Table of Contents

Leveraging collaborative research and community-engaged partnerships for inclusive data science training and capacity building

Stephanie E. Paris, Shanthia N. Espinosa, Aaron Raz Link, Amanda Braley, Lisa K. Marriott

Oregon Health & Science University, School of Public Health, Portland, OR, United States

Keywords

Diversity, equity, inclusion, and accessibility (DEIA); representation; demographics; outreach; educational scholarship

Abstract

Training programs in science, technology, engineering, and math (STEM) share a common goal of enhancing education and support for their students, emphasizing the importance of measuring student access, engagement, and retention across disciplines and training levels to understand their impact. Demographics should be representative of the complexity and intersectionality of student identities, with Executive Orders calling for expansion of demographic data collection practices to incorporate broader categories of race, ethnicity, religion, income, geography, gender identity, sexual orientation, and disability. In August 2023, OHSU received a new five-year Science Education Partnership Award from the National Institutes of Health's Office of Data Science Strategy to expand data science training for middle and high school students. The collaborative project aims to 1) identify considerations for inclusive demographic data collection and responsible reporting; 2) establish a training collaborative that aligns qualitative research with data science outputs to enhance authentic representation of a diverse biomedical workforce; and 3) characterize how demographic data are used to make decisions and inform practice. Our project is approved by an overarching Institutional Review Board study entitled "Biomedical Workforce Development" (OHSU #22889) that enables cross-sectional and longitudinal research with students from elementary school through retirement, representing the full spectrum of schooling and career. Students, staff, and faculty are invited to engage in conversations around inclusive demographics and share considerations for improving data science training to younger students. Creating this interprofessional network aims to facilitate connection with our multidisciplinary partners to accelerate educational scholarship, training, and outreach to support youth training and representation of a diversity of identities in STEM. As we continue to identify considerations for capacity and training in inclusive demographic data collection and responsible reporting across intersectional demographics, we enthusiastically invite students, researchers, scholars, and colleagues to join our efforts and share their unique

perspectives to promote diversity, equity, inclusion, and accessibility within biomedical workforce development.