

Ivory Toldson:

Hello everyone and welcome to another episode of collaborative strategies for inclusive change. This is the official podcast for the NSF INCLUDES Coordination Hub. This podcast is designed to highlight projects and partnerships that advance accessibility and inclusivity in a nation stem enterprise. Let me talk about why that's so important. Just recently, a couple of years ago, the national academies of sciences, engineering and medicine predicted that the nation will need more than 1 million more stem professionals than we are on pace to produce with higher education degrees in the 2020s. The national science board, that's the governing board for the national science foundation called this intending shortage of stem professionals as the missing millions. And they passed a resolution to address this urgent need for more underrepresented groups in the United States sciences and engineering workforce. So the goals of this podcast is to highlight how collaboration and partnerships can help address inclusion, equity and broadening participation, and bring about an inclusive change at institutional, regional, national and local levels.

Ivory Toldson:

We also draw attention to pathways, policies, opportunities, and practices that address institutional barriers to equity, inclusion, and broadening participation in stem education and careers. My name is Ivory Toldson. I'm currently a counseling psychology professor at Howard University, the president of the quality education for minorities network and a co-principal investigator for the INCLUDES Coordination Hub. We are very fortunate today to have someone who was working on a very pressing issue. We talked about the missing millions, but what's more important is that there are people out there that are fighting, that are working, people and institutions fighting and working so that we can create a more inclusive space. By inclusion, I mean that people of all races, backgrounds, gender, socioeconomic status, ethnicities, will be able to compete in this enterprise on a equal level playing field.

Ivory Toldson:

So I'm so excited, delighted today to be joined by Dr. [Tonya Peeples 00:02:38], who is the associate Dean for equity and inclusion and professor of chemical engineering at the Pennsylvania State University. She spent over 20 years as a champion for stem diversity. Dr. Peeples has received countless awards from the American society for engineering education, the Iowa Technology Association, the American Institute for chemical engineers and many, many other organizations.

Ivory Toldson:

Dr. Peeples currently co-leads the institutional change initiative, [IChange 00:03:19] for short, that's NSF INCLUDES Aspire Alliance. IChange seeks to diversify stem faculty at institutions of higher education, which is so important to create inclusion in our workforce. So Dr. Peoples, I went to Penn State for masters back in the late nineties. And one of the first things I noticed was there were very, very few black faculty members and faculty members of color in general. We also know that the 2020 aspire report notes that only 10% of all stem faculty at four year institutions are from historically underrepresented groups. This is all historically underrepresented group, not just African-American. If we looked at African-American I think that number goes down to about 2%. So can you talk a little bit about your efforts and the efforts of the Alliance to try to address this issue?

Dr. Tonya Peeples:

Yeah. The institutional change work is a part of the Aspire Alliance and it's just one arm of the Aspire Alliance, which is sort of this large multi initiative project. Really looking not only to improve

representation, but also to advance inclusive practices that really support this broadening participation. I mean, if we look at the national stem higher education ecosystem, Aspire is kind of working as you kind of referred to this idea of working regionally to create opportunities for underrepresented faculty. At two and four year institutions working with grad students who are aspiring to be faculty. Aspire is also working in national change to try and increase faculty professional development, to try and improve inclusive practices. That's going to make for a more supportive and welcoming environment or places for education and work in stem. And if you think about education and higher education and stem, we're looking at that as one of the workplaces, right. Where we want to have underrepresented faculty be represented in our higher education landscape as people who are delivering instruction and inspiring that next generation.

Dr. Tonya Peeples:

And so Aspire's institutional change work, which we kind of call IChange is for short, includes 53 institutions and we kind of have a group and three cohorts. And we are really helping those institutions to operate as what we would call communities of transformation, where they're going to look at their institution and identify these areas for change that are going to help increase the faculty recruitment, hiring and advancement. And these institutions really need to look specifically at their own data to identify and address the challenges. And so in order to support that IChange sort of begins with self-assessment, where the institutions are looking at their hiring. They're looking at where people sit in the organization in stem. And then it continues into action planning where they're sort of trying to address these issues using data informed approaches to implement that change.

Dr. Tonya Peeples:

Another place where the Aspire Alliance is working in institutional change is really trying to develop leaders. To develop these mid-career to late career faculty who could go into administrative roles in higher education and help be a part of making change. And then also creating a community through the IThrive collective. Which is trying to create space for underrepresented faculty who might be isolated because the numbers are so small. So that they have community and sounding boards and have some coverage, right, to be able to talk about issues that are specific to faculty from underrepresented groups. So the leadership part is called the IAspire Leadership Academy. And we've had, I think almost 70 people go through that as cohorts as well. And the IThrive collective is just sort of a convening space for underrepresented faculty. So those are kind of the ways that institutional change has been trying to work on this issue.

Ivory Toldson:

And I think that's so important. I remember being at Penn State and talking to some of the black faculty members there. And one of the main reasons they were talking about leaving is because they just really didn't have that community. They didn't know where to get their hair done. They didn't know where to go the church, they know how to link into the local NAACP chapter, if they had one. So all of this so important. And it does speak to the system that needs to change. Because sometimes you have these diversity programs, they try to make people with diverse backgrounds change.

Ivory Toldson:

I recently had the conversation with the council of deans at a large research one institution. I won't mention their name. But I told them about some of the doctoral programs at HBCUs in stem and asked, "If someone got a PhD from an HBCU, would they be able to get a job at that institution?" And all of the

deans froze. They refused to answer the question. So this is a systemic problem. If some of our best HBCUs can't produce scholars that can go to these institutions that need that diversity the most, then you know what, what are we doing. So talk a little bit about systemic change from the standpoint of IChange network.

Dr. Tonya Peeples:

Yeah. I think it's important to note sort of the diversity across the institution. So you mentioned HBCU at relative to sort of the research ones and the predominantly white institutions. We also have Hispanic serving institutions. And not all our institutions are in the same place or have the same issues, based on their local demographics and their communities, based on the makeup of the stem programs that they have. I think some of the institutions are identifying policy changes that they hope will advance diverse and inclusive faculty. Case in point, Indiana Purdue University has been working on how to value folks doing work in DEI, diversity, equity and inclusion to advance their careers. Right? One of the things that is a challenge is for the equity minded faculty and administrators, is there the support system in place to actually create value for people broadening participation, advancing and inclusive workplace? Using inclusive teaching practices and advising? Doing research or scholarship in areas that are relevant to underrepresented groups?

Dr. Tonya Peeples:

There's been a lot out there in the press about the NIH and what they fund. And all of these things are a part of that system, right, that create the opportunity to advance in stem. A group of institutions within IChange is working together on mentoring programs to support faculty across a broader community. And even as you think about these mentoring programs and the IThrive community or the IAspire community, we have to pay attention to whether we are really doing system change or whether we're trying to just help people navigate a difficult environment. And I think there's a little bit of both.

Dr. Tonya Peeples:

Because there's a reality of where we are now and there's the aspirational goal of where we want to be in terms of valuing individuals and what they bring to the table. Other institutions are using the change process to bring together campus stakeholders and to show this visible accountability where they're in communities, where there's been a high level of social distress. For example, the University of Minnesota, and their response to George Floyd and how they're able to leverage this institutional change process to say, "This is a way that we are going to be the change and work on the change as an institution."

Dr. Tonya Peeples:

And I think still other institutions like in Texas have sort of identified several aspects of the larger Alliance. So not only working in institutional change, but they're also saying, "Okay, what are we doing regionally with our two year institutions to really look at the movement of people through the system and to be faculty?" And so I think they're trying to advance change on many fronts at the same time. And so I think one of the challenges is the timescale, right? We recognize that when you were at Penn State, you didn't see that many, when I came here, I added a little bit. But still, there's a sense of urgency I think more in some of our institutions that we have to move the needle and this timescale of change is going to be longer than this first cycle.

Dr. Tonya Peeples:

I think the challenge for us to try and help our university leaders stay with it and keep working on these things, even with the pandemic and all the other concerns that they might have. Even though the larger community might not see that change happening fast enough, these little policies, these little things that actually make up big barriers in terms of how people are evaluated for promotion. How recruitment is happening. Where we're searching and how we place a value on credentials that people come in with. They're all part of this culture, right, that makes up higher ed that we're really trying to work on.

Ivory Toldson:

So as an associate Dean of equity and inclusion, what are some programs that you have implemented or observed to help with this balancing act? And more importantly, help to value the DEI work that faculty members may be doing?

Dr. Tonya Peeples:

I think it's a humbling endeavor, right? Because every institution wants to be a leader in this space. We're leading and we're doing this, but I think we have to realize that we're leading because we're working with others. We don't have all the answers, but we're working to try and develop and engineer these solutions to improve our internal culture, while advocating for these external changes that are going to improve equity across engineering. And so we're working with ASEE the American Society for Engineering Education, and we share data so that we're accountable for what we're doing, but we also learn from others. And so with the other deans, other engineering deans, we're thinking about how our efforts are going to connect with this larger idea of identifying equity as an issue in engineering. And thinking about it in our curriculum, thinking about it in what the experience is for our faculty, as well as our students and staff.

Dr. Tonya Peeples:

And in my role, I've been sort of working at bringing these stakeholders together, working with our department, head leaders, having faculty conversation circles and really talking about equity. What are the things that are working well? What are the things that have been these lingering challenges and what are the opportunities? And so we have faculty who are working on, "Okay, what should be in our promotion and tenure guidelines, and what should we be looking at an annual evaluation? And How do we reflect on these contributions?" I don't think we're there yet, but I think we're getting better at one, thinking about how do we do well with the people we have? And how do we create a place that people want to come and work by really thinking about how are we a welcoming community?

Ivory Toldson:

Yeah, absolutely. And that's what this podcast is about, collaborative strategies and you really spoke well about bringing stakeholders together. So thank you so much for all of the work that you're doing and all the insight that you've brought to this program. You have given us a lot to think about, especially as it relates to DEI work at the higher education institution level, specifically with diversifying our faculty. Which is key all across the nation, these students, when they are saying, when they're listing their demands, they're saying they want more diverse faculty. And as you said, they want more than representation, they want practice. They want faculty members who are going to practice what they preach and practice what they represent to the students.

Ivory Toldson:

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Well, thank you so much for everything that you have shared. Thank all of you all who are listening to collaborative strategies for inclusive change. Please pay attention to our website for the next episode. And please take this information. It's very valuable information that Dr. Peebles has shared with us and make the change in your own community, institution and wherever your sphere of influences. Thank you all so much.

Speaker 3:

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