CSCE@USM BPC Plan
School of Computer Science and Computer Engineering
University of Southern Mississippi

Effective dates of plan: 2021-2025
Revision of plan will begin January 2023
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CSCE@USM Context

University of Southern Mississippi (USM) is a R1 doctoral research university located on two campuses, Hattiesburg and Gulfport, Mississippi. USM stated goal is to prepare a diverse student population to embark on meaningful life endeavors. The demographics of men and women on campus is higher than the national average.

Fall 2020 demographic ~18000 students (50% underrepresented African American students) ~total number of undergraduate students (14606 undergraduate student enrollment in Fall 2020) (62.8% female, 37.2% male), ~total graduate students (MS and PhDs) (2589 students in Fall 2020), ~total faculty strength (57.8% female, 42.2% male)

The School of Computer Sciences and Computer Engineering (CSCE@USM) offers bachelor's degree in computer science, information technology, computer and electronics engineering technology, computer engineering. The computer engineering program is approved to start at CSCE by Institute of Higher Education (IHL) in Mississippi in the year 2017. The Computing Accreditation Board for Engineering and Technology (ABET) has accredited the computer science bachelor's degree program. At the graduate level, CSCE offers a master's degree in computer science and computational sciences, and a PhD degree in computational sciences. CSCE@USM Fall 2020 demographics are:

(a) ~500 undergraduate students (Figure 1)
(b) ~100 graduate (M.S. and PhD) students (Figure 2)
(c) 13 Tenured/Tenure-Track faculty (0% African American, 30.7% female, 60.3% male)
(d) 7 Teaching faculty (14.3% African American, 0% Female, 100% male)

Demography of Undergraduate Students of CSCE@USM 2015-2020

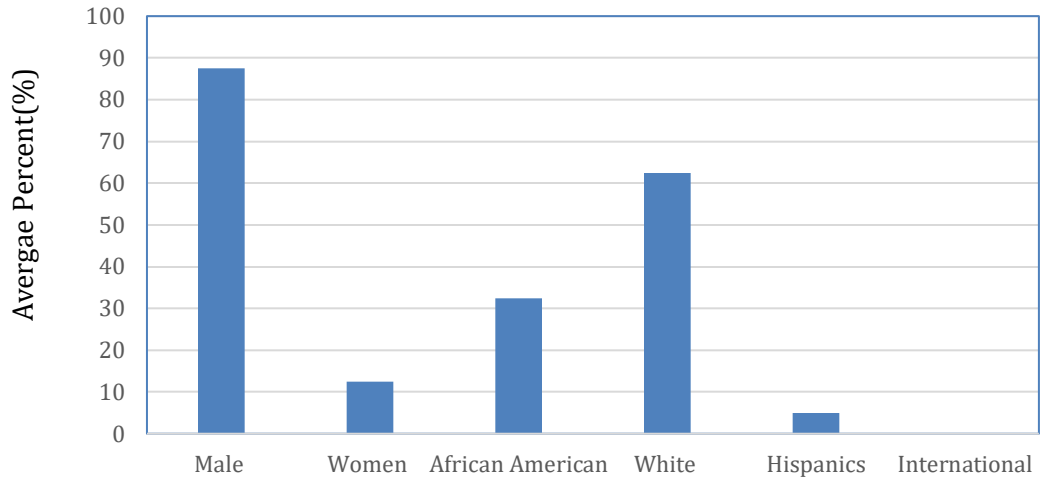Figure 1. Demography of Undergraduate Students of CSCE@USM 2016-2020

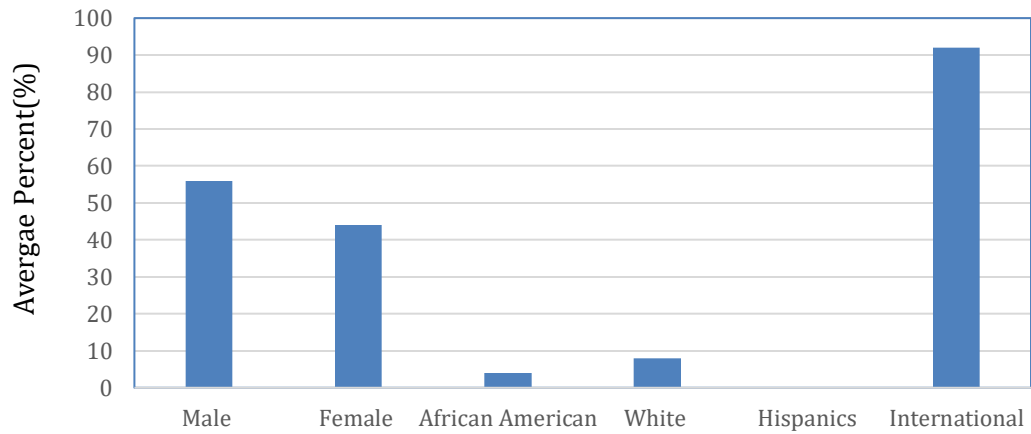# Demography of Graduate Students of CSCE@ USM 2016-2020

Figure 2. Demography of Graduate Students of CSCE@USM 2016-2020

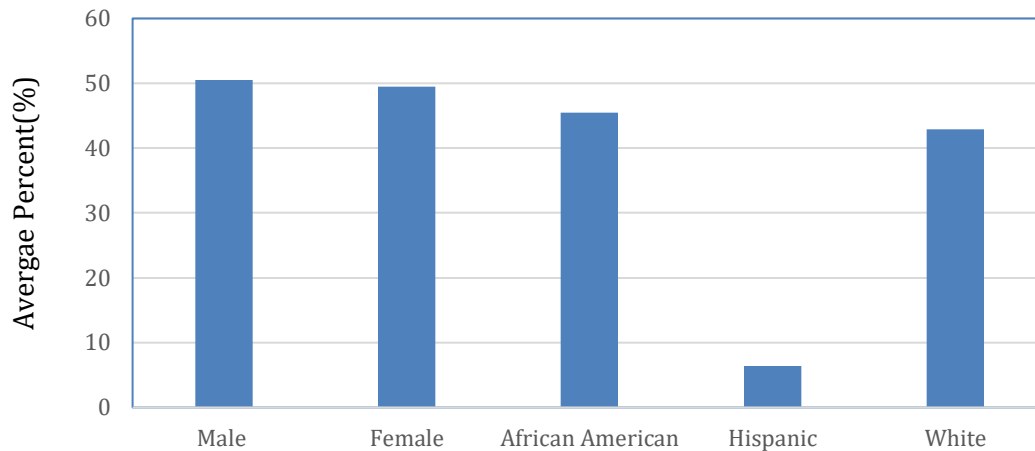## Demography of K-12 students in schools at vicinity of USM 2021

Figure 3. Demography of K-12 students at neighborhood schools of USM 2021

CSCE@USM Goals

Based on demography of CSCE@USM undergraduate students, graduate students, K-12 students around USM and faculty members the following goals are set

1. Increase the number of undergraduate females to 30% by January 2025.
2. Increase the number of undergraduate African Americans to 45% by January 2025.
3. Faculty retention and women and African American faculty members of CSCE to target percentage increase to 15% on both tenured and non-tenured position by 2025.

CSCE@USM Activities and Evaluation

1. To increase the female or African American students in both undergraduate and graduate CSCE@USM
   a. Cyber to The Top K-12 Outreach program (this will be launched in summer 2021 and funding The Director of CSCE have from NSA).
   b. Mississippi Aspirations in Computing Award Program, in Collaboration with the National Center for Women and Information Technology (award event scheduled for April 2021).
2. Mentoring CSCE@USM Undergraduate students based on diversity like special mentoring programs for female and African American students

    a. CSCE@USM has female students that mentor new female students as needed and coordinated by the Director of CSCE. The Director, a female, does academic advising for all female students in CS and CE programs of CSCE.

3. To recruit K-12 students in the neighborhood of USM.
       a. CSCE@USM is partnering with the Mississippi Coding Academics and Mississippi State University to offer coding academy programs at Columbus High School (Columbus MS), Choctaw Tribal High School(Choctaw, MS) and Long Beach High School(Long Beach MS). These programs will be also implemented in neighboring schools of USM namely Forrest County Schools, Covington County Schools, Hattiesburg Public Schools, Jones County Schools and Lamar County Schools.

4. Camps and Programs dedicated to recruit female and African American Students at CSCE
       a. Cyber to the Top will host summer camps in 2021 for elementary girls with targeted recruitment in the African American community in collaboration of Mississippi State University.

5. Diversity and Inclusion training programs for faculty and k-12 teachers
       a. https://www.usm.edu/diversity-inclusion/prism.php
       b. https://www.usm.edu/compliance-ethics/compliance-courses.php
       c. https://www.usm.edu/faculty-development/workshops.php

6. Programs for mentoring first generation undergraduate student
       a. https://www.usm.edu/student-success/academic-connections-enhance-success.php

7. Other programs of CSCE@USM on diversity of increasing female and African American student ratio
       a. The NSF includes Mississippi Alliance for Women in Computing is facilitated through USM (Director of CSCE as PI).
       b. Director of CSCE is co-founder of the Last Mile Education Fund.
       c. Director CSCE is co-founder of MS STEM Alliance, portal is under development and launch is planned in 2021.
       d. CSCE is a member of NCWIT's Academic Alliance