Gathering Feedback Regarding Development of NSF's new Hispanic-Serving Institutions Program
Summary of August 2017 Listening Sessions

I. Background

As part of the Consolidated Appropriations Act, 2017 (P.L. 115-31) for FY 2017, Congress directed the National Science Foundation (NSF) to establish a new program to support Hispanic-serving institutions (HSIs) and encouraged NSF to use this program "to build capacity at institutions of higher education that typically do not receive high levels of NSF funding."

In response to this directive, in June 2017, NSF's Directorate for Education and Human Resources (EHR) took three actions. First, EHR released a Dear Colleague Letter (DCL) announcing its intention to establish a capacity building HSI program in FY 2018. The DCL invited the submission of conference proposals that would identify challenges and opportunities regarding undergraduate STEM education at two-year and four-year HSIs. Four awards were made in FY 2017; a second round of proposals submitted by September 30th, 2017 are being evaluated for funding in FY 2018. Seven more awards are anticipated.

Second, the EHR Advisory Committee convened a subcommittee composed of campus leaders from a cross-section of HSIs to advise NSF in its development of the new HSI program. This subcommittee met on August 14th, 2017. Their report was accepted by the full EHR Advisory Committee on September 29th, 2017.

This document summarizes NSF's third effort to gather feedback from the HSI academic community—hosting three listening sessions in mid-August 2017. Individuals from over 400 HSIs were invited to participate in one of three, three-hour listening sessions held August 15th (for two-year colleges only), August 16th (for four-year institutions only), and August 18th (for two- and four-year HSIs). In addition, NSF invited feedback through an online form. Over 300 individuals from over 100 institutions participated in the listening sessions, and over 130 written responses were submitted.

During each listening session, a facilitator posed the following guiding questions:

1. What are two of the most critical needs at your institution? Please provide some short examples.
2. What does NSF need to know in order to create a program that builds the capacity of HSIs that typically do not receive high levels of NSF funding?
3. What does 'capacity building' mean to you?
4. Once a capacity building program has been established at an HSI, how would the HSI know if its efforts have been successful?

The online form addressed these same guiding questions but in written format.

II. Analyses and Summary of Listening Sessions Feedback

Transcripts of the three listening sessions were analyzed for their consistency with five abiding challenges identified by the by Quality Education for Minorities (QEM, 2009). The five areas are: (1) faculty support, (2) student support, (3) STEM curriculum, (4) integration of research and education and (5) partnerships.

Across the four guiding questions, the two most frequently mentioned areas of need were faculty and student support. Two other frequently cited areas were institutional partnerships and revision of the metrics used to assess student and institutional success. Most suggestions for enhancing the STEM

curriculum and integration of research and education had significant overlap with the categories of faculty and student support. Common examples from each of the four most prominent areas are presented below.

Faculty Support

- Support for release time
- Grant proposal preparation training
- Support for pedagogical innovations such as culturally responsive teaching and active learning strategies
- Opportunities to share and learn about best practices

Student Support

- Paid undergraduate research opportunities at academic institutions
- Career internships with local industries
- Advisement and mentoring regarding course selection and STEM careers

Institutional Partnerships

- Support for bridge programs and other efforts that align student transitions among high school, two-year and four-year institutions
- Creation of consortia among HSIs and between HSIs and industry

Metrics

- Longitudinal tracking of student outcomes
- Student focus groups
- Student satisfaction
- Tracking the number of networking opportunities
- Tracking the success of efforts to meet individual institutions' specific challenges

III. Analyses and Summary of Feedback Obtained from the Online Form

The online form asked respondents to identify their institution's top three needs in the same five areas used to analyze transcripts of the listening sessions. To clarify these five often overlapping areas, examples of each one were given (see below).

1. Student support (e.g., recruitment and retention, transitions, financial support, internships, mentoring)
2. Faculty support (e.g., release time, research opportunities, training in pedagogy, professional development)
3. STEM curricula enhancement (e.g., STEM courses revitalization, aligning high school and college STEM curricula)
4. Integration of research and education (e.g., faculty awareness of promising practices, impact on student learning)
5. Partnerships (e.g., articulation agreement, partnership with 2-year and 4-year institutions to enhance research and teaching capacity, industry partnerships and student internships, partnerships to address pipeline and career issues)

The online form also asked respondents to address open-ended questions about building capacity and measuring institutional and student success. The specific questions were:

1. What does the NSF need to know in order to create a program that builds the capacity of HSIs that typically do not receive high levels of NSF funding?
2. In this context, what does capacity building mean to you?
3. Once a capacity building program has been established, how will your institutions know if its efforts have been successful?
4. What are some indicators of successful capacity building efforts?

Responses were analyzed for frequently occurring themes. Again, faculty and student support emerged as the most pressing needs. Respondents indicated that many HSI faculty have high teaching loads, and many HSIs have limited funding for student support staff. With more time, resources, and training, faculty and staff would be better able to:

- Write grants
- Implement projects
- Support student learning
- Sponsor undergraduate researchers
- Mentor/counsel students about STEM careers

The need for faculty and student support was also evident in respondents' definitions of capacity building. Many respondents equated capacity building with sustainability. Specifically, respondents noted that faculty and staff training can have long-term impact given that enhanced skills could be transferred to other projects.

Responses to the question, *What are some indicators of successful capacity building efforts?,* identified the traditional metrics of improved retention and completion rates. Respondents also recommended that programs expand these metrics to evaluate:

- Transfer rates to 4-year institutions
- Post-graduation STEM employment
- Graduate school admissions
- Research publications
- Future success in securing funding for disciplinary and education projects

In response to an open-ended question that allowed respondents to identify 'other' needs, common suggestions included:

- Classroom infrastructure and laboratory space
- Research equipment
- Release time for faculty to pursue research
- Undergraduate stipends

IV. Conclusion

In sum, feedback from the listening sessions and online form indicated that faculty and student support are the most pressing areas of need. Other areas included institutional partnerships and expanding the metrics used to assess institutional and student success. STEM curricular enhancement was also important; however, the suggestions in this category often overlapped with faculty and student support.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.