into TVET, but traditionally, there are those courses that are meant to be for the girls. You will find that most of the girls are going to tailoring, they're going to catering, they're going to salon work. And at the end of it when you compare the two in terms of where is the benefit, you'll find still that the boys are ahead of the girls because of the courses that they are taking. And that is also another angle that we have tried at FAWE to break that link, to motivate the girls, again using the role models approach, to make sure that the girls get into those traditional male-dominated fields. And this has been because of, you know, it's not that they can't do it, but it's the perception, it is the attitude. Nobody is motivating them that you can do it, so the few women out there that have succeeded through TVET are the ones that now come back and they are able to encourage the girls, they motivate them, and who have seen quite, I mean, commendable successes in that particular area.

And the other one is about working with the Ministers to invest, investing in the TVET. And as they invest, we're not only looking at the infrastructure. We're also looking at the human resources. Who are the tutors out there in those colleges, how gender sensitive are they knowing that this is an area where the girls are just coming in, they're just trying to get in. So how does the system, the education system around them make their environment conducive for the girls to join, to complete, and be able to perform well within their courses?

So those are some, just to mention a few, those are some of the measures that we are doing with supporting governments to make sure that TVET is organized as a good thing and at the same time that there is space for the girls and women to get in there.

MR. CASSIDY: Martha, thank you very much. I love the idea of changing the narrative. I think that's so important. You've raised a couple of issues here about role models, you've spoken about what we call NEETS, neither in employment, education, or training. You know, basically young people who have dropped out of the labor market. We count 74 million young people in that. I mean when a young person drops out, what is their future like and that for

their family.

And another issue which you have eluded to, which I've heard before in other forums, is about women's, it's their confidence, not their competence. And maybe we can talk a little bit about that in a moment.

Anil, your research, your presentation before, you talked about gender-transformative policies. You know, I'd like to find out a little bit more about what that actually means here. And also, what are you doing in your programs to encourage young women into sort of male-dominated industries as well. If you would please, sir.

MR. PAUDEL: Thank you. I think it's a very important question. So, yes, in the gender-transformative education, gender-transformative, that's what we are talking about a lot from this morning.

So for me gender-transformative, to make a gender-transformative is to ensure through policy measures and through practice, that both girls and boys have equal opportunities in education, in careers. So how can we achieve that? It's like a lot of things, it encompasses like creating a welcoming environment, especially for girls, improving the infrastructures and facilities so that we make the institutions and the environment girl friendly so the environment attracts them. And also, it's a lot about breaking the gender models, the gender stereotypes. The self-selection thing that we talk about.

So unless and until we're able to break, girls will self-select because they will continue pursuing the field of careers, the field of study, that they're used to. Like I give an example of nursing, caregiving, care living, of beauty and cosmetology. But why can't we have girls in engineering, in IT, in science and technology, and other streams such as agriculture. So this is the very important question.

And we all have to have different roles to play. Of course the government is the primary role player, primary actor. But there's also a role of civil society and organizations like ours. Not only that, I think there's greater role of media community in informing, educating, and like in helping to change the attitude and the mindset. Otherwise it cannot happen. And then we

need to, I mean this is very important and urgent, we need to act and intervene.

And also a lot has to do with the curriculums, the way we teach the categories, and which is mostly the environment within the institutions. And also having, as Martha said, a female role model changing all those narratives. That's also part of, I mean we want to change the education, and if we are to make it like gender-transformative, that's also very important.

So to change this narrative, role models, female instructors, female administrators, female principles, why don't we have? So this, creating all these environments which enables girls to pursue whatever careers they want to go or whatever type of education and field of courses they want to pursue. So making sure that it happens. I think that's gender-transformative in a true sense.

And, yes, talking about my organization and our programs, we had this difficulty in the beginning. I talked about the case of Luxme. We had this program, we wanted to offer, provide at least we wanted to make sure there's 50 percent participation of girls in the program. But it was very difficult in the beginning to find girls. There were very few applications even after we put public notice, advertisements, very few applications, and no applications from girls in the beginning.

And that's why we had to go door-to-door. We had to go in, and it's not that there were not girls, they were girls who were needing this kind of opportunity, but it was very difficult for them to have access to these programs and for us to reach out to them. But, yes, in the beginning we went door-to-door, we went to different slum areas, finding out especially girls who have not been in school, who were working at child labors. And it was very difficult.

But once we had them in our first programs, first beds, and they really did well. Luxme was in the first group, and not one Luxme, all the other girls, they were better than boys in terms of retention, in terms of completion, and in terms of retention in the job even after the training. They really did well. So they have this kind of attitude. They're very sincere and serious than boys.

So now, and because it effects continuous, the truth about these programs'

opportunities to other girls, and from the second year, we didn't have that much difficulty. And now when we have this opportunity, when we open the opportunities, a lot of girls they come to us themselves. So the past, the graduates, they really work as role models for us.

MR. CASSIDY: So to stick with that challenge and, Maria, if you allow me to go back to Martha for a moment. You know we talk about the challenges that young girls have in getting into the TVET programs and completing them. But FAWE is operating in post-conflict zones as well too. I mean that adds another dimension.

Speak a little bit about what your organization is doing and some of the challenges that women face in post-conflict areas and what you're doing about that.

MS. BRINDLMAYER: Going to girls in conflict, I think that was what takes us to the fact that even when we're talking about girls, when we talk about promoting working girls' education, they are not homogeneous, they have different requirements. It's just like talking about girls with disabilities, it's now talking about girls in conflict and post-conflict situation.

And this is one of the critical areas that, you know like I mentioned Boko Haram, we engage in a lot of research, and it is the finding of the research that informs our actions and our interventions. And one of the issues we found out was where we are talking about those that are in school, in terms of conducive learning environment and so on. But there was this category of girls that are out of school, and this was in conflict and post-conflict countries, and this is about five countries in Africa. These are girls that were captive, some of them about 8 years, about 10 years, and at the time they went they were young girls of school going age. At the time we are getting in touch they are now child mothers, they have children, they have two, three, but at the same time they don't have any skills. They don't have any source of income, and they're already past the school going age. Because if you dropped out in primary to, you coming back, those who left back in school would be in secondary school. So it was very difficult for them to catch up.

And it was in that line that TVET was the only available alternative for them, giving them skills that can give them a living. And that's when we got into partnership with some of our partners. In this particular instance it was the Danida that came on first. And right now we have

NORAD. But the whole issue was to put these girls, you know, the challenge was the governments were not prepared for the girls returning. Because most of them were out of the countries. But on return there was no system, there was nothing in place for them.

And so when we got into this it was about subsidizing the period passover. Two, working with the governments. Because one of the challenges is, like I mentioned, this was a male-dominated field. The infrastructure that was in place was only for the men. In some of the countries, like Liberia, it was very difficult to have the girls join the institutions because they didn't have facilities for the girls. But we had to engage with the governments, and eventually they had to turn some of what would have been the teachers' quarters into residence for the girls, so that they were able to.

The other challenge was to do with the qualification because the institutions have certain mark at which you are able to join the institution. And this the girls didn't have. But again now we have to go into policy issues. We had to engage with the governments, and we had to make them appreciate where we are coming from and why these girls need support. And the governments were flexible enough, they were able to allow us give them accelerated classes, accelerated learning, and they were able to catch up and they were given the opportunity to join that training.

So that was a challenge on its own. And one of the things we all appreciate is if you want the girls to go into TVET and do the TVET which are male dominated, then they must do STEM. You can't go into engineering if you have not done physics, for instance. In fact I give that as an example. That's another angle now where we have to link the two. Because when you say going to TVET you're going into TVET for planning or you're going in for electrical, it also counts back on the qualification that you have. And so we linked the two and we are trying to encourage more girls to join TVET so that they accelerate to take the STEM subjects so that they are now able to join the TVET and do, I would call it lucrative kind of courses. If you compare the girls that links alone and the girl that has gone into electrical, the one into electrical is at a better advantage than the one that has gone into service.

So those are some of the things that we are doing. And there is also the issue of mismatch between the courses that they take and what the labor market demands for. And there we've tried to link the two between industry and the institution so that the girls are able to get to where they go for internship and at the same time the employers are able to tell institutions they demand, what is it that they need. So that it's not just churning out the graduates, but at the end of it they don't have anything to do. So that has also been one of the challenges, and that's how we've tried to work on to it.

MR. CASSIDY: Thank you. You've raised something that is very important for us as well at the ILO, which is about social dialog, which is communication between the workers and employers. I mean governments can support, because the question is who pays for all of this training, but also the employers and the people who are going to be the talent pipeline for them need to be involved in that conversation as well too.

Maria, we're going to give you the tough task here now. So we're going to ask you what TVET programs haven't been gender blind, and how have they fared in compared to those that have had a gender lens?

MS. MUHWEZI: Well, sir, I have a few examples from Central America, like the Aprenda Kevit Program in Nicaragua, or Puentes in El Salvador and Plan de Futures in Honduras and KS also in Kenya. So I think one of the things that was important on those programs is that they actually set the target for girls' participation. It was young women early on. So I think that was really important.

And the targets were relatively ambitious. They didn't always reach the targets, but I think that's okay. I think just setting the target by itself meant that there was actually an objective that they were reaching out more to girls.

The other one was working with the industries really early on, during the labor market assessment already to really understand what the needs were and also to understand some of those social barriers or perception barriers that the employers had. And the targets actually could have been, also, LGBT targets, so it wasn't just girls and boys. And then I know one

of the programs in particular also focused on making sure that LGBT youth were included in the program.

The third thing was working with the community and the parents. It wasn't just the parents, it was actually in some case the community at a broader level. Also just for the security aspects, you know, making sure that there's a secure environment for the girls to attend those programs.

Some of them had full-time gender specialists on their program. So for the duration of the program it was a full-time gender specialist that focused on everything from beginning to end.

The role models has been mentioned on several occasions. For example in the KS program they had a drop-out woman with three kids that had been working in construction on and off, and decided to go into a mechanic's course, successfully completed it, and created a company that is now successful. And she now is really a role model so she has come back to also encourage other drop-outs that have an additional stigma, not just, you know, being a woman, but also being a drop-out, that has really encouraged others to come back into these programs.

And then also do you think different alternative communications means? So for example in the TVET program they had a program about outdoor motors repairs. You know, that was, you know, in that region, a big demand. I don't know if any one of us could do that, but so and they wanted to also attract girls. So what they did is they ran a radio program to promote that and to really explain what it was about and to make also families more comfortable with girls entering into that space.

And then last but not least, especially because it is Latin America and it is a gang dominated area, transportation was really important. So, you know, providing safe transportation for the girls to these programs was crucial. Otherwise the parents probably wouldn't have let them go.

MR. CASSIDY: You know, I'd like to open up to the floor very quickly here. But to preface it by saying, because I want to talk about examples that you have of effective programs.

EFE, they are training in the Middle East. One of their most effective programs are training young women for electricity, being electricians. Because they can go into the households during the day whereas a man would not, you know, very sensitive to the culture, I think very good.

I was just very recently in Westminster High School in Westminster, Colorado, and they have a training class and they throw the students into these programs. And one was this young group of women who were doing autonomous robots. And they knew nothing about programming, they knew nothing about mechanics, but through the training that they provided them in the classroom, they won a state-wide prize for an autonomous robot that would be used for, say, as a Mars rover.

So you can do it. I think anyone can do it, it's just that you have to be, I think focused on all the student body, not just one side.

Please, if you can give me your name, your affiliation, and examples, please.

MS. CROENFEID: Great, and a question, too.

MR. CASSIDY: And a question too, please, we love questions.

MS. CROENFELD: Rarely do we get a comment, usually we're forced into questions, so now I should take the opportunity to comment, actually. But I'll do both.

Mara Croenfeld, I'm Regional Director for International Youth Foundation's work in the Middle East and North Africa, and specialize on workforce development. And I thank you everyone for the good comments today.

We have had some success in terms of our life skills, emotional learning skills mentioned earlier. But around kind of pushing the envelope on gender issues through some of those set skill building. We have three levels of transformation, gender sensitive, to make young people aware of gender issues in the workplace, gender responsive to help young people understand how they might push the boundary and kind of push back and change things. And then gender transformative, which really are about changing some of the norms around how women and men operate. And these are lessons for both women and men and really culturally adapted so each person in an individual setting can decide how much of the gender transformative

versus the gender sensitive they want to do. So it's meant to be very agile, depending on the setting.

I'm happy to talk more about that, but my question really is a little bit maybe controversial, just to push back on you guys a little bit, let's see. Which is that we heard this morning and now a lot about mindset and kind of an implication about culture in all of this. And certainly in the Middle East, North Africa, we hear a lot about culture.

But one of your colleagues at ILO, Patrick Daru in the Middle East Region, has done so much analysis on Jordan, per se. And when he looks at Jordan, he says everyone wants to say in Jordan that it's the culture of shame. It's a culture thing, which says that young women and young men are not going to go into TVET or vocational or technical jobs because it's shameful. They'd rather not work than go into these industries. This is the received wisdom.

Yes, it may be true, but it's not always true. And so what he found is that really what was keeping young women and men, but primarily young women, out of the workforce and out of technical vocational jobs was compliance issues. Was that on the supply side, on the private sector side, they weren't offering healthcare, they weren't offering a legal job with a contract, they weren't offering benefits, they were supposed to have day care for young people, they weren't. And so what Patrick found is when those organizations did offer what they were supposed to under the law, women were much more willing and able to take those jobs, they felt secure, etcetera.

So one thing kind of missing from this conversation is that supply side intervention. How can the private sector get better about attracting women and frankly, you know, abiding by some of the laws of the land? So just to push the point.

And finally, I think the reason this is important to me is that sometimes we rely too much on culture, culture, culture, but culture's not amenable, we've all seen it change, and if we think too much about culture we're going to reinforce these things that our culture doesn't allow this. But culture changes constantly.

MR. CASSIDY: Call Patrick Daru. I know Patrick quite well, he's excellent.

Please.

FEMALE SPEAKER: I was prepared with just a question only, but I'll add kind of a success story. So a couple of years ago I worked for USA and I worked a lot on youth force development programs in Rwanda where the policy environment is fairly favorable there in terms of a commitment to expand TVET within the system, but, you know, we still found that in supporting NGOs to deliver both life skills and technical skills for youth and connect them to the employment sector, we still found like the ecosystem lacking, right? And any mechanics to like build capacity and expand on the number of entities that could build those soft skills and kind of own the curriculum, bring the curriculum into the TVET like framework, certification framework, because that got, you know, tricky in terms of if you brought someone through kind of more of a life skills or soft skills program, finding a place to have that co-accredited with the government, you know.

And so that whole system focus we heard about earlier in terms of working with like the technical sector working groups and across donors, and finding a place for these programs that may not be like hard technical programs but are still really critical for these youth. And then we actually set up an independent youth serving organization using the leadership, the Rwanda leadership from the NGO, from the one that was basically implemented by an international, typical international USA partner. And they've been operating now for three years, they have funding from other foundations, and they're trying to build that like network, because there were no platforms to talk about like employment opportunities, and there was no service provider to work with NGOs in other parts or service providers in other parts of the country to build these, you know, this life skills curriculum that's more participatory.

So I think that blending the kind of interventions that are directed toward beneficiaries with some of these systems and things. And they don't have to be like massive, like let's restructure the entire TVET, you know, system. So I guess that I think that has been a success and I encourage people to like look at some of the work in Rwanda and other areas.

So my question though for you guys is, looking at TVET in particular across the

number of African countries I think that the TVET delivery has been highly privatized historically,

and there are a number of governments that, right, are expanding on their TVET and becoming

more committed in terms of their policies and channeling more students through TVET as part of

like high school, for instance. But historically the service delivery has been highly privatized. And

in just in what I've seen it's made it kind of fragmented, the quality's been difficult because its

private sector delivery, it tends to be more expensive. You know, it's a little dodgy in terms of

bringing into the certification and accreditation process.

And so I'm just curious, like the private sector delivery versus public sector

delivery of TVET historically, how do you think that's shaped TVET in terms of like quality and

certifications and whose been in TVET and, you know, and equity of access? And then where do

you see that private/ public split, like what do you see happening in the future? And I'd be curious

on a country basis or even, you know, the cross-country analysis.

MR. CASSIDY: It's an excellent question, and we'd love to respond. And can I

take one more question from the floor and then we'll have our experts up here respond. Your

name, affiliation, and question, example, whatever it is you would like to share with us.

MS. CARNEY: My name is Ellen, I'm here with Geneva Global, but I formerly was

working with a really small grassroots, non-profit in Nepal. Our population is actually very similar

to the one that Anil spoke about earlier.

I don't have a success story, but I have like a hopefully soon to be success story.

As a part of our child marriage prevention initiatives, we have started trying to plan and pilot a

vocational skills-building program for girls who we know are at risk of child marriage. These girls

specifically are from Behar in India, which is extremely conservative when it comes to women's

rights after marriage.

So I was wondering if you guys had had any experience with TVET or vocational

programming for girls that you know are likely to be married into really conservative households.

So specifically we're looking at jobs that women can do from the home, like tailoring. I know that's

kind of not the way that we've been looking at things throughout the day, we're looking at trying to

send women into the labor force and change their roles. But in communities like this, and working, you know, with the knowledge that this something that will be coming within the next few years, what steps can be taken to empower them within their households to still be contributing to their household economy?

MR. CASSIDY: Great. I mean I think there was lots of examples on, you know, SMEs and maybe even leveraging technologies. I mean obviously the platform economy offers great opportunities for women not, you know, wholesale, but I mean I think in certain areas it can be very important.

So we've got three questions here. So I don't know who would like to start first, but maybe, Martha, maybe we can go to you. There was a question about in Africa about TVET, you had mentioned Rwanda in particular. So maybe if you'd like to take that or another question, please.

MS. MUHWEZI: Yeah. Looking at TVET in Africa, I want to say it's both private and public. And I said this from my own studies, my Ph.D. studies on TVET and empowerment for women. And there is very, very, there's a big change. They come in, you know, TVET going back into history, it was mainly by missionaries. And when it was coming in, it was targeting the men. And that's how that whole history has carried on, that it is male dominated.

And it's now breaking through, trying to say ways that are best for the women in all this. And if we look at the African agenda, 2063, all heads of governments have endorsed TVET as a key priority for Africa. If Africa is to develop, then TVET is one of the keys. And because of that, a number of almost every government that has endorsed TVET, they have TVET institutions within each geographical, you know there are, how can I put it. It's like an administrative region, small, but in each there is what they call a protective, which is giving services. So that has improved.

But while it has improved, like you said, in terms of quality, there is still an issue that needs to be addressed. Because it is providing the access but then what comes out of it is not yet to the satisfaction of what is required. If Africa is to develop or if the individuals have to

develop themselves.

So that is what currently is the situation. There is a lot of emphasis on TVET, and governments are investing in TVET. But like I've said, we are not yet there, but we are on the road in the right direction.

MR. CASSIDY: Great.

MS. BRINDLMAYER: Perhaps just to address the question from IYF about the company's roles, and I think that's a really key role. I know from one of the examples in Central America, or actually all of these examples, the government was very heavily involved and was working with the companies very directly. Which I think has certainly contributed to the compliance of those companies in terms of providing the benefits. But we had heard otherwise that what some of the companies would do is, you know, if it was like a six-month internship, that if they kept the intern beyond the six months it would be an employee. So what they would do is they let them go two weeks before the six months were over, and take the next intern.

So there's definitely a really important role on monitoring what the companies are doing, you know, more broadly with the TVET system, but in particular also with regard to girls and women.

MR. PAUDEL: I just want to add something here.

MR. CASSIDY: Yes.

MR. PAUDEL: Especially you talk about on the culture compliant sector. And I think it's also a lot to do with the policy. Because we are talking about girls and TVET, and sadly both of them are underinvested in education. Girls, as well as TVET, both have neglected. So that's very sad and unfortunate.

And coming to this public and private sector, there are examples where TVET has been inequitable, the sexes, the transition rate. To give you an example, even in one of my examples, though we have like the program is like a very small scale. More than 90 percent of the transition rate within three months of graduation, and this institution called BTI, Belgium Technical Institute, which is totally industry best. An ideal model, classroom, best classes, plus industry

vested in this program. They have 100 percent transition rate. And the college called GATE, which is also specialize in hospitality. 100 percent of the graduates are employed within three months immediately after what they call on-the-job training. They are offered a job immediately conclude this on-the-job from the training, from the same employer.

And this institute in Rwanda called Akilah, I've heard they also have like close to 100 percent transition rate. But all of these institutes are private. Yes, because it's all about the management and then the efficiency. Public sector, the result is not very good. Because again, it's because of the poor management I think. And all the bureaucrats and all of these procedures. So because of that they are not very efficient.

But if we can manage and run the programs well, there are reports and evidences that say those with TVET qualification, they have like their chances of being employed is three times higher than those without TVET qualifications. So I really think we need to change our focus when we talk about existing system.

MR. CASSIDY: All right. I see no one wanted to tackle the child marriage issue over there. You are stronger than I.

MS. MUHWEZI: I was coming to a question, and I think what she's raising is pertinent in that there are some young girls that enter into marriage and they have the marriage corridor but at the same time they need skills and they need income. And while we'd say there are courses like tailoring, like beauty and fashion, which can be done from home, a number of girls or women have appreciated that because they are able to raise some income and at the same time they are able to take or manage their biological responsibilities.

But while that's good and we appreciate, but we again are saying we shouldn't make the girls work not necessarily within their home, let it be their choice. But let it not be that their marriage corridor, that is now forcing them to keep within the household. If one chooses that that's what I want, then we respect one's choice. But if I'm being pushed there just because that's the only alternative I have, then there's where we have an issue. But it is very, very helpful because they are able to do that and they are able to. But we are thinking way beyond that, how

much am I earning, how much would I earn if I went out there just like the adults have gone. I think that's where the issue is. But in its own it's a step ahead.

MR. CASSIDY: Great. I'd like to do a bit of a lightening round here and then get back to the audience. So if I could start with Maria. Your work with Hilton Global, I mean how are you addressing these issues in the private sector in terms of the gender-transformative goal? What are the things that you're doing and is there something that really surprised you in the work that you're doing?

MS. BRINDLEMAYER: So our work has been at the labor market assessment level so I've been working with YouthBuild and Hilton, obviously interested in the tourism sector and hospitality sector. And so we did a labor market assessment in Tanzania, Kenya, and South Africa, and we incorporated again the gender aspect early on because in some of the countries there is already, you know, a strong female participation in the labor market in those industries, but in others it's not.

So for example in Tanzania we found that women are not very much involved in these sectors. And some of it had to do with religious and cultural aspects because when they are going into the hospitality sector girls might have to interact with men that are not part of their family. And so that's obviously a big issue.

In Kenya on the other hand, women have already been participating in this sector, but primarily at the lower levels. So it was, you know, in housekeeping or food and beverage and laundry. And they always felt that they couldn't rise, that all the management opportunities were given to their male peers. And there was also concerns about sexual harassment. And so the recommendations were A, to work more with some local organizations that can address some of those cultural issues. And then in with regard to Kenya, to integrate sexual harassment but also even sexual trafficking training in the TVET courses. And also include more of the management courses so that the young women can actually A, see the opportunities, but also grasp those opportunities.

MR. CASSIDY: Just to say the ILO in June at our conference we just adopted an

international convention against violence and harassment in the workplace. It has very far-reaching implications, is something that would go beyond this particular conversation here, but I think this is something that can be very empowering as well too. And it's not just optional, these things have to be put in place to give confidence to young women so that they can work away from the home without being exposed to this because violence and harassment in the workplace does spill into the home life as well too.

Martha, I'd like to come to you speaking here about the TVET programs, the businesses. We've got an example here from Maria. Other examples that you can give about how businesses in Africa, whether they are African-own businesses or businesses that are coming in from Europe or the United States. Are there examples there of effective training of young women? It may not be TVET, maybe it's an employer-led educational service or so?

MS. MUHWEZI: One of the focus is on promoting internship. And promoting internship is trying to run away from theory and going more into practical. And one of the things that has manifested is because of the poor infrastructure within the TVET training institution, most of the TVET graduates come out when they're not well equipped with skills to get employed when they get out there.

So what has been happening is about placing them for internship so that they're able to get additional skills to translate the theory into the practice. And this has been done not necessarily maybe coming from far, but also within, the employers within the countries. It could be the industry, it could be the private sector, it could be the public sector. That has been one of the angles in terms of trying to see that TVET graduates come out when they're employable, because in most cases they lack the employable skills.

MR. CASSIDY: I was wondering about that earlier when we were speaking about this, that talked about some of the post-conflict areas, the conflict areas as well too. Was it the flexibility of the training that allowed the women to sort of reenter, was it about the direct translation of training into a job? And that seems to be speaking to that issue, that if it is led by, say, a company, it can't just be on one technology, whether that technology is working on a

particular type of machine or even just doing housekeeping work. Where is that trajectory?

So do you think that these models have growth potential for women as well too? Or are they basically a dead end for a particular job skill?

MS. MUHWEZI: I would think it has the potential. Because when the girls were getting into TVET, before they got into the training, they had to go through an orientation, what do you call it, an orientation process. Where we had to bring experts from the field, for instance, to enlighten them. Because many of them, if you told them about Plan B, they're not very sure where it's leading them to, and whether they will get the jobs. So there was that orientation which was provided to them. And because of that they were able to pick the courses of their own choice.

But I also have to say that while they pick those courses, not all of them completed with those courses. When they got in there they had to change. And of course there is a percentage that dropped off. And that was because of so many factors. So getting the courses, it had to do with the kind of orientation that they have received, it was to do with who have their seen that has done it, and what has been the success rates. So that's how they got into the different fields.

And many of them have been very successful and it has led to even others joining the same course because they have seen what has happened.

MR. CASSIDY: Anil, I want to push on the area here that we're talking about reducing self-selection by girls out of male-dominated areas as well too. So can you speak a little bit about what that actually means and what you've seen in your analysis?

MR. PAUDEL: Yes, of course. There are very few girls and women who'd like to go into this traditionally what we call male-dominated courses. And it's not also surprising given the environment, given the culture, given the compliance, all those things. There are few girls. But like we've been trying. It takes time, of course. It's not something that, no, this change cannot take place overnight.

But I see, like it's been changing gradually because of the work that organizations like ours do, and the change in time, all these technological things, all these media things. So

especially it's changing gradually. And I hope so in the coming years, coming few years it will change a lot.

But, yes, of course we have a role to play there again. Because from my study when I visited these institutions, it was not surprising to see like few girls who were doing the so-called non-traditional courses, male dominated. And there were only one or two. The first thing is like with most of the girls, they are not well informed about these programs, the first thing. As I told earlier, they have never heard what geomatics engineering is, what automotive means. So like informing and educating them, guiding them, so career guidance I think also plays a very important role.

And the other factor is also of course family factor. With this often they have to travel because these kinds of courses they're not like available close to where they live so they need to travel. And family again. They are okay to send their sons away for a study or for a career, for a job. But in terms of girls, they feel they find it very difficult, so they don't agree easily.

So these factors are there. But I could see some girls who were doing like automotive engineering, and that was very new in the context of Nepal. And I asked them, how was it possible for you to come? And the thing is because most of those girls, I mean who don't know about these programs, the parents are also not well educated. Again, that's the problem. And I saw the girls, because the family were very supportive. It's actually one of the girls said, "It was my father's dream to see me as an automobile engineer." And because her father, he was very educated, well aware. And unfortunately, that's a very rare case. All of the girls, they wouldn't have that kind of situation.

But again, so there's some good thing. Like the other girls, second now become the role model. And once she had started I'm sure the others will follow later. It's just a matter of time. But when there are some who have started and succeeded, and of course and there are organizations like us, there are people who are working for this, we're trying to make changes, transform society. So like in partnership with all our gender force, it is possible. And in the next five years I think things will change a lot.

MR. CASSIDY: All right. We hope.

MR. PAUDEL: We hope. We also, I mean we have a role, we have to act also.

MR. CASSIDY: Yeah. I mean the reason I say that is because you don't know what you don't know, right? I mean I think there are a lot of professions out there that, you know, that a person in Sub-Saharan Africa or in Southeast Asia or Latin America, would be very good at but they're just not aware of what that profession is.

MR. PAUDEL: Yes.

MR. CASSIDY: Does TVET allow for, you know, kind of an onboarding? Is there an interview process in there, is it kind of self-selecting those? Because I think people need that.

So I want to open it up to the audience here. You've got experts here looking at Africa, looking at Latin America, looking at South Asia. Let's challenge them. And now is your chance.

MS. BRINDLMAYER: That wasn't a part of the deal.

MR. CASSIDY: I cheated. Please. Sir, my colleague will be with you in just a second. There we go.

MS. LYNETTE: Thank you very much, I'm Lynette from Zimbabwe. I'm a Member of Parliament. I just want to appreciate the programs which you are implementing. And I agree with you that it's a process, we need to be very, very patient with it.

I just want to find out on your programs, we have got girls who are physically challenged, do you have any programs for them? Because I believe most of them, they can hear the will to participate or to do the issues of sciences in the jobs which are not female dominated. If they choose those kind of programs, because most of them they don't have that kind of assistance from others, do you have any programs for them, so that if they take these programs, after completing the course they will also have something to do. Thank you so much.

MR. CASSIDY: An excellent question. I think, you know, persons with disabilities, if this is what we're speaking about, I mean it's a huge problem. And I think we need to address it. Because this is the billion-dollar sort of answer is that a person with disabilities can actually be

very effective in the workplace. You just have to find the right area for that.

So, please, we have another question? Thank you.

MS. GAMBLE: Hi, my name is Jenny Gamble, I'm with West Virginia University. And I'm really interested in hearing more of your thoughts around access to capital. We know that for social businesses and social entrepreneurs, particularly women, access to capital is one of the hugest barriers. And so I'm curious about kind of that retention into workforce, if access to capital for individuals who are completing TVET programs is a catalyst for business development, if you're seeing success in those areas, and to what degree might access to capital be an incentive for individuals to move into and complete TVET programs.

MR. CASSIDY: All right. So you're talking about access to capital to pay for the education, not necessarily to become entrepreneurs?

MS. GAMBLE: Both. Would access to capital -- have you found access to capital to be helpful in completing education? But then also because of some of the cultural norms around, you know, who is your boss, that kind of thing, have you seen success where young women who are finishing TVET programs and have access to capital, more easily enter into the workforce or establish their own businesses to employ more women?

MR. CASSIDY: Great. Thank you very much for that clarification. The lady with the red polka dotted blouse. I'll come to you in just a moment. We're spinning you in circles. The lady here with the polka dotted blouse. Oh, I thought the red, but we'll have the black and white polka dotted blouse.

MS. LAUREN: Hi, I'm Lauren, I'm the US Director at Educate. We are working in about 1,000 schools in Uganda, Rwanda, and Kenya, this year, giving soft skills, practical education, to young people in high school.

And a question has been in my mind as we've heard a lot today about the impact and effectiveness of TVET and other educational interventions. We're heard a lot about the data for evidence. And I haven't heard a lot about cost. And so I'm curious if you all see when you're reviewing programs and their impact, if you're getting cost data, comparative cost data, especially

as it impacts girls, because we know their returns to success are so high it's helpful to compare

costs, but we have trouble comparing our program to other programs because that data isn't

usually available.

MR. CASSIDY: Fantastic. So we'll go for the other polka dotted blouse. And

then we'll come to the back of the room over there, and then we'll respond. Thank you.

MS. MORRIS: Hi. Emily Morris, American University. And I'm also a Researcher

and Evaluator on Longitudinal Programs of Livelihoods and Works. And one of the things we have

found with TVET is that young people are often trained in one area. So welding or carpentry or

tailoring, but what we actually find is that young people practice mixed and multiple livelihoods in

order to engage with the market, deal with fluctuations, maternity crises, other things, what are

your experiences in the training of TVET, and are they using a more European and US model of

one training area, or are we training in mixed and multiple areas?

MR. CASSIDY: Great. And for the colleague in the back.

MS. FLOW: Hi, my name's Michelle Flow and I'm from the Averson Foundation.

We fund a lot of programs in Sub-Saharan Africa, specifically Uganda, for children or girls'

education from primary years all the way to college.

And one of the challenges that I've seen in our funding is more on impact. A lot of

our girls learn and then they don't have jobs to go to. We get a lot of requests from I guess it was

called polytechnical universities. And we have tried putting capital at the end of the education,

since that's my background. And that didn't work either. Well it worked for a few, but less than

what we expected.

So I'm curious to hear, because I'm relatively new in this field, what has worked in

terms of incentives, at what point in the supply chain or the process of a girl's education are

incentives effective? And how do we educate the families, most of which are vulnerable women to

begin with, to encourage their children to reach for the stars?

MR. CASSIDY: Great. I think we'll stop there, we have five good questions on

girls with disabilities, access to capital, both for training and start-up, soft skills, the cost of data,

we've looked at tailored education, is it one area or is it a range of areas? And then our last question here.

So, please, the panel, let us know what question you want to answer so we can do the best we can.

MR. PAUDEL: A little comment to your question about the disability. Unfortunately we don't have any specific program for disability, but we do have some people with disabilities in our program. It's all again, I mean we have enrolled them if their disability does not affect the trainability factor. If they can come, attend, we have encouraged them. And of course some of them have done very well. And also have transitioned into employment. We have helped with that. And they've been picked, they're working. Very few cases, but of course there's a need.

And there's some organization, not necessarily working in TVET, but other organizations, more specializing with working with and providing opportunities to disabilities. Yes. But us, we have a few of them. And, yes, and we have like success stories, they have succeeded.

MS. BRINDLMAYER: We actually have a grantee in Nepal that works with disabled women and trains them and so I can tell you a little more. It's not a TVET system, but it focuses particularly on that.

MR. PAUDEL: And then I just want to comment about this issue of training, specific training in one particular media. For example, you were talking about welding. What we have tried to do to address that issue is like also providing opportunities for cross training both when they are in the training and even when they are like in job later.

We try like because our programs, our training programs, especially our programs are for those who are not in school, so the length of program is something between six months to one year. And we provide like foundation, for example in our electric sector. So we allow them to try all the different courses that we have, for the first two months. Like housekeeping service and such. And if after two months they decide where to go. So that foundation, I mean the skill, they learn something within that two months. So that also like helps, it makes them quite flexible. With the opportunity for service they can approach that, and if there's like opportunity for housekeeping.

So it helps.

And then also we are working with the industry, the hotel group, which are financing us and where most of our graduates work, after like one year or two year, if they're interested, to go for cross-training, when they're working, they also allow them internally to have this cross training so that in future they can also like jump to enter the field.

MS. BRINDLMAYER: I have something to add to that one. Is I think that's why it's also really important to have the soft skills training included in the TVET program because sometimes employers are actually happy to do the on-the-job training. But it's the soft skills that many employers say that they use are lacking, and so including that in the TVET program I think by itself also provides additional opportunities for our youth to then enter into other job opportunities.

MR. PAUDEL: Right, I agree. And together with the soft skills, entrepreneur skill also, I think becomes very important. Because TVET is not just about finding employment. It also opens the door for self-employment. So industry skill, soft skill, idea skills, really help them in that.

MR. MUHWEZI: Maybe if I could respond to the access to capital. I want to agree with you that capital becomes, it's a challenge. And one thing is that TVET training is costly. And it's costly because of the kind of equipment that is used. But it also now depends with the cost that you're going to do. If one does hairdressing, the costs will not be as high as the one that will do engineering or planning or electrical. Because for some of those courses you have to buy the equipment by yourself. And for those that have been sponsored by civil society, those are some of the costs that are factored within the package that is given in terms of what is required, in terms of the tools that one needs.

But for those that go in instead of sponsorship, it becomes very challenging, and that's why a number of them drop out and they don't complete the cycle.

The other angle of capital in times of like if one wants to be self-employed, it is also another challenge. If that capital is not provided, even if the graduates have the potential to start their own business, it becomes a very big challenge. And that has also been incorporated

into the package for the scholars. But the challenge is the sustainability. Because as civil society you come in today, do something three hours, it ends. Then what happens?

And that's why at FAWE we work very, very closely with the government. Because what we do is what we call demonstrative intervention. It's not like we take over the responsibility of government, but we try to show government that if you want this to succeed, then this is the way to go.

And like I mentioned earlier, it's one of the issues that the African Union has picked up. And it is one of the issues that needs to be considered. Because we have challenged governments that you have open potential all over the place. But then what happens, trying to link it to employability. Because, well, you can give them an excuse. But if I don't make use of those skills, then it may not create a very big difference. And those are some of the things that we are working on as Sub-Saharan organizations, holding government accountable, putting them at task, conducting studies and trying to make recommendations to them in terms of if we want to make this training meaningful and useful, then this is what needs to be done. And CAPTOS, set up CAPTOS, that's what we are calling it, is one of the issues that we are working on here.

MR. CASSIDY: You know, just from the ILO perspective, you know, this is a massive problem. I mean we need to find gainful employment for people, right? I mean we have populations that are growing. You know, a good job is the best way out of poverty. I mean there's a reason that decent work is Goal Eight in the SDGs. A good job will help you avoid poverty, avoid hunger, will provide better education, it will actually contribute toward women's empowerment and gender equality. It will work towards environmental sustainability as well too. So job creation is extraordinarily important.

We have a lot of mitigating factors with the quality of education, the quality of those jobs, the informality in many countries as well too where people are not protected. The lack of protection for people in the workplace, the lack of qualified labor inspectors who could route out problems in global supply chains.

But there are a number of responses. I think we're seeing here examples about

from the ground up how we're building those systems. But it doesn't require little interventions here and there, it requires a holistic response where the government has to have the political will to make that happen. They are the only ones who can actually afford to put this in place.

We have at the ILO something called Social Protection Floor. We came up with a convention and a recommendation, and right now Social Protection Floor is everything from, in the States you would see it as WICK or SNAP, you know, nutritional assistance. This helps as an economic stabilizer, it helps create a floor so people don't fall below the poverty line. Because any money or food that's given to people goes right back into the economy itself. So these are not costs, these are actually investments in people, investment in the populous. That needs to be done.

On disabilities the ILO has a Global Disability Network. Yes, it only operates in some parts of Asia and Europe, but there is some examples of how that works. The idea here about for example I was just interviewing a gentleman out in the Midwest who is blind. And he says, you know, I can listen at four times the rate of somebody who is sighted. That person has a comparative advantage.

I was meeting up with someone who has been deaf since birth. This person is a software enterprise engineer. I mean this person is focused on his work. And in his part time he write different applications to help his business be more effective. There are many ways in which those who are differently abled can actually contribute to society, right?

In terms of access to capital, I mean the ILO likes to work on programs that train people entrepreneurship, start and improve your business. I'll go back a few years, out of the Banda Aceh and the tsunami had struck, a lot of people lost everything, right? It came in, it destroyed the entire environment. We were training young women on how to do market analysis, how to apply for a loan, you know, what it meant to start a business. I mean we think of that as something that's very simple, but these are things that people need to know. How to access the capital itself. There are associations, business associations, there are workers' organizations through trade unions or workers' associations. There's a lot of things that can be done.

And quite honestly, in terms of the global supply chain, you'll find that women run businesses that integrate into global value chains actually adds greater value at the domestic level.

So that's what we need to encourage as well too, and bring more women entrepreneur on line by providing them with the capital, because I think at the end of the day it's about who pays for the training. It cannot always be on the shoulders of the individual, that has to be shared fairly. And companies that are going in, they are benefitting from a talented pipeline, or that talent pipeline. They should also be able to contribute to that as well too.

I'll take a few more questions from the floor. To those maybe who haven't spoken yet. The gentleman here.

MR. ELLIS: Hi, my name is Michael Ellis, I'm an intern in Congressman Kind's office.

I was curious, you mentioned access to capital. Do you guys have a number, roughly, on like let's say someone was just going to give you guys money, like how much do you need? Great, here's how much money you can have. What does that number sort of look like or what are the estimates on that number?

MR. CASSIDY: Can you refine that slightly? I mean access to capital for what? I mean if somebody's coming to start their education, someone is just starting a business, somebody who is, you know, has an existing business, wants to increase? I'm sorry.

MR. ELLIS: So let's say we have all these institutions and then there's an underserved population. If you're going to, everyone who wanted this sort of training and could do this sort of training, if you're going to train all of them.

MR. CASSIDY: Right.

MR. ELLIS: How much money would you need?

MR. CASSIDY: Okay. We'll provide you with some written documentation very shortly on that, as long as you're writing legislation.

The young lady behind the gentleman there.

MS. PIZZICONI: I have a question in terms of just if you've come across this at all. I've become quite fascinated with the role of trauma for this population and how it effects their ability to perform well, their ability to pass courses and to get jobs, to keep jobs. We found it ourselves --

Sorry, I'm Andrea Pizziconi, I'm the Founder of African Integras, and we've just launched a new initiative that actually started a year ago here at Brookings. The idea came called Girls First Finance. And one of the things we found is that most of these young women are traumatized from abuse. And not addressing that means the access to capital is irrelevant. The studies show that if you give them skills but if you don't heal the underlying traumas, then the PTSD still -- has anybody seen this treated, and has anybody seen a TVET that focuses on training mental health at a technical level, kind of social workers, you know, very low kind of low-level three-month courses? That's my question.

MR. CASSIDY: Right. Thank you. The gentleman in the front here, please.

MR. BALAGI: Hi, my name is Balagi, Making Cents International. My question is around the thought process that organizations put behind when selecting individuals or locations to implement projects like this. What is your thought process, because there is a general saying that talents are everywhere but opportunity is not. So what I see sometimes is that, you know, organizations are primarily for a particular region, a particular location, whereas sometimes these opportunities can be created in locations that more people drive the kind of change we want to see. So for example instead of really committing projects in location A or B, you know, what thought processes or conditions would be put in the programs in location C?

MR. CASSIDY: Okay. We will take two more questions. The young lady here in the shawl. And then the lady in the back.

MS. NASSIGER: Hi, I'm Allison Nassiger from META. I had two questions. The first, one of you mentioned having targets for young women in your TVET programs, but also LGBTQ youth population. I was wondering how you target that population without exposing them to danger? Most of the work that I do within East Africa where we wouldn't be able to openly

target.

And then my second question is, we've been talking a lot about adapting programs to be more women friendly, girl friendly, specifically around times or child care, and I'm just curious if you have examples or ideas of programs that are educating boys and men to be more involved in reproductive roles and household work so that they're sharing the responsibility with women as opposed to just adapting things so that women can do both?

MR. CASSIDY: Excellent. And in the back, please.

MS. KENNEDY: Great. Sundazmen Kennedy and I'm from Jamaica. My context is somewhat different as it relates to TVET. While we have a massive TVET sector, one of the issues that we contend with is the level of stigmatization as to who goes into TVET. The gender issue is not there, but we tend to find persons who are "more able" tend to go into other sectors like medicine and so forth. And maybe those that we tend to classify as less able tend to go into certain levels of tech work. I don't know if this is an international practice. And maybe somebody has some sort of solution as to how we can address this.

MR. CASSIDY: Great. So I open it back up to the panel. If you would please be kind to respond to what question we may have on the table now.

MS. BRINDLMAYER: I'd like to address one of the questions that was asked before about the cost issues. So it's true that I think for almost all education programs there isn't much cost information available. I think J. Powell is one of the few organizations that actually has some interactively collected some of the cost information. But this is changing. USA is now requiring of all of its education programs that cost data will be provided so in a kind of consistent way. So hopefully in four or five years we will actually be in a different place from where we are now, but it's definitely still a challenge now.

One of the other questions was about LGBTQ youth. I can't talk to the details, I don't know the program in that much detail, but I'll be happy to put you in touch with them. It wasn't necessarily that they set a target for recruiting them but I think what it was is being really open and actually as they were doing the interview process of who was applying, to really be open

and inviting them in, and then actually addressing them throughout the program. So it was that welcoming and that openness and have that declared at least, internal openness that that's what they were also trying to incorporate into the program. But I'll be happy to follow up more.

MS. MUHWEZI: If I can just touch on the support for those who are traumatized. That's why of recent it has been realized that it is very important to come up with a comprehensive support. If you're giving support for a sense, if you're putting girls or boys in the TVET. It's not about teaching, it goes beyond teaching. And that's why there is such a support that's good for the girls that had dropped out, like I was talking about conflict. You can't just give them teaching, and that they will not complete. So there is that support that goes on through that social circle, and then there's the mentorship.

Those are a must within the whole entire training. And in some of the cases we even go ahead to attach specific support to specific individuals. Because again, they also have different experiences and they would need that kind of level. So it is that comprehensive support, not only for focusing and giving them teaching. You give them teaching, you forget about the others, then they will still be a big challenge to that.

MR. PAUDEL: I want to comment to your question about the cost. Yes, I can give example from my program. So we started this program in 2013, the Echidna Program. And, yes, of course, as Martha said, vocational education is relatively expensive than general education. I heard like the cost for one, to train one, will support around three children and three people for general education. So in my guess, it's like, as I said earlier, six months up to one year of training program, and because we are like hospitality and so far, we have three different additional courses, housekeeping, safe, and service. And we need (inaudible) thousand dollars to train one. And also to ensure their placement after the training.

And the second one, again, about this trauma issue. We haven't had this kind of program but I have observed. And it was not very successful. The training program, the work training program, TVET. And what we learned is because first you need to be heavily give them the training, and then rehab condition cannot go side by side. There is this trainability factor, of

course those who are in trauma, because they have other different needs. So that does not, we have found, does not go very like along very well.

And the last question about working with men and boys. Yes, of course, we need to work with men and boys directly and indirectly, formally and informally. After all, the man's the decision maker in the family, in the community at large. So I give the example of Luxme, in that case we had to work together with her father especially. We took her to see the programs, and oftentimes you need to communicate with them, assure them, convince them. If you are not able then you need like some third party. It could be like a teacher, and usually the teachers are male. Or the community leader, yes. So, yes, directly and indirectly, in different ways we work together with boys and men. Otherwise it won't be possible.

MR. CASSIDY: Well these have been fascinating discussions. I think we could probably go on either further. I just want to make two quick comments to say that the cost of investing in people is only a fraction of the loss in economic growth and productivity. And we certainly can provide details from our point of view.

Also, we don't need to fix women, we just need to fix the perception of men and boys of women and their role in society today. And that is about responsibilities and everything from care on down the line to opportunities.

I'm really privileged to be here with Anil, with Maria and Martha, my email is Cassidy@ILO.org. I'm happy to connect you with our experts around the field around the world. So anything that you have in addition, please let us know. And of course the colleagues here are available if you wish to speak to them subsequent to them.

Thank you very much everyone. Greatly appreciate you being here.

(Recess)

MS. KWAUK: Okay, we're going to get started, everyone, if you can make your way to your seats. We're just going to do a quick wrap-up panel here.

Welcome back, everyone. I hope you all had the chance to get in depth into some of those discussions in the breakout sessions. For our Echidna Scholars you've almost made it

through the day. (Laughter) Almost there.

So we wanted to create some space at the end of the day to really allow some reflection by each of you and really getting a chance to not only think about the day. We've had a long day in terms of looking at the different policy level implications for each of your work, looking at practice level, lessons learned, challenges to implementation, and really wanted to get a chance to hear from you all as those important bridges between the global policy discourse and local actions that's happening on the ground, kind of how to make sense of this.

We have had many opportunities throughout your residency here over the last four and a half months to really get in-depth into each of your work, conversations that the audience hasn't been privy to. And so I wanted to open up some of those conversations to really give them a sense of, you know, how are you all connecting those dots? How are you all leveraging not only your own research, but also the resources that have, you know, come at the beginning of the program, throughout the program, that will be coming after the program in terms of really catalyzing some of those deeper systemic change that we've been talking about all throughout the day.

So I wanted you all to kind of maybe reflect a little bit on how you see the threads running through your work, early childhood, adolescence, transitions to work. How do you all see the importance and those connecting points, those bridges?

Any of you want to start?

MS. SIDDIQA: All right. This is a wonderful program, I have to say. Already we have (inaudible) and (inaudible). And we always used to say that Samyukta is going to start with the early childhood and then she's supposed to send them to the secondary level. I will take care for the STEM and other skills. And then Anil will take care that whether they can complete to the work transition. So this is the way we are working. And we found lots of challenges, barriers, and sometimes it happened that when we got some resources, I say that, Samyukta, this STEM knowledge is exactly required for the child education and vice-versa, in the same way. So this is the place we made. And I think my colleague can say what happened.

MR. PAUDEL: Yeah, I think connecting the dots is very important, especially when you're talking about education across a girl's lifetime. So early childhood is the foundation which prepares children for their childhood where STEM comes. And I think STEM, again, preparing children for adolescence, this childhood to adolescence, adulthood; childhood to livelihood is very important. And that would, again be a very good foundation for different choices, careers, and for their education in the future, especially in terms of TVET, STEM would be a very good foundation.

And I think working together here for the last four and a half months in these three different areas was, I think, a wonderful experience. And I'm sure, like we were also able to learn from each other a lot. And then, also, it helped to connect these dots.

MS. KWAUK: But then, you know, going back even to this morning's panel where we talked about the need to really focus. And, you know, learning across a lifetime or thinking about entry points across a lifetime, do we risk diluting our organizational efforts? Is there something that needs to be better coordinated across?

I mean, each of you sit at a practitioner perspective. And so I'm really curious how you see this balance between diluting versus focusing at a specific entry point.

MS. SUBRAMANIAN: What you say is absolutely true. And I think we always need to think about do I want to spread my efforts or do I want to go in depth with one of them? and I think my learning with the scholar has been that one has to be be -- one my focus on one area, but one has to be mindful of what came before and what comes after.

So my solution is not -- it's not going to -- it may mitigate some of the disadvantages that we see, but it may not be enough and we will still yet another solution. But to be mindful of that, I think would also help me to think about how my solution needs to be.

So one instance, I was thinking that, you know, there may be so many. We are talking about a gender transformative approach in the early years today. But there are so many millions who are going to a secondary education anyway, you know, before what I'm saying actually takes shape. And so for people in middle school and later on to be mindful that these are

children coming without a preschool education may change what you're going to be doing in the later years.

So I feel like to be cognizant of it, even though you're not -- but to know the whole picture before you narrow down on one of the people in that picture would be important.

MS. KWAUK: all right. So it's quite cyclical. On the one hand, we're trying to catch those that have already gone or are already in the system to make sure that their transition to livelihoods and adulthood is smooth, while also ensuring that those who are entering the system are having a very transformed sort of experience, right?

MS. SUBRAMANIAN: Yeah.

MS. KWAUK: Well, how do any of the other two of you see that?

MR. PAUDEL: I think it's good to have a specific focus on one area. But that doesn't mean that -- but you need to be aware because, after all, they're all connected. So if you are engaged and aware about -- it's again like childhood to livelihood or childhood to adulthood. There are different stages. It's a cycle. And I might be focused in one area, but if I'm not aware about the other area, how can I prepare for the next stage?

Again, so in terms of modernizing, yes, we are more into TVET, but we also support the basic education, so that when they complete basic education, they have at least this qualification so that they can go into TVET or like secondary, postsecondary level of education.

MS. KWAUK: That's great. So today we've also been trying to tackle the task of connecting research to policy to practice. And given that you all are practitioners, you have that importance of position in our ecosystem of work to really bring all those pieces together.

And so I wanted to ask Nasrin, you know, your work in our morning session around the policy and our afternoon breakout session around practice, has really tried to tackle the issue of STEM education and STEM education as an entry point into that broader opportunity to learn the breadth of skills. Right? It's not just about the STEM subjects, but it's about STEM skills and the kinds of thinking and skills that STEM can enable.

So how do you see your organization bridging the research not only that your work

has presented, but the work of others in this space to the policy, to the practice? How do you see

your organization kind of really being that bridge?

MS. SIDDIQA: Yes. So let me give an example that in 2015, when we just

included the term "STEM" in front of teachers, after that, after four or five years, and now, recently

I came to know that one of our ministers said that I heard about STEM. How could we implement

it?

So this is the policy and practice if we start our work and we can knock to the

policymakers that, yes, it is highly required and vice versa. Policymakers also can bring some

good solutions and suggestions from different countries and talk to the practitioners. But definitely,

the bridge is required that we have to inform to our policymakers and they have to understand that

practitioners who are working, NGOs who are working, and civil society who are working, from

them also we have to take some ideas and suggestions how they are working in the field

(inaudible).

So in this way we are working with the policymakers that when we -- I will go back.

So we have to continuously knock for a good education system and curriculum. And in any

program, we always try to keep the policymakers, the ministry level people, so that we can give

the message to them. So the (inaudible), the symposium, or the workshop, we always welcome

them from different sectors, education sectors and other sectors and foreign affairs sectors, as

well, so that we can give them the message, especially now what we said in Brookings, what we

did in our research. It's our duty. I think that I will go back and I will definitely share it with our

policymakers so that it will be easier for me to implement it in the field.

MS. KWAUK: Thank you. And Samyukta, with your work, you also sit at a very

unique moment. In the morning's panel we talked about a unique policy moment with a new draft

of the education policy and its attention to the early childhood years. I'm curious, after your two

sessions, focus on those policy implications and then focus on the challenges of actually doing

that work and expanding preschools into the government schools.

What might existing practices illustrate things that are missing in the policy? And

what might some of the policy discussions indicate to you might be missing in practice or potentially impede good practice or facilitate new practice? I'm curious about, you know, the both ways. How does policy and practice come together now for you?

MS. SUBRAMANIAN: So I think over the day we've been discussing what needs to be done. And really, if we want practice to influence policy, then we need to demonstrate what things look like in practice. And do it at scale in a country, like India, so that people wake up, watch, learn, and so that that feeds back into the policy.

But the policy, like in an earlier panel this was mentioned, the policy and its approach, just the fact that they're giving so much importance to early childhood education, there's a three- to eight-year continuum that they are talking about. That, I think, will facilitate the environment within the country to begin to look at this. So I think it should be and hopefully it will be a symbiotic relationship.

Having said that, the policy, you know, does not talk about gender in the early years. In fact, it only talks about gender in the chapter on inclusive education. And to me as a woman reading it, I felt like, you know, who were the rest of the chapters for? (Laughter)

So I feel like -- but I'm an optimist, so this is a draft policy. There's a draft. And so we've sent our recommendations saying, hey, we're out there, too. You know, can we do this?

So practice I think changes policy and policy does have the potential to change practice across the country. That's the sort of weight that it carries.

And so I'm hoping that, you know, with the sort of research that we have done here and the kind of work that I hope to carry on back home, we'll be able to influence both because they're equally important.

MS. KWAUK: And you had some of the specifics, too. You mentioned in some of our conversations, you know, not fixing what isn't broken, right? And that there may be some really good things that the Anganwadi system has unrecovered, especially through your research, that really at a policy level, especially one that's sort of separate from the ministry that is responsible for the community-based education preschools, that they're missing. So I think there's

another piece there. I don't know if you can comment on that one.

MS. SUBRAMANIAN: So I feel like sometimes policymakers look at structures and not at functions. And I think that's where the confusion begins. So, for instance, it's not about, you know, who's doing it. It's about what's happening. Right?

So, for instance, if you have teachers in community-based preschool centers out there with a bond with the community, how do you want to leverage that to move forward rather than talking about introducing a new structure, which has not found that bond yet. So it's almost like you're reinventing the wheel.

So the policy does say, you know, bring in Anganwadis into schools. It says open up more preschools. It says open up more preschools within schools. It says (inaudible) everything around you. And it says keep it to the Education Department, you know. So I think that can be very confusing and it can also lead to a lot of wastage in time and effort because you'll be looking at people who haven't really don't things before, whereas right next to you, outside the school you may have a neighborhood preschool center that has tried something, has failed, and we can learn from them.

And that is something that I am concerned about, but I'm hopeful that over time we will be able to understand that we can learn from each other rather than trying to shut down something and then starting a whole new process.

MS. SIDDIQA: So, yes, I want to just add one thing, that sometimes our policymakers are too serious about something where they don't need to be too serious. So like teachers (inaudible) the school head, principal. So when the local leaders and politicians that they directly come and interfere that who will be the school head, so then we get some very bad or weird selection there in that case.

So rather than doing that, they have to give emphasis for the good policy and education system. And they have to know that who is the right person for what. So we have to take care of that, also.

MS. KWAUK: Right. So getting rid of some of the inclinations to kind of fall into

potential corrupt practices in terms of really thinking about how the political prestige is higher or greater than the quality of what's actually happening in the schools, and that's a very important point, too.

So importantly, I think, also, all of your research has attempted to highlight the importance of addressing the underlying social and gender norms that are driving the gender unequal relations of power that are happening in and through with the education system, which then negatively affects girls; learning outcomes, their life outcomes, and it just keeps going in a vicious cycle, right? Especially in the context that each of your work has illuminated for us.

Anil, your work also really helped us see the connections between connecting kind of not only the supply and demand question, but really thinking about how do you change systems both at those angles.

So you talked about the story of Lakshmi (phonetic) and how important it is to have the social safety nets to ensure that girls who are marginalized and vulnerable do not fall out of the system, out of the pathways from school to work. At the same time, you're also talking about the systems change that needs to happen from industry and really pushing the industry to, you know, look inward and reflect on and change, radically change, some of the gender stereotypes that are happening within industry and the gender structures and policies and processes that are preventing women and girls from entering the workforce.

So how do we push the industry side? And I think this goes not only for the industry, but it also goes for maybe private sector partners who might be, in the previous panel talking about the private sector partners, that might be investing in STEM education in schools or thinking about the education ministries. You mentioned how the Anganwadis is all women. Essentially every Anganwadi teacher is a woman and her support staff are women, you know. So think about how do we really address the system that is inputting or receiving girls? I'm curious from your perspective how can we assure that we move the needle on that?

MR. PAUDEL: I believe the best way to influence someone is by working together. So, yes, we need to work together with the private sector. If we don't engage them, then

it's very difficult to push. So we need to make them partners. We need to collaborate and, as a rule, that (inaudible) from the government side, government and the responsible authorities. They have to promote and encourage the partnership, especially a partnership between government agencies, private sector, and also in our case it's a partnership which has worked very well, a partnership between NGOs and private sector and the industry.

And I also see it as a very good opportunity for private sectors. Not only opportunity, also obligations, as part of their (inaudible) responsibility, so to invest in these kinds of programs. And by investing in this, it's not, as we said earlier, it's not just an investment. It brings return which was also equally beneficial to them, like when there is like a (inaudible) population, training skilled people who they need, that's equally beneficial for them, also.

And especially in terms of TVET, there's this financing issue because TVET is quite expensive than general education and government alone cannot do. So there's a need of private sector involvement. They have to finance, but also they get a benefit.

So that's, I think, how it works best. And, yeah, again, so we need to have this kind of partnership. But also from the top, from the high level, there should also be regulations and enforcement, together with like encouraging and promoting. This will also be regulation, monitoring, and enforcement.

MS. KWAUK: Great. Any other reflecting thoughts?

So this morning we also talked in the very first panel about the global girls' education community really shifting the discourse and lifting the bar in terms of our vision for a gender transformative education. And from your roles, especially thinking forward around how you will be that bridge between connecting the -- what's happening in the global discourse to what's happening at home, I'm curious if you can sort of share your thoughts on whether this really is just a new buzzword or do you see this discursive shift actually potentially shifting the way you all will do your work on the ground?

MS. SUBRAMANIAN: I think with my work here, I have been exposed to what gender transformation would entail, not only what do the terms mean, but, you know, how does it

open out in practice; looking at, you know, research as well as what has been tried out in different countries. So I would that, you know, there's a lot that I have learned which goes beyond the terminology or the buzzword over it, which I can take back home.

But having said that, you know, going back to my country I will have to also think about the context, think about the language. And I remember talking to a professor here who -- and we talked about different languages. And he said many of our languages don't even have a term for gender. And if we don't have a term for it and the term that's there is so technical that most people don't know what it is, they don't understand it.

So I will have to sort of translate that into something meaningful so that it actually works on the ground, and that's going to be my challenge.

MS. KWAUK: Thank you.

MS. SIDDIQA: Samyukta is starting work from the preschool for gender-sensitive issues, gender-sensitive classroom she is taking. So they I was thinking that it starts specifically from the embryo stage. So there are lots of examples in India and Bangladesh, I think, in Nepal as well. Still, after the sonography when they come to know that that is the boy child or a girl child, they go for abortion if it is a girl child.

So gender-sensitive issues, these issues start from that stage, then it comes in the preschool of the child. And now we are talking about the gender-sensitive classroom, but what about the mindset what starts from that level? So we have to think in that way. And we have to introduce it in our education curriculum so that boys and girls, they come to know about this gender-sensitive issue and how to value the human being, not considering they're boy and girl. So we have to introduce it directly in our curriculum.

MS. KWAUK: Mm-hmm. It reminds me of a very strange ritual of the U.S. around gender reveal parties when a couple reveals the gender of their not-yet-born child. So there's much to be made and needed to be done in terms of really transforming mindsets everywhere when it comes to that.

Anil, any thoughts from you?

MR. PAUDEL: I feel myself more responsible now, especially given all the learnings and the exposure that I have had here. And so (inaudible) tells me now when I go back, I need to review and reflect my one program, my organization, and to be critical. And then try to revise, improve them from this new insight that I have got here that I have learned.

MS. KWAUK: So I think the audience might be very curious what each of you plans to do, the very first thing you plan to do, when you return home to see the vision that you all have laid out in your research. What do you hope to do when you get home to see that come into fruition?

MS. SIDDIQA: We have miles to go, I have to say. But exactly what we are -- my plan is, after going back I will go for a month-long STEM program for the teachers training, (inaudible), talk with the policy-level people. And I'm committed to those 30 schools from where I have collected data and did surveys, so we have to organize some teachers training and training for the students. So some STEM Olympiad (phonetic) and (inaudible) and I will figure out different programs and lots of ideas I got from Brookings. So I'm going to implement it and a month-long STEM program will be my first assignment, and then I will go forward.

MS. KWAUK: Great., you know

MS. SUBRAMANIAN: Yeah. So my challenge is going to be to put into practice what I'm saying here, so that I walk the talk. (Laughter) I hope to be able to set up a lab back home in partnership with the Delhi government where I can demonstrate what I mean when I talk about gender-transformative approach in early childhood education, so that I can -- and, I mean, I may fail and I may succeed, but there'll be a learning out of that.

But I feel like we need to -- I've been saying that practice needs to inform policy, so what does that practice look like is going to be my challenge back home. And I invite everyone here to, you know, help me in overcoming this challenge because it's not an easy one.

MS. SIDDIQA: We are with you. (Laughter)

MS. KWAUK: Anil?

MR. PAUDEL: There's a need for me when I go back. The first thing is to

disseminate and inform the findings of my research to the relevant stakeholders. And also, I have this opportunity because, especially talking about TVET, we have this program, (inaudible) training program that my organization runs, and we have this opportunity to provide it as a model to the government. So together with that model, the evidence that it has worked very well, and together with the finding of my research, hope we'll be able to translate this practice into policy, into changing the (inaudible) system, and focus and emphasize more technical and vocational (inaudible) and training.

MS. KWAUK: Great. Well, I want to thank you three for your incredible work and for the honor and privilege for allowing me to work alongside with you for the last four and a half months. So just a huge round of applause to you all. (Applause)

So I know that I'm standing between you all and wine and some nice food, so I'm going to make my closing remarks very brief. I wanted to thank Rob Jenkins, our three moderators who some are still in the room, our marvelous panelists who have really helped us to broaden and deepen our conversations throughout the day around early childhood education, STEM education, and technical and vocational education and training. It hasn't been, you know -- it's not every day that we get to squeeze all three of these different entry points into a single symposium, so thank you all for making the conversations possible.

I also wanted to thank the team: Amanda Braga, Natalie Geismar, Lorenna Maysonet, Katie Portnoy, Sarah Painting (phonetic), and the rest of the CUE staff for making this event just absolutely flawless and seamless. So thank you all for your really great effort. (Applause)

Thank you to Rebecca and Emiliana for supporting all of us and the work we do here. Thank you everyone here for spending the whole day with us. It's already a long day, I know. And also thanks to those who couldn't be here with us, but who are at the core of the work that you all are doing and the work that you all are doing up here, as well.

I wanted to say that we are also proud to be celebrating five years of collective ambition of among more than 60 organizations to align their organizational activities and vision to

one or more five evidence-driven, evidence-based priority areas of access, quality, transitions,

safety, and local leadership. These organizations came together in 2014 under a global

commitment to action in support of girls CHARGE, the Collaborative for Harnessing and Raising

Ambition for Girls' Education. CUE has been proud to have served as its chair for the last five

years and to see so much progress made in girls' education.

Today, Girls CHARGE has seen nearly 4 million more girls in school, over

200,000 teachers trained to deliver higher quality education for girls, and committed more than

$1.1 billion to girls' education, including 500,000 leaders in girls' education to promote those efforts

and to promote those dollars into the classroom and into girls' clubs around the world.

So definitely a great celebration, a great reason to celebrate today. But I think

also in vein of that, you know, wanting to be critical and wanting to make sure that we're not just

patting ourselves on the back for some progress made. I hope that you'll be able to use the

networking reception to make connections with each other so that we can collaborate even further

and make 100 more miles closer to the goal of achieving gender equality (inaudible) through

education.

So thank you to our Girls CHARGE members who have stuck it with us for the last

five years. This networking celebration is in honor of all of you, so thank you so much.

And thank you to our Echidna Global Scholars again for this wonderful day.

Thanks. (Applause)

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