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whether it's training teachers, just kind of like talking with high school math teachers, middle school math teachers on what the STEM initiative, what the five year plan entails, how that would kind of trickle from this five year plan into states and into local school districts and what we might be able to do as a result of that now after the fellowship as someone being back in the classroom as a mathematics department

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This is the ORISE Featurecast. Join host Michael Holtz for conversations with ORISE experts on STEM workforce development, scientific and technical reviews and the evaluation of radiation exposure and environmental contamination.

You'll also hear from ORISE research program participants and their mentors as they talk about their experiences and how they are helping shape the future of science. Welcome to the ORISE feature cast.

- Welcome to the ORISE feature cast.

As you may have noticed, I am not Michael Holtz. He's enjoying some much needed and well deserved vacation time, but I am Matthew Underwood. I'm a co -host normally, but today I'm gonna be filling in for Michael. We're with the communications and marketing department at the Oak Ridge Institute for Science and Education. And I'm really excited about today's episode.

You know, we've been doing, I guess it's our fourth episode covering the Albert Einstein Distinguished Educator Fellowship Program. And so I'm really excited about this episode. And as has become tradition here,

Amy Szczepanski is gonna be the guest co -host today. So Amy, how are you doing today? - Hey y 'all, I'm doing great today. I'm so excited that we've made it to episode four. I feel like,

you know, a budding documentarian. So excited to talk more about the Einstein Fellowship today with our three awesome guests. - Yeah,

me too, I'm really excited about this. And you know, it's really interesting 'cause in previous episodes, we've had, you know, some guests that, you know, are from different years and different cohorts. They might not necessarily know each other.

One thing that's unique about this episode is these three all know each other. They all work together. And so that's gonna be really interesting to have that personal connection with. this particular group. So I'm really excited. So, Amy, if you want to just kind of introduce our guests and we'll go from there.

So I would love to introduce our guests, but I actually think that they would do a better job introducing themselves. I will say that we have Kelly, Chris, and John here.

They were all from the same Einstein cohort. And like I said, they actually know each other a lot better than I know them. So I'm going to encourage them to introduce themselves. Kelly, do you want to start off?

Sure. Hi, Matthew and Amy. It's still going to be here today. My name is Kelly McCarthy. I'm currently a program specialist with NASA's Office of Stem Engagement. And I got to serve my Einstein Fellowship alongside John and Chris here in the 2017 cohort.

We're excited to chat with you. I'll kick it over to Chris. Thanks, Kelly.

Chris Wright here. I am a current Baltimore County public school math teacher and a high school in our district.

I'm very excited to be here during the fellowship. I was still actively involved in Baltimore County and my district. And I moved, I went right back right after our district or right after the fellowship and I've been there since.

So I'm excited to talk to you all as well. John. Hi. My name is John Galisky. I was a high school physics teacher for 25 years in Lompote,

California, right next to Vandenberg Space Force Base. And then I had my fellowship in DC. I returned to the classroom for just one year and then I retired and started a PhD program at UC Santa Barbara where I am studying science,

education and literacy. I wonder how many people say I retired and then I started a PhD program. I love that, that life trajectory that you're on.

It is not typical. Yes. Amazing. So great. That's awesome. So as Amy kind of mentioned earlier, you all were on the same page. on the same cohort and you all worked together on what was known as the five -year STEM plan back in 2017.

So whoever wants to take that question, just kind of describe to our audience what the plan was and what it covered. - I can jump in, Matt, and then maybe Chris and John fill in the gaps,

please. - For sure. - So even though we were seated at different agencies, we had the opportunity to come together during our cohort and give some feedback on the five -year federal strategy for STEM education.

And so that strategy was released in 2018 and it was an effort to strengthen the federal government's commitment in the STEM education ecosystem to equity and diversity,

evidence -based practices, and engagement with the national STEM community. And it highlighted collaboration with learners, families, educators, community leaders, and employers. We were one of the many stakeholders that were included in the development of the plan,

which really was focused on expanding and improving the nation's capacity for STEM education and preparing our future workforce. And it was definitely an exciting point and critical effort of that year that allowed us to all come together and think through some feedback while it was still in its draft form.

I don't know, Chris, John, what else did I miss in that kind of high -level overview? - I feel like you, oh, go ahead, John. - I don't think you missed a thing.

You said a lot more than I possibly could have. I wanted to, Claire, I don't feel like I worked on the plan. I feel like I got to review an executive summary of the plan and provide feedback while it was being drafted.

And at the same time, I went back and looked at the plan and saw some of the highlights that I probably missed. gave some feedback on based on the work that I was doing in the fellowship.

I was in a congressional office and I was tasked with helping to write a bill to fund career academies.

And there are several pieces of the strategy for STEM education that paralleled closely with the work I was doing in that congressional office.

- Yeah, and I can kind of echo, I think, John, what you were saying, just kind of like providing that maybe higher level overview or review of the executive summary, I somewhat vividly remember that day back in,

I guess it would have been 2018. I think I had to show up late 'cause I did have something else going on with my fellowship also being in a congressional committee office, the Committee on Education and the Workforce back in 2017,

2018, where my primary responsibilities included looking at ESSA state plans, the Every Student Succeeds Act. So I was kind of maybe doing two birds,

one stone in that capacity there, but I definitely appreciated and I definitely feel like we all did appreciate the ability for us to come in and go into that office and speak with the folks that were there about our input as current educators,

as folks in the field, as leaders in the field, to be honest with you and be able to give them our insight and have them kind of take what actual educators in DC, in the DC area that year were kind of thinking,

feeling from not just DC, but overcoming from Pennsylvania, California, we came from Vermont, we came from all over. So for all of us to have that opportunity, I think that was phenomenal. I kind of applaud that effort for them to do that because I'm sure it always is advertised that it happens,

but to know that it did and to know that it does, because we were a part of it, I think that's powerful. - Yeah, I think that's so interesting. interesting that,

Kelly, you were talking about all these different stakeholders that kind of came to the table, and y 'all were able to represent teachers as stakeholders in this process.

And all of you said you were able to provide feedback in some way or another, and I'm wondering if you can tell us in a little bit more detail, like what kind of feedback were you able to provide as teachers that maybe other people were not able to give?

- I think for me, and so I was in a little bit of a different position that year than John and Chris. I was not serving my fellowship in a congressional office.

I was at a federal agency. So we were having some of those conversations about how work and higher education and federal grants play into the development of the federal STEM plan.

But as an educator, because for me, that aspect of my work was truly a learning experience, but coming from a decade in the classroom, I also was a physics teacher and also worked with STEM programs in the informal space,

reaching middle school students. And something that was a priority for me was educator training and opportunities for educators to build skills. There was a big chunk of the plan,

and this is what I most vividly remember giving feedback on when we saw kind of that high level summary and we're asked to think through areas that we would wanna see improvement on.

For me, it was investing in professional development and learning experiences and skill building for educators, especially around computational literacy. There was a lot in the plan that emphasized future workforce development,

work -based learning efforts around building skills for students in computer science, but I didn't feel initially that I saw a lot in the sense of developing current...

and pre -service educators in that realm. And so for me, that was probably the biggest piece of feedback that I provided back to the plan. And I think to John's point earlier, we weren't seeing the full,

you know, long -lengthy, I don't even know the total number of pages of the full plan, but we were seeing kind of like the high -level overview. So I do remember during that point being slightly,

I think I had a little bit of Harper and just wondering how many educators and current practitioners were consulted in the development of it.

You know, my perception of it changed after kind of, now we get to see kind of the progress supports on the strategic plan so far. But that was my initial take as an educator and coming from that practitioner world.

Like, I definitely wanted to see an investment in educators as well as highlighting the priorities for what, you know, the federal government expected educators to be teaching on a day -to -day basis.

- Yeah, and I can maybe add a little bit on to that when, or I guess when we went into our role as Einstein Fellows, I was coming from a central office math coach -type position and so I was going in with the frame of mind of how am I going to help with,

you know, whether it's training teachers, just kind of like talking with high school math teachers, middle school math teachers on what the STEM initiative, what the five -year plan entails,

how that would kind of trickle from this five -year plan into states and into local school districts and what we might be able to do as a result of that now after the fellowship as someone being back in the classroom as a mathematics department chair at a high school.

I'm really thinking of like, what is the viability of this? How can we ensure that the things that are in the plan are things that teachers can handle, honestly? And, you know,

just because as we do or do not know, you don't know-- unless you're there teachers are quite busy teachers have a lot going on both in the classroom and outside the classroom and so really being able to provide that insight to unlike or at least like kind of I guess wrap my head around how we might be able to as educators viably can like commit to this program and and identify things that we can do as a result

of the plan I think that is kind of where where I was where I was going with it and I think it's been pretty successful in terms of my just kind of working with my current math teachers now and and back in the day with a with a lot of others as well just about making sure that all of our math teachers have that STEM literacy themselves because to be honest coming from a traditional teacher prep program where I

was trained in math and I chose physics to be trained in as well not every teacher has every single facet of STEM embedded in their tool belts and so I think being able to provide that work -based learning that training through the the partnerships and things that are in the plan is is also is great I want to I want to reinforce something Chris said there about well and Kelly too about the voice of teachers and how

this plan could or would affect teachers and um looking at these different pathways in the plan the strategic partnerships engaging students where disciplines converge building computational literacy and the transparency and accountability um I think I recall talking to Jeff about how none of those things happen accidentally and they all have they all have to happen very purposefully and so I asked what is the plan to

actually make these things happen? at, I don't know, 10, 15 different federal agencies? There's one plan,

many agencies, but what kind of, what unifies them is this strategic plan? How does it actually get implemented?

And so I was kind of perhaps trying to push my career academies plan that already did these things and had the accountability built into it,

integrated curriculum, and definitely partnerships between funding agencies in the government,

schools, and business and community partners. John, did that go through? No, it never even got introduced. Okay.

It got the final draft the last week of our fellowship, and I've got a copy of that, but it never got introduced because the state represented by the member I was working with already had a version of career academies,

and their version was different from the version that I was proposing. And so there was some conflict there. You know, just to bring up something that Kelly,

and I think Chris, you mentioned it too, of sitting at the table, you kind of have that, what am I getting into type thing? What is my voice really going to carry into this discussion? So kind of take me through the process of what you were thinking then about the plan and your voice.

And then now that you kind of have a few years stepping away from it, what is your takeaway now? I think I can answer that because when I look back on that year being in that fellowship,

being in the battlefield, in the trenches, I suppose, of creating, drafting, reviewing, looking at legislation, looking at different programs, being in DC from Baltimore,

it's not too far away, but it's a totally different world, understanding before the fellowship, and now after the fellowship, how slow things can purposefully work in DC and in the area,

that when I was kind of entrenched in the work as the fellowship, working on the committee, looking at the, and reviewing the five -year STEM plan, I really felt like there was a lot of,

I had a lot of influence at that time, were like heading into that office, going in there, albeit I think I was a little late to it, unfortunately, because I had another obligation,

but then like maybe after the fact, like knowing that it is now 2024, and we did this back in 2017, kind of going back to how, not in a negative way,

but purposefully kind of slow some of these things do go because there's so much involved, it's kind of like John was saying, there's so many things that have to be considered and identified and people have to work together,

and things might not work one very small way because of somebody hundreds of miles away, but so I think going, transitioning from being in a school district,

heading to DC, going back to the same school district, it was really a pretty phenomenal experience just to like get that experience of like understanding that things are supposed to go slow, and as a math and I suppose physics teacher person didn't really have an appreciation for that until I was there,

and once I got there, where I started getting involved in the policy and the politics of things, developing that appreciation for that, and then like kind of being removed from that after the fellowship is over,

I just think that it's like, it's just a very unique perspective that like not a lot of people have, and I think there's, as I think I mentioned the word, like there's a shrug, appreciation for that. So I don't know if I fully address your question,

but it sounded pretty good to me in terms of like what I felt like and what I feel like right now from before to during and after the fellowship. It's just such a unique experience to just like be able to have that perspective in all three levels from before,

during and after. Now, Chris, you also worked on a bill that would have overlapped with this a lot, right? Didn't your Higher Education Act or your half of the committee's Higher Education Act get introduced that last week also?

Yeah, end of July we submitted. So the majority submitted their bill as a amending the Higher Education Act and then our office kind of delivered the 1000 plus page rebuttal to theirs.

I think it, you know, it has gone back and forth and then, you know, all of that. But what our bill kind of did was an overarching entire rehaul of that Higher Education Act.

So everything in Higher Education was included, including a lot of teacher workforce partnerships and that sort of thing. Yeah, you're absolutely right. It's awesome.

It's interesting to hear your perspective, both of your perspective, Donna and Chris, because I think like during that period of time we were in different worlds, even though we were serving the same fellowship,

it is a different rhythm and cadence on the hill where y 'all were and kind of sitting in a federal agency where, and I can't remember if I mentioned this, I was with the National Science Foundation and the Geosciences Directorate really focused on higher education.

The opportunity when we got the invitation to provide feedback, I think it felt like, you know, really exciting that we were able to represent the education community, like Chris said,

from all across the country. I remember showing up at the Executive Office Building, Pennsylvania Avenue, it was just like a cool moment to be invited to that space to sit around that table.

table and be at the table, like have a voice. And we're coming from the formal K -12 classroom. So that was kind of a really hopeful feeling for me.

I think, and I think I mentioned this earlier too, after giving some of that feedback, I really, I didn't know what I thought. I was like, where is this feedback gonna go?

Is it actually going to be included in the plan? I'm not sure. And then to Chris's point, it was the following year before it was released. And we really,

I think in 2022, like Midway Progress Report was released, we could kind of see the impact of what happened through implementation of the plan.

And I think now, to Chris's point, I can see a little bit more of that impact and where the educator stakeholder feedback came into play.

I think sitting in a classroom, it's hard to tell that that shifts are happening, that there is a priority to move toward education and diversity from the federal level.

I think that was a perspective shift for me. Like sitting in a classroom every day, I don't know that because it moved so slow, I would have been able to like really feel that shift without taking a moment to step back and reflect on it.

And currently, I sit in an office that is implementing programs that are responsive to this plan. And it's really interesting to kind of think about the work that we're doing with work -based learning opportunities and the investment of NASA as a federal agency in implementing that work.

And I think that's kind of given me, I guess like the perspective of how the feedback was included for me was a little bit of a roller coaster.

I was really, really unsure where things would go in that moment, in that year. And now, it's really, really hard to tell. really kind of cool to see that there have been shifts in the education ecosystem with increased computer literacy programming.

And I think in the progress report, as of 2022, there were 119 federally implemented programs across the government focused on that effort,

which is really kind of cool when you step back and reflect on that full breadth of things. I think, you know, just I would reiterate that in the classroom on the day -to -day,

it might not feel like that shift is as quick as it needs to be because of all of the levels of process and ensuring that stakeholder feedback is included.

I don't know. John, did you have a similar experience or what was your feeling overall? Well, well, first, I wanted to say how cool it is that you're in an office where you're actually implementing the plan now.

Yes. Yes. You've probably read the whole thing. You've got it on a shelf. You pull it out. You refer to it. It's different. Yes. But it's a completely different way of interacting with it than when I was in the classroom.

Absolutely. Yeah. And so I was going to say, I don't have that direct hands -on experience with the plan. But I think, Amy, you asked earlier how we felt going in with this opportunity to provide the feedback.

And I definitely recall feeling skeptical of that office in that administration putting out a science and technology plan.

And then I picked up Jeff's book last night about having written the plan, worked on the plan, and he said that he got a lot of that same feedback.

feedback from people in the agencies trying to craft this plan. I feel bad now that I was so skeptical of the work that he was doing then when he was already getting that kind of sentiment from all sides.

I think this is so interesting how your perspectives changed kind of going into it. Chris,

you were saying I didn't realize how slow things were going to be. John, you were talking about being skeptical. Kelly, you were also talking about this process of it being slow and then being able to see kind of the progress more working at NASA now and being able to see this.

I just think that's so inspiring that you all put in the work to something that was having massive national change. I think that's so cool. I want to go back to something you said,

you were talking about Chris, about I didn't realize as a classroom teacher how slow the process of things were in government. That's not necessarily a bad thing.

Like be sure we're doing things right for a myriad of reasons. My question to all of you I guess would be kind of shifting more of looking at the bigger picture of the fellowship itself.

What are some other lessons that you learned being in the DC space? I'm going to leave it super vague like that. You can be as specific or as vague as you want.

What are you thinking about? I guess I can kind of start like and to kind of react again like or address like what you said. I think it was almost like a willful ignorance.

If I'm being honest with you like as a math science type kid, never really caring about the social studies. and those kinds of things as much like I want to say here and now that all of that matters as well and they're all incredibly important and I developed an interest and a love for all of that kind of as a result of the fellowship.

So like that's kind of addressing your question as well. Just kind of going into that fellowship like having a brand new experience in a world that I was not accustomed to in any capacity because as a classroom teacher,

I kind of have not free reign, not full control, but a lot of control over a lot of facets on what goes on in my classroom and then going into a place where I know and have heard that things move slow.

It's very purposeful. It's very intentional. There's a system in place for that and it's there for a reason. And so I just kind of wanted to share that again that like if I'm being perfectly honest with myself and with everybody here that like it was kind of a willful ignorance and I think that it's very important for other science,

technology, engineering, math, folks, math, teachers, science teachers and the like to really try to get involved in some capacity, whether it's through applying for the fellowship or just kind of following along with the fellowship.

I just think that getting yourself into every possible facet of education and something that you love and something that you're interested in is even if you don't end up loving it,

something that you can definitely develop as I have like a super strong appreciation for. So I just wanted to like take a second and share that with everybody too. Just because like I was a person that like didn't super care for it,

but like now like I just recognize it's important. I wanted to talk about that slowness a little bit also because I was given this very specific task in the office I was working for right writing this bill.

When I had a draft of the bill ready and I sent it off to legislative affairs to get it put into the legal legislative language,

I didn't not expect it to take two months to get a draft back. And because I had this one task to do,

they didn't give me a separate portfolio of work to do. So I had a lot of free time and I would go to hearings on the hill and briefings on the hill and briefings at all the different policy shops in town.

And I was soaking it all up in all sorts of different areas, areas of personal interest for my classroom that I was planning to return to,

areas of interest where I thought I could incorporate things into the next draft of the bill when it came back. So I was doing a lot of workforce development,

learning a lot of climate and renewable energy learning, a lot of teacher leadership learning, just a whole lot of different things that have all kind of came together to give me a really rich experience.

- I love that, John. And just to echo what you both said, and John, I don't know if this was your case either, but Chris, I kind of, I relate to what you said about being the physics,

math, science nerd and being kind of forgetting about the civics of it all and some of those bigger picture activities that are going on that really influence our social interactions and what we're able to do in the classroom.

And so the fellowship itself was a real eye -opener and I also so would echo that encouragement to anyone who's listening or any educators who are thinking about it, to look for opportunities to broaden your perspective.

I'm really, really, really grateful that there is this amazing program through the Einstein Fellowship that connects STEM educators to the work happening in the federal government,

whether it's on the Hill or in an agency. I think for me, it was definitely a learning experience in a whole new sphere. Working at the National Science Foundation,

I was really focused on understanding some of the work we were doing with federal grants, specifically tied to diversity, equity, and inclusion in the Geoscience's workforce.

So I had taught Earth Science. I had some field experience in Earth and Climate Science. But outside of that, I wasn't as connected in the higher ed space to that world. And I think the biggest takeaway for me was that I was working with a team who were part of this federal effort to look at future solicitations that PIs or researchers could apply to develop leadership opportunities or workforce opportunities for the

future Earth Sciences workforce across the US. But I was sitting in a room of people who were directing these efforts and leading these efforts, who lived every day,

this approach that was built on empathy and this approach that really centered efforts to ensure that not only were our grants written in a way that is inclusive,

but the panelists that were reviewing high level research awards were representative of the community that we wanted to reach. And just down to every detail thought that that team took to make sure that sitting at the table making the decisions,

writing the grants, like there was an effort to really live the work. the words that were put on paper in terms of investing in diversity and equity. And I know that that may not exist everywhere,

but I got really lucky by sitting with a team who really lived those ideals and were the example of what they wanted to see happen through future awards that they were writing within the diversity and education portfolio at NSF during that time.

So that was a huge takeaway for me that it really matters how you show up every day and, you know, there is a level of influence for me coming from the K -12 class,

I'm just sitting at those tables and having conversations to plan out what opportunities might exist for researchers or, you know,

our future leaders in STEM, you know, through the awards that we were putting out there. - You know, I love that you all talked about,

you know, we've been talking about this five year STEM plan, but in reality, you all kind of all touched on a little bit. This was just one little piece of everything else that you were doing along in your fellowship. You know, you've all talked about,

you know, the bills that you were writing and the committees you were a part of and that kind of thing. So outside of this small little piece, what other things did you do that you really take away now that you look back on it that were really important of the time during your fellowship?

- One thing for me, and it's a pretty, it's incredibly important to my current job as a school leader in the math department of my school. And that is kind of the way that my state Maryland kind of has our school ranking systems is entirely based on the Every Student Succeeds Act and they're kind of section 1111,

which I basically read 450 ,000 times during my year in the fellowship. So kind of one of the things, my main goal when I was there, my main mission I suppose would be to read through the,

like during my time in the math department. states were submitting their plans for how they would rank their schools, however, they identify schools for continuous support, targeted support, those types of things.

And so that was my main, main goal as a fellow during that year. And I think right now, I've had the opportunity to speak with folks in my district about one,

what has the state done the state of Maryland done in terms of submitting their plan, because I read through Maryland's state plan, dozens and dozens of times as well. What have they done?

How have they interpreted the actual federal statute coming down? What are things that as as a locality as a school district, we might be able to do in developing our plan as a response to the state,

which is a response to the federal statute. And it's been really nice even like this school year when we talk about our what we call our ESSA rating, right in my school and just talking about like,

what are ways that we might be able to identify periods for our own growth? What are ways that we might be able to ensure that like the schools around us have that support as well, the middle schools that feed into us that sort of thing.

And it's been incredibly great because like, I have this again, like I said, unique perspective. In terms of like, having the work that I had on the Hill in 2017 is still affecting my current job as a teacher,

a school teacher in 2024. And that's been great. The other thing that we alluded to a little bit ago, that John originally had alluded to was I did have a pretty strong part in kind of the the the response on on my side of the aisle and our minority office to a reauthorization of the Higher Education Act.

Because that was such a large looming bill, my my main goal was almost exclusively on a couple teacher loan forgiveness programs.

And so there's when you think about everything in higher education, teacher loan for is not everything. And so I would say that I,

as a teacher that had loans, I learned a lot and I would say that it is incredibly fortunate that I did because there are some things that I just honestly didn't know and it took me moving to DC to work in a congressional office to learn about loan forgiveness.

And if that says something about me, I feel like it might also say something about probably every person that has a student or a college loan teacher or not.

And so it was incredibly beneficial for me. And I do think that as a result of some of the work that we had, some of the legislation that I attempted to write, although not necessarily in law right now,

I think that it opened some eyes, whether it was in the education department or other legislative offices, kind of reworking, revising, redoing pieces of bills and pieces of legislation for,

I will say, specific teacher loan programs. I feel like I had a pretty strong part in making our teacher loan forgiveness and service programs better in this country.

And that is my main takeaway. Like I really feel proud of that work that I was able to do, even if, like I mentioned, the text, the words that I wrote when I was typing it up,

probably don't appear necessarily anywhere in law. But a lot of those ideas that I had, that I was able to come up with, with speaking with different stakeholders and such,

like it's there. And I think everything is better for it. So I had a phenomenal experience with that. And I think that having those two major responsibilities just made me a better person,

made me a better educator. - I think one of my big takeaways, and I say, there were many. So one of my big takeaways comes from,

from the places that we visited as fellows. Once a month, and sometimes more than once a month, we would get together as a group and we'd go to the National Science Foundation,

we'd go, we went to NASA Goddard Space Flight Center, the National Institutes of Health, US Patent Office. We visited these agencies and what I still,

what I think about now is that the people that we see on the news are not running the government. They're not doing, it's the people in the offices who are doing the real work.

And I do wish that the people we see on the news would go to those offices and see the work that's being done before they go on the news.

- I kind of to build off of John, your comment there. I think one of, in terms of the professional development that we got outside of our projects, I remember vividly the guest speakers from the National,

I think it's the National Governors Alliance, but it was interesting to hear how closely states really work together and how much collaboration does happen behind the scenes,

even if based on what we hear sometimes in the media, it seems like there are gaps in communication. I just thought that was really eye -opening for me that there is a lot of work always happening behind the scenes across the government,

federal, state, local to try to implement change that's responsive to stakeholders. And that was really eye -opening for me. I think my other takeaway that I carry with me is when we think about the STEM education ecosystem as a K -12 project,

I didn't really have that full experience of critical transition points in higher ed, and that was an effort that we were working on at the National Science Foundation.

One of my tasks was kind of putting together best practices for reducing barriers, which is a crazy big problem, right? Like reducing barriers to future STEM leaders,

future STEM workforce members at critical transition points, whether it's between high school and a four -year institution, whether it's between community college and a four -year institution or eventually to grad school.

And what I learned is that there are a lot of people in the field doing that type of work that we, sitting at the table where the grants are written and where the funds are released.

It's so critical to listen to early -career, mid -career, like just the full breadth of stakeholders in that world to understand what is needed,

what are the current barriers, where the progress is. And that's something that I still, that listening piece is so critical for my work right now. And I think that's something that I will forever take with me,

that like it's important to show up. We all have our own individual experiences, but coming to the table and really taking a step back and listening to all of the community members that sitting in a federal office,

your decisions might impact is so important. And that's something that I definitely don't think I'll forget and I really value the fellowship for providing that opportunity to sit at those tables and learn through that process.

- And I was hoping if I could kind of add on what kind of what both of you were sharing, John, you mentioned that like the people that are doing the dirty work aren't necessarily the people you see on TV.

I just remember sitting like or standing or whatever. I was being in DC thinking, sitting at a hearing, being like, man, I, you know what? Like these folks, these Congress folks,

these senators, they're saying some phenomenal things. But honestly, it's the people that are sitting behind them that they are the people that really know all of their stuff because those are the people kind of like given that guidance,

they know what happened earlier today as a result. So let's see you say this today on this topic at this time. But B, and perhaps more importantly, those are the people you as a teacher,

as an Einstein fellow are working with on the day to day. And that for me was like an incredible experience. So being able to work with those people that kind of like know all the nuts and bolts of the things that are happening or the ones that are like writing all the stuff down to be approved,

to be like, you know, and ensure that it like is supported by the current members of Congress or in the Senate or whomever. Working with those people that are really like doing the dirty work was such an experience.

- I love that, I love that. That's so important for people to know. I think that's really great. And hearing to the three of you talk about your experience in the fellowship,

it seems like there has almost this like ebb and flow to it in that you separate and you do your own work and then you come together and you work on certain things. And then maybe you separate and do some more things on your own and then you come together.

And I really just appreciate kind of like the cyclic nature of that and just of teachers in general for this willingness to collaborate and always like working to make things better and being these constant learners.

So that leads me to my next question of teachers who might be interested in the fellowship. What advice would you have for teachers who are like,

"Hmm, I am also interested in potentially learning more "about civics and I'm a physics person "or I'm interested in the fellowship." in just kind of taking my teaching to this next level.

What would you say to those people? Definitely apply. Okay, that's it. Just apply,

just do it, right? Fill out the application. There's a place where they would fit in.

One of the things about the whole interview process was finding out how it's not just where a person's qualifications would fit the job,

but where the job fits the person. And that applied not just in the general application process that happened first,

but it also happened that way in interviews on the Hill. Hill Fellows come back a couple months later once they get awarded the fellowship to interview with different congressional offices and it's really a two -way interview.

The office is interviewing us to see if we can fit some of their needs, but we're also kind of feeling them out to figure out if that's an office we want to work in.

So yes, apply. Okay, that's enough. No, just kidding. Well, to John's point, I think be thoughtful in your application. Don't be afraid to apply more than one.

I would also say rejection is not the end if it doesn't work out the first time. I think think through what you want to learn, take your time with the application,

put some time into it and thought into it, and be open. I think for me, as an educator, I had prior research experience with NASA projects and I felt especially because of my work in physics and math,

I felt deeply connected to the NASA space. And when I was matched with National Science Foundation, it felt out of my comfort zone, but it was the most beautiful,

perfect learning experience. And I'm so grateful for that experience that led to the other milestones along my career. And so I would say like John's, I'd be completely open to the possibility of what's the best match and what's the right fit.

And don't try to put yourself into a box if you're looking at a fellowship with one of these agencies or on the Hill. - Yeah, and I can probably speak to that in a very personal way.

When I had applied for the fellowship, I guess we got a call to go to like the semifinalist interviews and then I was a little bummed out that I wasn't interviewing with NSF because to be honest with you,

I thought all the math teachers were going at NSF. But when I had the interview for a Hill position and I was like, oh my God, like, do I want that? And the answer was like a resounding,

I couldn't have been happier with the placement that I received, not only on the Hill, but in the Hill, in the office that I ended up going to. It was pretty great. It was actually kind of another interesting story.

When I did go back and interview with the different congressional offices, I interviewed with this committee office and the person that was supposed to interview me had to leave and intercept the member from going to the White House to like watch the president sign a bill that they were not happy about.

It was a very interesting, fun story from like my first experience on the Hill. So I was actually interviewed by at that time, the current Einstein fellow in that office. And it was pretty interesting.

So like long story short, like kind of what Kelly was saying, what John was saying. as well, apply. Don't be, I guess, dejected or scared about,

you know, I got this one possible interview or this one thing. There is it is a two -way street of what fits for me, what fits for you. So like we're saying just the way that the folks in the Einstein Fellowship like work with the offices and work with the agencies to place specific folks in specific places,

it almost always like works out phenomenally. And even like in those instances and where there are some issues, like everybody is also on the same page and wants you,

the teacher, to make sure that that you are in the most comfortable position that you need. So apply, do all that. If you don't get it that first time, there's always next year.

And take it from kind of, I feel like we've been around the bush a little bit here. If you're afraid of who's in office or like what's going on in DC at that time,

there are ways that you can kind of separate yourself from that. And so there's no reason necessarily to say I'm going to push this off for two years or push this off for four years. If you're in a position to really to submit that application and hit send,

then I suggest you do it. Definitely. That's great advice. Awesome. Well, you know, all the advice and the feedback and just kind of the looking back at what y 'all did and why it was important and,

you know, just everything about the experience and sharing that with listeners. So that brings us to our final question, which is always to our participants and any other person on the podcast,

which is what brings you all joy? Hanging out with my nephew brings me joy, family and getting outdoors.

Chris, what about you? Thanks. I was going to say I'm engaged right now, looking forward to being married soon and set the So hanging out with my fiance,

again, going camping, being outdoors. Yeah, absolutely. So just being able to be in my house, doing things around the house, loving, just living life,

honestly. Everything has been great. And for me, again, being with my family also,

I've got a daughter in high school and she is just doing everything she can to have the most incredible high school experience getting involved in everything.

So I love going to her swim meets and her plays, her dance shows. And I like working from home as my wife has been writing a book.

She just released her first novel yesterday. So that's been exciting. And teaching brings me joy. Though I am working with pre -professional teachers currently,

pre -service teachers, it's still teaching. And I still get to see them grow throughout the year and develop their skills and understandings of how teaching and learning work.

Awesome. I love all those answers. Kelly, Chris, John, thank you all so much for joining me and Amy today and, you know, looking back on your fellowship and giving advice to future fellows and just all the insight you're able to bring.

I really appreciate you all. It's time for being here with us today. Thanks for having us. Thanks for bringing us together. It's time for us to have a reunion. Yeah, glad we could provide a little reunion for y 'all.

I hope to talk to y 'all soon. Thank you, everybody. Thank you. Thank you for listening to the ORISE Feature Cast. To learn more about the Oak Ridge Institute for Science and Education,

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