Abstract Submitted
for the SES20 Meeting of
The American Physical Society

An Investigation into the State of North Carolina Physics Education: Racial and Gender Equity. TIMOTHY OSBORN, ALICE CHURUKIAN, University of North Carolina at Chapel Hill — Utilizing a demographic survey combined with a well-established concept survey (the Force Concept Inventory), this project seeks to gain insight into the state of high school physics education in North Carolina. The survey was administered, pre-instruction, to students enrolled in first semester college physics at several institutions within the University of North Carolina system. While the overall study is broader in scope, early analysis of the data has revealed significant differences of mean scores on the concept survey when categorized by the race and/or gender of the participant. In particular, even when controlling for the highest level of physics course taken in high school, significant differences exist between the mean scores on the concept survey for men and women. I will share how these differences point to the existence of larger factors at play in determining how well a student will learn physics beyond simply what course they have taken. Future work on this project will focus on investigating how these differences manifest and what other factors play similar roles in determining how students throughout North Carolina interact with high school physics education.

Timothy Osborn
University of North Carolina at Chapel Hill

Date submitted: 19 Oct 2020 Electronic form version 1.4