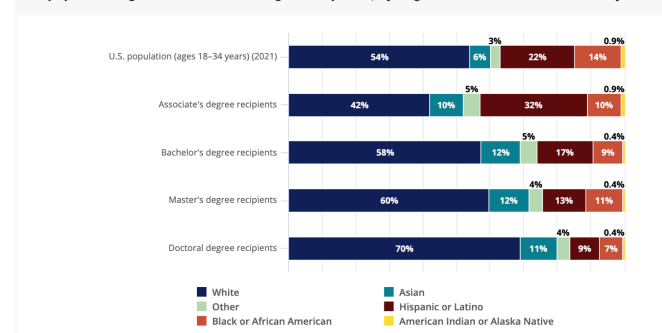


The Problem

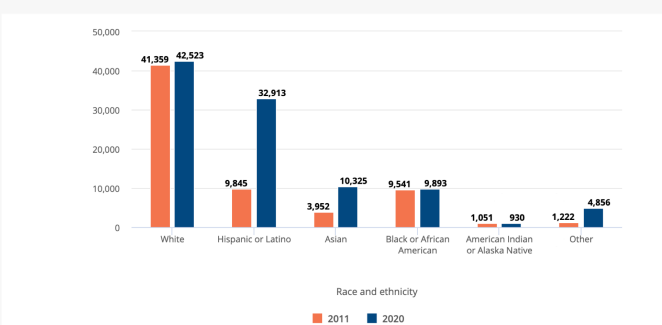
- Students from diverse backgrounds have been **systemically prevented from entering STEM fields**.
- STEM fields suffer from a lack of representation. According to the National Science Foundation, **89% of the STEM workforce is made up of white people**.

U.S. population ages 18-34 and S&E degree recipients, by degree level and race and ethnicity: 2020



White individuals make up more than half of bachelor's, master's, and doctoral degree recipients for 2020

S&E associate's degrees awarded, by race and ethnicity: 2011 and 2020



Significantly more S&E associate's degrees were awarded to white individuals in 2011 and 2020

HESP Mission Statement

HESP integrates the following three themes in the year-long curriculum:

- Year-round, hands-on programming with local institutions**
- Small-group mentorship across learner levels**
- College readiness training**

HESP equips students with **necessary skills, knowledge, and experiences** while guiding them through **academic and career development** to support their college application competitiveness and leadership in STEM fields.

The HESP @Duke Experience

Year-round, hands-on programming with local institutions and researchers



Students test water quality at the Duke Pond.



A HESP student is looking at cancer cells under the microscope.

Small-group mentorship across learner levels



HESP highschoolers engage in conversation with their undergraduate mentor.

College readiness training



HESP students listen to a presentation about college applications given by a visitor from the College Corps.

Our Solution

- We established the **Health and Environment Scholars Program (HESP)** at Duke to enhance STEM career readiness for high school students - specifically individuals from groups who have been systematically excluded from STEM careers.
- HESP is a year-long program for Durham Public Schools (DPS) high school students to explore **interdisciplinary environmental science and health** subjects led by Duke undergraduate mentors.



Health and Environment Scholars @Duke



Visit our website!

Demographics and Curriculum

- 30 students from eight DPS schools
- 14 sessions focused on **Health and Environment in North Carolina**

ALL SESSIONS RUN FROM 6:30-8:30 PM (DINNER PROVIDED) @ GRAINGER HALL

- OCT 01** **INTRO SESSION**
PROGRAM WELCOME, INTRO ACTIVITY
- OCT 13** **UNDERGRADUATE Q&A PANEL**
HEAR FROM DUKE STUDENTS ABOUT THEIR COLLEGE EXPERIENCE
- OCT 25** **COLLEGE ADMISSIONS PANEL**
Q&A WITH REPRESENTATIVES FROM DUKE, NC STATE, NCCU, & DURHAM TECH
- OCT 30** **MENTOR PAIRING SESSION**
ACTIVITIES CENTERED AROUND MEETING YOUR DUKE MENTOR

Four fall sessions focused on college and career readiness

HESP Spring 2023 Calendar			
January	February	March	April
7	4 Duke Campus Farm	4 Duke Campus Tour + Research Project - Data Visualizations	
14 College Corps Advising + Duke Lab Tour	11 Durham Museum of Life and Science	SPRING BREAK: Data collection	8 Group Research Project Presentations + Duke Gardens Tour
21 Duke Reclamation Pond + Professional Headshots	18 Duke Forest Guided Tour + Nature Walk		15 Marine Lab Day!! 9AM-9PM
26 Environmental Justice Module & Activities	25 Research Project - forming hypotheses + collecting data		

All sessions run from 11AM-2PM, unless otherwise specified

Ten spring sessions comprising interactive activities and field trips locally

Improvements and Future Directions

- HESP @Duke will continue in 2023-2024 through Bass Connections.
- Enhance our year-long curriculum by integrating college readiness, hands-on activities, and field trips to local institutions.
- Improve the mentor onboarding process.