

Panel on Initiatives in Higher Education
October 30, 2014

MARK HUGO LOPEZ. My name is Mark Lopez and I'm at the Pew Research Center here in Washington, DC. I'm not sure if everybody here knows about the Pew Research Center but we're a group that does a lot of research. We actually call ourselves a fact tank rather than a think tank which means that we have a lot of information and data but we never take a position on policy. So, I might get asked some policy questions, I might have to say sorry I don't have an answer, so please forgive me if I do. But I do want to talk a little bit about, before we get started here, about some of the interesting things that are happening in the think tank world. The issue of diversity is something that's been of concern of organizations like the Pew Research Center, also Brookings, also--or the Urban Institute, et cetera, and a number of programs that I've become aware of over the last few years had been put in place to try to affect the pipeline, to affect diversity at these organizations, et cetera. I will say though that just like economics is struggling to address the issues of diversity both within the pipeline and faculty and the production of economists, you are seeing these same questions and concerns about diversity occurring in other fields as well. Particularly, I want to point out the public opinion research world which I think is in some ways more diverse, there's a lot of gender diversity, but in other ways, when it comes to racial and ethnic diversity or international diversity, there isn't quite as much. And so, the same questions and concerns about how to affect that pipeline are exactly the conversations you hear happening at the American Association of Public Opinion Research. You hear it happening in other fields as well and you hear it happening among the think tanks here in Washington. So, with that introduction, I think we're going to get started here and we have all the presentations I think loaded up and ready to go. First, we're going to have Kaye

Husbands Fealing who is the chair of the School of Public Policy at the Georgia Institute of Technology. She's going to talk to us a little bit about STEM. So, do we have the--Yes. Great.

KAYE HUSBANDS FEALING. Thank you.

MARK HUGO LOPEZ. Yes, thank you.

[Inaudible Discussion]

KAYE HUSBANDS FEALING. Well, good morning, and I'm happy to be here. This is an important topic for me for many reasons and you'll see that as I go through this presentation then I'll talk a little bit at the end if I have time about why this is not just important in terms of a career in research but also important on a personal level as I have a daughter, 17, interested in mathematics and science, and I'm hoping that the environment that she's about to go into in the fall, next fall in terms of college will be a little bit more welcoming but, gee, we were--I have to make some fast advances in order for that to happen but let's just, you know, go through the presentation but you should know that this is tremendously important and heartfelt in terms of the results that you're about to see. My topic here is the science of broadening participation in STEM: Science, Technology, Engineering and Mathematics. Many of the datasets that exist, especially those that come from the National Science Foundation, include some of the social sciences or social sciences in STEM. So it's not excluded here that we are social scientists and we're talking about STEM. The agenda, or my outline, I want to talk about some concepts and you see many of them already actually. And what the problem is, you've seen some of the data, this will reinforce some of what you've already heard, interventions that are considered and a lot more for consideration today in the dialogues that we're going to have later this afternoon. A call for action, I am a firm believer in not just talking about it but let's try to see what we can actually get done. I think Bill Spriggs has talked about that a little bit already, ways forward as well. So

conceptually, how do we frame the broadening participation issue for dialogue and action? A couple of definitions upfront and reasons why this is important, equity concern of why broadened participation, policies can produce and reproduce power and inequality. So being in the position of power allows one to determine how powerful those that your policies can affect. So, diversity in those positions really matter. Efficiency concerns: having a homogenous thought can often exclude more efficient methodologies, and we've heard that many times already today. And increased productivity for using underutilized human capital is another reason, poignant reason, for broadening participation. Now, we're not going to travel through time and look at a war strategy here. But this is just an illustration of what a pipeline looks like and the type of pipeline that we're talking about, one that could actually be somewhat bountiful early on even if you're looking at students that are in elementary school that are thinking about the world ahead and hearing about all kinds of cool stuff and thinking they possibly can participate in those things, and they get to high school and then college possibly, and then maybe graduate school and the line, the pipeline, thins out. So this is just an illustration. Another illustration of the pipeline metaphor which we've heard many times again already this morning, still look at the pipeline which is really very--not many trunks and random chances of placement. You come through kindergarten to 12, you come through elementary school all the way through high school, again, potentially college, and this is one to do with medical school application. And look at how one can move through either to going into a PhD in teaching, in medicine or going to an MD. The one on the right, the outline and the pipeline on the right side shows a slightly different pipeline with, to the right of that diagram, you see enrichment programs for teachers and students, undergraduate research experience, premed research experience, other ways, other interventions that could exist that means for proliferation of opportunities at the end of the

pipeline but it's still a pipeline metaphor. All right? It's still coming through and trying to see if people can be groomed through this pipeline. I like to think in terms of pathways to STEM more so than just the pipeline. If we always think of, you know, you took the AP classes in high school and you did the, you got the four or the five, you went to the best college possible, best university possible, you were summa cum laude, you apply to grad school for the PhD, of course, you get into one of the best schools. And then you go off and you go on the job market and you get into a great institution either at a Fed or at an institution of higher learning or a business or something like that. If that is the pipeline metaphor, where can an intervention, how can someone get into that jet stream if they had very different circumstances early on in life, and they find themselves at 35 years old, 40 years old, and they think, "You know, I really want to change. I want to do something a little differently." They can't go back and revisit taking the AP classes, going through getting, you know, summa--going through the grad school but... They can't go back that way. But what are the pathways into that opportunity that may be much more relevant for people who have maybe potentially a real different story early in life. It could be income related, it could be many things. So, I would like to introduce that concept of not just a pipeline but also pathways into STEM. And that's what this diagram is about. I can go into that a little later or give you the citation for it. But it's an interesting one and it's talking about pathways to science, technology, engineering, mathematics and medicine, so it's STEMM. OK? What is the problem? The data are clear. You've seen it in many different respects again. But the first, the bottom line, is the share of women in economics, the share of women in social science without econ in there is the green bar. And just for contrast, the share of women in psychology. OK? Obvious differences, 20, it's actually about 18 to 25 percentage point differences between the blue line or that line on the bottom, if you can't see the colors, and the

line in the middle. When I'm talking about diversity, oftentimes, just as an aside, I'm also talking about diversity with respect to people with disabilities. So, just now, it's one of the things I've learned even in my own teaching that you just don't assume everybody can see the colors. We have to say where things are relatively. So, hopefully the people with disabilities will come into the picture into our discussion later on. This is another slide to show the disparities that exist that are very clear, again, based on NSF data survey of doctoral recipients. The only group that cracks above 10 percent other than white non-Hispanic is Asian non-Hispanic. Everyone else is down between basically one and five percent in terms of this share. Donna Ginther who is in the room and Shu Kahn have done some research on this. I just want to mention some of the statistics again. Controlling for publications, citations, they find a 14 percent point, percentage point gender gap in a probability of promotion to tenure. So moving from just looking at education, on your education, in terms of undergraduate and graduate school, but even if you get into the profession as a professor that the gap and being able to be promoted, also there's a disparity there. And you saw some of the disparities in wages as well. The problems that are identified for women are also shown here by another paper by Ginther and Kahn and also one by Blau, Ferber and Winkler. The lack of research networks, the lack of role models and informal, and the lack of informal relationships. And I want to point out here that it's not just the formal mentoring processes that matter but informal networks have been shown to really matter as well in terms of advancement, promotion and opportunities. Marie Mora who is also in the room has the statement which basically boils down to perceptions of the returns matter. So, it's not just a supply through whatever pipeline or pathways metaphor that you want to use but also the perceptions of what are my opportunities if I were to go on and take on the challenge of going to graduate school in economics or one of the other STEM fields. That matters as well. So, any of

the corrections, any of the interventions that we talk about have to consider not just the flow but also the perceptions on, of the individuals that we're discussing. Interventions considered: what works and what does not work. And when I say what doesn't work, you'll see a slide on that. And really this is, the point of that is to say, it's not a one size fits all. So some things have been shown just not to work wholeheartedly. Other things have been shown not to work for certain populations. So, Leggon and Pearson, two sociologists, one is in actually in my school and the other is in another unit at Georgia Tech, has an assessment and evaluation paper where they looked at a number of different programs. You can see on the slide 36 different programs. Seven programs were shown to be exemplary, five programs promising and the rest not very. What did they find worked? What interventions were shown to work? Enhancing substantive knowledge and technical skills, well, that goes without saying. Again, the focus on networks. And I want to underline some of those smaller bullet points here: paid parental leave; subsidized on-campus childcare; childcare related to travel funds for doctoral students. So if you're a doctoral student on the job market and you already have a child, and being able to bring the child with you to, that meetings have, you know, childcare there and actually engage in the activities of presenting your papers, going on the market, doing those things, those are important things as well. Providing extensive and intensive professional socialization, part of the networking process that I wanted to highlight. Capitalizing on synergies between programs or among programs. I think it's oftentimes we look at interventions in silos and we're going to do one thing here, mentoring program or we're going to do one thing here where we're encouraging folks to increase their toolsets in one. But we need to also consider what those programs do to reinforce each other and how they bridge between each other. Those are important parts that we need to consider here as well when we look at interventions. Providing bridge experiences to facilitate

transition from one educational milestone to the other, and effectively tracking these programs.

One of the things I found as I was preparing for this as well as some other work that I'm doing is that finding the data, finding the results, finding the evidence is oftentimes difficult or sometimes the numbers that you find, you read the fine print and you realize, well, some of the figures, some of the statistics actually are based on imputed facts and not necessarily wholeheartedly the kind of groundwork that I would like to have. So, some of these programs also need better evaluation and more understanding of what works and what does not work. Leggon and Pearson also show examples of high performing programs, they are listed here. I would want, I want to forward fast to what we do in economics. I was actually in the American Economic Association Summer Program for minorities in 1979. It was an amazing program for me. My father was in it in 1973 when it was founded. It was something that I cannot, I can talk about, you know, during Q&A on why it worked, why it was so important. But we also have many of the programs I think other than just what's on the slide. One is the CSWEP program for mentoring, CeMENT, which you'll probably hear about a little bit later as well for women. So, these are a number of programs that we have and I would love to see more of the output of why and how these programs have been effective. I know personally that they have been effective in my experience and others with whom I speak. But it's important also I think to have that as a matter of record. What does not work? Again, that doesn't work at all but what is not, has been shown to be ineffective at least for some populations: assertiveness training, color blind approaches and diversity training. Those are some and you can look up their references to get more information on those as well. Call for action. There's nothing new to say these things but it's important to recognize that I actually think that right now is a very good time to have this meeting because it goes with a number of things that are on the agenda nationally. President Obama's EO 13583

calls for a review and to, and ensure that student internships and fellowship programs have diverse pipelines to draw candidates from all segments of society. And again, I wouldn't, and would say pipelines and also pathways toward this. The bottom bullet says enhanced mentoring programs with agencies for employees at all levels with an emphasis on aspiring executive learning level employees. So, this is an EEO policy. The America COMPETES Act also [inaudible], it has not been, not the 2010 but the one that's in process calls out in different places, remove and reduce cultural and institutional barriers on the Republican side, teaching and learning of networking and information technology. These are pieces that are being called for. The National Academy's Crossroads report, which a lot of people know about, got a lot of emphasis when it first came out. They really, if you go through that report over and over again, it makes it very clear that teacher preparation is critical for training our students early on to the process where they can get to, you know, be effective in university and post undergrad careers. CEOSE, so the National Science Foundation has also called this out, and calling for more data, longitudinal data to be able to trace students through to understand how they are doing. What are some clear benchmarks for success and how is this financial support useful in this process? This is called out by the CEOSE, another recommendation. So, let's go to what are some things that we need to do. More data. And I don't want you to think that it's easy to ask for more data because what kind of action is that. I just really do feel that we need better information so that we can make more effective decisions, but that's not where it stops. We need strong leadership on this and many of the people that I see in the room that I know in this room are strong leaders in this area and therefore the emphasis of what you're saying, what you're doing, how you're publishing these, about this are very important. And we actually need sustainable commitments to this process. Sustainable commitments does mean not just a human capital involved but also

financial resources to make the policies and the interventions fruitful and sustainable, not just something that happens for a few years and then you worry, will we get funded again if we're going through the process every three years or so of getting funding for some of the programs that we're looking at. So, I want to thank you for listening to this. I'm happy to answer more questions. This was just a matter of giving you an overview of broadening participation in STEM. Economics is one of those fields. And as I said, initially, I feel very much that this is an important factor within my own life. As I said, my daughter has been interested in mathematics from a very early age. She was going through that, that time period of being a girly girl and interested in science and math. And back in the day it, it's an "and" because back in the day it had to be "or". I mean I was a math major myself so, you know, the whole you know finesse was not there. But for her, she makes it look it easy. It's something that she's very engaged in, the mathematics and in science and also other things that would be considered more "feminine," whatever that means. I think it's also important for my students when I showed up at my new institution to see students come to me that just wanted to sit and talk with me because I didn't look like someone that they have seen before with my skill set. And this is, this was, amazing but it was important. I make the time to have those one-hour lunches with them and that means that, yes, I stay up to 2:30, 3:00 in the morning, do everything else that we all have to do because it's important to spend and invest that time with the students that seek you out. That's important. And I also want to say lastly that I have definitely benefited from, you know, Marcus Alexis was one of the, my mentor. He's one of the people that really encouraged me in the American Economic Association Summer Program that was incredibly important in getting me launched into this particular career. So, I can say as an individual that's gone through some of this process

that the mentoring part, informal and the formal networks, are critically important. So that's just from my personal life. Thank you.

MARK HUGO LOPEZ. Thank you very much.

[Applause]

So, next. I wonder if we could have the next PowerPoint presentation loaded up. Next we have Gertrude Fraser who's joining us from the University of Virginia where she is the Principal Investigator on UVA CHARGE and she's also a special advisor to the Provost of the University of Virginia. She's going to be speaking to us about UVA Search Committee Training Program which I think is very, very interesting looking at your slides.

GERTRUDE FRASER. Excuse me. Let me get a bottle of water.

[Pause]

GERTRUDE FRASER. French historian, Ladurie talks about la longue durée, the long duration, and that has to do with a sense of cyclical or evolutionary time in terms of the historical analysis. And I feel that sometimes. I've been at the University of Virginia for about 24 years. I was the Vice-Provost of Faculty Recruitment and Retention for ten of those and now I am the PI on our National Science Foundation, ADVANCE IT grant, focused on advancing, recruiting women and women of color into STEM and social science disciplines. So, you know, I'm a soldier. I'm broken in some parts but I continue to do the work for the long duration. So, I want to talk about what the nature of that work is and I want to be totally honest about the successes and the things that that stall you. And it's just the way things are and you, I don't give up. So, an overview. The University of Virginia is a state institution. It was founded in 1817 by Thomas Jefferson, is located in Charlottesville, Virginia. We have 11 schools and we have a little over 2,000 full-time faculty of which about 1,500 are tenure or tenure track. There are 14,000

undergraduates and 7,000 graduate students. So, it's a big place. It's a very complex place. And that has consequences for the work and how we do it. Oh man, I was hoping that that actually would come out a little bit better. What I try to do there and--is there a..

MARK HUGO LOPEZ. Your laser pointer?

GERTRUDE FRASER. ...laser pointer on this?

[Inaudible Remark]

What I try to do is to put this information to keep to the theme of long duration on a timeline.

[Inaudible Remark]

All right, thank you. Just so that I could show and it looks much brighter on my laptop. So, the University was founded in 1819 by Thomas Jefferson. First woman to earn a degree, but did she did not reside at university, was in 1894 and I think, because she actually showed up, no more women were admitted to the university.

[Laughter]

And we have a series of these paths off of this idea about this progressive line to desegregation. Again, there was--first the Hispanic student, we love to talk about him from Venezuela. That guy graduated in 1928. In 1930, faculty wives and daughters who'd come as undergraduates but they could not live on ground. The first African-American student admitted, I believe in engineering, in 1950. I've heard him talk about the horrors. In 1953, the first African-American to earn PhD. And then in 1963 the first woman to eventually achieve the rank of full professor outside the School of Nursing joined the university. First African-American faculty member in 1967 and in 1970 the first class of undergraduate women admitted. That's sort of our history up to 1970. So, the rest of this period is really the period of stops and starts in

diversification, less so at the student level and definitely so at the faculty level. So, I wanted to show you, now, this is where I entered the conversation on this timeline because I got recruited to the university in 1991. Oh, sorry about that. I, let me see if I can do it and also look at this. OK, here I go. All right, so I was appointed to be the Vice Provost of Faculty Recruitment in 2003. And the part of the charge that the Provost, at that time, gave me was to focus on diversity, faculty diversity, in recruitment and retention. At that point, we had 3.1 percent African American, tenure track faculty, 5.3 Asian-American, 1 percent Latino-Hispanic, and about 22 percent women. So that is the kind of critical date, 2003. It's, I'm being a little bit prideful to say that when I entered the conversation, I want you to know that at that time we had a critical incident at the university where it was a racial incident. And out of that, the President convened a Diversity Commission. And the Diversity Commission had recommendations which included hiring someone who would focus on faculty diversity. And I will talk some about critical incidents as opportunities, a trigger point in institutional change. So, and then, in 2008, I believe that some of the work that we began to do collectively led to increases in the number of African-American faculty, Asian-American faculty, not as much in Latino/Latina faculty, and then a jump in women faculty. And then in 2012, in 2006, there was an economic decline where there's a hiring freeze. Diversity initiatives are highly vulnerable to external factors and we began to have the consequences of that where we had initiated diversity initiatives, we had the hiring freeze and then the numbers of African-American faculties started to go down again. In, continued to increase the number of Asian-American faculty, a slight increase in Latino/Latina faculty, and gradual but an increase in the number of women faculty. So, the timeline tells the story and then I'm just going to give you, fill in some of the details. I'll come back to those hiring slides. So, that's the issue of the *la longue durée*, slow change, and it's a challenge to

sustain. I think for the University of Virginia that is part, in part, our story and I think it is a sector story in terms of higher education. That change is slow and the, there is a lot of human capital involved in sustaining change. So these are the lessons from the trenches. Did I say that I was a soldier? I can't remember if I did. So, it's so important to understand the culture you're in. You need to involve the, I involve leaders and transformative allies. Susan Strum calls them in her work on "The Architecture of Inclusion" catalyst, change catalysts. It's so important to share knowledge, focus on positive, not deficit-based, education particularly for faculty. And then very important to avoid diversity social traps and I'm using the language of sociologist Platt who looked at the idea of social traps in organizations and then Barry who looked at diversity social trap. A diversity social trap is basically when you, initiatives to incentivize diversity have the "boda boom" part of it where something gets taken away. So, people who agree to participate in diversity feel that they have to give something up and it comes in very different formations. And you often find that in universities. An important example for the work that we did at the, have done at the University of Virginia, is around dual career for example. We know how important dual career opportunities are to recruit women. And especially for us, we find that underrepresented faculty have a higher percentage of dual career couples. But at the University of Virginia, often for a department to agree to buy into a dual career, they often have to agree to giving up a faculty line, plan faculty line, into the future. That's a diversity social trap. Then you're going to blame them for not wanting to do that. I mean that's inhuman. So there are a lot of ways, and there are subtle ones as well as more direct ways, in which a lot of our diversity interventions include these social traps. And that's part of, I think the work is to avoid those social traps when you notice them. The other thing, and I think my colleague just mentioned that it's so important to provide and collect organizational data. Data on hiring a, data

on interventions that work, and data that is perceived as local as generated out of the faculty themselves, out of the organization themselves. Because then, there is a sense of ownership and a sense of competence. And so, very important to also, to ask what works and to debrief on failure without punishing or being punitive. You need to build an architecture for the campaign. And again I'm drawing in Susan Sturm's idea of architecture, meaning building good systems, making sure that they get institutionalized, creating networks, partnerships. The reason that building good architecture is important is because the soldiers get tired. We get tired, we get worn out. Catalyst, single catalyst. There is a lecture on burnout, African-American women in particular. We just drop off like flies at a certain age after doing this work for a long time. So, figuring out ways to build institutional architecture that's not dependent on a single individual that can be picked up and made automatic or routinized. And then of course, I mention to you, leveraging critical incidents. You don't want to have racist incidents on campus, but if you do and there is a diversity commission, there's a moment, and it's often a very good moment, to garner resources and to push the work forward. Sturm calls that "areas for action." A strategic-- find a strategic areas for action as an important part of diversity work. So, something about the culture of faculty, I'm among colleagues here who, if you probably have faculty careers or you're married to faculty members or you have children on faculty, you know something about faculty culture? It has its own dynamic. One of the things that's very important to faculty is this notion of peer review. So I heard my colleague over here to my right saying, you know, just bring the mighty arm the federal government down on Johns Hopkins and get them to jump. And they will, but they will also push back on, at a values level. And the values level is usually about peer review, autonomy, academic freedom. And I think you can't ignore that to have sustained success. And to have the people that come in feel that they are part of the inside group because

that's very critical to success. And the other thing that we learned that search committees do the work of hiring, so you've got to figure out how to work with search committees. And that's really where our initiatives are primarily focused. Now, search committees are entities of their own, they are different species by department and they are different species by search committees. They're ad-hoc, so that each time is a different configuration of people. It's a moving target and that's often why you don't have that systematic data because each time is a different story. And figuring out how to get institutionalized work with this kind of patterning of hiring is a conundrum, I think, that all of us who do diversity work try to sort out. And sometimes we figure it out and sometimes we don't. And I am doing a research project actually on search committees and interviewing people to find out how it works. And a lot of it is what, goodness, sorry, Argyle calls tacit work. It's tacit and implicit because we don't name the rules and some, to figure out what those tacit assumptions or how you learn to do it. But anyway, and central oversight needs the support but can't plan the faculty jurisdiction over search committees. So, the search committee tutorial which was our first intervention when I came into the office in 2003, we got it up and running by about 2004, 2005, was realizing that there was no, for our university, anyway at that time, things have changed nationally, because of ADVANCE and because of a lot of work at Wisconsin and Michigan, you have really good training for faculty now. But at that time when we saw this work there was basically nothing. And I know Dobbin says that diversity training is not, is counter productive. But when you don't have any thing, how do you even have the conversation. So, we decided to do a search committee's tutorial. I mentioned the opportunity, the other thing, there was leadership involvement because the President, after we started working on it said, "It's going to be mandated. Every member of search committees have to take it before they can sit on the search." That got some push back

but now, it's a given or a routinized part of how a search is happening at University of Virginia, which is a great thing. But you still have to do more than that. The reason for the online tutorial is just an issue of scale and figuring out a way to get to everyone because at that time, we had about between 125 and 170 searches a year, very hard to coordinate face-to-face. And we also realized that it created a common language and know how across the system because there's so much differentiation. So, we wanted to provide knowledge and wide diversity, it was important to faculty and institutional excellence. Information on evaluation bias and best practices for developing excellent diverse applicant pools. We identified local experts, faculty members who are known for being well networked. There were often people, my colleague in history, my colleague in physics, who were known for recruiting underrepresented faculty and women to reach out to them to say, "How did you do it? What do we need to know?" And we also conducted focus groups. And we provided an anonymous feedback system as well. So we spent some time learning from our colleagues. So that's that idea of invented-here information and then we layered in the national expertise and peer review best practices and the scholarly literature which our colleagues highly valued as well. We gained leadership buy-in and we made an effort to offer information that struck the right collegial tone. And when faculty did the pilot, we had a pilot, you wouldn't believe the things they paid attention to that was about tone. I think we had, when we set up the tutorial initially, I think we said, you're "incorrect" and they said, "no." No, or we said "you're wrong." I can't remember. They did not like "wrong" or "incorrect," I can not remember what it is they did but just that language. So, we paid a lot of attention about subtleties because we wanted them to use it and feel that even though there was a mandate that there was value. It had 14 questions, a quiz-based delivery and then we also provided, besides the questions, we provided a discussion. We mix it up, vignettes, true and

false. And then we had references that they could link through to. We've gotten, over 2,000 plus people have taken the tutorial now. We've gotten positive support for the most part. It is now becoming where people are so used to it, I don't think it had the punch that it has. So we also have annual face-to-face search symposium. At the time when we were realizing that, because there was a hiring freeze, where the numbers were going down again, so we did have some success which is about that timeline. In terms of our recruitment, our numbers went up I think because of the heightened awareness and attention to diverse hiring. But then external substance changed because of the fact that we stopped hiring. So just about that time, colleagues and I decided to go in at, no, this was the third attempt to get this ADVANCE grant and we were very fortunate to receive the grant in 2013 and that got, we began to deepen the work. So the other thing that we have done is to--this is my case study too--to develop new tools for search committees. Part of what we heard back from our colleagues were, "OK, you have the tutorial. You take it but then, you don't take for another two years." We need more effective practical tools that we can use and we responded to that and we also responded because the implicit bias research suggests that if there are tools that make people more conscious of the evaluation processes, it helps to reduce implicit bias. So our new academic portal provides actual tools, and I'll show you just a few of those worksheets, and we also have resources for equity advisors that will work with individual search committees. We are in the process of institutionalizing that so that now the College of Arts and Sciences have identified faculty members who will get super training on being equity advisors and they will work with search committees. Surprisingly, the search committees actually like that, to have that support. And then I was hoping to be able to go to our search port, academic search portal. Were you logged online? Anyway, so the, we have now UVA search portal that the CHARGE, our NSF grant is called UVA CHARGE, has

developed. Besides giving information on implicit bias, updating the information and tools of the search tutorial, we have tools that search committees can go in and use along every part of the search. Spreadsheets where they can build their criteria and build their scales, information of how to have a conversation about candidates, practical resources that for every search they can use. The idea is to create some means of standardization. The work by Bassier [assumed spelling] and others, I think it's at the Kennigut [assumed spelling] school argue that if faculty have tools where can, they can do side by side comparison of candidates based on shared evaluative criteria, they are more likely to make good unbiased judgment about candidates. So we are looking to see what the outcome of that is but now faculty actually have those in their hands and they can work with the search advisors to find out, more effectively use that, and we're hoping to see really good outcomes. Some early, early reports from last year is that, in a number of departments, we have increases in the number of candidates who are women in the short list who get invited to campus. And also increases in the offers made to women candidates, but not hires. So getting women to yes is the next part of the work. And what we're finding out that the biggest barrier for us, and this is based on research I did with finalists, people who we made offers to. We have lunched [inaudible] for about seven years is dual career. And that is the next thing that we are trying. We have a tournament of ideas that we have just launched to see if our community has ideas of how we might solve the dual career challenges because we now are getting better at getting these people in the pool, making offers to them and the next part is focused on what are the barriers to them coming to the university. Thank you.

[Applause]

MARK HUGO LOPEZ. We'd like to take some questions--I'm sorry. We would like to take some questions. Microphones, I think, are going around the room. We got a question up here in the front?

AUDIENCE MEMBER. I have a question and an idea I just want to throw out based on what we just heard. First, the question. I've been really impressed with this UVA portal and have gone to look at it. I'm curious when you talked about the departmental level and pipeline and recent hiring pool, has there had been any effort, at least, even among the institutions who have these ADVANCE institutional transformation grants, to get comparative data so that when I look at the data that's on, you know, what my department's pipeline is like, I could actually see if I'm comparable to other places in terms of diversity at the pool. That's the question. The idea that I wanted to just throw out is that the economics profession has recently done all these enhancements to job-market-for-economist portal to provide new kinds of tools. Is this a kind of tool that might be available to all search committees in economics through this portal? And one can even imagine pushing it a little further down the line then if you want to participate as a department in the portal that you have to do something like this.

MARK HUGO LOPEZ. Thank you.

GERTRUDE FRASER. First of all, I have my digital recorder. I'm going to have to ask you to say that again about how wonderful you think the portal is. So I can take it back to my colleagues. So what we're doing as a part of UVA CHARGE is precisely that. We have what we called departmental data sheets where they can tip their department, the graduate pipeline they said. Some departments said, "Well, the graduate pipeline is not who we hire from." So this next iteration, we have a postdoc pipeline, we have the last, for their last search that they had searched is the utilization data for each search and then for their peer departments, what the demographics

are in the peer departments for women and underrepresented minority women and then their data. So at the beginning of the search here, we update that. A lot of work, but we update it. I think we have a good system now and each department gets that. We encourage them to use that particularly with the equity adviser to have the conversation about where they stand or where they might look.

MARK HUGO LOPEZ. Great. Thank you. Next question back there? The gentleman? Yes?

AUDIENCE MEMBER. Bernard Anderson, the Wharton School, University of Pennsylvania. I have a question for Ms. Fraser at the University of Virginia. You've been at this for 24 years?

GERTRUDE FRASER. Yes. Well ten because--

AUDIENCE MEMBER. Well, but you've been working on diversity at the University of Virginia for how many years?

GERTRUDE FRASER. About ten.

GERTRUDE FRASER. Ten years. When you became involved in this work, did you set goals and timetables for increasing the number of minorities and women in different divisions of the university? Secondly, how did you perform? Were there different parts of the university that performed better in reaching those goals and others and so what were they? And the third part of this question is the University of Virginia as you noted in your history of that institution was part of a dual system of higher education in the State of Virginia. There are a number of state and private, historically black colleges and universities in Virginia. In developing your program on diversity, did anyone reach out to those institutions to see what they did to populate their

faculty and perhaps what sources they used to get faculty in their institutions that might be beneficial in getting African-Americans in particular to teach at the University of Virginia?

GERTRUDE FRASER. Yes, we did. So I have to be really careful here. I think, yes, we did have, the provost met with the deans to have the conversation about accountability and expectations. But we did not in any direct way set numbers and I don't, we could have directly and so we talked about increasing the numbers but we did not say, you know, by X or Y amount. For, yeah, I think there's some good reasons to do that. The schools that did well in terms of that period of time in increasing the numbers, I would say the School of Education because of the dean and his partnership, the School of Arts and Sciences because of the dean and his partnership, and the Darden School because I think it was more their, the luck of openings and people who were successfully recruited. So those were the schools that I think made the most-- during that period of time, the most gains. Yes, they were HBCU initiatives that got developed out of the diversity commission. I was involved in some of that. But my other colleague who was the VP for Diversity did most of that HBCU Partnerships during that period. It led to, it had a bigger impact I would say on the student exchanges and involvement as opposed to faculty.

One more last question right here, yes.

AUDIENCE MEMBER. So this is how, this not much of a questions but it was two comments. First of all, I really liked Kaye Husbands Fealing's point that we should be thinking about pathways rather simply pipeline. There's certainly no one-size-fits-all that will apply to the student. I really appreciate that emphasis. The second point I'd like to make to Gertrude Fraser is that, I guess it's more about the discussion she was having with respect to the ADVANCE program at the University of Virginia. For those of you not familiar with the ADVANCE program, it is funded by the National Science Foundation. They have a rich set of resources.

Different institutions have been fortunate to get them. I'm at the University of Texas Pan American and we are currently in the middle of our five-year, it's a \$3.1 million, grant from the National Science Foundation. If you go to the NSF's website, they have a lot of information. You can go, look at the different schools. Different schools have all sorts of exciting initiatives like University of Virginia. In fact, Cece Conrad who's here, is on our external advisory board. So it's certainly a very active, an active, program and it's designed to advance the careers of women in STEM. STEM broadly defined, that includes economics.

MARK HUGO LOPEZ. Did you introduce yourself?

AUDIENCE MEMBER. My name's Marie Mora and I'm a Professor of Economics and also Vice-Provost, well, for Faculty Affairs.

MARK HUGO LOPEZ. Thank you. Thank you very much, Janice.

JANICE SHACK-MARQUEZ. Thank you and thank you to our panel.

[Applause]