

Considering Institutional Type and Criteria for HSCCs

This brief contains 2015 data from the Integrated Postsecondary Education Data System (IPEDS). Two-year institutions were selected by using both the IPEDS and the Carnegie classifications. Three categories were used for the selection criteria of IPEDS: sector, highest degree offered, and institutional. The options selected in each category are “two-year public,” “private not-for-profit,” and “private for-profit” in the sector category; “associate’s degree” option in the highest degree offered category; “and degree-granting, associate’s and certificates” and “degree-granting, not primarily baccalaureate or above” options in the institutional category. Based on these criteria, 1,623 institutions were obtained.

A category labeled “baccalaureate/associate’s colleges” was selected in the Carnegie classification 2015 (Basic). The “associate’s dominant,” “baccalaureate/associate’s colleges,” and “mixed baccalaureate/associate’s” options were chosen for a total of 403 drawn institutions.

Lastly, two datasets drawn from IPEDS and Carnegie classifications were merged and four overlapping institutions were deleted. Considering the high number of HSCCs in Puerto Rico, 22 institutions were included in our data while institutions in other U.S. territories were not. Thus, a total of 2,022 institutions were obtained for this study. For the descriptive analysis, 1,998 institutions nationwide were used due to the exclusion of 18 invalid institutions. This brief focuses on 41 community colleges in Arizona.

Institutional Type

As noted above, Arizona has experienced a demographic shift, particularly when it comes to Latinxs. Out of the 1,998 community colleges in our data, Arizona is home to 41 two-year institutions. From this number, 24 were identified as HSCCs, 12 as emerging HSCCs, and five as non-HSCCs. This means that HSCCs accounted for 58.5% of community colleges in Arizona, while emerging HSCCs represented 29.2% of these institutions. As of 2015, 87.8% of the two-year institutions in our data were HSCCs and emerging HSCCs in Arizona. Given the large Latinx population in Arizona, the substantial number of HSCCs and emerging HSCCs is not surprising.

Table 1. Eligibility of HSCCs by control of institution in Arizona

Control of institution	Eligibility of HSCCs 2015 in Arizona			
	Non-HSCCs Count	HSCCs Count	Emerging HSCCs Count	Total
Public	3	9	8	20
Private not-for-profit	-	-	-	-
Private for-profit	2	15	4	21
Total Institutions	5	24	12	41

Nationally, we noticed a growing number of private for-profit institutions and a similar proportion of institutional control was shown in the Arizona data as well (Zamani-Gallaher, Yeo, Velez, Fox, & Samet, 2019). Out of the 41 institutions in Arizona, 51% (21) of them were private, for-profit institutions (Figure 1). There were no nonprofit institutions that were private. Among 24 HSCCs, 63% (15) were private, for-profit institutions and 37.5% (9) were public institutions (Figure 1).

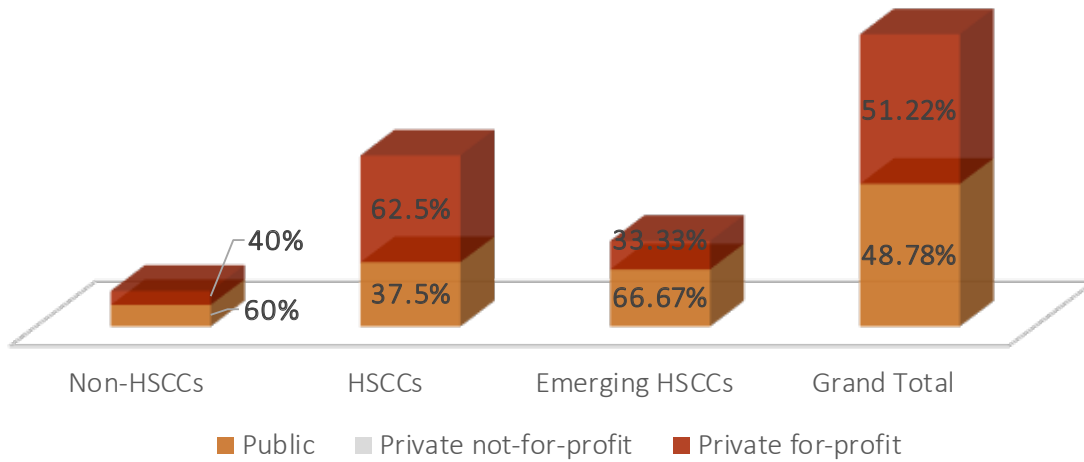


Figure 1. Community colleges by control of institution in Arizona

Minority-Serving Institution Status at HSCC and Emerging HSCCs

In our project, the minority serving institution (MSI) status was used to see whether there were other federal designations cross-listed with the HSI designation. We use the federal government designations for Asian-American and Native American Pacific Islander-Serving institutions (AANAPISIs) and Predominantly Black Institutions (PBIs). AANAPISIs have Asian-American and Native American Pacific Islander student enrollment rates of at least 10%, while the enrollment rate of African-Americans or Black students is at least 40% (U.S. Department of Education, 2017).

Besides HSCCs and emerging HSCCs, there were no other types of designated MSIs such as AANAPISIs and PBIs from 2015 data in Arizona. While there were no more enrollment-based federal designations of MSIs, among the five non-HSCCs in Arizona there was one tribal college named Tohono O’Odham Community College.

HSCC Student Demographics

In this section, the student demographics are described based on 12-month enrollment with an unduplicated headcount and degrees/awards conferred drawn from IPEDS. In 2015 there was a total of 337,990 students enrolled in two-year institutions in Arizona. Approximately 94% of students were enrolled in Hispanic-serving community colleges. Specifically, 48.25% (163,076) of students were enrolled in HSCCs and 45.86% (155,010) were enrolled in emerging HSCCs. White students made up 46.82% (158,254) of the total enrollment, followed by Latinxs (28.83% or 97,439), Black Americans (6.24% or 21,091), and Asians (3.13% or 10,571).

Out of the total students enrolled, 45% (151,432) were men and 55% (186,558) were women. In general, the enrollment of women was slightly higher than men across racial groups. The largest gender gap was found within the Latinx student population, a 6% gap between women and men. (See Figure 3).

In Arizona, community colleges awarded a total of 20,843 degrees, with Whites earning a total of 52.41% (10,924) of them, followed by Latinxs (27.58% or 5,749), Blacks/African Americans (5.38% or 1,122), and Asians (3.42% or 713). Whites therefore earned more than 50% of the degrees awarded in Arizona. Out of the total degrees conferred in 2015, 54% (11,335) of the degrees went to women and 46% (9,508) went to men. Regarding the enrollment gender demographics, women’s enrollment was slightly higher than men across racial groups, except for Black/African Americans (575 for men and 547 for women). Across institutional types, HSCCs granted 55.99% (11,670) of the total degrees, followed by emerging HSCCs (8,226 or 39.47%) and non-HSCCs (947 or 4.54%) (See figure 4).

Participation in STEM by Race, Ethnicity, and Gender

Science, technology, engineering and mathematics (STEM) programs were classified using the National Science Foundation Classification of Instructional Program (CIP) Code Crosswalk for STEM disciplines (Louis Stokes Alliances for Minority Participation, 2018). By following the NSF LSAMP STEM category, STEM programs were aggregated into 11 STEM fields: agricultural sciences, natural resources and conversation, architecture, computer and information sciences, engineering, engineering technologies, biological sciences, mathematics, interdisciplinary studies, physical sciences, and business and management.

In Arizona, community colleges conferred 2,903 STEM degrees in 2015, which accounted for 13.93% of the total degrees awarded in the state (see Figure 5-1). Among 2,903 STEM degrees, 67.89% (1,971) of the degrees were awarded at HSCCs (see Figure 5-2). Specifically, Whites earned 54.29% (1,576) of the STEM degrees, followed by Latinxs (23.32% or 677, Blacks/African Americans (7.10% or 206), and Asians (5.13% or 149). Women earned only 25% (728) of the STEM degrees conferred, while men earned 75% (2,175) (see Figure 5-3). Regarding gender, Arizona ranked lower than the national average in conferring STEM degrees to women and trailed other states such as California and Illinois, which conferred almost 50% of their degrees to women (Zamani-Gallaher et al., 2019a, 2019b).

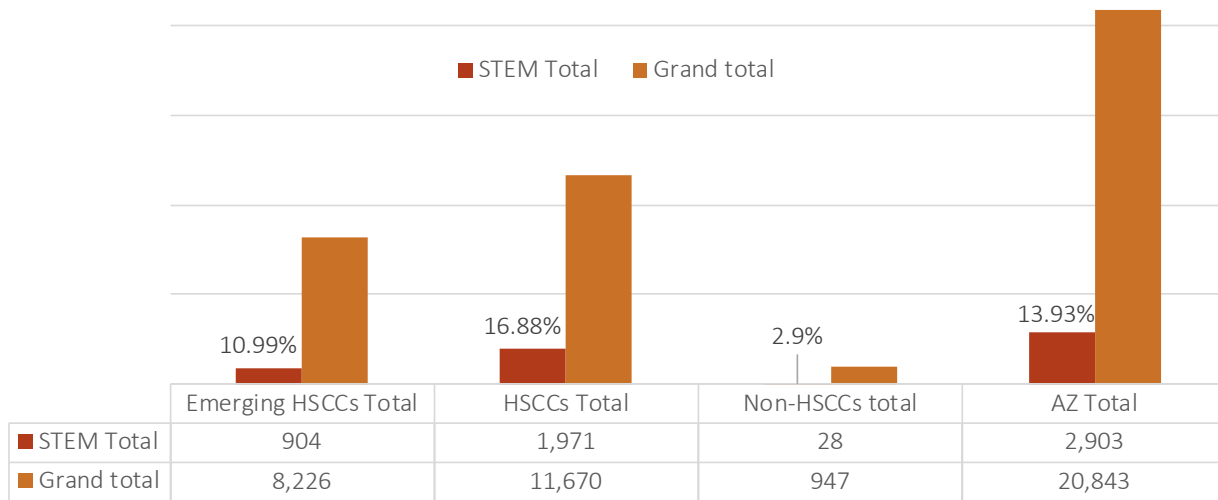


Figure 5-1. Total STEM degrees conferred by institutional types in Arizona in 2015

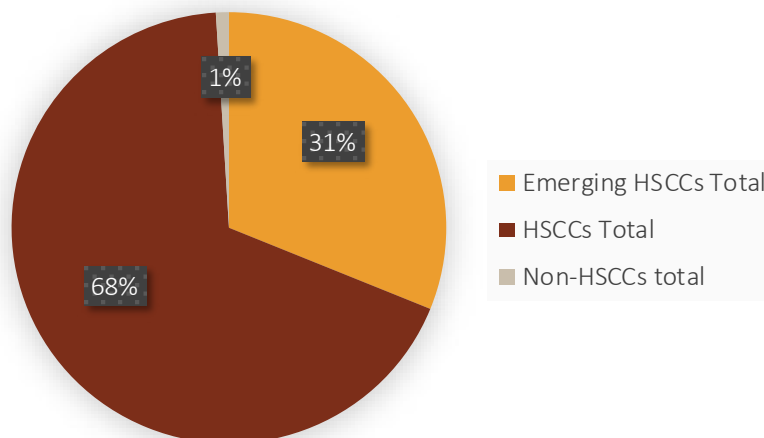


Figure 5-2. 2015 STEM degrees conferred by institutional types in Arizona

Summary

In summary, almost seven out of 10 two-year institutions in 2015 were designated as Hispanic Serving Institutions in Arizona.

- HSCCs awarded the majority of their conferred degrees to students of color (Figure 10)
- HSCCs and emerging-HSCCs accounted for almost 96% of the total degrees awarded in Arizona
- Women continue to be disproportionately underrepresented within the STEM fields, only receiving 25% of the STEM degrees conferred (Figure 5-3 & Figure 15), despite earning more than 55% of the total degrees awarded in Arizona.
- Given that HSCCs awarded more than half of the total degrees, they continue to increase access and opportunity to students of colors, especially Hispanic students.

In the future, these institutional types will continue to play a significant role in the education of students of color as they work toward attaining STEM degrees.

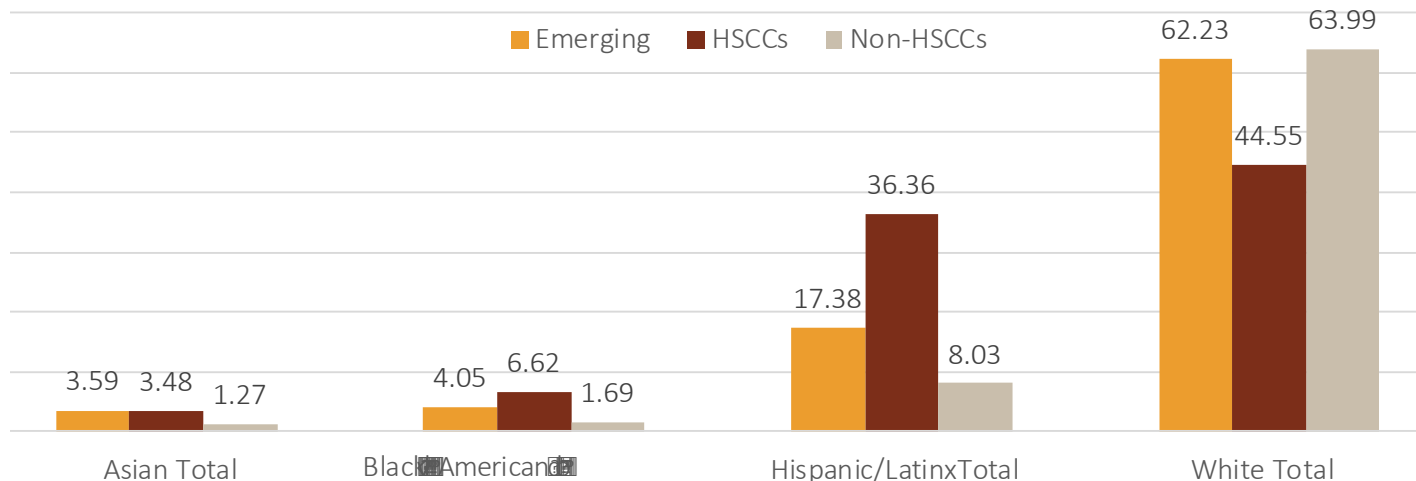
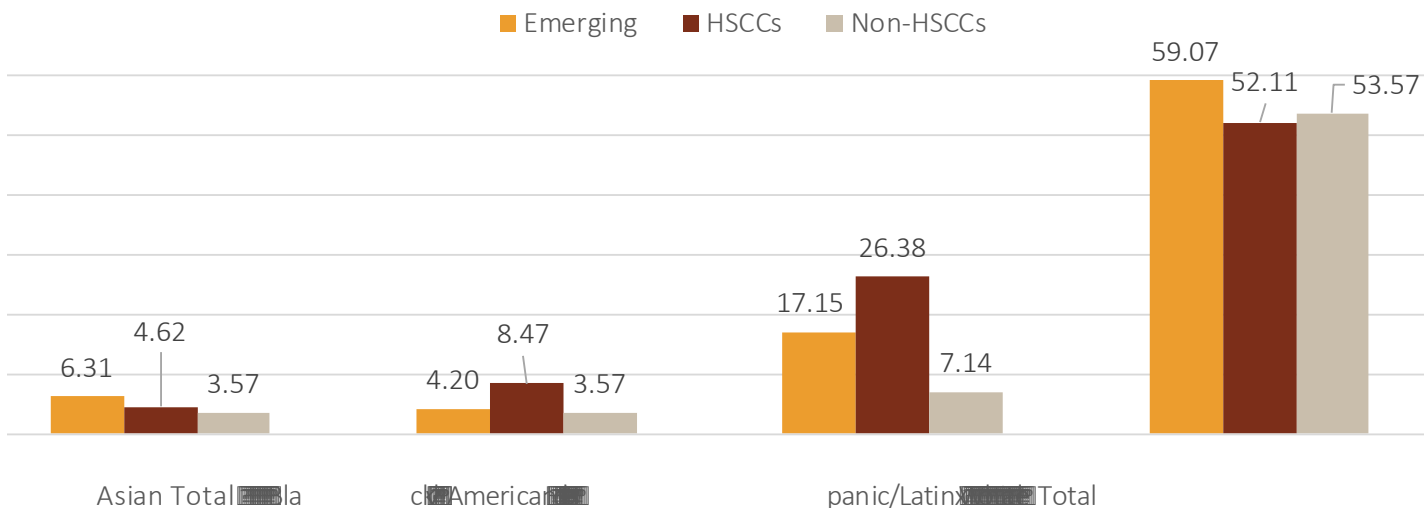


Figure 11. First major total associate degrees conferred (%) by race and institutional type in Arizona in 2015



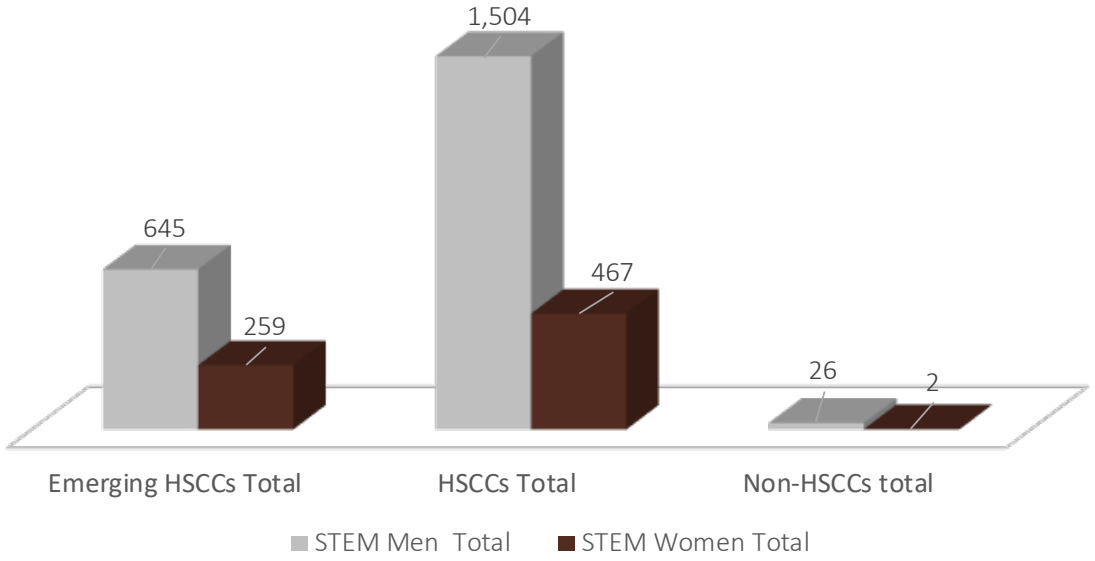


Figure 13. First major associate degrees in STEM conferred by gender and institutional type in Arizona in 2015

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Notes.

1. The percentage of racial/ethnic groups on the figures and texts are not added up to 100% due to the exclusion of other racial/ethnic groups.



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