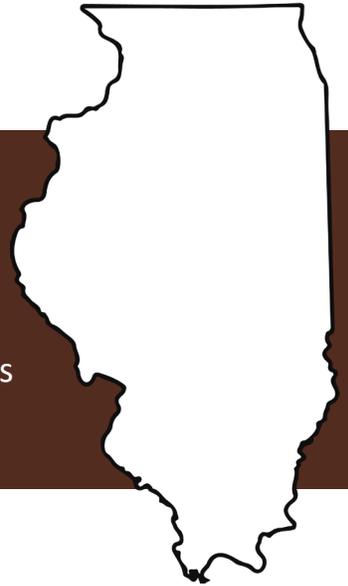


## A Growing Presence: STEM Degree Attainment at Illinois Hispanic-Serving Community Colleges

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This research brief focuses on STEM degrees conferred in Illinois by race and gender at three institutional types: Hispanic-Serving Community Colleges (HSCCs), which are 2-year institutions with 25% Hispanic student enrollment or more; Emerging HSCCs, which are 2-year institutions with 15% to 24.9% Hispanic student enrollment; and Non-HSCCs, which are institutions with less than 15% Hispanic student enrollment.



## Introduction

The Hispanic-Serving Community Colleges STEM Pipelines (HSCC-STEM) study is a research project that explores the transitions to and through Hispanic-serving two-year institutions for underrepresented minoritized STEM students. The literature largely notes Hispanic-serving institutions (HSIs) as four-year colleges and universities (Garcia, 2018; Núñez, Crisp, & Elizondo, 2016). As the discourse primarily engages four-year-centered and full-time equivalent student enrollment framing of HSIs, this should not be the default given the critical influence of HSIs that are community colleges. Hence, there is intentionality in this project that explicitly references two-year HSIs due to the nuance of minority-serving institutions (MSIs), particularly minority-serving community college (MSCC) contexts (Fox, Thrill, & Zamani-Gallaher, 2017). Thus, in order to better capture STEM pathway of underrepresented minoritized part-time students, HSCCs are any associate degree-granting postsecondary institutions that have at least 25% enrollment of full- and part-time Latinx students.

This brief uncovers the most viable HSCC STEM pathways for Latinxs and other underrepresented minoritized students as well as which fields they are more likely to persist in, and the promising practices at HSCCs that provide transfer pathways leading to further education—on ramps to STEM baccalaureates. The following information provides a national profile outlining STEM degrees conferred by race and gender in three types of institutions: HSCCs, which are institutions with 25% or more Latinx student enrollment; emerging HSCCs, which are institutions with 15% to 24% Latinx student enrollment; and non-HSCCs, which are institutions that have a Latinx enrollment rate of less than 15%.

## State Demographics

Illinois has one of the most diverse racial and ethnic populations in the Midwest. In 2015 the state had an estimated population of 12,873,761. Whites encompassed approximately 8,041,878 (62.5%) of the total population, followed by Latinxs (2,122,841 or 16.5%), Black/African Americans (1,818,938 or 14.1%), and Asians (641,068 or 5.0%; U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates). People of color represent almost 40% of the Illinois population, which is comparable to national demographic percentages.

The increases in the Latinx population make it the largest underrepresented group in Illinois. Latinx population growth has played a critical role in the 21st century. An analysis by the Latino Policy Forum, in fact, found that without the influx of Latinxs from 2000 to 2010, Illinois' population would have decreased by almost 86,000. In that timespan, the Latinx population increased by 121%, especially in suburban areas (Latino Policy Forum, 2011).

These increases in population have also had an effect in higher education enrollment and completion. In Illinois public universities, the Latinx student enrollment increased 11.8% from 2011 to 2015, while the enrollment of Black/African Americans decreased by 25% (Illinois Board of Higher Education, 2016). In public community colleges, the overall enrollment from 2011 to 2015 has also declined. For example, White student enrollment decreased from 423,141 in 2011 to 345,299 in 2015, while Latinx student enrollment increased from 112,628 to 115,824 in the same timespan (ICCB, 2015). These demographic changes have had a tremendous impact on Illinois community colleges, especially as it relates to Latinxs and other racially marginalized groups.

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## 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” 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, 23 institutions were included in our data while institutions in other U.S. territories were not included. 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 71 community colleges in Illinois. It is important to note that this number might be different from the numbers in Illinois identified as community colleges due to different classification criteria. This study includes institutions that conferred more than 10% of degrees at the baccalaureate level or higher and institutions that conferred associate’s degrees as the highest level degrees offered.

### The HSCC Landscape in Illinois

The population increases in Illinois over the past three decades has resulted in a more diverse higher education system. Out of the total of 1,998 community colleges nationwide, Illinois is home to 71 two-year institutions. From this number, 14 were identified as HSCCs, 14 were identified as emerging HSCCs, and 43 were identified as non-HSCCs. This means that almost 20% of two-year institutions in Illinois have an enrollment of at least 25% Latinx students and almost 20% have an enrollment rate of 15% to 24% of Latinx students. Combined, HSCCs and emerging HSCCs account for 39.4% of community colleges in Illinois (see table 1).

Table 1 presents the control of institutions and HSCC eligibility in Illinois. Out of a total 71 community colleges in 2015, 68% (48) of institutions were public; 25% were private, for-profit schools, and 7% were private, not-for-profit schools. Illinois has 14 HSCCs and 10 of them are public institutions, while one institution is a private, not-for-profit school and three are private, for-profit schools. There are 14 emerging HSCCs and nine are public institutions, while one institution is a private, non-profit and four are private for-profit. Given the increases in Latinx student enrollment, HSCCs will play an important role in educating Latinx and other racially marginalized groups.

**Table 1. Eligibility of HSCCs by control of institution in Illinois**

| Control of institution    | Eligibility of HSCCs 2015 in Illinois |             |                      |           |
|---------------------------|---------------------------------------|-------------|----------------------|-----------|
|                           | Non-HSCCs Count                       | HSCCs Count | Emerging HSCCs Count | Total     |
| Public                    | 29                                    | 10          | 9                    | 48        |
| Private not-for-profit    | 3                                     | 1           | 1                    | 5         |
| Private for-profit        | 11                                    | 3           | 4                    | 18        |
| <b>Total Institutions</b> | <b>43</b>                             | <b>14</b>   | <b>14</b>            | <b>71</b> |

Table 2 shows the list of HSCCs and emerging HSCCs by sector of institution and degree of urbanization. Most of the HSCCs and emerging HSCCs in Illinois were located in large cities and suburban areas.

**Table 2. List of HSCC and Emerging HSCC Institutions in Illinois**

| HSCCs Eligibility | #  | Institution (entity) name                             | Sector of institution                    | Degree of urbanization |
|-------------------|----|---|--|------------------------|
| HSCCs             | 1  | City Colleges of Chicago<br>Malcolm X College         | Public, 2-year                           | City: Large            |
|                   | 2  | City Colleges of Chicago<br>Harry S Truman College    | Public, 2-year                           | City: Large            |
|                   | 3  | City Colleges of Chicago<br>Richard J Daley College   | Public, 2-year                           | City: Large            |
|                   | 4  | City Colleges of Chicago<br>Harold Washington College | Public, 2-year                           | City: Large            |
|                   | 5  | City Colleges of Chicago<br>Wilbur Wright College     | Public, 2-year                           | City: Large            |
|                   | 6  | Coyne College   | Private for-profit, 2-year               | City: Large            |
|                   | 7  | Elgin Community College                               | Public, 2-year                           | City: Midsize          |
|                   | 8  | Fox College   | Private for-profit, 2-year               | Suburb: Large          |
|                   | 9  | College of Lake County                                | Public, 2-year                           | Suburb: Large          |
|                   | 10 | Lincoln College of Technology<br>Melrose Park         | Private for-profit, 2-year               | Suburb: Large          |
|                   | 11 | Morton College  | Public, 2-year                           | Suburb: Large          |
|                   | 12 | Saint Augustine College                               | Private, not-for-profit, 4-year or above | City: Large            |
|                   | 13 | Triton College  | Public, 2-year                           | Suburb: Large          |
|                   | 14 | Waubonsee Community College                           | Public, 2-year                           | Rural: Fringe          |
| Emerging HSCCs    | 1  | City Colleges of Chicago<br>Olive-Harvey College      | Public, 2-year                           | City: Large            |
|                   | 2  | College of DuPage                                     | Public, 2-year                           | Suburb: Large          |
|                   | 3  | Joliet Junior College                                 | Public, 2-year                           | Suburb: Large          |
|                   | 4  | Kishwaukee College                                    | Public, 2-year                           | Rural: Fringe          |
|                   | 5  | MacCormac College                                     | Private<br>not-for-profit, 2-year        | City: Large            |
|                   | 6  | McHenry County College                                | Public, 2-year                           | Rural: Fringe          |
|                   | 7  | Moraine Valley Community College                      | Public, 2-year                           | Suburb: Large          |
|                   | 8  | Northwestern College<br>Chicago Campus                | Private for-profit, 2-year               | City: Large            |
|                   | 9  | Rock Valley College                                   | Public, 2-year                           | City: Midsize          |
|                   | 10 | South Suburban College                                | Public, 2-year                           | Suburb: Large          |
|                   | 11 | William Rainey Harper College                         | Public, 2-year                           | Suburb: Large          |
|                   | 12 | Northwestern College-Southwestern Campus              | Private for-profit, 2-year               | Suburb: Large          |
|                   | 13 | SOLEX College   | Private for-profit, 2-year               | Suburb: Large          |
|                   | 14 | SAE Institute of Technology-Chicago                   | Private for-profit, 2-year               | City: Large            |

## Minority-Serving Institution Status at HSCCs and Emerging HSCCs

These demographic increases have resulted in many higher education institutions having multiple MSI designations. Two-year MSIs tend to be in low-income areas and enroll a high proportion of underrepresented students, thus providing low-income students and students of color with access to postsecondary opportunities (Nguyen, Lundy-Wagner, Samayoa, & Gasman, 2015). Given that MSIs broaden higher education participation, they play a critical role in the national college completion goals (Harmon, 2012).

In our project, the MSI status was used to see whether there were other federal designations cross-listed with the HSI designation. We used the federal government designations for Asian American and Native American Pacific Islander institutions (AANAPISIs) and predominantly Black institutions (PBIs). At least 10% of Asian-Americans and Native American Pacific Islander students are enrolled at AANAPISIs, while at least 40% of Black/African American students are enrolled at PBIs (U.S. Department of Education, 2017).

Given the increases in demographics, Illinois has several institutions with a substantial number of students of color. Among the 71 institutions in our data, there were five AANAPISIs and 12 PBIs. The remaining 54 institutions are not designated as minority-serving institutions. In our data, HSCCs are cross-listed with other minority-serving destination such as AANAPISIs and PBIs. Table 3 describes the list of MSI status of HSCCs and emerging HSCCs in Illinois identified in our data.

Regarding the impact of two-year MSIs in Illinois, a report by the Office of Community Research and Leadership concluded,

Illinois MSCCs provide a critical on-ramp to postsecondary education for nearly a third of all community college students in the state. Among these students are 62% of the Latino students, 55% of the African American students, and 44% of the nonresident alien students. Most Illinois MSCCs operate in communities with limited resources and lower levels of educational achievement among residents. Additionally, Illinois MSCCs serve substantially more students with high financial needs and students engaging in adult basic education, English as a second language education, and adult secondary education. Despite all these factors, Illinois MSCCs maintain completion rates for both degrees and certificates comparable to those of non-MSCCs (Fox, Thrill, Zamani-Gallaher, 2017).

In Illinois: there are 14 Hispanic-Serving Community Colleges, including 5 Asian American and Native American Pacific Islander-Serving Institutions and 12 predominantly Black institutions.

Two-year MSIs tend to be in low-income areas and enroll high proportion of underrepresented students.

Given that MSIs broaden higher education participation, they play a critical role in the national college completion goals.

HSCCs continue to play a critical role for communities of color and women in STEM attainment.

**Table 3. MSI Designations by HSCC's Eligibility in Illinois**

| HSCCs Eligibility | # | Institution name                                 | Sector of institution          | AANAPISI     | PBI     |
|-------------------|---|--|--------------------------------|--------------|---------|
| HSCCs             | 1 | City Colleges of Chicago, Harry S Truman College | Public, 2-year                 | AANAPISI     | Non-PBI |
|                   | 2 | City Colleges of Chicago, Malcolm X College      | Public, 2-year                 | Non-AANAPISI | PBI     |
|                   | 3 | Coyne College                                    | Private for-profit, 2-year     | Non-AANAPISI | PBI     |
| Emerging HSCCs    | 1 | College of DuPage                                | Public, 2-year                 | AANAPISI     | Non-PBI |
|                   | 2 | William Rainey Harper College                    | Public, 2-year                 | AANAPISI     | Non-PBI |
|                   | 3 | SOLEX College                                    | Private for-profit, 2-year     | AANAPISI     | Non-PBI |
|                   | 4 | City Colleges of Chicago, Olive-Harvey College   | Public, 2-year                 | Non-AANAPISI | PBI     |
|                   | 5 | MacCormac College                                | Private not-for-profit, 2-year | Non-AANAPISI | PBI     |
|                   | 6 | Northwestern College, Chicago Campus             | Private for-profit, 2-year     | Non-AANAPISI | PBI     |
|                   | 7 | South Suburban College                           | Public, 2-year                 | Non-AANAPISI | PBI     |
|                   | 8 | Northwestern College, Southwestern Campus        | Private for-profit, 2-year     | Non-AANAPISI | PBI     |
|                   | 9 | SAE Institute of Technology Chicago              | Private for-profit, 2-year     | Non-AANAPISI | PBI     |

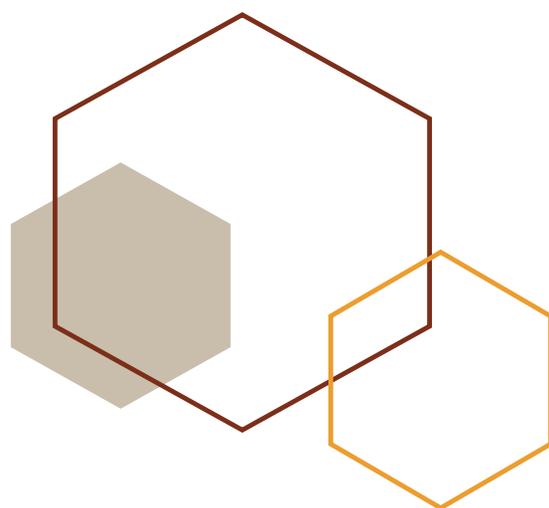
Note. 1 ANNAPSI from non-HSCCs: Oakton Community College  
 4 PBIs from non-HSCCs: City Colleges of Chicago-Kennedy-King College, Prairie State College, Midwestern Career College, Vatterott College-Fairview Heights

### HSCC Student Demographics

Figure 1-1 shows racial demographics of 12-month enrollment, which is a cumulative, unduplicated headcount of enrollment over the full 12-month period (IPEDS, 2018). In Illinois, there were 637,594 students enrolled in two-year institutions in 2015. During the same year, White students accounted for 54.17% (345,373) out of the total enrollment, followed by Latinxs (124,093 or 19.46%), Black/African Americans (93,937 or 14.73%), and Asian Americans (26,845 or 4.21%).

Figure 1-2 highlights the student enrollment by institutional type. It shows that 53.6% of students are enrolled in HSCCs and emerging HSCCs. Specifically, 26.22% of students (167,162) are enrolled in HSCCs and 27.40% (174,691) are enrolled in emerging HSCCs. This highlights the importance of the role these institutions are playing in educating a diverse student body, specifically racially minoritized students.

Figure 2-1 shows the total degrees conferred by institutional type in Illinois. In 2015 there were 37,247 total degrees conferred. Across institutional types, non-HSCCs conferred 16,407 (44.05%) total degrees, followed by 11,177 (30.01%) in emerging HSCCs and 9,663 (25.94%) in HSCCs. Figure 2-2 illustrates the numbers of degrees conferred across racial groups by institutional type. In two-year institutions in Illinois, Whites earned 23,614 (63.40%) total degrees, followed by Latinxs (5,711 or 15.33%), Black/African Americans (4,437 or 11.91%) and Asians (1,284 or 3.45%). Whites earned almost two-thirds of the degrees awarded in Illinois. Among a total of 23,614 degrees that Whites earned, 54% were conferred by non-HSCCs. Out of 37,247 total degrees conferred, 15,130 (41%) went to men and 22,117 (59%) to women.



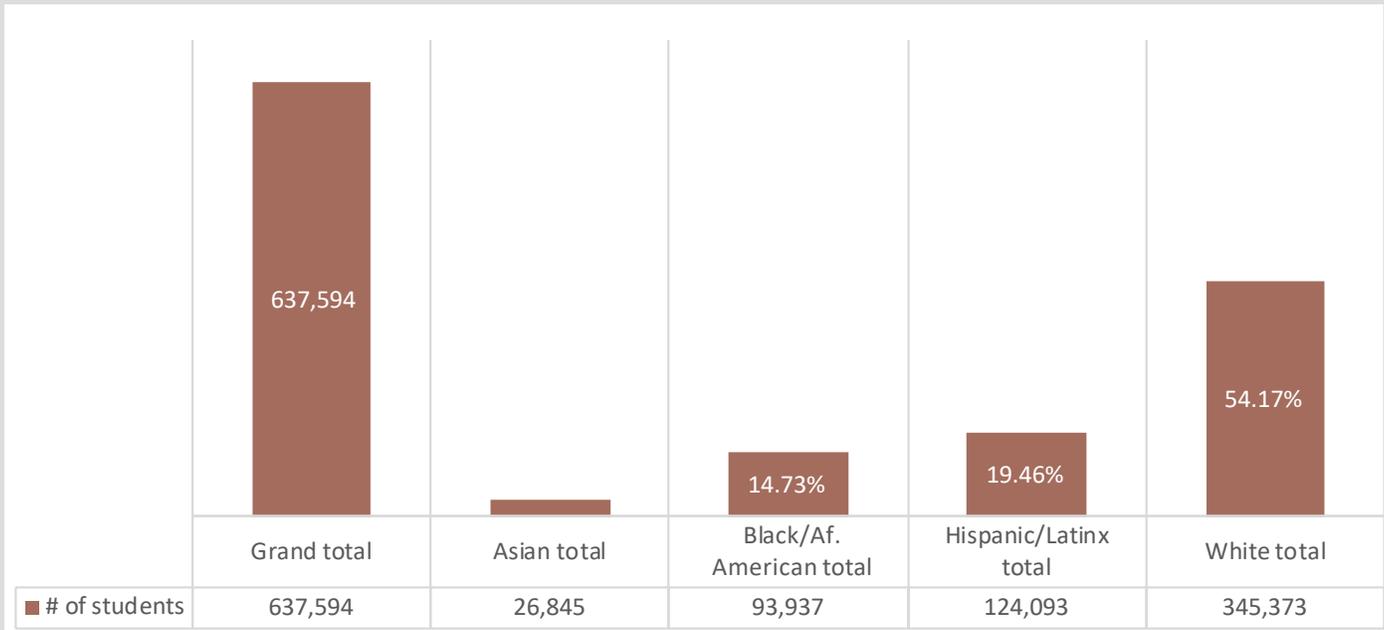


Figure 1-1. 2015 student demographics based on 12-month enrollment by race in Illinois

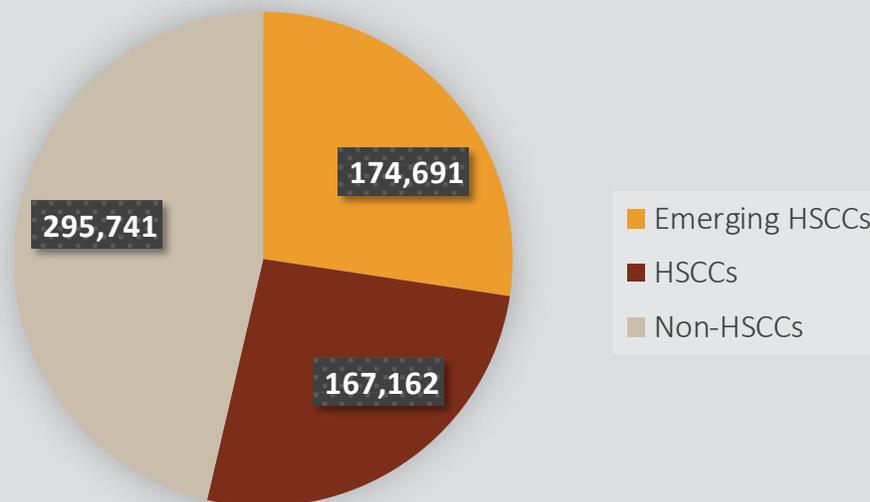


Figure 1-2. 2015 student demographics based on 12-month enrollment by institutional type in Illinois

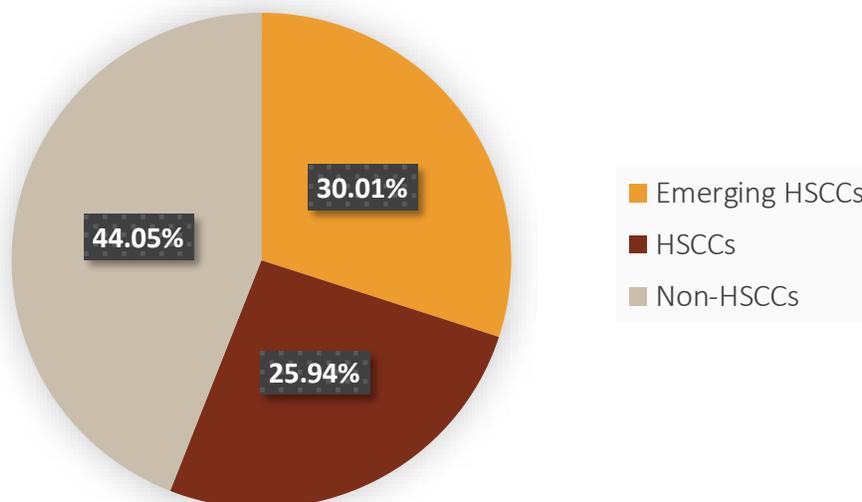
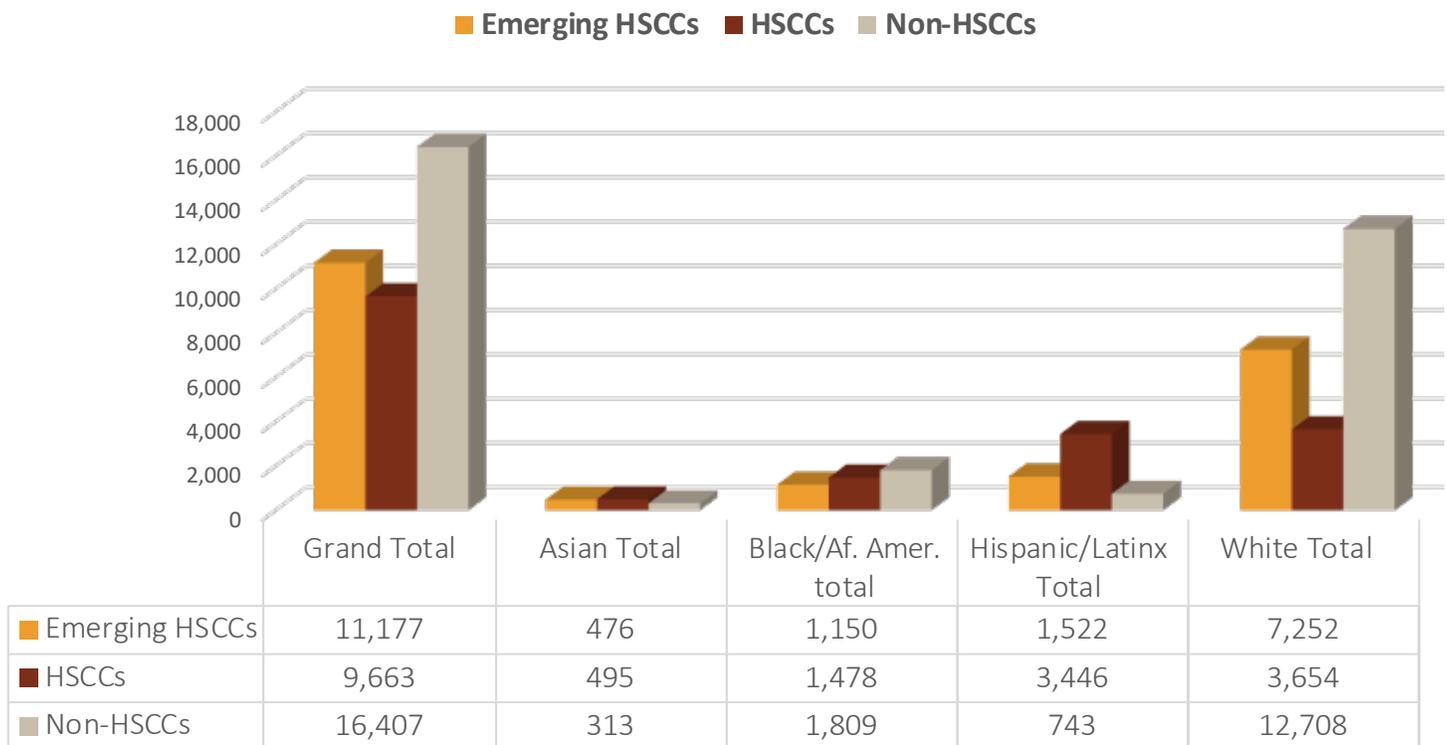


Figure 2-1. Total degrees conferred in 2015 by institutional type in Illinois



*Figure 2-2. Degrees conferred by race and institutional type in Illinois in 2015*

## Participation in STEM by Race, Ethnicity, and Gender

Science, technology, engineering and mathematics (STEM) programs were classified using the National Science Foundation (NSF) Classification of Instructional Program (CIP) Code Crosswalk for STEM disciplines (Louis Stokes Alliances for Minority Participation, 2018). By following the NSF Louis Stokes Alliances for Minority Participation (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 Illinois there was a total of 8,597 STEM associate degrees awarded in 2015, which is 23.08% of the total degrees awarded. Out of the total STEM degrees, 44% were awarded at non-HSCCs, 34 % at emerging HSCCs, and 22% at HSCCs. (Figure 3-1 & 3-2). Whites earned 5,876 STEM degrees (68.35%) while Latinxs earned 1,160 (13.49%), Black/African Americans earned 684 (7.96%), and Asians earned 307 (3.57%). Whites earned nearly seven out of 10 STEM degrees conferred that year. Figure 4 illustrates the numbers of STEM degrees conferred across racial groups by institutional type. Within that number of STEM degrees there were 4,378 (51%) received by men and 4,219 (49%) received by women (Figure 5). The following section has further specified descriptions of degrees and awards conferred in STEM by HSCC groups.

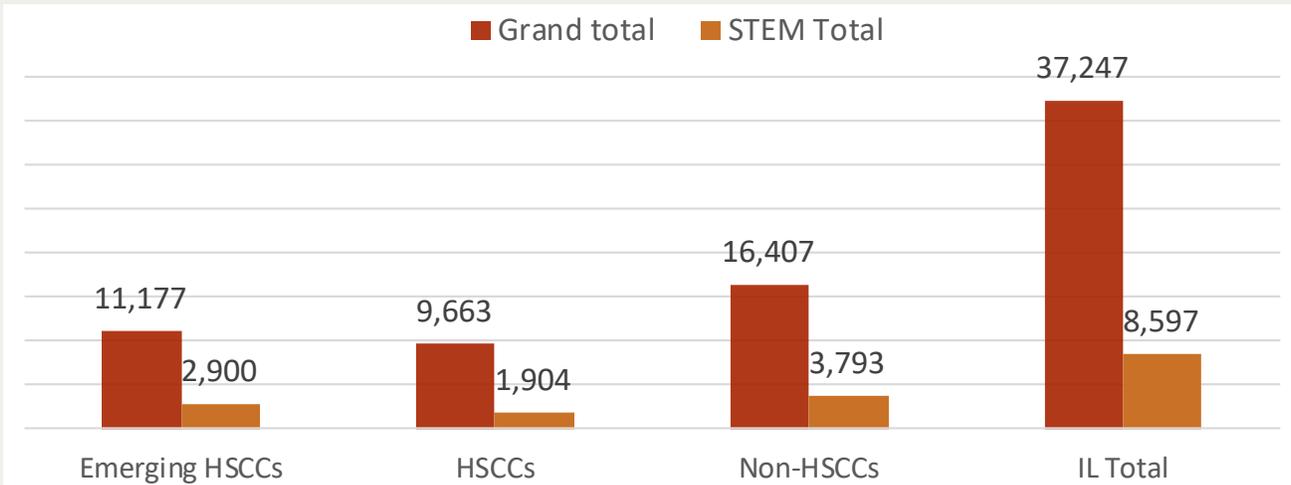


Figure 3-1. Total STEM degrees conferred in 2015 by institutional types in Illinois

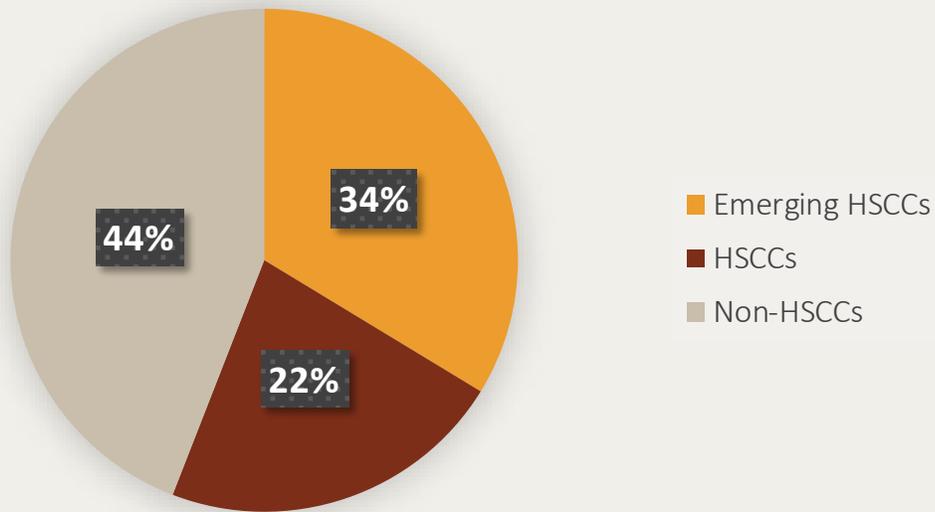


Figure 3-2. STEM degrees conferred in 2015 by institutional types in Illinois

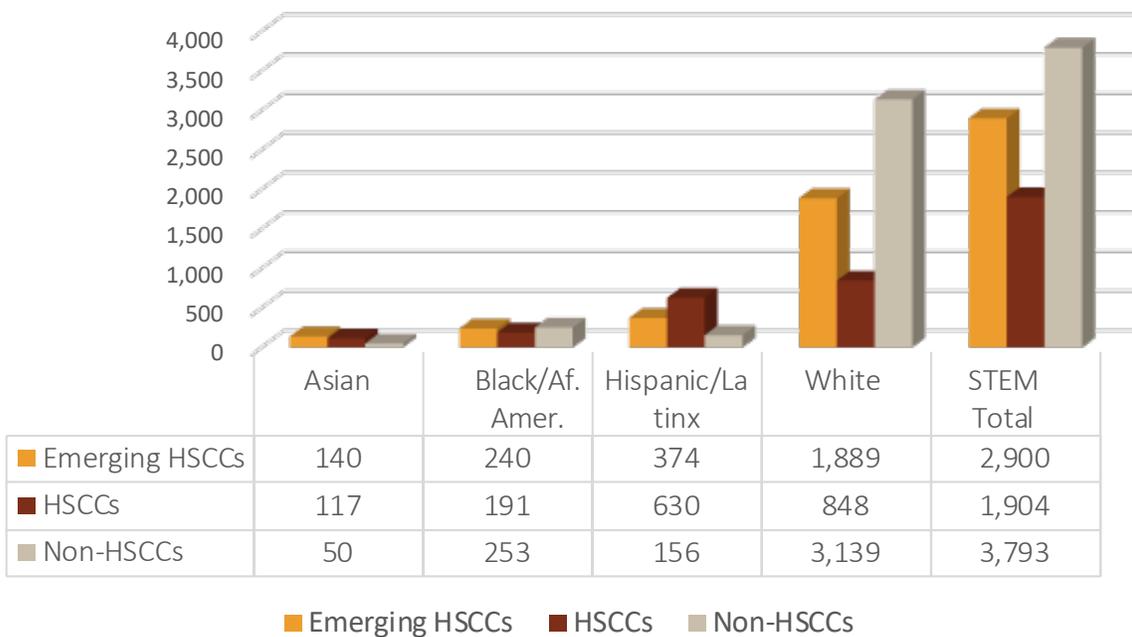


Figure 4. STEM degrees conferred in 2015 by race and institutional types in Illinois

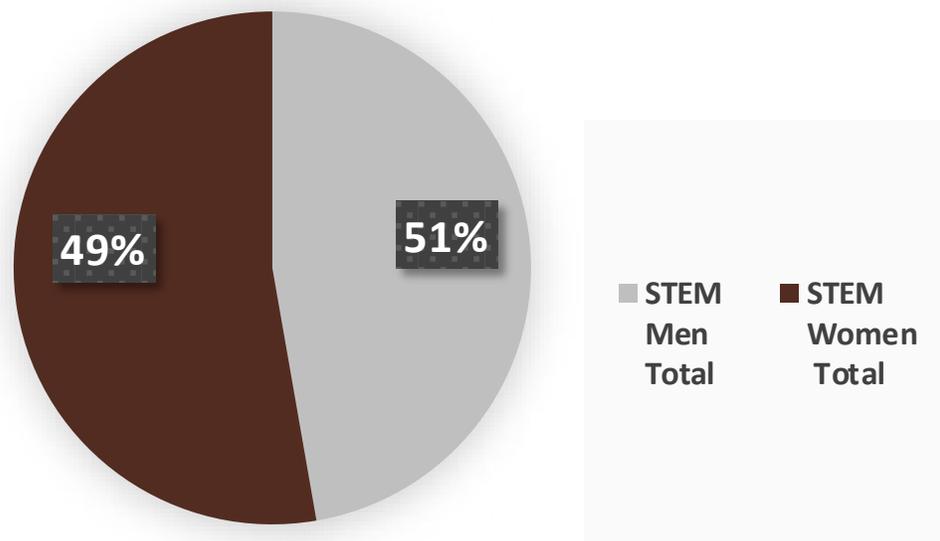


Figure 5. STEM degrees conferred in 2015 by gender in Illinois

## HSCCs

HSCCs awarded 9,663 (25.94%) of the total degrees conferred in Illinois. Whites earned a total of 3,654 (37.81%) degrees in HSCCs, followed by Latinxs (3,446 or 35.66%), Black/African Americans (1,478 or 15.30%), and Asians (495 or 5.12%). Out of the total degrees conferred at HSCCs, men were awarded 3,756 (38.87%) degrees and women were awarded 5,907 (61.13%) degrees. STEM degrees conferred at HSCCs accounted for 19.7% or 1,904 out of the total degrees awarded. Of the 1,904 STEM degrees awarded by HSCCs, Whites earned 848 (44.54%) STEM degrees while Latinxs earned 630 (33.09%), Black/African Americans earned 191 (10.03%), and Asians earned 117 (6.14%). Out of the STEM degrees awarded by HSCCs, men were conferred 900 (47.27%) and women were conferred 1,004 (52.73%) degrees. Figure 6 illustrates the number of STEM degrees conferred across racial groups by gender at HSCCs. Out of the total STEM degrees Latinx earned, 54% were awarded at HSCCs, thus playing a significant role in providing Latinxs and other racially minoritized students educational opportunities in STEM.

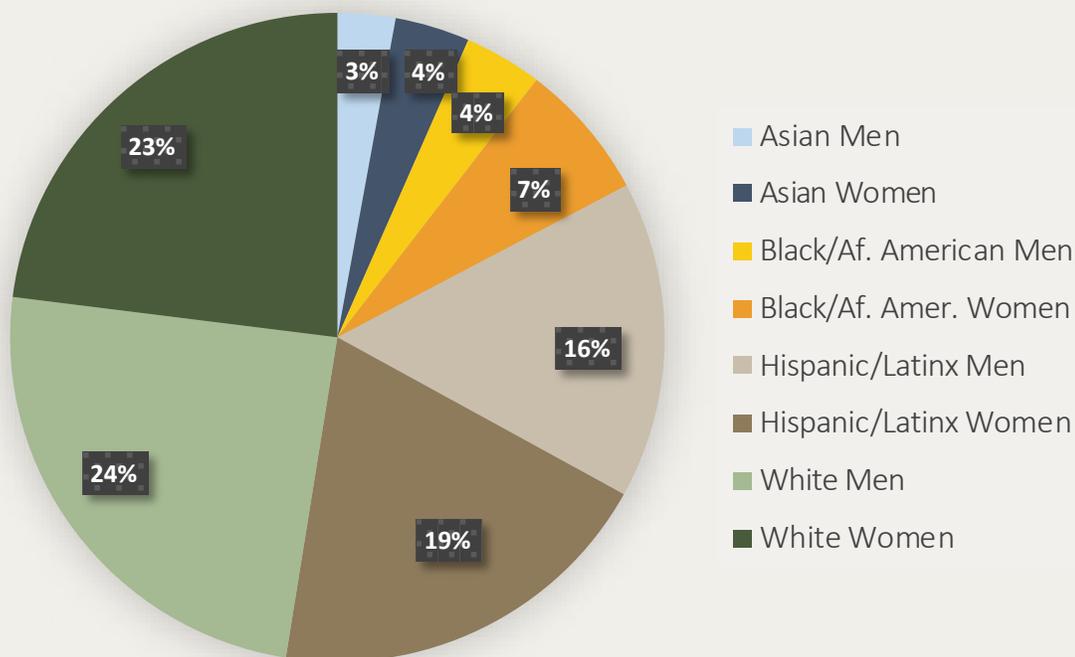


Figure 6. STEM degrees conferred by race and gender at HSCCs in Illinois

## Emerging HSCCs

Emerging HSCCs awarded 11,177 (30.01%) of the total degrees conferred in Illinois. Whites earned 7,252 (64.88%) degrees in emerging HSCCs, followed by Latinxs (1,522 or 13.62%), Black/African Americans (1,150 or 10.29%) and Asians (474 or 4.26%). Out of the total degrees conferred at emerging HSCCs, men were awarded 4,662 (41.71%) and women were awarded 6,515 (58.29%). Emerging HSCCs awarded 2,900 STEM degrees, which represents 25.95% of all degrees conferred. Of the STEM degrees awarded by emerging HSCCs, Whites earned 1,889 (65.14%), followed by Latinxs (374 or 12.90%), Black/African Americans (240 or 8.28%), and Asians (140 or 4.83%). Out of the STEM degrees awarded by emerging HSCCs, men were conferred 1,424 (49.10%) and women earned 1,476 (50.90%) degrees. Figure 7 illustrates the detailed information about race and gender in STEM degrees conferred at emerging HSCCs.

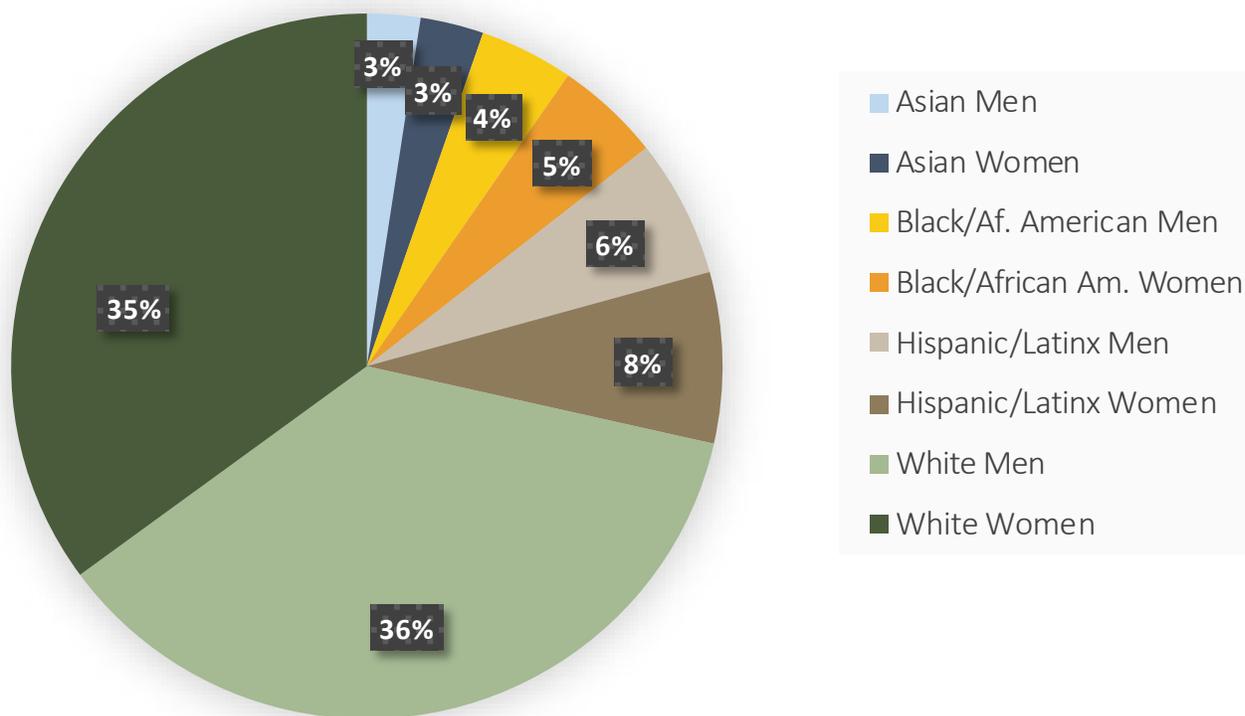


Figure 7. STEM degrees conferred by race and gender at emerging HSCCs in Illinois

## Non-HSCCs

Non-HSCCs awarded 16,407 (44.05%) of the total degrees conferred in Illinois. Whites earned 12,708 (77.45%) degrees in non-HSCCs, followed by Black/African Americans (1,809 or 11.03%), Latinxs (743 or 4.53%) and Asians (313 or 1.91%). Out of the total degrees conferred at non-HSCCs, men were awarded 6,712 (40.91%) and women earned 9,695 (59.09%). Non-HSCCs awarded 3,793 STEM degrees, which represents 23.12% of the degrees conferred. Of the STEM degrees awarded by non-HSCCs, Whites earned 3,139 (82.76%), Black/African Americans earned 253 (6.67%), Latinxs earned 156 (4.11%), and Asians earned 50 (1.32%). Out of the STEM degrees awarded by non-HSCCs, men earned 2,050 (54.15%) and women were conferred 1,739 (45.85%) degrees. Figure 8 illustrates the disparities of race and gender in numbers of STEM degrees conferred at non-HSCCs.

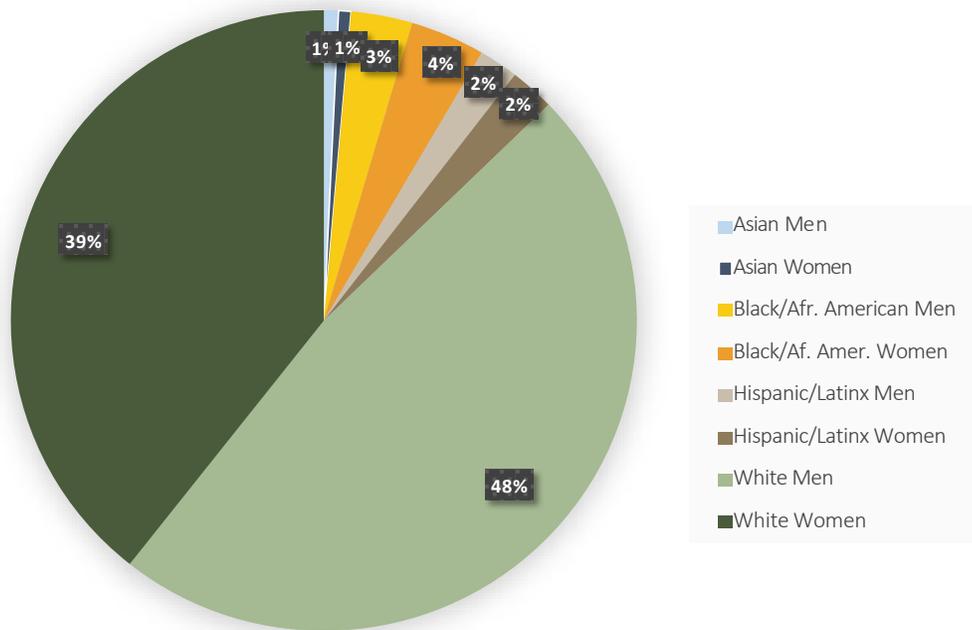


Figure 8. STEM degrees conferred by race and gender at emerging non-HSCCs in Illinois

### Underrepresentation in Top Three STEM Fields

Overall, the top three STEM fields by conferred degrees in Illinois were interdisciplinary studies (7,059), computer and information sciences (729), and engineering technologies (553). Combined, these STEM fields accounted for 97% of the STEM degrees conferred in community colleges in Illinois. Within the top three STEM fields in Illinois, we found the most disparities by race and gender in engineering technologies in the computer and informational sciences field.

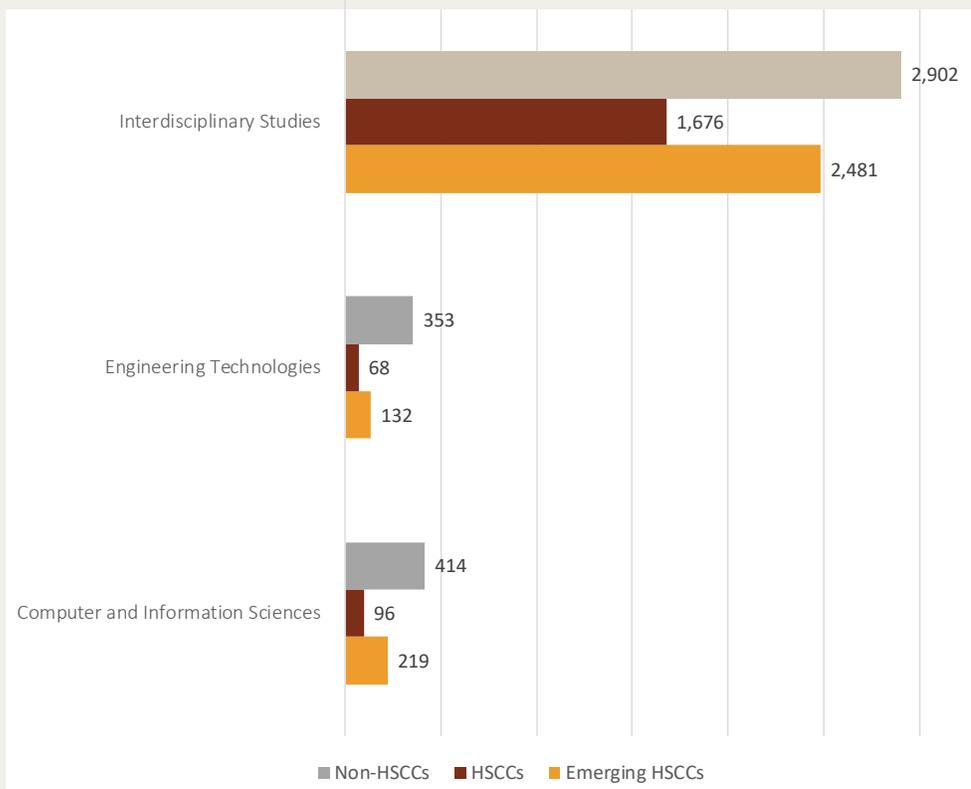


Figure 9. Major STEM fields by institutional type in Illinois

## Computer and Information Science

Of the total degrees awarded in Computer and Informational Sciences (729), 585 degrees went to men and 144 went to women. Specifically, there were 21 Asian men and two Asian women, 48 African-American men and 16 African-American women, 53 Latinx men and 18 Latinx women, 429 White men and 96 White women who received degrees in this field. Additionally, 525 (77%) of the degrees were awarded to Whites, followed by Latinxs (71 or 10%), Black/African Americans (64 or 9%), and Asians (26 or 4%).

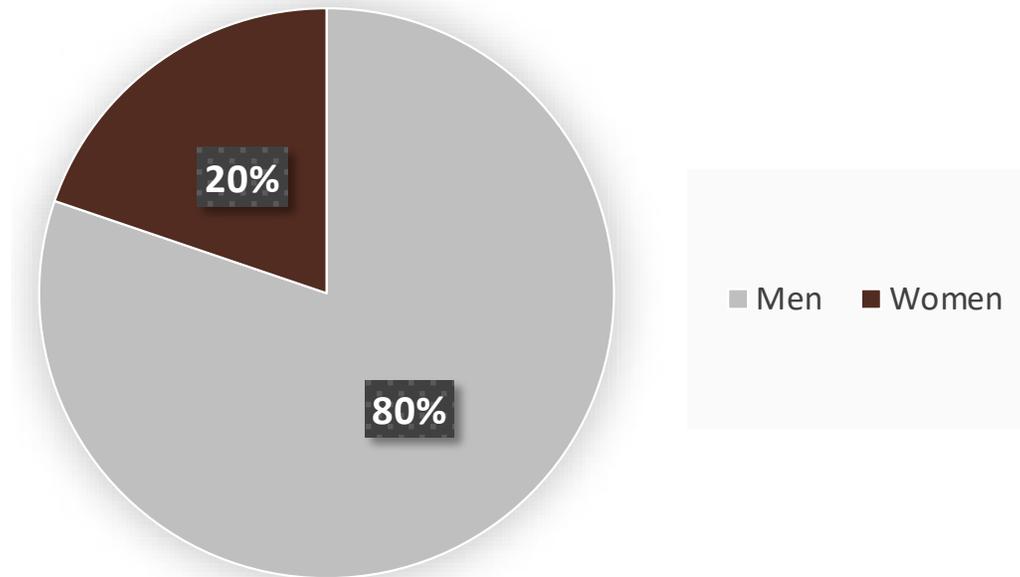


Figure 10-1. Total Computer and Informational Sciences degrees conferred by gender in Illinois

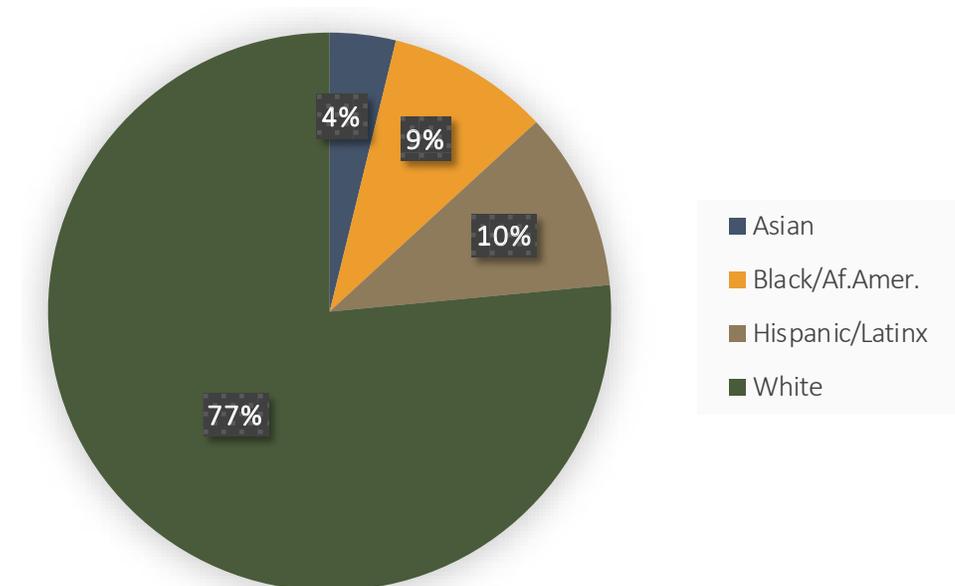
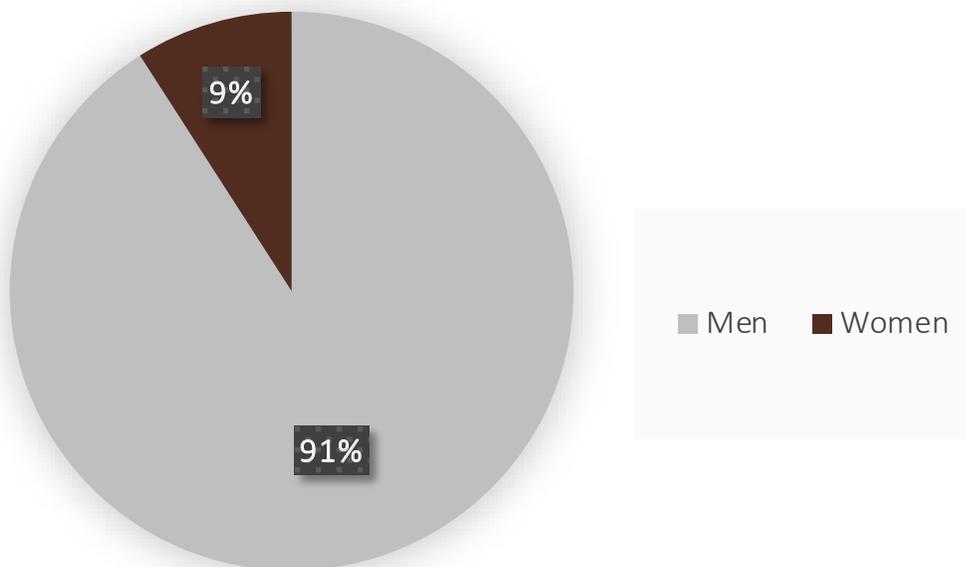


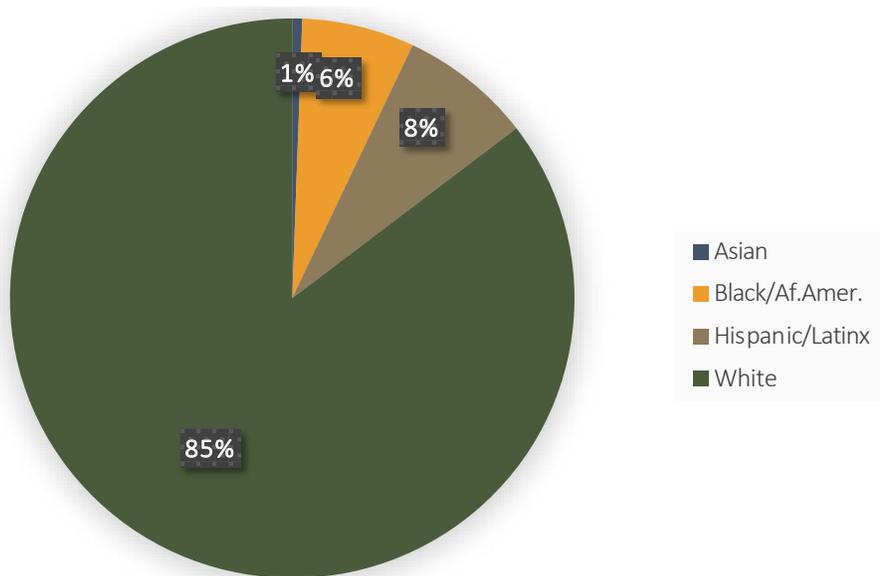
Figure 10-2. Total Computer and Informational Sciences degrees conferred by race in Illinois

## Engineering Technologies

Data from Engineering Technologies showed severe race and gender disparities (see figures 11-1 and 11-2). Of the total degrees in this field, 503 were awarded to men and 50 were awarded to women. Specifically, there was one Asian man and two Asian women; 29 African-American men and five African-American women; 40 Latinx men and zero Latinx women; and 412 White men and 38 White women who received degrees in this field. Whites earned 450 (85%) of the degrees and Latinxs earned 40 (8%). Also, 34 (6%) and three (1%) degrees were awarded to Black/African Americans and Asian Americans, respectively.



*Figure 11-1. Total Engineering Technologies degrees conferred by gender in Illinois*



*Figure 11-2. Total Engineering Technologies degrees conferred by race in Illinois*

## Interdisciplinary Studies

Out of the total degrees awarded in Interdisciplinary Studies (7,059), 3,073 degrees were awarded to men and 3,986 were awarded to women. Interdisciplinary studies is the only STEM field in which the numbers of women were slightly higher than those of men. Specifically, there were 99 Asian men and 152 Asian women, 217 African-American men and 366 African-American women, 400 Latinx men and 613 Latinx women, 2,126 White men and 2,599 White women who received degrees in this field. In terms of race, Whites earned 4,725 (72%) of the degrees, followed by Latinxs (1,013 or 15%), Black/African Americans (583 or 9%), and Asians (251 or 4%).

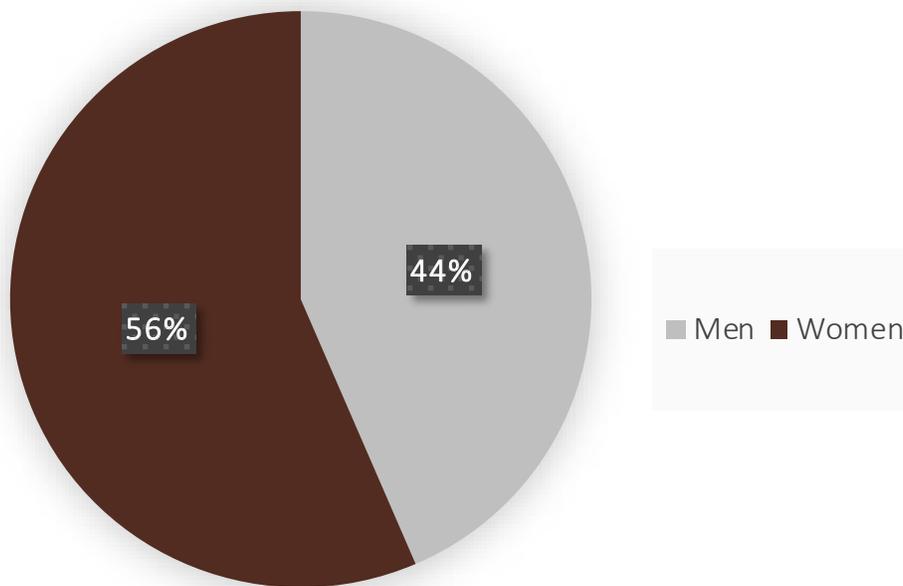


Figure 12-1. Total Interdisciplinary Studies degrees conferred by gender in Illinois

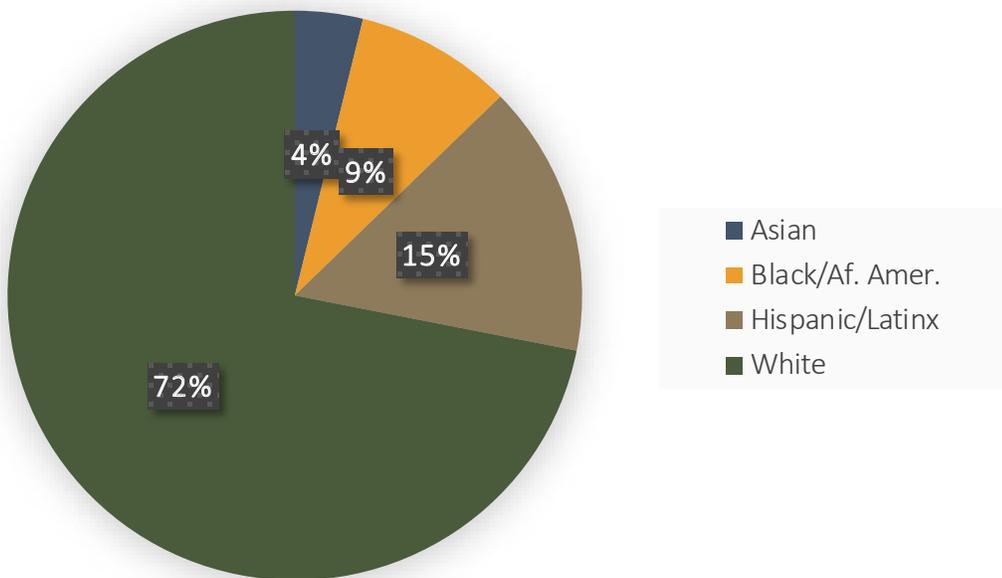


Figure 12-2. Total Interdisciplinary Studies degrees conferred by race in Illinois

## Summary

In summary, HSCCs continues to provide access to students of color and women in Illinois.

- Out of the total degrees awarded at HSCCs, 56% were conferred to students of color and 35.6% went to Latinxs
- HSCCs awarded more than one-fifth of all STEM degrees in Illinois; almost 50% of these degrees were earned by students of color and 33.1% were earned by Latinxs (Figure 13)
- Illinois has a better representation of women in STEM fields, ranking higher than the national average. In Illinois, 49% of the STEM degrees went to women versus 30% nationally
- Illinois HSCCs granted 53% of their STEM degrees to women. While these numbers are increasing, we noticed a gender gap in major STEM fields, particularly in computer information and sciences

To reiterate, HSCCs continue to play a critical role for communities of color and women in STEM attainment, especially when it comes to earning credentials.

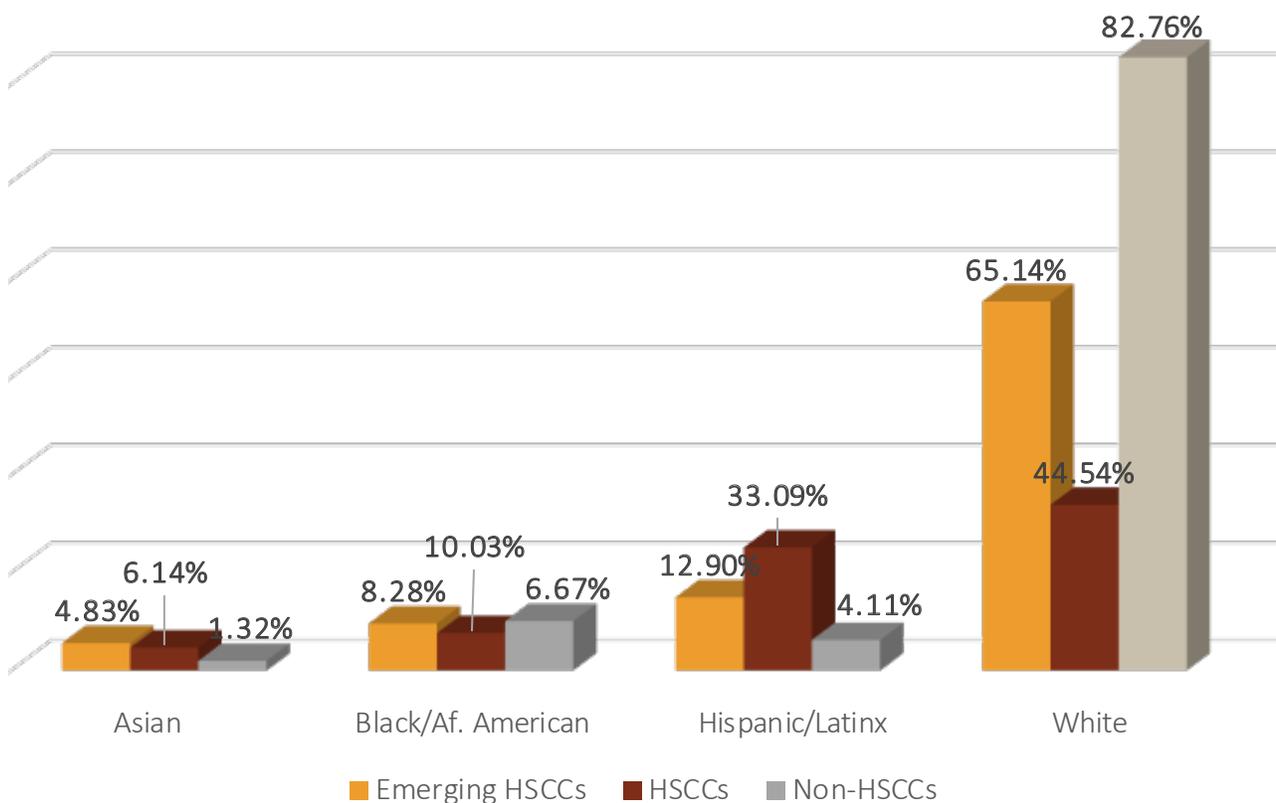


Figure 13. STEM degrees awarded by race and institutional type in Illinois

## References

- Fox, H. L., Thrill, C. R., & Zamani-Gallaher, E. M. (2017). *Serving Racial Minority Students in STEM at Minority-Serving Community Colleges*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign. Retrieved from <https://ocrl.illinois.edu/docs/librariesProvider4/default-document-library/mscc-final-report.pdf>
- Garcia, G. A. (2018). What does it mean to be Latinx-serving? Testing the utility of the typology of HSI organizational identities. *Association of Mexican American Educators Journal*, 11(3), 109-138.
- Harmon, N. (2012, January). *The role of minority-serving institutions in national college completion goals*. Washington, DC: Institute for Higher Education Policy. Retrieved from [http://www.ihep.org/sites/default/files/uploads/docs/pubs/the\\_role\\_of\\_msis\\_final\\_january\\_20121.pdf](http://www.ihep.org/sites/default/files/uploads/docs/pubs/the_role_of_msis_final_january_20121.pdf)
- IPEDS (2018). 2018-19 Data collection system. Retrieved from [https://surveys.nces.ed.gov/IPEDS/VisFaqView.aspx?mode=reg&id=11&show=all#faq\\_top](https://surveys.nces.ed.gov/IPEDS/VisFaqView.aspx?mode=reg&id=11&show=all#faq_top)
- Integrated Postsecondary Education Data System (2018). 2018-19 Data collection system. Retrieved from [https://surveys.nces.ed.gov/IPEDS/VisFaqView.aspx?mode=reg&id=&show=all#faq\\_top](https://surveys.nces.ed.gov/IPEDS/VisFaqView.aspx?mode=reg&id=&show=all#faq_top)
- Latino Policy Forum (2011). *Data Series Latinos in the Decade: The 2010 Census and Illinois*. (Col 2, pp. 1-10, Issue brief). Chicago, IL: Latino Policy Forum. Retrieved from [https://www.latinopolicyforum.org/resources/document/sol\\_october2011\\_census.pdf](https://www.latinopolicyforum.org/resources/document/sol_october2011_census.pdf)
- Louis Stokes Alliances for Minority Participation (2018). *NSF STEM classification of instructional programs crosswalk*. Retrieved from [https://www.lsamp.org/help/help\\_stem\\_cip\\_2010.cfm](https://www.lsamp.org/help/help_stem_cip_2010.cfm)
- Nguyen, T., Lundy-Wagner, V., Samayoa, A., & Gasman, M. (2015). *On Their Own Terms: Two-Year Minority Serving Institutions*. Penn Center for Minority Serving Institutions. Retrieved from [http://repository.upenn.edu/gse\\_pubs/342](http://repository.upenn.edu/gse_pubs/342)
- Núñez, A. M., Crisp, G., & Elizondo, D. (2016). Mapping Hispanic-Serving Institutions: A typology of institutional diversity. *The Journal of Higher Education*, 87(1), 55-83.
- U.S. Census Bureau (2011-2015). *American community survey 5-Year estimates*. Washington, DC.
- U.S. Department of Education (2017). *Office of postsecondary education-programs*. Washington, DC: Author. Retrieved from <https://www2.ed.gov/about/offices/list/ope/programs.html>

### Notes

1. Racial/ethnic categories in the data followed the IPEDS categories using their data collection and reports. The groups used to categorize are as follows: Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Hispanic, White, two or more races, race/ethnicity unknown, and nonresident alien. Among these, this research focused on four groups: Blacks or African Americans, Hispanic Americans or Latinx, and White Americans. In addition, this research intentionally identified Black/African American and Hispanic as Latinx (i.e., gender nonconforming) and all groups included in this analysis to reflect domestic racial/ethnic diversity, not international student enrollments.
2. The percentage and racial/ethnic groups in the figures and texts do not add up to 100% due to the exclusion of other racial and ethnic groups.



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