**Title: Education support and synthesis based on the initial phase of the Ocean Observatories Initiative**

**Funding Agency:** NSF

**Project Lead:** Lori Garzio

**Partners:** Consortium for Ocean Leadership

**Period of Performance:** October 2018 – September 2020

**Total Budget:** $237,904

**Project Overview:**

After more than a decade of planning and construction, the Ocean Observatories Initiative (OOI) became operational in 2016 and is actively serving data to the scientific and educational user community. This initial operations period will continue through September 30, 2018 and is referred to as "OOI 1.0". Since the beginning of 2018, OOI 1.0 has put a greater emphasis on stimulating, engaging, and expanding the OOI user community, with these efforts led by the Consortium for Ocean Leadership and Rutgers University. These efforts have been successful; however, a persisting lesson from these activities both from within OOI and from the external user audience has been the need for more attention to OOI 1.0 data quality. This project proposes activities to increase OOI 1.0 data quality assurance efforts for the benefit of the OOI researcher community, as well as to support educational user engagement via the development of OOI 1.0 data documentation and case studies, in particular for undergraduate professors.

The proposed activities fall into three categories: (1) evaluation and validation of OOI 1.0 datasets, (2) supporting educational engagement in the use of OOI 1.0 data, and (3) synthesis and additional evaluation of OOI 1.0 community engagement activities. The activities build on each other and are important for lifting barriers for the user community. Though these efforts focus exclusively on data from OOI 1.0, the lessons learned will be useful for the next phase of the OOI.

Intellectual Merit:Through the OOI, the oceanographic community can now study ocean processes in unprecedented waysin real-time, without the need to secure ship time, making the OOI a critical asset for the evolution of theocean science community. To ensure its value, the OOI must engage with and grow its user community,which will entail not only ongoing communication with the community regarding access andopportunities but building trust and removing as many barriers as possible for users. This proposed effortwill achieve the latter by: 1) identifying and reporting on problems in OOI 1.0 data sets that will supportuser confidence in the data; and 2) facilitating the use of data for education and training purposes toengage the next generation of scientific researchers in oceanographic research and the OOI.

Broader Impacts:The OOI provides an unprecedented opportunity for scientists at all levels to utilize vast oceanographicdata without the need to secure large funding grants or ship time. Because the OOI is open access, itallows scientists to connect with cutting edge technology and ocean data regardless of their age, gender,or physical disabilities. OOI data are also valuable for education and providing data-based learningopportunities for undergraduate and graduate students that improve their STEM education andexperiences (McDonnell et al., 2018). Activities to be undertaken in this proposal will lift barriers toutilizing OOI 1.0 data for both the scientific and education community, as well as support broaderimpacts experiences for graduate students to share their OOI research with non-scientific audiences.