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# **NAC STEM ENGAGEMENT COMMITTEE**

## **Discuss/Finalize Findings and Recommendations**

**May 2020**



**INSPIRE - ENGAGE - EDUCATE - EMPLOY**  
The Next Generation of Explorers

# DISCUSSION

- **COVID-19**

- Equity issues – highlight this to the NAC
- What can NASA STEM Engagement do to support the STEM ecosystem? Helping those who are struggling and helping them be nimble, effectively partner
- Intersections between formal and informal learning environments, and how OSTEM can bridge these environments
- NASA should emphasize flexibility permitted in OMB guidance, particularly in scholarships, internships and fellowships
- Opportunity for NASA resources to provide support to those who need internet access?
- How will COVID-19 impact the implementation of the strategic plan?
- Thanks to NASA for their quick response with NASA STEM @ Home materials



# DISCUSSION

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- **Strategic Plan**

- Strategic goals are a positive, particularly goal three
- Clarity in alignment between the goals and design principles
- Need a strong baseline of data from which to measure progress
- Suggest to prioritize objectives
- At the objective level, how are underrepresented/underserved communities called out? Or should they be called out?



# DISCUSSION

- **MUREP**

- Pleased with progress of this program, particularly with regard to intentionality
- Positive partnership with NSF INCLUDES
- Consideration for other partnerships within MUREP? (Science centers, informal learning, for science communication, etc.)
- What is the 1% contracting goal? – Agency goal from procurement office – want to have more MSIs gain NASA contracts (OSTEM has aided in this endeavor, particularly through Road Tour)
- More movement for joint partnerships with other agencies and MSIs? Torry – yes, we have ongoing discussions with NSF via NSF INCLUDES for potential partnerships
- Like to better understand the amount of funding allocated to the different pillars
  - Torry – current portfolio includes about 30-40% funding for research. Working with mission directorates to craft synergies with OSTEM solicitations so outputs are valuable for MSIs and the agency
- Capacity building should be a main priority, as other capabilities can follow
  - Opportunity for MSIs to form collaborations with majority institutions to support capacity building throughout the OSTEM programs
- **Recommendation** – emphasize the importance of MSI engagement; partnerships to support MSIs
- Work with community colleges is important to highlight
- MUREP will “permeate” the strategic plan – help make this happen



# DISCUSSION

- **Other thoughts/comments**

- Opportunity for NASA to play a convening role in the reinvention of the ecosystem. How can NASA bring the ecosystem together? (Similar to the Apollo Anniversary efforts) Encourage that we bring together the community we support (across OSTEM and SMD)
- Bring together NASA and NSF to look at learning in virtual, formal, and informal contexts, and the intersections of these contexts, during and post-COVID-19. How can NASA look at the impacts of COVID-19?
  - Potential connection to broader federal community/FC-STEM?
  - What can be done via cell phone connection vs. on a desktop/laptop? This is related to equity concerns regarding who we are reaching.



# FINDINGS – DO NOT REQUIRE ACTION

- NASA has had a great response to the COVID-19 outbreak, particularly NASA STEM @ Home resources, NASA's use of the flexibilities provided via OMB to support the STEM ecosystem
- Positive progress on the STEM Strategic Plan
- The COVID-19 crisis has highlighted the importance of access and diversity, equity, and inclusion
- MSIs are important to “permeate” across the strategic plan and agency more broadly
- Important to continue to measure the impacts of NASA STEM Engagement investments, and articulate their impacts. This work is underway. Metrics should help NASA STEM Engagement look ahead.
- 10-year cooperative agreements provide the ability to see longitudinal impacts of activities, but the agency must monitor the activity (as is appropriate for a cooperative agreement)
- Professional societies and associations (of all types) can amplify NASA STEM Engagement messaging and resources to broader audiences, particularly those OSTEM cannot reach alone



# RECOMMENDATIONS – REQUIRE ACTION

- Keep up emphasis on strategic plan – integration and use of this across the MDs
  - Consequences – lack of coordination across the agency on STEM activities, could lead to duplication of efforts, unaddressed priorities
- Administrator and the Mission Directorates, along with the Office of Procurement, should ensure that there are higher goals to build research capabilities at MSIs. NASA should support and create infrastructure to sustain MSIs, to enable them to be competitive and be successful in contributing to NASA work. This helps build a strong K-12 pipeline of interest and engagement.
  - Consequences – lack of coordination, impedes NASA’s capability to build a diverse workforce for the future
- NASA should continue collaborating with NSF and other FC-STEM agencies to convene and support the STEM community in navigating reinvention/recovery from COVID-19. NASA alone cannot solve this.
  - Consequences – lack of coordination around recovery efforts; duplication of efforts; gaps in support for the community; could impact metrics/evaluation efforts

