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00:06:49.740 --> 00:07:00.810
Caroline Blanco: Hello, my name is Caroline Blanco, and as NSF's
Tribal liaison and federal preservation officer, I welcome you to the
United States National Science Foundation's town hall
00:07:01.230 --> 00:07:06.090
Caroline Blanco: with Tribal Nations. Our agency is honored that you
have chosen to join us today.
00:07:06.690 --> 00:07:13.410
Caroline Blanco: Today's meeting is an important step toward enhancing
NSF government to government consultation efforts with Tribal Nations.
00:07:13.980 --> 00:07:18.480
Caroline Blanco: Before we get started, I would like to provide you
with some important logistical information.
5
00:07:19.200 --> 00:07:27.600
Caroline Blanco: This town hall will be recorded and an email will be
sent to all participants with information on how to access the
recording of today's town hall.
6
00:07:28.440 --> 00:07:37.710
Caroline Blanco: Throughout the meeting the Q&A function will be
opened. Please feel free to submit any questions that you may have
during today's meeting using this tool.
00:07:38.280 --> 00:07:44.340
Caroline Blanco: If you are participating in this town hall by phone,
and would like to ask a question or make a comment.
00:07:44.760 --> 00:07:54.060
Caroline Blanco: Please feel free to send us your questions and
comments to Tribal.engagement@nsf.gov following the meeting.
00:07:54.450 --> 00:08:00.540
Caroline Blanco: We will address as many of the incoming questions
received in the Q&A box as possible in the time permitted
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00:08:00.960 --> 00:08:07.980

Caroline Blanco: However, all questions not addressed during this meeting will be addressed in the plan for enhanced consultation being developed.

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00:08:08.310 --> 00:08:18.360

Caroline Blanco: In accordance with the January 26, 2021 Presidential Memorandum on Tribal Consultation and Strengthening Nation to Nation Relationships.

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00:08:18.930 --> 00:08:26.130

Caroline Blanco: In addition, as mentioned in the town hall invitation, we have a comment, comment period open through June 11, 2021

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00:08:26.520 --> 00:08:33.930

Caroline Blanco: in which all comments regarding how NSF can enhance its government-to-government consultation efforts with Tribal Nations are welcome.

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00:08:34.410 --> 00:08:38.400

Caroline Blanco: Further after reviewing the input received today, and during the comment period.

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00:08:38.670 --> 00:08:47.400

Caroline Blanco: We will arrange for additional listening sessions to provide further opportunities to engage with Tribal Nations on ways to improve our government-to-government consultation efforts.

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 $00:08:47.850 \longrightarrow 00:08:59.100$ 

Caroline Blanco: Thank you in advance for sharing your views with us. We had intended to begin our meeting with an opening prayer, led by Dr. David Yarlott, Jr., President of the Little Big Horn College

# 17

00:08:59.490 --> 00:09:08.430

Caroline Blanco: However, we have just learned that he has suffered a power outage and will be unable to do so, but his thoughts are with us today and we think Dr. Yarlott for that.

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00:09:09.330 --> 00:09:18.000

Caroline Blanco: Next I would like to introduce to you the 15th

Director of the United States National Science Foundation Dr. Sethuraman Panchanathan.

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00:09:18.300 --> 00:09:28.380

Caroline Blanco: Since joining NSF last June, Dr. Panchanathan has been steadfast in his commitment to his vision, which includes advancing the frontiers of research into the future,

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00:09:28.950 --> 00:09:39.210

Caroline Blanco: ensuring accessibility and inclusive city and securing global leadership Tribal Nations have an important role in turning this vision into a reality.

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00:09:39.720 --> 00:09:54.060

Caroline Blanco: To emphasize NSF's commitment to enhancing its relationships with Tribal Nations for the benefit of all, it is with great pleasure that I introduce to you Dr. Sethuraman Panchanathan, Director of the United States National Science Foundation.

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00:09:54.900 --> 00:10:02.730

Sethuraman Panchanathan: Thank you so much. Caroline. It's truly a pleasure to be with all of you this afternoon again, many, many thanks for Dr. Yarlott.

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00:10:03.240 --> 00:10:16.140

Sethuraman Panchanathan: committing to joining us today. I know that he has had some difficulties, but we are very, very grateful to him for helping us with this event and also joining us as our chief guest here. My name is Sethuraman Panchanathan, as

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 $00:10:16.770 \longrightarrow 00:10:23.700$ 

Sethuraman Panchanathan: Caroline introduced me and I'm the Director of the NSF, I'm pleased to welcome you all today to discuss how NSF

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00:10:23.970 --> 00:10:32.310

Sethuraman Panchanathan: and Tribal communities can work together more closely and how NSF can better serve the needs of Tribal Nations.

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00:10:32.550 --> 00:10:40.170

Sethuraman Panchanathan: This is something that's exceedingly important to me as a director as Caroline said something that I've emphasized since my coming to NSF.

00:10:40.590 --> 00:10:53.700

Sethuraman Panchanathan: So as I said, in our thanks, first and foremost, Dr. David Yarlott and with you know with his talks with us. And I'm sure he'll be able to join us during this presentation today and we look forward to that.

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00:10:54.090 --> 00:11:01.980

Sethuraman Panchanathan: I also want to thank all the tribal leaders who are joining us today. We know that many different agencies are requesting your time

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00:11:02.580 --> 00:11:14.610

Sethuraman Panchanathan: and attention on this issue, and rightly so, and it's exceedingly important therefore we truly appreciate it at NSF that you have chosen to be here with us today and we cannot be more grateful to you for that.

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00:11:15.270 --> 00:11:25.680

Sethuraman Panchanathan: We also know that this has been an incredibly difficult year under the COVID-19 pandemic, and the impact of the pandemic has hit the Tribal communities, especially hard

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00:11:26.400 --> 00:11:34.050

Sethuraman Panchanathan: And I know that first hand having come from the great state of Arizona where I've had the opportunity, the unique opportunity of interacting with Tribal leaders

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00:11:34.350 --> 00:11:45.990

Sethuraman Panchanathan: and the amazing Tribal governments there. I know how hard they work every day to make the lives of the Tribal people better. And in this moment of COVID-19 I know it has been a tremendous difficulty

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00:11:46.290 --> 00:11:51.150

Sethuraman Panchanathan: and that you will then join with us today makes it even more special to all of us.

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00:11:51.480 --> 00:11:59.190

Sethuraman Panchanathan: So I would like to give you a quick background because some of you may not know about NSF, at least I did not know until I started to get engaged with NSF

00:11:59.610 --> 00:12:13.050

Sethuraman Panchanathan: as an actual science board member in this level of detail. We were founded in 1950 in the aftermath of World War Two, as a way to sustain all of the science and engineering research that has been conducted to support the war effort.

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00:12:14.010 --> 00:12:24.030

Sethuraman Panchanathan: But the transition that work for the development of science and technology that will enhance the nation's economic growth as well as the well being of the citizens.

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00:12:24.420 --> 00:12:30.780

Sethuraman Panchanathan: And this is an important, important imperative and the mission of NSF to advance the prosperity of the nation and the citizens.

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00:12:32.100 --> 00:12:42.360

Sethuraman Panchanathan: And NSF's founding mission, therefore, is to promote the progress of science to advance the national health prosperity and welfare and to secure the national defense.

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00:12:42.960 --> 00:12:55.260

Sethuraman Panchanathan: Today, NSF is the only federal agency charged with advancing fundamental research across every area of science and engineering. And we do so across all parts of the nation.

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00:12:55.650 --> 00:13:02.940

Sethuraman Panchanathan: And that's something that is truly exciting. The way we do this is by funding researchers at a wide range of institutions.

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00:13:03.240 --> 00:13:19.260

Sethuraman Panchanathan: Ranging from community colleges to state universities to nonprofits. We also invest in research infrastructure like supercomputers telescopes and research ships which often are operated by education institutions and research organizations across the country.

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00:13:19.860 --> 00:13:27.990

Sethuraman Panchanathan: We also support the whole range of science, technology, engineering and mathematics education opportunities. This

is exceedingly important

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00:13:28.200 --> 00:13:40.950

Sethuraman Panchanathan: because the talent of today and tomorrow is going to be assured by what we fund in terms of education, research, in addition to all the other things that happens across the nation to the many different initiatives across many different institutions.

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00:13:41.340 --> 00:13:48.630

Sethuraman Panchanathan: Our STEM education programs span from kindergarten, all the way to graduate education and post graduate career development.

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00:13:49.110 --> 00:13:52.800

Sethuraman Panchanathan: So this is not just to foster a new generation of researchers

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00:13:53.370 --> 00:14:02.280

Sethuraman Panchanathan: We want to strengthen science and engineering capabilities for everyone throughout the United States. That includes scientists and engineers who going to industry.

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00:14:02.940 --> 00:14:09.300

Sethuraman Panchanathan: As well as people who go into technical fields and people in non-technical jobs, who rely on technical skills.

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00:14:09.810 --> 00:14:21.690

Sethuraman Panchanathan: In fact, one could say that most if not all of our folks that we educate and that not necessarily being in academia, they serve in those places that actually make a difference in addition to academia across the nation.

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00:14:22.500 --> 00:14:33.840

Sethuraman Panchanathan: Over the past seven decades we are made tremendous progress and science and technology everything we have accomplished so far is a launchpad for future progress that will happen even faster.

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00:14:34.470 --> 00:14:50.130

Sethuraman Panchanathan: And I have a vision for how NSF can drive discovery and innovation, so that we are making bigger breakthroughs in knowledge and technology so that those breakthroughs are happening

faster than ever. I call it. "How do you strengthen at speed and scale."

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00:14:50.910 --> 00:15:04.950

Sethuraman Panchanathan: Tribal Nations are a very important part of that vision. If you're going to accomplish everything that is possible in the coming decades, we must tap into the unbelievable talent that exists in every community throughout the country.

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00:15:05.940 --> 00:15:17.610

Sethuraman Panchanathan: They are what I call as the "missing millions," the millions of people who have the talent or drive to succeed in science and technology, but who do not yet see a path into STEM careers.

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00:15:18.090 --> 00:15:22.980

Sethuraman Panchanathan: In order for the STEM community to reflect the full talent that exists across the country.

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00:15:23.550 --> 00:15:33.300

Sethuraman Panchanathan: we need to quadruple the number of American Indians, Alaska Natives Native Hawaiians and other Pacific Islanders in science, engineering and technology.

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00:15:33.750 --> 00:15:40.410

Sethuraman Panchanathan: Believe me, I have seen first hand at Arizona State University where I came from the unbelievable potential the talent.

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00:15:41.100 --> 00:15:52.080

Sethuraman Panchanathan: That is across the spectrum of the social, economic, and the geographical diversity of the nation and I've seen it firsthand in terms of Native American Tribe, the talent that comes out of that is just phenomenal.

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00:15:52.500 --> 00:15:59.160

Sethuraman Panchanathan: And it is our responsibility, therefore, to motivate, inspire, and nurture the talent and make amazing things possible.

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00:15:59.880 --> 00:16:10.860

Sethuraman Panchanathan: And the focus of my vision for NSF in the

coming years is growing and strengthening partnerships because partnerships essentially are the things that turbocharge progress in science and engineering.

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00:16:11.580 --> 00:16:22.410

Sethuraman Panchanathan: And I mean, all kinds of partnerships from formal agreements to informal cooperative plans to supporting platforms and environments that collaboration can grow and thrive.

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00:16:23.070 --> 00:16:29.760

Sethuraman Panchanathan: One of the things that NSF has learned about growing Partnerships is that they must be based on mutual trust.

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00:16:30.360 --> 00:16:40.500

Sethuraman Panchanathan: Transparency and shared understanding of good goals and responsibilities and you know how important it is to build that sense of trust and shared values amongst us.

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00:16:40.950 --> 00:16:53.460

Sethuraman Panchanathan: And that's the platform for promoting rich and strong collaborations. So I thought therefore that today is part of a longer process of building the relationship between NSF and Tribal Nations.

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00:16:54.720 --> 00:17:11.970

Sethuraman Panchanathan: There is so much we can do together. And so much that you can accomplish together and NSF is excited for the opportunity to work with you. Our panelists today are going to talk about some of the areas that NSF and Indigenous peoples are already building a foundation for greater consultation.

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00:17:13.260 --> 00:17:27.480

Sethuraman Panchanathan: Land use, for example, is a course of big issue. Many major research facilities are located near Tribal lands. How can we improve our approach to identifying proposed research that might impact Tribal interests.

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00:17:28.170 --> 00:17:39.930

Sethuraman Panchanathan: Research consultation is another important consideration. How do we ensure that research that touches on Tribal lands or Indigenous peoples is carried out respectfully and transparently.

00:17:40.530 --> 00:17:46.200

Sethuraman Panchanathan: And how do we create data management protocols that respect Tribal data sovereignty.

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00:17:47.190 --> 00:17:53.370

Sethuraman Panchanathan: I would like to end with a brief story about a student from the Pine Ridge Indian Reservation in South Dakota.

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00:17:54.060 --> 00:18:02.280

Sethuraman Panchanathan: I always like to tell stories because stories are impactful. It is about individual people. It's about people who are excelling under very difficult circumstances.

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00:18:02.760 --> 00:18:14.130

Sethuraman Panchanathan: And that shows the promise and the potential for what we can do for everyone across the nation that I talked about; how might we unleash the amazing talent across our Native American Tribes and beyond.

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00:18:15.690 --> 00:18:25.710

Sethuraman Panchanathan: For example, Elisha Yellow Thunder is a member of the Oglala Lakota nation studying data science. Oglala Lakota College community

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00:18:26.700 --> 00:18:42.120

Sethuraman Panchanathan: has been hit very hard by COVID-19 and one of the contributing factors is that data about the pandemic has not been collected or share consistently across American Indian reservations so Yellow Thunder began a research project

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00:18:43.230 --> 00:19:01.950

Sethuraman Panchanathan: to gather the geographic data showing how far elders live from medical facilities. She partnered with three other students from Oglala Lakota College and United Tribes Technical College in North Dakota and also a researcher at the University of Colorado Boulder's Earth Lab.

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00:19:03.150 --> 00:19:09.930

Sethuraman Panchanathan: As a result of their work, they were able to make recommendations for setting up local pop—up testing sites.

00:19:10.530 --> 00:19:17.370

Sethuraman Panchanathan: and informational centers in existing community spaces that would be more accessible for Tribal elders.

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00:19:18.210 --> 00:19:26.370

Sethuraman Panchanathan: They are also developing a COVID-19 dashboard to help keep Tribal communities informed about local COVID-19 trends and issues.

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00:19:27.150 --> 00:19:38.550

Sethuraman Panchanathan: Yellow Thunder's project was part of the Earth Data Science Corps, which is an NSF-funded program that focuses on partnering with communities that are under represented in STEM.

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00:19:39.750 --> 00:19:47.280

Sethuraman Panchanathan: The goal is to help students develop the skills necessary to access and analyze the data, which are both very important.

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00:19:48.420 --> 00:19:53.580

Sethuraman Panchanathan: One of the most important aspects of the work is sustaining opportunities over the long term.

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00:19:54.060 --> 00:20:10.470

Sethuraman Panchanathan: For example, the partnership between the Earth Data Sciences Core, Oglala Lakota College, and United Tribes Technical College is an ongoing program. It is shared investment in strengthening technical skills and developing educational opportunities for students.

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 $00:20:11.520 \longrightarrow 00:20:27.630$ 

Sethuraman Panchanathan: As I said earlier, we need more stories successful stories like Elisha Yellow Thunder's unbelievable talent and how she expressed the talent to actually find real solutions to challenging problems and thereby serving as an inspiration for us all.

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00:20:28.680 --> 00:20:33.240

Sethuraman Panchanathan: Broadening participation is a central element of NSF strategic plan.

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00:20:34.830 --> 00:20:42.630

Sethuraman Panchanathan: But it is also a personal imperative for me.

Carolyn talked about this since the moment I came to NSF, I've been emphasizing the importance of access.

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00:20:44.460 --> 00:20:51.000

Sethuraman Panchanathan: And therefore, we have to make sure that everybody has a chance at this American dream.

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00:20:52.110 --> 00:21:03.540

Sethuraman Panchanathan: So therefore, I know that the only way you're going to achieve the amazing possibilities that science and technology has in store for us is by bringing all the incredible talent that exists throughout the country.

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00:21:04.980 --> 00:21:14.190

Sethuraman Panchanathan: So I just wanted to say how grateful I am to every one of you who have made this possible today and being here today. So on behalf of everyone at NSF

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00:21:14.700 --> 00:21:24.540

Sethuraman Panchanathan: we look forward to hearing your thoughts and working more fully with you on a government-to- government basis going forward. Thank you so much.

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00:21:27.060 --> 00:21:35.340

Caroline Blanco: Thank you so much Dr Panchanathan. I would like to now turn to our panel of NSF experts whose work touches on Tribal interests.

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00:21:35.610 --> 00:21:37.710

Caroline Blanco: The following presentations are not

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00:21:37.800 --> 00:21:48.270

Caroline Blanco: inclusive of all of the work that NSF funds that intersects with Tribal interests, but they represent some highlights. Each panelist will introduce herself, beginning with Dr. Jody Chase.

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00:21:48.990 --> 00:21:49.530

Jody Chase: Thank you.

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00:21:52.620 --> 00:22:02.580

Jody Chase: Thank you. I'm Jody Chase and for almost 30 years it's

been my honor to work with the Tribal colleges and universities, on behalf of the National Science Foundation.

92 00:22:03.060 --> 00:22:13.170 Jody Chase: As I speak today. I remember Risa Davis, who served as a board member of Turtle Mountain Community College from its founding in 1972 until her death last Tuesday. 93 00:22:14.970 --> 00:22:31.410 Jody Chase: Beginning with the establishment of Navajo Community College in 1968 and in a period of increased Tribal sovereignty over education, the nation saw an explosion of Tribally chartered colleges that continues to this day. And even in the beginning, 94 00:22:32.910 --> 00:22:50.640 Jody Chase: even in the infancy, the Tribal colleges were welcomed and supported by the National Science Foundation. The Minority Institution Science Improvement Program supported equipment, materials, supplies and faculty to 95 00:22:52.560 --> 00:23:00.870 Jody Chase: improve the science at these emerging institutions. Beginning in the 1990s, the Rural Systemic Initiatives provided support 96 00:23:02.040 --> 00:23:08.100 Jody Chase: for the TCUs' engagement with their local K-12 schools. 97 00:23:09.360 --> 00:23:18.540 Jody Chase: NSF Net provided connection to the World Wide Web and the Experimental Program to Stimulate Competitive Research provided support for 98 00:23:19.830 --> 00:23:21.090 Jody Chase: science programming. 99 00:23:22.230 --> 00:23:35.820 Jody Chase: But the most consequential of all of these, of anything

that NSF has done for the Tribal colleges began in the 21st century with the Tribal Colleges and Universities Program, which we call TCUP.

00:23:39.810 --> 00:23:54.300

Jody Chase: Through TCUP, TCU's have developed Associate's degrees in STEM, many of which have grown into Baccalaureate degrees in STEM and STEM education degrees and even some Masters degrees in STEM with more being developed.

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00:23:56.280 --> 00:24:15.420

Jody Chase: Special emphasis on engineering lead to several two-year engineering degrees and to date one a ABET accredited baccalaureate degree with more currently being developed. The college's overlay of their own original research, digital design and focus on local infrastructure

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00:24:16.440 --> 00:24:27.990

Jody Chase: lead to TCU graduates winning the prestigious graduate research fellowships, employment of STEM professionals in Tribal state and federal positions and growing their own businesses.

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00:24:30.210 --> 00:24:42.930

Jody Chase: Through 50 years of partnership the colleges and NSF saw all of this amazing instructional capacity being built in STEM. Associates degrees, Baccalaureate degrees,

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00:24:43.260 --> 00:24:48.300

Jody Chase: graduate degrees and locally determined research and engineering. And we realized

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00:24:48.870 --> 00:25:02.790

Jody Chase: that this capacity offers space to the college's to be more than the educational partners to their communities. It allowed them to take the leadership role as intellectual partners to meet their community's needs in STEM areas. And so in 2018,

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00:25:04.200 --> 00:25:08.400

Jody Chase: NSF introduced the TCU Enterprise Advancement Centers.

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00:25:09.930 --> 00:25:18.000

Jody Chase: To date, we're supporting seven centers, and more are on the horizon. Centers are in areas that are particular relevance

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00:25:20.670 --> 00:25:21.090

Jody Chase: To

00:25:22.350 --> 00:25:36.900

Jody Chase: to their Tribe or reservation and some in food sovereignty, some in water quality, some in Indigenous research, some in engineering, and some in advanced digital manufacturing, and all of them are making a huge difference in their local communities.

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00:25:37.860 --> 00:25:45.060

Jody Chase: We can't tell you how pleased we are, how honored we are that we've been allowed to partner with these amazing colleges for the last 50 years

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00:25:45.450 --> 00:26:00.990

Jody Chase: partnerships that have grown only more diverse, only more numerous, and only stronger through time, and we can't wait to see what the next 50 years brings. Thank you for your time. Thank you for your trust. I'll turn it over to my colleague Renee Craine.

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00:26:04.410 --> 00:26:05.520 Renee Crain: Hello everyone.

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00:26:06.570 --> 00:26:12.540

Renee Crain: I'm Renee Craine. I'm a Program Manager with the Arctic sciences section at the National Science Foundation.

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00:26:13.020 --> 00:26:22.680

Renee Crain: The Arctic sciences section is organized with a regional focus that enables disciplinary and system focused research and recognizes that people are a part of the Arctic system.

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00:26:23.460 --> 00:26:31.470

Renee Crain: Today I'll highlight a few activities in the interagency space and two relevant funding opportunities at NSF. You can advance the slides.

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00:26:33.870 --> 00:26:37.530

Renee Crain: There are 14 federal agencies that fund research in the Arctic.

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00:26:38.550 --> 00:26:44.370

Renee Crain: These agencies are organized through the Interagency

Arctic Research Policy Committee, or IARPC.

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Renee Crain: The National Science Foundation is the lead agency for IARPC and Dr. Panchanathan is the chair. So in 2018 IARPC updated their principles for conducting research in the Arctic.

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00:26:57.870 --> 00:26:59.580

Renee Crain: The principles they have developed

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00:27:00.600 --> 00:27:11.850

Renee Crain: Are to be accountable to establish effective communication, respect Indigenous knowledge and cultures build and sustain relationships pursue responsible environmental stewardship.

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00:27:12.720 --> 00:27:18.270

Renee Crain: Each of these principles has four or five sub-bullets that elaborate what is meant by each of these principles,

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00:27:18.690 --> 00:27:26.070

Renee Crain: and they provide a framework for researchers to work effectively with Tribes when projects are on or near Tribal lands, waters and communities.

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00:27:26.820 --> 00:27:42.210

Renee Crain: There's a spectrum of what this engagement might look like, from coordinating research plans and reporting back research results, to developing integrated projects, co-production of new knowledge, or Memorandum of Understanding to document specific roles and responsibilities.

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00:27:43.410 --> 00:27:54.000

Renee Crain: Increasingly, we're seeing projects that involve community— based participatory research, co— production of new knowledge projects, led by Indigenous scholars. Go ahead to the next slide.

# 125

00:27:56.220 --> 00:28:08.010

Renee Crain: The legislation that created IARPC also requires an interagency Arctic research plan. The next five-year plan that will cover 2022 to 26 is right now out for public comment.

00:28:08.760 --> 00:28:16.320

Renee Crain: And this is a very interesting plan that addresses the interest of people in the Arctic in a much different way than previous plans have done.

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00:28:17.190 --> 00:28:30.030

Renee Crain: So I want to point out the four priority areas in this draft plan are community resilience and health, Arctic systems interactions, sustainable economies and livelihoods, and risk management and hazard mitigation.

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00:28:31.650 --> 00:28:32.730

Renee Crain: Go ahead Jody, one more.

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00:28:34.410 --> 00:28:50.910

Renee Crain: And underpinning these priorities are five foundational activities. I want to highlight co- production of knowledge and Indigenous lead research as one; also data management, education, monitoring, observing, modeling and predicting, and technology, innovation and application of research.

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00:28:52.230 --> 00:29:01.680

Renee Crain: So as I mentioned, it's out for public comment until June 11. You can submit comments through the Federal Register notice to an email called IARPCplan@nsf.gov

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00:29:02.100 --> 00:29:11.190

Renee Crain: And we also take written and voicemail comments as well. These slides will be circulated and you'll be able to have access to the links, if you want to follow up for more information.

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00:29:12.240 --> 00:29:18.030

Renee Crain: And also note that the IARPC activities are organized through a portal we call the IARPC collaborations portal.

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00:29:18.420 --> 00:29:30.360

Renee Crain: And everyone was an interest in the Arctic is welcome to join in those conversations around the priority areas and collaboration teams that are driving forward research in different areas. And that's an IARPCcollaborations.org

00:29:32.400 --> 00:29:32.820 Renee Crain: Go ahead JOdy.

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00:29:34.920 --> 00:29:50.490

Renee Crain: I will now turn to two funding opportunities, as you know, NSF funds basic research and response to proposals. So we'd like to offer opportunities to attract proposals that are going to build on these collaborative relationships and engage Indigenous communities.

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00:29:52.200 --> 00:30:03.150

Renee Crain: Right now there's a Dear Colleague letter that was released last August. And it's to attract proposals for community hubs for collaborations between NSF-funded Arctic researchers and Arctic residents.

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00:30:03.570 --> 00:30:22.140

Renee Crain: It's an open call with no deadline, and proposals would be submitted to the Arctic research opportunities solicitation. And it's a real opportunity to pick a topic and to build a collaboration around that topic that's of interest and importance for Arctic communities. Next slide.

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00:30:24.660 --> 00:30:35.790

Renee Crain: And also, many of you have heard of Navigating the New Arctic, which is one of NSF's 10 big ideas. The big ideas are bold, long term areas of investment at the frontiers of science and engineering.

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00:30:36.270 --> 00:30:41.940

Renee Crain: They address current problems with multiple scientific disciplines and knowledge systems.

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00:30:42.630 --> 00:30:51.510

Renee Crain: So navigating the new Arctic projects bring together knowledge across natural, social, and built systems, and they bring together Indigenous knowledge and Western science approaches.

141

00:30:52.380 --> 00:30:59.070

Renee Crain: Investments and Navigating the New Arctic are intended to improve what is known about changes in the Arctic environment and local and global effects.

00:30:59.400 --> 00:31:06.750

Renee Crain: To support diverse research community to conduct use inspired research where the natural built environments and society intersect.

143

00:31:07.470 --> 00:31:16.500

Renee Crain: And the outcomes of Navigating the New Arctic Research to inform policy, and economic developments that support resilient and sustainable Arctic communities.

144

00:31:17.100 --> 00:31:20.640

Renee Crain: We're starting to see results from the first rounds of navigating the new Arctic;

145

00:31:21.120 --> 00:31:30.000

Renee Crain: in addition, there's a newly founded community office. It's a collaboration between Alaska Pacific University, the University of Alaska Fairbanks, and the University of Colorado Boulder.

146

00:31:30.900 --> 00:31:39.930

Renee Crain: The community office is an opportunity to bring in new investigators, develop outreach activities around Navigating the New Arctic projects, provide a

147

00:31:40.560 --> 00:31:50.880

Renee Crain: central representation for Navigating the New Arctic activities and to do outreach and engage with Tribal Nations and travel organizations. Next slide.

148

00:31:52.740 --> 00:32:02.760

Renee Crain: These are examples of NSF efforts to increase support for co-production and improve how NSF funded researchers engage and collaborate with Tribal Nations and Indigenous people.

149

00:32:03.060 --> 00:32:16.530

Renee Crain: I am grateful for your participation in this town hall. I really appreciate being here. I look forward to future opportunities to communicate and appreciate your input. I'll now turn it over to my colleague, Dr. Shobhana Chelliah. Thank you.

150

00:32:32.280 --> 00:32:33.450

Renee Crain: Shobhana can you unmute

00:32:36.660 --> 00:32:45.660

Shobhana Chelliah: Rookie mistake can't believe it. Hello, everybody. Thank you very much. I'm Shobhana Chelliah and I'm here representing a program in the Social Behavioral

152

00:32:46.560 --> 00:32:55.170

Shobhana Chelliah: Economic Sciences directorate. The program was formerly called Documenting Endangered Languages and it's now called Dynamic Language Infrastructure. It's a partnership

153

00:32:55.530 --> 00:33:06.240

Shobhana Chelliah: with the National Endowment for Humanities and it has a focus area that is a critical significance to Indigenous communities and Tribal Nations;

154

00:33:06.600 --> 00:33:16.020

Shobhana Chelliah: that is the rapid loss of linguistic diversity of languages as languages seems to be transmitted to younger speakers and the wisdom and the practices.

155

00:33:16.260 --> 00:33:33.930

Shobhana Chelliah: The ways of being and the ways of thinking that are carried in those languages are lost, we see an urgency in documenting those languages. With great sadness and alarm really, we who work in this area of language documentation, along with communities, mark the passing of elders.

156

00:33:34.980 --> 00:33:47.940

Shobhana Chelliah: The last speaker of Evak left us in 2008; of Klallum, who spoke the language from when they were very young, left us in 2014; Chickasaw speakers, 2014 is marked as

157

00:33:48.390 --> 00:33:58.740

Shobhana Chelliah: the last of one of the elders who spoke fluently from childhood, and now with COVID we have even more of a sense of urgency in documenting the knowledge of these Tribal members.

158

00:33:59.370 --> 00:34:08.400

Shobhana Chelliah: The solicitation or the call for proposals for the DLI program is published on the NSF website and NSF2603,

00:34:10.230 --> 00:34:17.160

Shobhana Chelliah: and there you can see that the references made to this urgency in documenting these languages.

160

00:34:17.790 --> 00:34:24.060

Shobhana Chelliah: We see that most of those proposals are really calls for Indigenous languages all over the world, but most

161

00:34:24.540 --> 00:34:30.240

Shobhana Chelliah: of our PIs are from North America are interested in working in North American languages.

162

00:34:30.930 --> 00:34:41.280

Shobhana Chelliah: Linguists are interested in Native American languages because each language embodies unique local knowledge of the cultures and natural systems in the region in which these languages are spoken.

163

00:34:41.880 --> 00:34:49.230

Shobhana Chelliah: These languages are also evidence amongst sometimes very few sources of filling in the record of past history.

164

00:34:49.800 --> 00:34:58.410

Shobhana Chelliah: Native American languages are also amazing examples of the possible complexities of language and we learn so much about this human system

165

00:34:58.680 --> 00:35:06.090

Shobhana Chelliah: through understanding Native American languages. At the same time, individuals and communities are interested in these languages

166

00:35:06.360 --> 00:35:13.290

Shobhana Chelliah: because they affirm identity through language and practices and histories that are reflected in those languages.

167

00:35:13.680 --> 00:35:23.580

Shobhana Chelliah: So these individuals and communities urgently seek to preserve, celebrate, revitalize and provide access to the culture and language of their ancestors

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168
00:35:23.820 --> 00:35:36.000
Shobhana Chelliah: to the young people are in their communities
through these languages. So there's a common goal between linguists
and communities, and this common goal has made some really special
partnerships possible
169
00:35:36.480 \longrightarrow 00:35:50.370
Shobhana Chelliah: between NSF PIs and communities who speak and have
these languages as their heritage. I want to provide you with two
examples of those partnerships. Go on to the next slide please.
170
00:35:51.540 --> 00:36:06.720
Shobhana Chelliah: So the first example that I have for you is from
the work of Professor Timothy Montler. It's an older model of work
where we still brought significant impact to the
171
00:36:07.800 --> 00:36:12.180
Shobhana Chelliah: communities and to the linguistic knowledge base.
Dr.
172
00:36:14.850 --> 00:36:17.430
Shobhana Chelliah: Am I still on and moving or if I
173
00:36:24.360 --> 00:36:25.260
Caroline Blanco: Yes Shobhana
174
00:36:26.250 --> 00:36:26.700
Shobhana Chelliah: Thank you.
175
00:36:27.390 --> 00:36:43.710
Shobhana Chelliah: Okay, so Dr Montler produced an analytic
dictionary, a grammar, a collection of important stories and other
information on this language, which then fed into things that the
community could then use for
176
00:36:44.550 --> 00:36:47.400
Shobhana Chelliah: things that could be used in classrooms and so
177
00:36:47.970 --> 00:37:03.300
Shobhana Chelliah: our DLI PIs are required by reviewers at panels and
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when they're doing ad hoc reviews, to show this kind of synergy between the work that they do and the use of their work with by communities.

178

00:37:04.140 --> 00:37:22.560

Shobhana Chelliah: So Dr. Montler's work, it shows over his profession that he has been working both for the scientific and for this community use, and that is one example of how our DLI PIs have been partnering with communities. Could we go on to the next slide please.

179

00:37:24.720 --> 00:37:33.360

Shobhana Chelliah: But this second model has become much more prevalent in the past 10 to 15 years and that is Indigenously lead

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00:37:33.810 --> 00:37:49.500

Shobhana Chelliah: Or Indigenously plus a non Indigenously lead partnerships of projects where the goal of the project is stated, both by the community and by the linguist together. And these are done through teams of

181

00:37:50.100 --> 00:38:10.680

Shobhana Chelliah: researchers they may be linguists with language specialist language teachers archivist and the like working together to achieve the goals of the projects. And so we're seeing more and more these types of partnerships, this one with the Coeur D'Alene Tribe of Idaho. The next slide please.

182

00:38:13.260 --> 00:38:24.240

Shobhana Chelliah: Through training programs that the National Science Foundation has funded, including the American Indian Language Institute, or AILDI, and/or CoLang,

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00:38:24.750 --> 00:38:43.200

Shobhana Chelliah: we have been able to bring to Indigenous groups, both international and in the US, the methodologies that are successful for applying for grants with the National Science Foundation DLI program, and this very small list of

184

00:38:44.340 --> 00:38:51.420

Shobhana Chelliah: body of PIs, who are Indigenous themselves. I think was made possible through this kind of outreach and training.

00:38:51.660 --> 00:39:01.020

Shobhana Chelliah: And you will see in this list that there are people who belong to particular nation, such as Joshua Hinton from the Chickasaw Nation, Susan Gehr from the Karuk Tribe and so on.

186

00:39:01.260 --> 00:39:11.940

Shobhana Chelliah: But also people who are part of language and culture centers such as Jocelyn Ahlers from the Kawaiisu Language and Cultural Center. They're also individuals who are working

187

00:39:12.180 --> 00:39:20.070

Shobhana Chelliah: on their own for their for their language and we hope that through more training, we will be able to increase the number of native

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00:39:21.870 --> 00:39:33.120

Shobhana Chelliah: researchers and for the future of our program, we see in the next decade possibilities for many more and many very types of language documentation

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00:39:33.390 --> 00:39:39.960

Shobhana Chelliah: projects that will be made possible. We hope through better and improved outreach on our part and

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00:39:40.500 --> 00:39:46.140

Shobhana Chelliah: more opportunities to speak with Tribal Nations and with representatives who are interested in language work.

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00:39:47.010 --> 00:40:01.020

Shobhana Chelliah: From from your groups and I'm really so happy to be able to bring this information to you and hope that we can speak more of your interest on in the language documentation field. Thank you. I'll pass this on now to our next presenter.

192

00:40:06.240 --> 00:40:19.560

Kristen Hamilton: Good morning and good afternoon. It is my honor to be with you today. My name is Kristen Hamilton. I'm an environmental compliance officer in NSF's Office of the General Counsel.

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00:40:20.670 --> 00:40:29.970

Kristen Hamilton: I'd like to briefly address another area of our work that involves interaction with Tribal Nations and that is our

environmental compliance review process.

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00:40:30.960 --> 00:40:36.690

Kristen Hamilton: In support of NSF's mission we conduct environmental reviews prior to making funding decisions.

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00:40:37.350 --> 00:40:42.990

Kristen Hamilton: Part of this involves identifying when proposed research activities may involve Tribal interests.

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00:40:43.500 --> 00:40:52.590

Kristen Hamilton: Particularly, this is in reviews under Section 106 of the National Historic Preservation Act as well as during National Environmental Policy Act reviews.

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00:40:53.520 --> 00:40:59.310

Kristen Hamilton: We engage in a screening process to help us identify if Tribal interests are issue.

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00:41:00.120 --> 00:41:10.290

Kristen Hamilton: In conducting the screening we seek to identify whether proposed research activities may affect tangible or intangible resources of importance to Indigenous peoples,

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 $00:41:11.040 \longrightarrow 00:41:20.700$ 

Kristen Hamilton: including such resources as sacred mountains, ancestral burial grounds, traditional subsistence hunting grounds, and sites used for rituals or cultural practices.

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 $00:41:21.780 \longrightarrow 00:41:33.150$ 

Kristen Hamilton: In one recent example the screening process allowed us to identify that a proposed antenna array was to be sited in an area of interest to a Tribal Nation due to the proximity of ancestral lands,

201

00:41:34.350 --> 00:41:42.120

Kristen Hamilton: and we were able to consult early and in a thorough manner with that Tribe to enable siting of the instruments that was acceptable to the Tribe.

202

00:41:43.650 --> 00:41:55.680

Kristen Hamilton: This screening of proposals to identify such potential interest can be a challenge for us. And that's due to a variety of reasons, including the wide geographic range and subject matter of the research we fund,

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00:41:56.160 --> 00:42:01.470

Kristen Hamilton: the volume of proposals that come in, which last I checked was well over 40,000 a year,

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00:42:02.190 --> 00:42:19.410

Kristen Hamilton: and because the Principal Investigators, not NSF, are the ones that develop the research proposals, including the location and activities, typically. So we welcome input on how NSF can effectively identify when research proposals impact Tribal interests.

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00:42:20.730 --> 00:42:30.300

Kristen Hamilton: When we do identify a Tribal interest we strive to find the appropriate person or people within the Tribal Nation to engage with and to consult in an appropriate way.

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00:42:31.470 --> 00:42:43.920

Kristen Hamilton: Recently we have presented on proposals at Tribal council meetings and at standing cultural resource meetings, as well as via direct one-on-one phone calls, especially to help us connect during this time period this past year.

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00:42:45.120 --> 00:42:51.330

Kristen Hamilton: In another example, we have engaged in an informal consultation process with members of an Indigenous community

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 $00:42:51.780 \longrightarrow 00:43:01.860$ 

Kristen Hamilton: well ahead of any formal project review in order to better understand the issues and perspectives involved in constructing a proposed research facility that is subject to much controversy

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00:43:03.540 --> 00:43:11.010

Kristen Hamilton: When concerns are broader reaching or external to the environmental review process, NSF engages in government-to-government consultation.

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00:43:11.460 --> 00:43:26.700

Kristen Hamilton: In one example from 2014, NSF and members of a

Tribal Nation held a series of meetings and jointly developed a protocol for Tribal council review and approval for certain types of research proposals which included research on sacred language.

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00:43:28.770 --> 00:43:39.510

Kristen Hamilton: We are open to learning even more effective and innovative ways to understand the intersection between funding scientific research proposals and the interests of Tribal Nations.

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00:43:40.020 --> 00:43:46.500

Kristen Hamilton: We acknowledge that the Western viewpoint is not the only viewpoint and to that end, we seek to listen better

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00:43:47.490 --> 00:43:55.050

Kristen Hamilton: To reiterate what others have said this town hall is a new step in understanding how to enhance our consultation practices.

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00:43:55.470 --> 00:44:04.380

Kristen Hamilton: and to continue building relationships with Tribal Nations, and we appreciate the opportunity to work together with you today and in the coming months and years. Thank you.

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00:44:07.020 --> 00:44:17.220

Caroline Blanco: Thank you, panelists. We will now turn to the discussion portion of the town hall, beginning with those Tribal Nation leaders who expressed an interest in speaking today when they registered

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00:44:18.660 --> 00:44:26.220

Caroline Blanco: And now we will turn to Chief Benjamin Barnes of the Shawnee Tribe who will join us by phone.

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00:44:33.060 --> 00:44:33.750

Benjamin Barnes: Oh, can you hear me.

218

00:44:35.070 --> 00:44:37.500

Caroline Blanco: Yes, we can. Thank you so much for joining us.

219

00:44:37.590 --> 00:44:45.300

Benjamin Barnes: I lost everyone there for a moment. Thank you very much. My name is Ben Barnes. I am Chief of the Shawnee Tribe and I

have two comments, teo brief comments.

#### 220

00:44:46.380 --> 00:44:56.400

Benjamin Barnes: First, I want to thank NSF for providing this opportunity, I think, of course, we all realize the importance of consultation, and of course we are all realize that

# 221

00:44:57.600 --> 00:45:09.600

Benjamin Barnes: every agency should be consulting with Tribal Nations, I think it is particularly important that NSF aspire to the principles of free, prior, and informed consent

#### 222

00:45:10.650 --> 00:45:18.720

Benjamin Barnes: because the work you do with Tribal Nations should always revolve around the principles of "nothing about us without us."

### 223

00:45:20.160 --> 00:45:30.690

Benjamin Barnes: So another panelist earlier mentioned the principles of collaboration and in the disciplines that you know we've consulted in with universities and elsewhere

# 224

00:45:31.080 --> 00:45:34.410

Benjamin Barnes: have used an alternate term of "community engaged scholarship,"

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00:45:35.010 --> 00:45:42.270

Benjamin Barnes: That is where we invert the power paradigm and Tribes are driving the research narratives so our communities are actually saying this is what

### 226

00:45:42.630 --> 00:45:48.930

Benjamin Barnes: we need, this is the science that our community's needs so we can build better communities develop better policies and our nations.

# 227

00:45:49.890 --> 00:45:57.450

Benjamin Barnes: The time of the bungee jumping anthropologists and bungee jumping linguists coming in our communities. So they come in extract data,

# 228

00:45:57.900 --> 00:46:06.240

Benjamin Barnes: leave our communities, take that information and it has no benefit for our native people... those times have passed.

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00:46:07.110 --> 00:46:10.320

Benjamin Barnes: And we have to insist that free, prior, and informed consent

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00:46:10.770 --> 00:46:24.600

Benjamin Barnes: and the principles of community engaged scholarship be adhered to, particularly by people working within the NSF system or the grants that are through the NSF. So my question perhaps for you and NSF is how,

231

00:46:25.440 --> 00:46:37.710

Benjamin Barnes: to what lengths does NSF encourage collaborative principles that seek to aspire to true and community engaged scholarship. Thank you for your time. [remarks made in native language].

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00:46:39.540 --> 00:46:44.610

Caroline Blanco: Thank you so much, Chief Barnes, and thank you for both your comments and your question.

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00:46:45.090 --> 00:46:54.630

Caroline Blanco: NSF is certainly committed to adhering to those principles and that is one of the reasons why we're holding the town hall today is to learn how we can better

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00:46:54.990 --> 00:47:03.840

Caroline Blanco: work together and collaborate and consult on the government to government basis. So we greatly appreciate your, your comments and your question and

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00:47:04.140 --> 00:47:12.150

Caroline Blanco: we will, we will look at different ways that we can provide better consultation and any additional comments you may have with the appreciate it as well.

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00:47:12.780 --> 00:47:21.780

Caroline Blanco: We will be working at trying to put together all of our responses to these comments and all the lessons we've been learning throughout,

00:47:22.140 --> 00:47:34.050

Caroline Blanco: and as a first step is to respond to the Presidential Memorandum in our consultation our response on enhanced consultation which is due to the Office of Management and Budget on

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00:47:34.590 --> 00:47:43.620

Caroline Blanco: April 26 but that's just a first step, indeed, we are going to continue to work and try to strive to improve. Thank you again for your comment.

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00:47:44.430 --> 00:47:50.520

Caroline Blanco: We will now turn to Tribal council members Tribal elders Tribal members and other speakers.

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00:47:51.270 --> 00:47:59.880

Caroline Blanco: Is since we have several people who requested to speak and we have unfortunately limited time we ask that the speakers, please be respectful of others time

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00:48:00.510 --> 00:48:08.400

Caroline Blanco: For each speaker, you will now be enabled to turn on both your video and your audio controls, and we encourage you to do so.

242

00:48:09.180 --> 00:48:32.880

Caroline Blanco: The first speaker that we would like to invite to join us, and please turn off the mute and turn off the stop video function and join us, is as Susan Paskvan, Native Language Coordinator, Yukon-Koyukuk School District, Koyukuk Tribal Council.

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00:48:47.640 --> 00:48:53.970

Caroline Blanco: Folks, I understand. It takes a moment or two before we're able to bring people in. Be patient place.

244

00:49:07.620 --> 00:49:15.060

Caroline Blanco: I see that Susan Paskvan is not connected. So, at this moment, what I think we will do is move to the next speaker.

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00:49:15.420 --> 00:49:26.820

Caroline Blanco: Marty Matlock, who is the Chair of the Cherokee

Nation Environmental Protection Commission and also affiliated with the University of Arkansas and the Cherokee Nation; is Marty Matlock available.

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00:49:35.400 --> 00:49:50.670

Marty Matlock: Hello folks there seems to be a jump when we're allowed to speak. And so I think that's what happened to the previous speaker too and the allowing of my video, I was disconnected reconnected. So I think that's one of our technical issues.

247

00:49:51.840 --> 00:49:59.280

Marty Matlock: First of all, o' si yo from the Cherokee Nation. I'm honored to be here. I have some comments that I will submit and the questions are in the email.

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00:50:00.510 --> 00:50:10.560

Marty Matlock: Fundamentally, these dialogues are critical. They are powerful, but they must be focused. They must be focused on the points of leverage within our Tribal communities.

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00:50:11.220 --> 00:50:25.080

Marty Matlock: The leader of the Shawnee Nation spoke truth we have been the subject of study, as if we are anthropological curiosities, from outside institutions for much too long and our

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00:50:25.980 --> 00:50:31.260

Marty Matlock: Tribal community and Tribal University and land grant university Tribal faculty

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00:50:31.950 --> 00:50:42.210

Marty Matlock: proposals are set aside when a Harvard or Stanford study proposes to come into Oklahoma or the Dakotas to evaluate or study us.

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00:50:42.660 --> 00:50:50.670

Marty Matlock: That has to stop. It has to stop now. That is a form of exploitation at the academic level that is way past

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00:50:51.570 --> 00:50:57.900

Marty Matlock: acceptance. And I have several other comments concerning the real challenges of over 500 Tribes and the consideration,

00:50:58.740 --> 00:51:10.020

Marty Matlock: from many of our well-intended partners, of a pannative culture, which doesn't exist. We are all individual cultures with individual histories and relationships

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00:51:10.350 --> 00:51:26.430

Marty Matlock: and they are complicated, and trying to bring our students into this pipeline is one of the most difficult tasks in my last 30 years as a faculty member. It is difficult for all the reasons we know and many reasons we still have not explored or understood. Thank you.

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00:51:29.160 --> 00:51:38.190

Caroline Blanco: Thank you very much, excellent comments and certainly ones we'll take to heart as we develop our plan and again to emphasize, we are looking at the

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00:51:38.580 --> 00:51:48.960

Caroline Blanco: possibility of holding additional listening sessions, perhaps on focused issues, and it sounds like that may be an area where we may look to hold one of those listening sessions.

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00:51:49.980 --> 00:52:04.500

Caroline Blanco: The next speaker we invite to join us is Lisa Lone Fight, who's a senior science advisor, MHA Nation in the Fort Berthold Reservation if she could join us. There is a slight delay as

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00:52:05.640 --> 00:52:17.340

Caroline Blanco: the ability to participate by video and phone or audio is taken care of by our wonderful folks working the technological challenges in the background.

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00:52:20.700 --> 00:52:23.310

Caroline Blanco: Lisa Lone Fight. Are you available?

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00:52:42.510 --> 00:52:46.590

Caroline Blanco: Okay. It looks like she may not be on our list of attendees.

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00:52:48.420 --> 00:52:58.260

Caroline Blanco: I think we will then move to Valerie Switzler, the General Manager of the Branch of Education, the Confederate Tribes of Warm Springs. Is she available? 263 00:53:34.050 --> 00:53:35.100 Caroline Blanco: Okay, looks 264 00:53:37.560 --> 00:53:52.830 Caroline Blanco: Okay, we're not seeing her either on the list of attendees. If we could move then to James Rattling Leaf, the Research Associate and member of the Rosebud Sioux and affiliated with CIRES and the University of Colorado at Boulder. 265 00:53:54.810 --> 00:53:57.390 Caroline Blanco: I believe he may be participating by phone. 266 00:54:06.990 --> 00:54:07.530 James Rattling Leaf: Can you hear me? 267 00:54:07.860 --> 00:54:09.120 Caroline Blanco: Yes, we can. Thank you. 268 00:54:11.850 --> 00:54:13.860 James Rattling Leaf: Finally, finally an Indian gets to speak. 269 00:54:16.230 --> 00:54:22.920 James Rattling Leaf: Well at least say [remark made in native language]. 270 00:54:23.580 --> 00:54:31.560 James Rattling Leaf: Thank you for the opportunity to speak to the National Science Foundation. In 30 years of working in science and technology this is really the first time I've really seen 271 00:54:32.070 --> 00:54:39.150 James Rattling Leaf: or heard about NSF really wanting to engage. Hopefully, this is a serious engagement with Tribal Nations.

James Rattling Leaf: First of all, let me say that I come from the

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00:54:39.720 --> 00:54:54.330

Tribal College background, so it's good to see Jody Chase and my good friend, Jeremy. Guinn who's part of the expert panel, and acknowledge you and your great work for us for many, many years. I think that in, from my perspective, I think that,

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00:54:55.350 --> 00:55:01.860

James Rattling Leaf: working on, I work in climate change. And so we've been looking at this whole idea of engagement, Tribal engagement.

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00:55:02.670 --> 00:55:10.230

James Rattling Leaf: There is a difference between Tribal engagement and informing. And so I just want to want to emphasize here that NSF

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00:55:11.220 --> 00:55:15.870

James Rattling Leaf: really needs to co-design this engagement planning with the Tribal Nations, number one.

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00:55:16.470 --> 00:55:23.040

James Rattling Leaf: One of the roles that I play also is with my travels with Rosebud Sioux Tribe and I'm part of the Climate Crisis. Working Group.

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00:55:23.700 --> 00:55:26.460

James Rattling Leaf: And one of the things that we're wrestling with right now is the role of data.

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00:55:27.420 --> 00:55:33.120

James Rattling Leaf: And I think when it comes to understanding needs again from Tribal Nations, I think that there needs to be a great emphasis on

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00:55:33.750 --> 00:55:42.870

James Rattling Leaf: the issue of data sovereignty, data education and data governance. NSF is a leader in science, technology, and I think that's important.

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00:55:43.440 --> 00:55:48.900

James Rattling Leaf: The other part, I'm really glad to have, that you had Indigenous languages as part of this discussion today.

00:55:49.710 --> 00:56:06.600

James Rattling Leaf: Last week there was this great discussion federal government, with Tribal Nations understanding how they fund language revitalization and language sustainability. I applaud NSF for looking at this, and I think we really have to begin to do a better job of how we might do that work

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00:56:07.620 --> 00:56:12.150

James Rattling Leaf: with Tribal Nations. That's critical. You know, I was told that we

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00:56:13.290 --> 00:56:20.310

James Rattling Leaf: have 20 years, really, to turn this around. And so not we're not talking about my generation, we're talking about a generation to come.

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00:56:20.880 --> 00:56:29.850

James Rattling Leaf: So I think we need all hands on doing that and how we might do that. I would also, as my last point. I would say that when it comes to these consultations, again,

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00:56:30.870 --> 00:56:34.230

James Rattling Leaf: to remind ourselves that that we look at sort of the regions

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00:56:35.310 --> 00:56:41.070

James Rattling Leaf: in the country to hold these consultation meetings, I think there's been precedent to help federal agencies do that.

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00:56:41.610 --> 00:56:45.990

James Rattling Leaf: Just let me encourage you, NSF to think about regions and those particular region issues.

288

00:56:46.770 --> 00:56:59.400

James Rattling Leaf: And I think climate change is one of those critical areas where I think we all agree that's important. So those kind of themes, I think touch along those things. And finally, I'd say the role of policy,

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00:57:00.720 --> 00:57:08.280

James Rattling Leaf: let's NSF be an organization that again

recognizes the importance of our unique status as Tribal Nations.

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00:57:08.790 --> 00:57:15.660

James Rattling Leaf: Let's not forget that not only with the current infrastructure, now, but also future scientists are coming into their scientific

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00:57:16.620 --> 00:57:27.270

James Rattling Leaf: enterprise, we have to create those incentives so that the work that's done really is for the benefit also of Tribal Nations and Tribal cultures. Let me say thank you. Okay, let's talk at Chapel Hill. [Prior sentence was spoken in native language.] Thank you very much.

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00:57:28.500 --> 00:57:34.770

Caroline Blanco: Thank you very much. We really appreciate those comments. And it's very interesting to raise the point about

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00:57:35.730 --> 00:57:43.080

Caroline Blanco: consulting on a regional basis, we really have been talking internally about what might be some of the best ways to consult

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00:57:43.620 --> 00:57:49.350

Caroline Blanco: and recognizing that every human federally recognized Tribal Nation is a separate

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00:57:50.070 --> 00:58:01.200

Caroline Blanco: sovereign entity. And so it's very difficult to group people together for us and we appreciate that feedback and would appreciate it from other participants as well

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00:58:01.560 --> 00:58:07.560

Caroline Blanco: about the best way to engage in consultation that would really be helpful. And we again appreciate those comments.

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00:58:08.160 --> 00:58:19.590

Caroline Blanco: And now the next speaker is Dr. David Yarlott Jr., President of a Little Bighorn College, who had run into technical difficulties at the outstanding was going to be giving our opening

00:58:19.590 --> 00:58:27.120

Caroline Blanco: prayer, but will also see him late around for the closing prayer, but we're very, very grateful that he's able to join us. Now, Dr. Yarlott.

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00:58:28.800 --> 00:58:36.720

David Yarlott: I want to thank NSF for this virtual Tribal consultation and having an opportunity to speak as

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00:58:37.860 --> 00:58:48.660

David Yarlott: we had some difficulties, here we had power outage. And of course, technology, you know, we depend on it, then I'm not very picky to begin with. Anyway, so, and I had a double challenge.

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00:58:49.950 --> 00:58:59.310

David Yarlott: But I do want to speak from a perspective of Tribal colleges and the things that we're dealing with. And again, I really appreciate the NSF.

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00:58:59.970 --> 00:59:14.070

David Yarlott: We haven't had a NSF grant in quite a while, but it's great to see my good friend who might consider a sister, Jody Chase, and I don't recognize any others, so it's been a while since I've been running with NSF. Yes, so

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00:59:15.420 --> 00:59:22.770

David Yarlott: What am I just wanted that to touch upon the grants that TCUs are able to apply for.

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00:59:23.220 --> 00:59:29.700

David Yarlott: For us, and the reason that we haven't been very successful is because we don't have the expertise in our rural communities to

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00:59:30.180 --> 00:59:48.180

David Yarlott: come up with a more competitive proposal. Some of the, you know, larger TCUs, who may have more resources, access to excellent grant writers, you know, they have a little bit more of an advantage over a smaller institutions. We were fortunate that

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00:59:49.260 --> 00:59:58.800

David Yarlott: in the past that we had a science faculty member that

was really good in that grant writing, so we were successful in those areas, but after she left

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00:59:59.490 --> 01:00:08.730

David Yarlott: the University, we were left without that expertise and what I do also want to add is that sometimes I when we do get these grants.

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01:00:09.120 --> 01:00:18.210

David Yarlott: it takes us time to find people that are qualified to fill these positions. And by the time we figure out how to do things, well, those grants expired,

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01:00:18.930 --> 01:00:31.110

David Yarlott: and then we're left without that, you know, being able to expand upon that. Through NSF, we were able to develop a science program, that was when we had the highest number of students that were enrolled in our

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01:00:32.340 --> 01:00:35.160

David Yarlott: at our institution, we had the, you know,

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01:00:36.240 --> 01:00:43.470

David Yarlott: programs, camps down into the junior high levels, which build up into the high school levels and then most I would transfer

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01:00:44.520 --> 01:00:49.140

David Yarlott: transform into the college system and through that process we were able to able to

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01:00:51.000 --> 01:01:08.640

David Yarlott: graduate environmental science, natural resource, you know, just different areas that we had a lot of interest in those areas, but we haven't had that sense. We've lost the ability to apply for these grants and I know it's kind of difficult, especially with this COVID and what Mr.

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01:01:10.080 --> 01:01:15.270

David Yarlott: Rattling Leaf mentioned is that these regional meetings, I think are really important.

01:01:15.720 --> 01:01:23.010

David Yarlott: Because then people at the program level at the National Science Foundation will have a better understanding of the things that we speak,

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01:01:23.730 --> 01:01:30.570

David Yarlott: the challenges that we have. Just like my difficulties, this morning — our infrastructure, our

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01:01:31.140 --> 01:01:41.820

David Yarlott: Internet process, anytime we have a power outage, we have difficulties in that sense. So there are some other challenges that we have to, you know, work through deal with.

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01:01:42.300 --> 01:01:48.960

David Yarlott: So you know I welcome the opportunity any time that I'm given a chance to visit with any of you.

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01:01:49.320 --> 01:02:00.690

David Yarlott: I welcome you folks to come out and visit our areas to see what we're going through and that we can really do things well if we're given a chance. So thanks for the opportunity to say a few words. Thank you.

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01:02:02.250 --> 01:02:15.810

Caroline Blanco: Thank you so much, Dr. Yarlott, we greatly appreciate your comments and the next person up that we had who requested to speak is Jonathan Waterhouse, who's a member of the Indigenous Leaders Council would please join us.

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 $01:02:17.940 \longrightarrow 01:02:20.040$ 

Jonathan Waterhouse: Hello, you can hear me okay?

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01:02:20.490 --> 01:02:21.960

Caroline Blanco: We certainly can. Thank you.

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01:02:22.560 --> 01:02:35.370

Jonathan Waterhouse: Well, thank you everyone for being here today and I'll be very brief. I have a suggestion that NSF seriously thinks about creating we can call for now an Indigenous peoples office

01:02:36.780 --> 01:02:39.090

Jonathan Waterhouse: to address some of the concerns that

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01:02:41.070 --> 01:02:51.420

Jonathan Waterhouse: President Yarlott just addressed and at the same time, create a better bridge between Indigenous peoples and NSF.

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01:02:52.200 --> 01:03:10.710

Jonathan Waterhouse: I think it would create a better understanding and it'd also help on the NSF and for people to understand Indigenous science and our perspective of the world. So I think it would be helpful for both sides and I'll cut my comments off there. But I will leave you with this.

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01:03:13.110 --> 01:03:15.990

Jonathan Waterhouse: I have quite an outline on this. If you feel

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01:03:17.100 --> 01:03:21.720

Jonathan Waterhouse: inspired, please feel free to contact me and we'll talk about it. Thank you.

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01:03:23.010 --> 01:03:25.710

Caroline Blanco: Thank you very much. So really helpful comments.

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01:03:26.940 --> 01:03:33.630

Caroline Blanco: The next person that we have that is requested to speak. Oh, actually, I've just got notice that

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01:03:35.460 --> 01:03:50.220

Caroline Blanco: we have been able to connect with Lisa Lone Fight that we had called on earlier. She is the Senior Science Advisor and the MHA Nation and Fort Berthold Reservation. So if you're able to join us, please.

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01:04:05.640 --> 01:04:07.380

Caroline Blanco: Lisa if you're able, if you could

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01:04:09.360 --> 01:04:13.380

Caroline Blanco: take off the mute button, perhaps, and the video.

01:04:19.680 --> 01:04:23.280

Caroline Blanco: We might, we might still be having some connectivity issues.

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01:04:25.980 --> 01:04:30.390

Caroline Blanco: I think what I'll be happy when Zoom is over with and we're able to see each other in person.

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01:04:35.520 --> 01:04:46.500

Caroline Blanco: Well, in the interest of time, hopefully we'll be able to get that cleared up that connection, but in the interest of time, I think we will move next to Krystal Tsosie, Tribal member

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01:04:54.510 --> 01:04:56.310

Caroline Blanco: Krystal, are you able to join us?

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01:05:06.240 --> 01:05:07.470

Krystal Tsosie: Hi, can you hear me.

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01:05:07.740 --> 01:05:09.420

Caroline Blanco: Yes, we can. Thank you.

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01:05:11.880 --> 01:05:14.730

Krystal Tsosie: I can't hear you. So I'm just going to ask my question really quickly.

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01:05:16.140 --> 01:05:27.540

Krystal Tsosie: So I am an Indigenous Data Scientist and I'm also a former Tribal College instructor, and I am really pleased to be able to interface with a lot of

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01:05:27.840 --> 01:05:47.730

Krystal Tsosie: Non-Indigenous scientists who want to work with Tribal colleges and also with Indigenous students, However, I really do think there needs to be a set of guidelines for reviewers who are evaluating proposals that really need to elevate how

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01:05:48.840 --> 01:05:59.040

Krystal Tsosie: Indigenous scholars and community members are included in proposals. I understand that a lot of these calls for works

01:05:59.730 --> 01:06:09.360

Krystal Tsosie: have deadlines, but they're not necessarily congruent with how Tribal colleges govern themselves or even how Tribal Nations govern themselves. In addition

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01:06:09.930 --> 01:06:22.410

Krystal Tsosie: we want to make sure that any Indigenous peoples who are included in proposals are elevated in terms of their levels of expertise that don't necessarily met match,

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01:06:23.760 --> 01:06:37.140

Krystal Tsosie: but don't necessarily match colonial constructs of knowledge and we just want to ensure that peoples are not just asked to be included on a proposal at the last second

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01:06:37.860 --> 01:06:48.210

Krystal Tsosie: merely just to be to have this grant funded, but then we also want to ensure that Indigenous knowledges and wisdoms are actually

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01:06:49.020 --> 01:07:01.980

Krystal Tsosie: catapulted and elevated to the same status as other types of sciences, especially when we consider that these two types of knowledges system shouldn't be considered an opposition. So really, I just want to

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01:07:02.850 --> 01:07:11.490

Krystal Tsosie: ask if there's a way that Indigenous data scientists and scholars and researchers could also be provided input on on this.

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01:07:12.480 --> 01:07:19.740

Krystal Tsosie: these set of guidelines that are being created, not just merely Tribal leaders, but also the researchers that are, you know,

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01:07:20.160 --> 01:07:26.940

Krystal Tsosie: actually interfacing with these institutional types and you know are more familiar with these grant proposals, perhaps

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01:07:27.510 --> 01:07:47.160

Krystal Tsosie: to provide guidelines for perhaps revamping how

proposals are reviewed to ensure that Indigenous peoples are not just included as, you know, a means for, you know, leveraging a higher score but ensuring that it gives back. Thank you so much.

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01:07:48.300 --> 01:07:57.750

Caroline Blanco: Thank you very much, and enjoy that beautiful baby. It's wonderful. And the comments are terrific, we really appreciate them and

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01:07:58.170 --> 01:08:07.290

Caroline Blanco: yes, we're welcome comments, not just from Tribal leaders, but also from those who would like to comment on Tribal interests and

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01:08:08.280 --> 01:08:16.440

Caroline Blanco: Issues that we should be concerned about. So we greatly appreciate those comments. And if anybody knows on who's participating in this

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01:08:16.950 --> 01:08:29.100

Caroline Blanco: Town Hall would like to share that information with other colleagues and other people that might be interested, please, definitely pass the word on we would welcome comments from all.

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01:08:30.180 --> 01:08:34.500

Caroline Blanco: The next speaker, we'd like to call on is

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01:08:35.700 --> 01:08:40.260

Caroline Blanco: Ofelia Zepeda a professor of the Tohono O'odham Community College Board Chair.

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01:09:00.660 --> 01:09:15.570

Ofelia Zepeda: Good afternoon, my name is Ofelia Zepeda and I'm here at the University of Arizona, as my area is linguistics and I'm also currently Chair of the Board of Trustees for Tohono O'odham Community College.

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01:09:17.310 --> 01:09:20.460

Ofelia Zepeda: As an academic actually benefited from

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01:09:21.720 --> 01:09:22.860

Ofelia Zepeda: various research. 362 01:09:24.690 --> 01:09:28.200 Ofelia Zepeda: funding opportunities from NSF, I've been very grateful 363 01:09:29.640 --> 01:09:50.370 Ofelia Zepeda: for that throughout my career. I've had both research projects and also training projects through our Language Institute here at the university and then more recently with the Tribal college. I've had the opportunity to watch our faculty at the Tribal college benefit from 364 01:09:52.710 --> 01:09:59.250 Ofelia Zepeda: funding opportunities, especially for STEM projects to build up our STEM program at 365 01:10:00.900 --> 01:10:09.420 Ofelia Zepeda: Tohono O'odham Community College. So overall, I've had a very, you know, positive experience with NSF 366 01:10:10.890 --> 01:10:17.910 Ofelia Zepeda: but I think it's, one thing that I've noticed that we all commented on before to NSF in different 367 01:10:20.250 --> 01:10:21.480 Ofelia Zepeda: ways is 368 01:10:23.160 --> 01:10:29.100 Ofelia Zepeda: the issue of access, and of course, certainly now consultation by researchers, 369  $01:10:30.300 \longrightarrow 01:10:46.830$ Ofelia Zepeda: early consultations by researchers with Tribal members regarding the research that they are, you know, looking to apply for funding from NSF. And because my area is language, I think that's a very, 370 01:10:48.420 --> 01:10:55.560 Ofelia Zepeda: you know, that's an area that prior consultation with

Tribal members is extremely important.

01:10:56.700 --> 01:11:10.140

Ofelia Zepeda: Also, the level of participation by speakers of these languages that are being researched that their role certainly be elevated from consultant

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01:11:11.610 --> 01:11:14.790

Ofelia Zepeda: position to maybe perhaps a

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01:11:17.490 --> 01:11:33.990

Ofelia Zepeda: collaboration. Also, when it comes to publishing the research that the speakers certainly play a significant role in some of those products— end products that come out of of language research.

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01:11:34.920 --> 01:11:42.120

Ofelia Zepeda: We've been many of us have been, talking about that for a long time. Many of us have been trying to train our graduate students

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01:11:42.480 --> 01:11:50.010

Ofelia Zepeda: to take that very seriously when they do work with Tribal language communities and, you know, sort of the

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01:11:50.610 --> 01:11:59.190

Ofelia Zepeda: responsibility, they have and the responsibility they should also, you know, provide to the speakers that they work with.

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01:11:59.760 --> 01:12:10.260

Ofelia Zepeda: And anyway, so that's something that we've watched over time and starting to change. Certainly with the way that we've been training graduate students who choose to work in areas of endangered languages.

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01:12:11.370 --> 01:12:17.040

Ofelia Zepeda: And just one more thing that I want to mention certainly is the issue of accessibility.

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01:12:18.450 --> 01:12:26.730

Ofelia Zepeda: There are many Tribes that are still in isolated regions, they are not near a major university or a major library.

01:12:27.300 --> 01:12:42.570

Ofelia Zepeda: And so immediately access is denied them at different levels. Also, many of the Tribes don't have a Tribal college and so sort of lose access in that way or don't have access

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01:12:44.100 --> 01:12:46.920

Ofelia Zepeda: in that way. And so, again, I think the

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01:12:48.990 --> 01:13:02.400

Ofelia Zepeda: Issue of making you know having NSF making a very concerted effort to bring information to sort of the, the grassroots level, the people who are actually doing the work, and that

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01:13:03.300 --> 01:13:23.040

Ofelia Zepeda: they be given an opportunity to, you know, sort of access funds and resources from NSF, as many of them are scientists that says that the access is not there for so many of them. So again, that's something that we've seen over time, and it's a very challenging thing to

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01:13:24.420 --> 01:13:38.940

Ofelia Zepeda: fix. And I think this is a good opportunity with closer consultation with Tribes and allowing them providing opportunity for access to the resources of NSF. Okay, thank you.

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01:13:41.580 --> 01:13:43.560

Caroline Blanco: Thank you so much. Appreciate that.

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01:13:44.880 --> 01:13:59.550

Caroline Blanco: Also, we understand that there is another speaker from a Tribal college and the President of Twyla Thurmond. If we can have her speak for us. That would be wonderful.

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01:14:09.840 --> 01:14:15.060

Caroline Blanco: Takes a moment to enable I think you can now Dr Twyla

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01:14:22.380 --> 01:14:22.980 Caroline Blanco: Thurmond.

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01:14:26.550 --> 01:14:32.820

Twyla Thurmond: Hi, I am hoping to participate via phone, unless you

can hear me okay this way.

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01:14:33.750 --> 01:14:34.680 Twyla Thurmond: We can hear you.

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01:14:34.890 --> 01:14:36.090

Caroline Blanco: Thank you so much.

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01:14:38.190 --> 01:14:46.020

Twyla Thurmond: Oh, good. Okay, so my name is Aunaurug. And I'm named after my late grandmother Sophie Nayokpuk.

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01:14:47.400 --> 01:14:57.870

Twyla Thurmond: Like, like, it shows the my English name is Twyla Thurmond. I was born in Shishmaref Alaska I'm the local coordinator for the native village of Shishmaref.

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01:14:58.530 --> 01:15:10.620

Twyla Thurmond: I pursue and maintain collaborative communications between state and federal agencies and our local government. I also help our people and by way of advocacy through networking.

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01:15:11.670 --> 01:15:29.100

Twyla Thurmond: And the networking that I do on behalf of the community we collectively hope that words spreads about our particular barriers and struggles in our pursuit to protect our community and our island due to the impacts by global warming and erosion impacts.

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01:15:31.110 --> 01:15:34.110

Twyla Thurmond: One of the hugest barriers that we have as a Tribal community

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01:15:36.030 --> 01:15:49.260

Twyla Thurmond: are that collaboration efforts can be pretty tricky. Shishmaref residents are primarily Eskimo, one type of Alaska Native here and this is true for the majority of participating try the communities.

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01:15:50.940 --> 01:15:58.800

Twyla Thurmond: We come from English second language linguistic background or are descendants of in English. Second Language person.

01:16:00.000 --> 01:16:10.080

Twyla Thurmond: Even though we speak and understand the English language. It's kind of difficult to understand expanded vocabulary. This is especially true for our elders.

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01:16:10.980 --> 01:16:30.090

Twyla Thurmond: who sharing is invaluable. Invaluable there is unfortunately a lot of political jargon complicated engineering language and the like that our people must navigate through and many are unfamiliar with make sharing and communicating all of the more difficult.

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01:16:33.600 --> 01:16:34.140 Twyla Thurmond: The word

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01:16:35.310 --> 01:16:43.320

Twyla Thurmond: sesquipedalian is used to describe someone or something that over uses the word like a philosophy professor or a chemistry textbook.

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01:16:44.400 --> 01:16:48.120

Twyla Thurmond: Each of those long words is referred to as sesquipedalian

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01:16:49.650 --> 01:17:03.120

Twyla Thurmond: While the majority of our people are fluent in English, many agencies and engineers that we collaborate with have a tendency to use larger and more complicated levels of communication and language learned in higher education.

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01:17:04.380 --> 01:17:13.860

Twyla Thurmond: Like the previous speaker mentioned many of our people don't have access to higher education and colleges so

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01:17:14.940 --> 01:17:15.690

Twyla Thurmond: when

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01:17:18.270 --> 01:17:26.040

Twyla Thurmond: we try to solicit Tribal participation, attaining invaluable insights and engaging the native peoples of Alaska

01:17:27.510 --> 01:17:31.260

Twyla Thurmond: and any other Tribe has English second language persons or descendants

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01:17:33.210 --> 01:17:48.600

Twyla Thurmond: it's, it's difficult. Alaska at home to 229 federally recognized Tribes, eleven distinct Indigenous cultures and at least 20 different native languages with multiple dialects.

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01:17:51.630 --> 01:18:07.380

Twyla Thurmond: Climate adaptation actions across the board should be equal, should equal adaptation equity are a nation and all participating partners really must support the invaluable irreplaceable cultures

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01:18:08.790 --> 01:18:10.410

Twyla Thurmond: and linguistic barriers

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01:18:11.520 --> 01:18:16.740

Twyla Thurmond: and proactively address environmental threats in the most inclusive manner that they are able.

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01:18:17.730 --> 01:18:34.170

Twyla Thurmond: And currently, there are many, many barriers within the context of facilitating communication, and in my own honest opinion, there needs to be alterations within governmental framework and communication. Overall, to make it more inclusive.

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 $01:18:36.960 \longrightarrow 01:18:49.620$ 

Twyla Thurmond: State and Federal participants should have a deeper general understanding of the linguistic and cultural knowledge base communications when interacting with Tribal leaders and cultural awareness throughout context is paramount.

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01:18:57.330 --> 01:19:03.660

Caroline Blanco: Thank you so much. We really appreciate, we really appreciate the comments that all of the speakers have.

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01:19:04.530 --> 01:19:13.530

Caroline Blanco: I wanted to jump to a question that was submitted

before. We've been trying our best to keep up with the questions that have come in and a Q&A. We recognize some

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01:19:14.460 --> 01:19:24.450

Caroline Blanco: are not able to be answered right away but rest assured, we have been reading them and we will be looking at them and providing answers, either directly or

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01:19:25.110 --> 01:19:38.400

Caroline Blanco: in part, as part of the plan that will be developing on Tribal consultation, but all of the questions that have been submitted have been very valued and we really appreciate them. One question that has come in separately and

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01:19:39.780 --> 01:19:50.970

Caroline Blanco: this one is actually for our panelist Kristen Hamilton. How does NSF identify when research proposals involved Tribal interests.

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01:19:53.370 --> 01:19:59.880

Kristen Hamilton: Hi, thank you, Caroline well as some of my colleagues have already described some programs at NSF have

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01:20:00.420 --> 01:20:04.770

Kristen Hamilton: Tribal community involvement sort of built into their process for proposal development.

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01:20:05.400 --> 01:20:11.910

Kristen Hamilton: But other types of research don't necessarily have that. And so for our screening process that I referred to earlier,

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01:20:12.570 --> 01:20:23.490

Kristen Hamilton: in order to do that we have a tool that we call a checklist that program officers can request principal investigators or the institutions seeking the funding to complete.

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01:20:23.880 --> 01:20:30.420

Kristen Hamilton: And it helps us here at NSF to better understand what are the activities actually involved in the proposed research.

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01:20:31.080 --> 01:20:43.050

Kristen Hamilton: You know, what are the activities directly on the ground or the installing instrumentation. What type, a little bit more detail about the types of research and the types of impacts that it can have. So included on this checklist,

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01:20:43.920 --> 01:20:53.340

Kristen Hamilton: I always have it right here next to me, we have cultural resources as well as whether the research might involve Tribal interests.

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01:20:54.630 --> 01:21:06.240

Kristen Hamilton: So we encourage our program officers to use the checklist when they have any proposal that they're just really not sure if there could be an interest and we

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01:21:07.230 --> 01:21:15.330

Kristen Hamilton: conduct some training to program officers when they first, especially when they first start here, NSF on how to how to use this checklist and

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01:21:16.500 --> 01:21:32.580

Kristen Hamilton: how to sort of flag those potential issues. But as I mentioned in my presentation, the screening is certainly a challenge. And so, we certainly welcome input on how we can better identify when research has a potential travel interest involved. Thank you, Caroline.

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01:21:33.030 --> 01:21:51.870

Caroline Blanco: Thank you, Kristen. Appreciate it. And we have time for one last question. And this one is for Dr. Panchanathan, often what is NSF role in providing broadband access to Tribal colleges and Tribal universities, otherwise known as TCUs, in isolated areas?

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01:21:52.710 --> 01:21:58.320

Sethuraman Panchanathan: No, thank you for asking this question to Caroline. I think this is something that is in the minds of a lot of people these days.

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01:21:58.740 --> 01:22:06.780

Sethuraman Panchanathan: COVID has only exasperated the need for connectivity and we are probably also seeing the problem and the potential for what we can do

01:22:07.200 --> 01:22:14.370

Sethuraman Panchanathan: to reach to as many communities and as many individuals across our nation. So we all know the Internet access is an increasingly essential component

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 $01:22:14.700 \longrightarrow 01:22:17.970$ 

Sethuraman Panchanathan: of well being an opportunity that is something we all recognize. Now you and more

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01:22:18.330 --> 01:22:26.040

Sethuraman Panchanathan: Than ever before. So, it enables a wide range of activities. I mean, we all know that learning happens because of the fact that we are able to get this remote

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01:22:26.310 --> 01:22:32.490

Sethuraman Panchanathan: infrastructure that allows access to people like you know more collaboration, even this information meeting that we're having today

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01:22:32.730 --> 01:22:37.980

Sethuraman Panchanathan: is something that would not be possible as easily and seamlessly as because of what has been deployed

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01:22:38.160 --> 01:22:50.460

Sethuraman Panchanathan: even in the last 12 months. So Online Learning Telemedicine, so much more can be accomplished. I will say commerce and economic development, all of these can, jobs can be made possible, new ways of thinking about the future.

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 $01:22:50.850 \longrightarrow 01:22:55.290$ 

Sethuraman Panchanathan: So NSF supports a variety of active awards. I mean awards for some

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01:22:55.500 --> 01:23:05.340

Sethuraman Panchanathan: projects and some of the actual awards that we have are in Tribal colleges and universities and, you know, for example, you know, and NSF support high performance computing and networking

441

01:23:05.550 --> 01:23:15.840

Sethuraman Panchanathan: for TCUs to support research and education

opportunities for everyone. An example of an award is one that we made to the American Indian higher education consortium, also known as AIHEC.

442

01:23:16.200 --> 01:23:25.710

Sethuraman Panchanathan: And this consortium, you know, we work with TCUs to better understand connectivity and cyber infrastructure challenges specifically faced by TCUs and how might be addressed that.

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01:23:26.040 --> 01:23:37.740

Sethuraman Panchanathan: So we also have a long running program called campus cyber infrastructure and they are pleased that several TUCs participate in awards from this program, including the Navajo Technical University. So

444

01:23:38.040 --> 01:23:46.200

Sethuraman Panchanathan: These are the ways in which and this is just the beginning. I would say there's a lot more to be done, and all I can say is that as I started off addressing this question,

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01:23:46.530 --> 01:23:59.190

Sethuraman Panchanathan: is the remote infrastructure and access to people across the nation has become ever more prominent right now, which means it gives us a chance to be able to deploy this and therefore reach into a lot of people and

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01:23:59.700 --> 01:24:15.630

Sethuraman Panchanathan: we are going to be committing ourselves to broadband infrastructure, broadband access as well as ensuring that we have in our content that is made available to access the ideas and therefore nurture that talent across our nation, particularly the Tribal nations. Thank you so much.

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01:24:16.350 --> 01:24:22.860

Caroline Blanco: Thank you, Dr. Panchanathan. And this concludes the question and answer component of today's town hall.

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01:24:23.310 --> 01:24:35.850

Caroline Blanco: I will now conclude today's meeting with closing remarks by Dr. Panchanathan, and then we will have some more logistical information, followed by a closing prayer by Dr. Yarlott, Jr., Dr. Panchanathan.

01:24:36.210 --> 01:24:43.140

Sethuraman Panchanathan: So thank you again, Caroline. I mean, you have done a remarkable job. Despite these challenges you and the team have done an amazing job.

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01:24:43.530 --> 01:24:48.450

Sethuraman Panchanathan: You know, coordinating all of this, I really thank you first of all for a fantastic job that they have done.

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01:24:48.780 --> 01:24:55.080

Sethuraman Panchanathan: Thanks to all of you who have joined us today, this would not be possible without your participation, your active participation.

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01:24:55.290 --> 01:25:04.770

Sethuraman Panchanathan: And I'm listening to all your comments and engagement. I'm so thrilled. I'm so delighted that you have been open forthcoming and sharing your ideas, thoughts, and the challenges of being fased,

453

01:25:04.950 --> 01:25:16.110

Sethuraman Panchanathan: Because that's how we make further progress, that's how we make sure that the events into the future. And so I want to take a moment again to recognized Dr. David Yarlott, Jr. I mean,

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01:25:16.500 --> 01:25:22.110

Sethuraman Panchanathan: Thank you, sir, for joining us today. It's been such an honor to have you join us. I know you've had technical difficulties.

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01:25:22.380 --> 01:25:27.360

Sethuraman Panchanathan: I enjoyed your comments, and I look forward to your closing prayer, and thank you so much for being with us today.

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01:25:27.810 --> 01:25:34.830

Sethuraman Panchanathan: It has truly been a productive session and that the, as I said, the amazing inputs that your words provided has made it really rewarding and interchange.

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01:25:35.190 --> 01:25:47.280

Sethuraman Panchanathan: I can only assure you that today's meeting is

part of a longer process for developing a plan for how NSF can better consult with and meet the needs of Tribal nations and Indigenous peoples.

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01:25:47.550 --> 01:25:57.720

Sethuraman Panchanathan: We are going to be developing the plan over the coming months, and there will be additional opportunities, for providing input. Now, when I look at the inputs that I've received today, and if you can imagine the amount of inputs we receive

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01:25:58.170 --> 01:26:02.880

Sethuraman Panchanathan: Into the future as we shape this, I'm thrilled by what might be possible to achieve because of that.

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01:26:03.240 --> 01:26:09.810

Sethuraman Panchanathan: So we're going to schedule additional listening sessions where NSF staff will be available to discuss issues raised today,

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01:26:10.230 --> 01:26:21.120

Sethuraman Panchanathan: as well as any issues that we have not covered today and for those people who are not able to join in for technical difficulties or for other reasons, please feel free to send in your comments. We value them immensely.

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01:26:21.750 --> 01:26:33.630

Sethuraman Panchanathan: The return comment period is open until June 11 so we will be reviewing the comments as part of our process for developing our plan on enhancing our government—to—government consultation with Tribal Nations.

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01:26:34.350 --> 01:26:42.090

Sethuraman Panchanathan: Likewise, if you know of anyone who is interested in sharing that perspective or providing us with additional information please encourage them to participate.

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01:26:42.450 --> 01:26:48.960

Sethuraman Panchanathan: I'm deeply committed to ensuring that they factor in all of the inputs received, to help shape a better tomorrow for all of us.

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01:26:49.590 --> 01:26:59.790

Sethuraman Panchanathan: So we want this, as I said to be the beginning of a journey together between NSF and the Tribal Nations, a journey that we can have much more enriching collaborations and better futures.

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01:27:00.000 --> 01:27:07.830

Sethuraman Panchanathan: It's an opportunity clearly for NSF to learn and also we can learn. Hopefully by contributing at the same time. So learning from each other and growing together.

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01:27:08.040 --> 01:27:16.680

Sethuraman Panchanathan: And I do that as we do. So we will be discovering new ways of understanding the world around and finding innovative solutions for how that knowledge can benefit

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01:27:17.160 --> 01:27:25.650

Sethuraman Panchanathan: our nation and Tribal Nations all together, working in making this a great future. We know that accomplishing this will not happen overnight. We know that.

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01:27:26.130 --> 01:27:37.560

Sethuraman Panchanathan: And that it will take an ongoing commitment to learning, and most importantly, for me, listening and building a strong foundation for future consultation. We are excited to be moving forward to the future.

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01:27:38.280 --> 01:27:42.990

Sethuraman Panchanathan: And I know that great things will be possible, as long as we continue to work together. I know that.

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 $01:27:43.770 \longrightarrow 01:27:53.190$ 

Sethuraman Panchanathan: So many, many thanks to all of you. I express my gratitude to Dr. Yarlott who also be will be offering the closing prayer in a few moments. Thank you, sir. For offering the closing prayers.

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01:27:53.550 --> 01:28:08.670

Sethuraman Panchanathan: And as I started with the NSF folks who have contributed to this, Caroline, Jermelina, Jody, Renee, Shobhana, and Kristen, and others and our ASL interpreter Alyssa Enders. Thank you so much. You've made this truly a remarkable day and a remarkable afternoon. Thanks to all of you.

01:28:10.590 --> 01:28:17.430

Caroline Blanco: Thank you so much, Dr. Panchanathan, and thank you also from us panelists and to all of our participants.

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01:28:17.790 --> 01:28:25.200

Caroline Blanco: Please feel free to provide us with any additional input by emailing us at Tribal.engagement@nsf.gov

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01:28:25.560 --> 01:28:41.580

Caroline Blanco: during our comment period, which, as, as Dr. Panchanathan mentioned is open through June 11. And as a reminder for those of you participating in this town hall by phone, please, also, feel free to send us your questions and comments by sending an email to Tribaldataengagement@nsf.gov

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01:28:42.600 --> 01:28:47.730

Caroline Blanco: We will be notifying you of upcoming listening sessions following our review the comments received

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01:28:48.180 --> 01:28:56.910

Caroline Blanco: We look forward to our continued work with you and, in particular, learning more from you about how you would like an attempt to consult with you as we carry out our mission.

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01:28:57.240 --> 01:29:07.650

Caroline Blanco: Together, we can shape the way forward. And now to end today's town hall, I would like to reintroduce you to Dr. David Yarlott Jr., to give the closing prayer. Dr. Yarlott.

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 $01:29:09.630 \longrightarrow 01:29:18.810$ 

David Yarlott: Thank you again. Thank you so much, Dr. Panchanathan, Caroline different ones that have made this possible. Thank you Jody for the tobacco, I have received it.

480

01:29:20.760 --> 01:29:34.230

David Yarlott: To do this properly. Let me do this. [native language was spoken]

481

01:29:34.770 --> 01:29:54.450

David Yarlott: Introduce myself as outstanding similar web saga nation. I belong to the [native language was spoken] with [native

language was spoken] in recognition that note I am speaking from the heart. Fortunately, we don't need Internet access for what I'm about to do, to speak words to the Creator directly.

### 482

01:29:55.770 --> 01:30:05.310

David Yarlott: So I'm going to pray that our ears are open to hear that our minds are able to comprehend and that the heart is receptive

### 483

01:30:05.970 --> 01:30:15.210

David Yarlott: For things and be respected and the things that we do together not only as Tribal Nations, but all people so that we can get along, move forward.

## 484

01:30:16.080 --> 01:30:32.700

David Yarlott: I'm going to pray for those that are in your positions that you're able to continue to work diligently in a good way. And then also for our Tribal Nations that we're able to continue to move forward and to be recognized and to be acknowledged as we move forward. So if you bear with me.

### 485

01:30:34.410 --> 01:30:36.270

David Yarlott: [native language was spoken]

#### 486

01:30:37.410 --> 01:30:40.410

David Yarlott: [native language was spoken]

# 487

01:30:41.460 --> 01:30:47.880

David Yarlott: [native language was spoken]

## 488

01:30:49.470 --> 01:30:54.660

David Yarlott: [native language was spoken]

## 489

01:30:55.980 --> 01:31:04.590

David Yarlott: [native language was spoken]

## 490

01:31:05.130 --> 01:31:25.350

David Yarlott: [native language was spoken] Thank you for the nonor. It's always a pleasure.

## 491

01:31:27.930 --> 01:31:33.660

Caroline Blanco: Thank you so very much, Dr. Yarlott, thank you everyone for joining us today. Stay safe, stay safe and be well