

SOUTHWESTERN COLLEGE
Comprehensive
Local Needs
Assessment



JUNE 2020

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Executive Summary

This section provides an overview of the key findings of this report including the findings of the Comprehensive Local Needs Assessment (CLNA) as well as the regional workforce and economic development research.

- 1. Southwestern College (SWC) Career Education has outperformed district and state targets across most metrics, but some areas for improvement remain.** Career Education students have exceeded district and state targets¹ for student program completion rates as well as postsecondary placement rates, meaning that SWC students are continuing their education, entering the military, or finding employment at rates that exceed negotiated targets for the District as well as the broader state. SWC Career Education students also exceeded district targets for persistence and transfer rates as well as non-traditional population participation. While these overall figures are promising, some student populations could benefit from increased attention and efforts. Retention and success rates are lower among African-American, Hispanic, and Pacific Islander students than the overall student average. *In fact, Hispanic students have success rates that are 11 percentage-points lower than their White non-Hispanic peers. Success rates vary by the type of course as well; Career Education courses have a success rate that is 6 percentage-points higher than their Transferable, Degree Applicable, and Credit counterparts.* Forward looking strategies include investigating the drivers of success and retention rate disparity among races and ethnicities and mobilizing resources to mitigate these differences.
- 2. Career Education programs generally have sufficient size, scope, and quality to meet the needs of students, but there remain opportunities for bolstering student Work-based Learning opportunities and skill attainment.** Early access to SWC Career Education (through the High School Special and College Bound Program) has increased by more than 10-fold over the past three and a half years and both over-enrollments and waitlists are on the decline. Career Education student outcomes are positive as well; two-thirds of students searching for jobs after graduation found employment within three or fewer months, and the same proportion feel that their current role is either 'very closely' or 'closely' aligned to their field of study.²

While these numbers are encouraging, there are areas for improvement; in the 2017-2018 academic year, about 85% of SWC CE students passed technical skill assessments aligned with industry-recognized standards. This rate was lower than the district target (87.3%) and the statewide target (91.8%). Some special populations, including students with disabilities and non-traditional students, had even lower rates. Work-based Learning (WBL) opportunities were relatively sparse as well; on average, a student will have one WBL opportunity for every five courses taken. An analysis of specific programs reveals that many programs have even fewer WBL opportunities. New strategies may need to be considered, given that Work-based learning may become more challenging in the post-COVID-19 environment.

¹ Targets are negotiated by Southwestern College and the California Community Colleges Chancellor's Office.

² CE Employment Outcomes Survey (CTEOS) Data. 2016-2019

- 3. Career pathways and guidance has and should continue to be an area of emphasis for SWC.** The recent guided pathways (Jaguar Pathways) initiative at Southwestern College was a substantial step in the right direction, though more efforts are needed. Career pathways available to students should be aligned with industry clusters and include educational pathways in order to highlight the wide array of careers available from a given program within an industry (a career lattice). Additionally, these career pathways should be communicated earlier; students participating in the High School Special or College Bound programs should have exposure and access to pathways and other career navigation resources. The research also highlights a general gap in student awareness of the resources available to them. An orientation process that includes an outline of the services available to students (including career pathways and navigation resources) may help raise awareness and usage.

The COVID-19 crisis has dramatically changed the world in which students learn and the world of work they will eventually join. Helping students transition to this new world will require efforts that address the changes to the learning environment as well as the world of work. Ensuring access and providing resources to help improve online education will be important. It will be equally important to advertise careers or skill sets that will help students better transition into the post-COVID-19 world of work.

- 4. Southwestern College has made notable progress towards representative faculty and staff and has initiatives in place to continue the trend.** In the 2018-2019 academic year, more than half (55%) of faculty were White non-Hispanic, compared to about 14% of the student body. Conversely, Hispanic students made up 64% of the student population but only 25% of academic faculty identified as Hispanic. SWC has made notable progress in this area, hiring more than 80 Hispanic employees between the fall semesters of 2015 and 2018. The College has also created an Advisory Task Force on Inclusion and Race and has overhauled the hiring and interviewing processes for hiring new talent. Looking forward, Southwestern College hopes to continue to make progress in hiring representative faculty and staff.
- 5. Overall special population enrollments and success rates are increasing, though some populations and demographics remain disadvantaged.** Most faculty and administrators surveyed feel that special populations receive adequate support services (Figure 32) and the data generally supports this sentiment; non-traditional, economically disadvantaged, limited English proficiency, and students with disabilities have higher program completion rates than the broad CE cohort, and historical trends reveal that most special populations have seen improvement across these metrics in recent years. However, some challenges remain. For example, students with limited English proficiency (67%) and students with disabilities (71%) face lower employment rates than the broader CE cohort (77%) and economically disadvantaged students (87%) have relatively lower persistence and transfer rates than the broader CE cohort (88%). Investigation into the awareness, usage, and effectiveness of support programs may illuminate some of the reasons behind these disparities.
- 6. Southwestern College's 75 Career Education program offerings provide students with a wide range of options that are well-aligned with the regional labor market.** In fact, even after accounting for completions at other regional institutions, no programs result in an over-supply of labor to relevant occupations. There is evidence that there may even be an under-supply of completions among many programs; 21 programs have 20 or more annual openings for every regional completion (including non-Southwestern College graduates). These programs include Business and Marketing, Civil and Construction Management Technology, Automotive, and Paralegal offerings. These courses may present opportunities for expanded programs, and many are in industries that have seen strong recent historical growth in the region.

The Southwestern College region's unique geographic location presents notable and growing employment opportunities in industries including Logistics, Healthcare, and Building and Design. The Building and Design (34%) and the Logistics (24%) industry clusters saw substantial employment growth between 2014 and 2019. The program-level labor market analysis reveals similar findings; occupations related to International Business and Trade and Logistics/Materials Transport have more than 1,800 and 1,000 respective annual openings in San Diego County.

- 7. Job quality in the Southwestern College study region is relatively lower than San Diego County and the broader state, but that may be changing.** Tier 3 jobs (those that are generally lower-skill and lower-paying such as Janitors and Food Service Workers) account for nearly half (48%) of all jobs in the region. The SWC study region is also a net exporter of Management, Business, Science, and Arts occupations, with more than 15,000 residents who work in these occupations commuting outside the region to go to work. Encouragingly, the number of tier 1 jobs (higher-skill and higher-paying roles such as Engineers, Managers, and Lawyers) (12%) and tier 2 jobs (middle-skill and middle-paying roles such as Administrative Clerks and Machinists) (8%) are growing faster than tier 3 jobs (8%). This suggests that overall job quality in the region is increasing, as more higher-paying employment opportunities become available.

Introduction

Southwestern College partnered with BW Research Partnership to complete an assessment of the size, scope, and quality of their Career Education programs as well as student performance, educational outcomes of special populations, and how these programs align with the regional labor market. These findings are integral to preparing a data-driven Comprehensive Local Needs Assessment (CLNA). The CLNA is a requirement for the 21st Century Act (Perkins V) and is meant to encourage data-driven decision making for local investment. The CLNA must be updated at least once every two years and requires extensive involvement from a wide array of stakeholders, including educators, industry partners, community organizations, faculty, and staff.

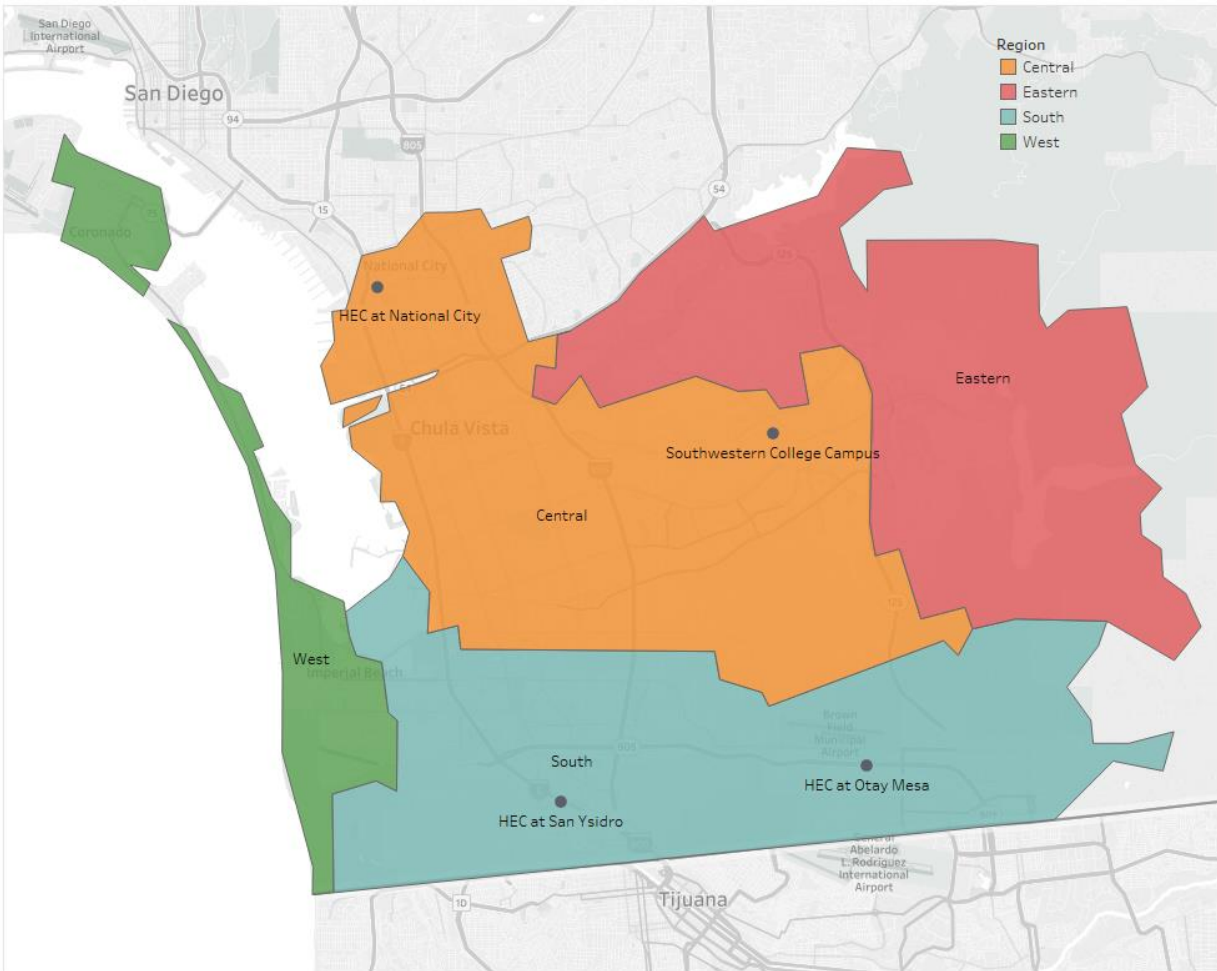
As part of the research process, several methods and opportunities for input by Southwestern College's stakeholder community were provided. These steps included in-depth discussions with the regional economic development council and a presentation and discussion of the research findings with stakeholders from K-12 Career Education (CE) teachers, counselors, and administrators; Southwestern College CE faculty, administrators, and counselors; directors of local Adult Schools; members of the regional workforce development board; community-based organizations, regional Chambers of Commerce; and directors of regional industry sectors. The research team also administered a survey to Southwestern College CE faculty in order to better understand the perceptions of students' abilities and the Career Education they receive at Southwestern College.

This report is organized into two primary components. The first component provides an assessment of Southwestern College's performance and progress in regard to Career Education offerings and student and faculty populations. The second component provides a demographic and workforce profile of the Southwestern College study area—a region that surrounds the College and comprises its primary service area.

It is worth noting that the research process for this study began in early 2020, before COVID-19 had impacted Southern San Diego County. Most of the secondary data in the research reflects the Southwestern College community pre-COVID-19 but much of the input from regional stakeholders occurred during the COVID-19 quarantine and is reflected in at least some of the recommendations and considerations for the future.

This study is also meant to provide the first phase in Southwestern College's Workforce and Economic Development Five-Year Strategic Plan. The findings will combine an analysis of current and potential students --along with an evaluation of industry clusters and employment opportunities within the Southern San Diego region to identify the gaps and opportunities to better serve the community's needs.

The Southwestern College Study Region



West	Central	South	Eastern
91932 (Imperial Beach), 92118 (Coronado)	91910 (Chula Vista), 91911 (Chula Vista), 91913 (Chula Vista), 91950 (National City)	92154 (San Diego), 92173 (San Ysidro)	91902 (Bonita), 91914 (Chula Vista), 91915 (Chula Vista)

Gap Analysis and Key Recommendations

This section highlights the key recommendations and prominent career education gaps identified through the research. These findings were developed through stakeholder input, secondary data, and a thorough analysis of Southwestern College's internal data. While the remainder of this report highlights other interesting considerations and details, this section captures the broad challenges and opportunities for Southwestern College.

1. **Encourage career exploration at the early stages of interest or enrollment.** Tools that help incoming students, or even potential students, identify which courses and careers might best fit their needs and interests should increase efficiency and retention across the enrollment process and in their coursework. This career exploration process should provide students the opportunity to identify their interests and passions as well as the career pathways that are relevant and available within the region. This will become more important as unemployment levels remain high in the near-term, due to COVID-19, and will limit student's exposure to actual employment opportunities.
2. **Bolster existing career pathway initiatives to be more comprehensive, clear, and linked to industry clusters.** While the creation of Jaguar Pathways is a substantial and noteworthy step, additional pathway programs should link explicitly to industry clusters, allowing students to understand broader career options within each of the clusters. Linking pathways to industry clusters will also allow career pathways to include lattices and connections to complimentary industries and occupations. Transitioning from one job to another is a crucial aspect of a student's progression and career lattices that capture these transitions will better inform students of their options. This is particularly relevant given the large disruption in the employment landscape due to COVID-19.
3. **Connect High School and Adult School career pathways.** Connecting career pathway programs between institutions can help students transition and better direct their educational and career development. This effort should also include relevant educational pathways going forward, as Southwestern College is not the final educational institution for many students. Clearly outlining the role of further education among specific pathways will help students better determine their employment and educational options.
4. **Create career pathways that are geared for both the long and short term.** The COVID-19 crisis has, at least temporarily, changed the world of work. Offering career pathways that can help students better navigate this world while also planning for the world after a return to normalcy will reinforce students and their educational pursuits. Additional research and analysis should be done to better understand how COVID-19 will impact short-term employment as well as long-term occupational and industry demand.
5. **Continue to strengthen regional partnerships.** Regional partnerships can play a vital role in ensuring that curriculum is aligned with industry needs while providing crucial interaction between students and potential employers. Steps to strengthen regional partnerships include accessing available resources and networks to engage regional employers and industry partners, as well as community and support services. Revamping industry engagement efforts will also be crucial in this effort; attendance for recent industry engagement efforts have been lackluster, but present potential

benefits for all parties. Framing these engagements as opportunities to make hiring easier and less risky for employers may help with attendance.

6. **Increase Work-Based Learning opportunities (WBL).** On average, a student can expect one WBL opportunity for every five courses they take at SWC. While some programs, such as those in Culinary Arts and Tourism as well as Building and Design, have higher rates of WBL opportunities, other programs, such as those involving Information Communications Technology (ICT), have few. Virtually all programs could benefit from increased WBL opportunities. Industry and partner engagement will be essential to the success of a college wide WBL campaign. An engagement campaign that highlights successes of Work-based Learning opportunities may be one way to increase partnerships with employers.
7. **Continue efforts to increase access and awareness of resources and programs meant to assist current and potential students.** A recent student survey showed that many students were unfamiliar with the resources available to them; for example, more than three-quarters of respondents were at most 'slightly familiar' with CalWorks and Personal Wellness Services. Faculty surveys echoed this sentiment and suggested student lack of awareness for resources meant to support them could play a considerable role in limiting student enrollment and success. Additional support or new initiatives might help make students aware or nudge students in the direction of these resources. Some potential next steps are outlined below.
 - a. Increase advertising campaign for resources available to students. This effort could include orientations that familiarize all students with the range of resources. Certain offices, such as the Career Center, could work with faculty to conduct workshops that familiarize students with the office and provide introductory lessons on resume and cover letter drafting.
 - b. Promote programs with professors that allow them to cooperatively work with students and recommend them for services. Professors and faculty are often in the best position to identify struggling students and work proactively to get them in contact with relevant support services.
8. **Remedy the gap in student writing.** When asked in an open-ended question about frequent student deficiencies, about a third (32%) of faculty and administrators surveyed noted that SWC students underperform in their writing abilities. This presents a challenge for students as they continue their education and there are noteworthy downstream effects for students who are unable to communicate effectively in writing; securing, maintaining, and advancing at many jobs requires at least some amount of written communication. Some potential ways to close this gap include:
 - a. Encouraging faculty to embrace curriculum that requires writing in a manner that is similar to what is required in the professional world.
 - b. Increasing marketing, support, and resources for remedial and noncredit writing courses.
 - c. Embracing faculty's ability to recommend students for remedial writing courses and any other strategies or programs that they recommend for improved writing.
9. **Continue to increase the use of data at Southwestern College.** While Southwest College has robust data and research in many regards, some aspects of the system could benefit from increased tracking of metrics and other data. Some areas for increased data collection efforts include:

- a. Increase tracking efforts for special population students. Perkins V introduces new special populations, some of which Southwestern College tracks more rigorously than others. Thorough tracking of all of these populations will ensure that gaps do not go unnoticed and unaddressed.
- b. Tracking of industry certifications and their relevance in different industry clusters and occupational pathways. This was one area of the Comprehensive Local Needs Assessment that the research team struggled to incorporate since tracking of industry credentials is inconsistent or nonexistent. For example, a course may prepare students to take a CompTIA certification, but then do not track students' performance on these examinations. Knowing how students are performing could be helpful in highlighting areas where curriculum could be expanded or better developed.
- c. Tracking incoming students from participating High Schools and Adult Schools. Tracking these students as they navigate the transition to courses at SWC may reveal areas in which these students excel or face challenges. Knowing these areas of success or chokepoints can allow decision makers to better decide policy.

Part I: Southwestern College Assessment of Performance

Stakeholder Involvement

The research team sought the feedback and input of stakeholders throughout the drafting process of the CLNA. The efforts to solicit and incorporate stakeholder involvement are listed below:

- First, the Southwestern College Economic and Workforce Development Task Force, consisting of SWC faculty, staff, and administrators, convened several times in order to identify and discuss key questions. This allowed the research team to better focus on areas that were of greatest interest to the College community.
- The research team met with Christine Perri (Dean of the Higher Education Center at National City) and Daniel Fitzgerald (Director of the South San Diego SBDC) to better understand both current and expected opportunities for economic development as well as small business support and entrepreneurship in the South San Diego region.
- The research team had a discussion with the president of the South County Economic Development Council (SCEDC). This discussion helped align the industry clusters in the CLNA with those recently prioritized by the SCEDC.
- An online survey was sent to SWC Career Education faculty. This survey asked questions that helped quantify faculty's opinions towards equitable access, opportunity, and student success.
- Preliminary findings of the CLNA were presented to over 50 regional stakeholders from a wide range of organizations. Participants were encouraged to raise any questions, thoughts, or opinions that they had over the course of the presentation and during a Q&A period that followed. These organizations included:
 - K-12 CE
 - SWC
 - Local Chambers of Commerce
 - Regional Directors of Industry Sectors
 - Local Adult Schools
 - Community Based Organizations (CBOs)
 - Economic Development Initiatives
 - City governments
 - Joint Special Populations Council
 - Regional Consortia staff
 - Workforce Development Boards
 - Restorative Justice
 - Industry partners

- The University of California San Diego (UCSD) conducted interviews with 22 regional stakeholder including CBOs, workforce and economic development organizations, and higher education officials to gather additional stakeholder feedback. Another 7 phone interviews were conducted with current and former students and parents, some of which were members of Perkins V special population groups. These in-depth interviews provided regional stakeholders' perspectives, particularly as they pertain to serving special populations and alignment to key industries and occupations.
- The research team met with several members of the SWC Human Resources department, including the Director of Human Resources, the Acting Director of Employee Equity, Inclusion, and Professional Development, and the Dean of Institution Research and Planning.

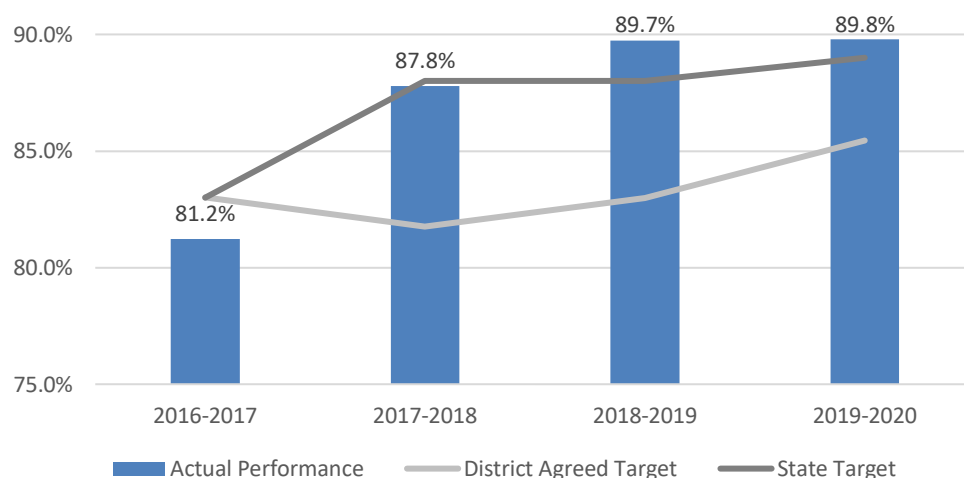
Element 1: Student Performance on Required Performance Indicators

This section of the CLNA begins by highlighting strengths and gaps in student performance and calls explicit attention to specific student populations that would benefit from additional support. The section concludes with an action plan that outlines and prioritizes actions that SWC staff and stakeholders may undertake to ensure that students of all backgrounds can achieve optimal outcomes.

Overall Completions and Persistence

Southwestern College has seen steady improvements in program completions. For the past three years, Southwestern College (SWC) has surpassed the district targets for overall program completions (in the form of a credential, certificate, license, or degree). Within the past two academic years (2018-2019 and 2019-2020), with the strategic investment of Strong Workforce funds, SWC has also exceeded the state target (Figure 1).

Figure 1. CE Cohort Completions and Targets³



Targets: Are goals that are negotiated and set by the district, state, and Department of Education.

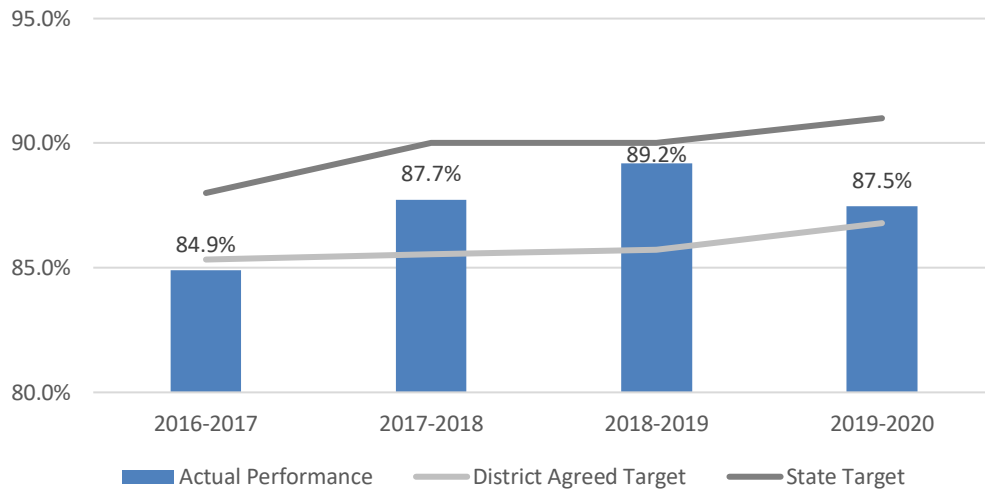
Persistence and Transfer: includes students of transfer programs who successfully completed a minimum of 12 units related to CE who persist in education at the community college level or transfer to a two- or four-year institution.

Non-Traditional Participation: the share of CE concentrators who are training in occupations non-traditional for their gender.

³ California Community College Chancellor's Office Career Technical Education (CE) (Perkins IV)

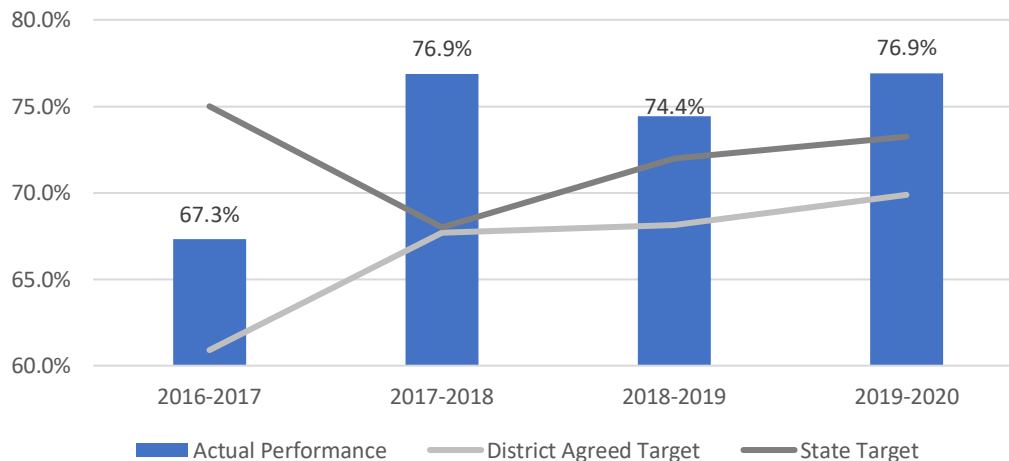
Persistence and transfer rates at SWC have also exceeded district targets in recent years. Similar to completions, SWC has exceeded the negotiated district target the past three academic years, and during the 2016-2017 academic year, exceeded 90% of the agreed upon district target mark (Figure 2).

Figure 2. CE Persistence and Transfer Performance and Targets⁴



Southwestern College has continued to exceed district and state postsecondary placement targets. SWC exceeded the agreed upon targets for postsecondary placement in all four of the most-recent academic years, even as the negotiated target has increased. SWC also surpassed the state targets for post-secondary placements in the three most recent years (Figure 3). This means that SWC students after their CE programs are continuing education, entering military service or other service programs, or finding employment at higher rates.

Figure 3. CE Postsecondary Placement Performance and Targets⁵

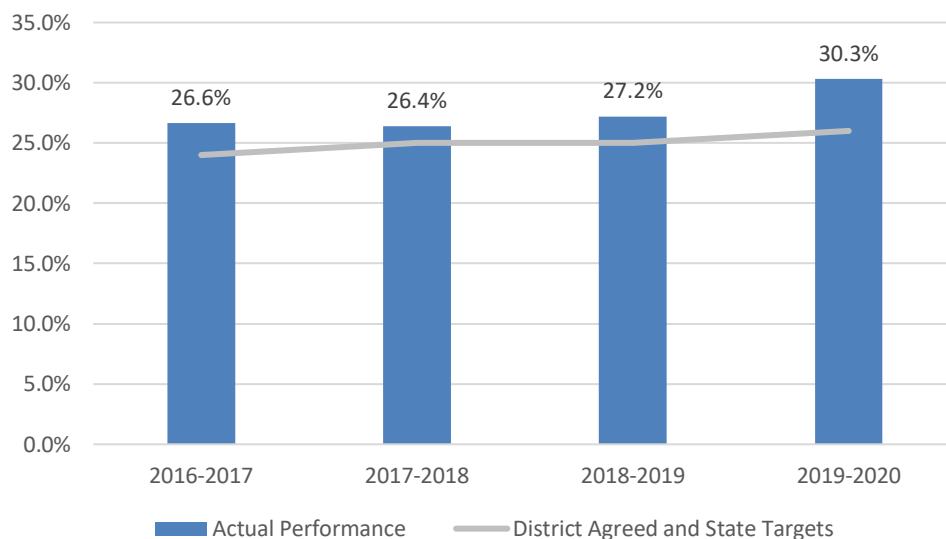


⁴ California Community College Chancellor’s Office Career Technical Education (CE) (Perkins IV)

⁵ California Community College Chancellor’s Office Career Technical Education (CE) (Perkins IV)

Participation rates among non-traditional populations have seen steady increases at Southwestern College. In the four most-recent academic years, SWC has made steady improvements in non-traditional student participation and surpassed the state and district targets (Figure 4). This means that an increasing number of students are participating in non-traditional fields of employment for their gender, such as more male students studying nursing and more female students in engineering or construction programs.

Figure 4. CE Non-Traditional Population Participation⁶



Southwestern College had nearly 28,000 students enrolled during the 2018-2019 academic year. Nearly 7,700 of these students were enrolled in CE programs. Special population enrollments have increased substantially over the past three academic years, increasing by nearly 2,000 students, or a growth rate of 20% between the 2016-17 and 2018-19 academic years (Table 1).

Table 1. Headcount by Student Type

	All Students	CE	Male	Female	Special Population
2016-17	26,775	8,440	11,948	14,576	9,429
2017-18	27,390	8,015	12,148	14,945	9,651
2018-19	27,923	7,690	12,168	15,447	11,354

Retention and Success by Race and Sex

Throughout the remainder of this report the terms **enrollment, retention, and success** will be used to discuss student performance. These terms are different from the completion and persistence metrics

⁶ California Community College Chancellor’s Office Career Technical Education (CE) (Perkins IV)

covered previously and are defined below. For specific definitions of these terms, please see Appendix B.

Enrollment: number of students enrolled at the start of a course. This includes students who eventually went on to withdraw, not pass, drop out, or receive an incomplete.

Retention: includes all students who were enrolled except for those who withdrew or dropped out.

Success: includes students who received an 'A', 'B', 'C', or 'Pass' grade, whether the course was complete or incomplete.

Females saw slightly greater success rates and relatively similar retention rates as males. Students who did not identify their sex had slightly lower retention and success rates than the average (Table 2).

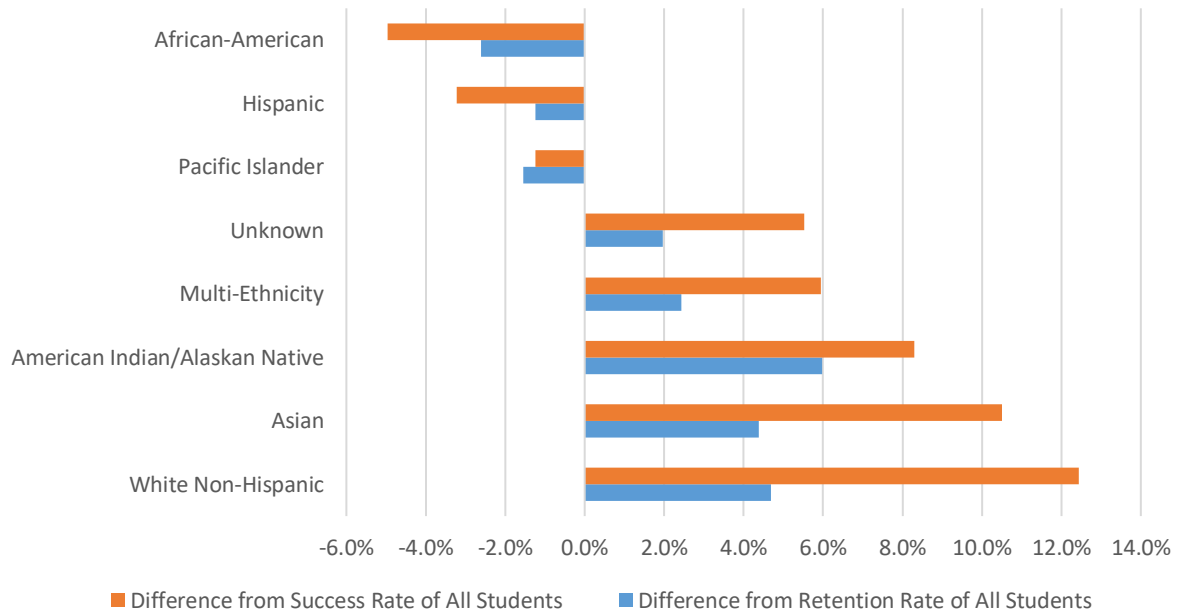
Table 2. Retention and Success Rates by Sex (Spring 2019)⁷

	Retention	Success
Female	85.1%	73.6%
Male	85.0%	68.7%
Unknown	83.9%	62.2%
Grand Total	85.0%	70.5%

Retention and success rates vary notably by race and ethnicity. Individuals who identified as American Indian/Alaskan Native, Asian, Multi-Ethnic, Unknown, and White Non-Hispanic had higher retention and success rates on average than those who identified as African-American, Hispanic, and Pacific Islander (Figure 5).

⁷ California Community College Chancellor's Office Management Information Systems Data Mart

Figure 5. Difference from the Average Success and Retention Rates of All Students (Spring 2019)⁸



Retention and Success by Course Type

Retention and success rates increased across all course types between the spring of 2016 and the spring of 2019 (Figure 6). However, retention and success rates differ notably between different course types; Career Education courses have higher success rates than their counterparts (Figure 7). While this may be a function of Career Education programs functioning in cohort models, a deeper examination into why Career Education students are more likely to succeed in their courses might prove beneficial to improving the retention and completions of courses throughout the District.

⁸ California Community College Chancellor’s Office Management Information Systems Data Mart

Figure 6. Retention and Success Rates Over Time Students Overall⁹

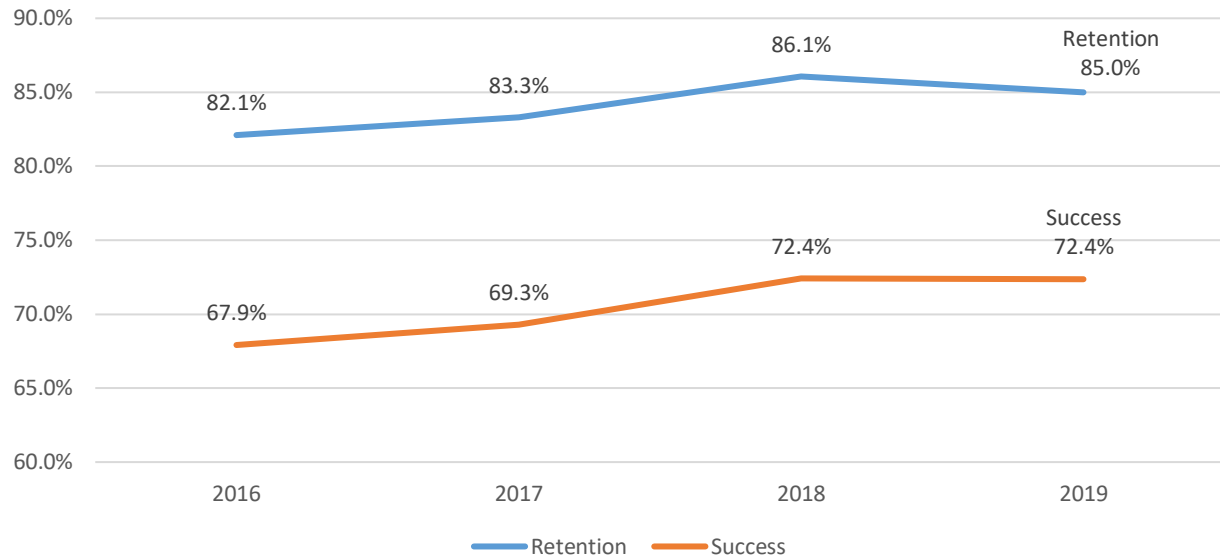
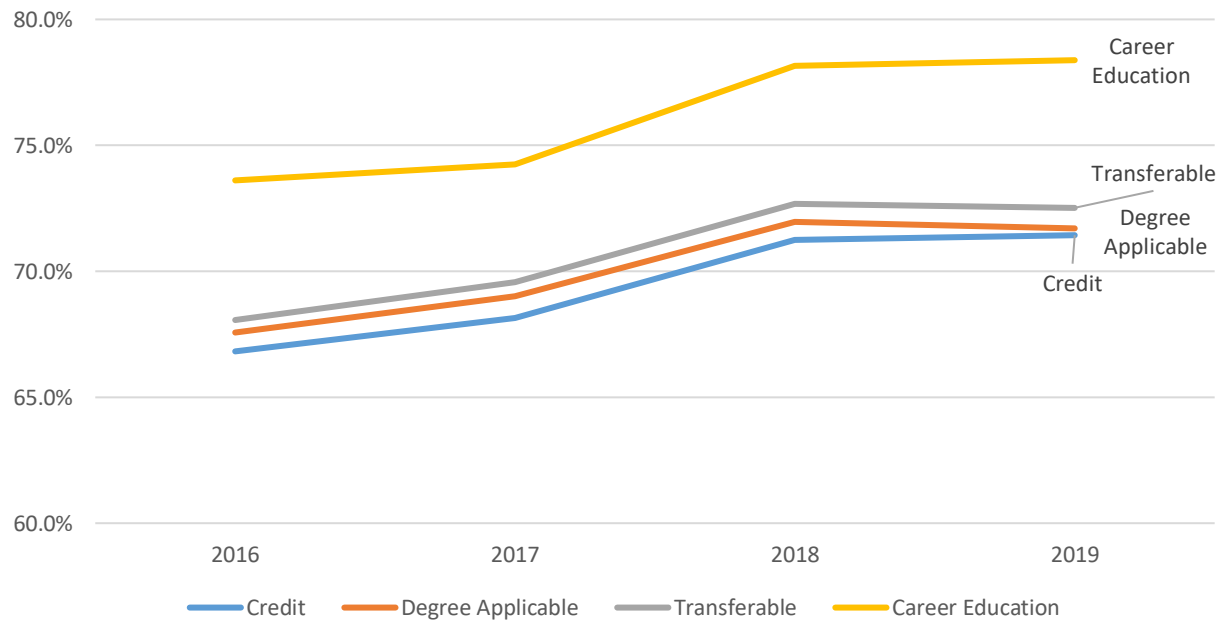


Figure 7. Growth in Success Rates by Course Type¹⁰



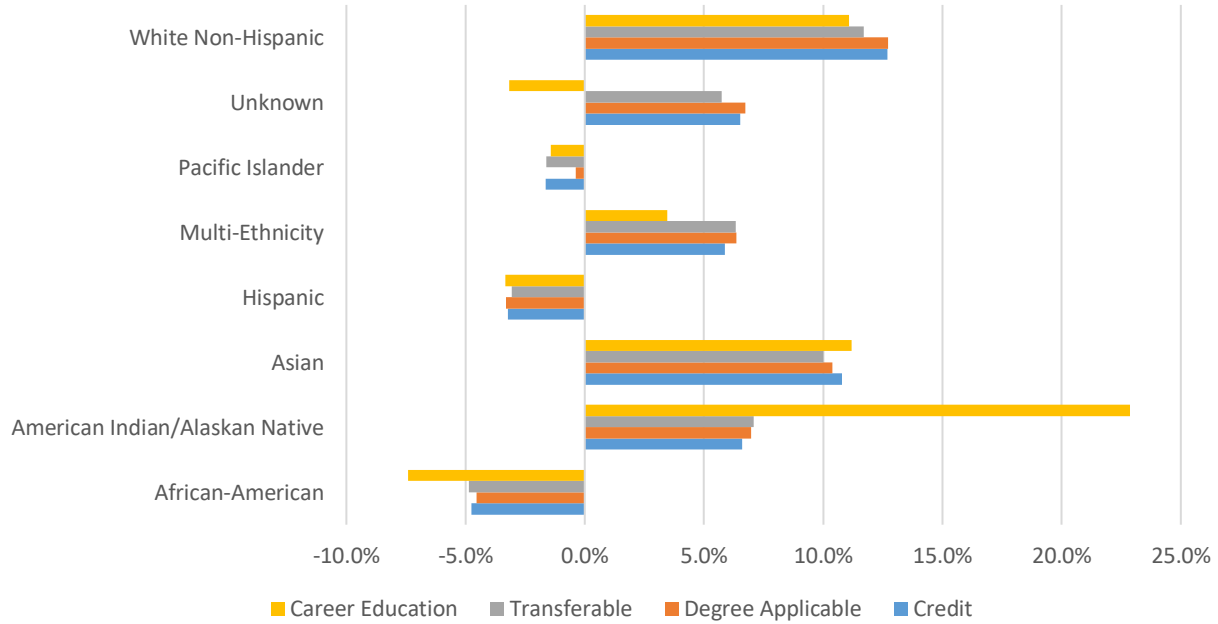
When course completions by course type are examined by race and ethnicity, it is clear that Hispanic and African-American students have consistently lower completion rates across all types of courses.

⁹ California Community College Chancellor’s Office Management Information Systems Data Mart

¹⁰ California Community College Chancellor’s Office Management Information Systems Data Mart

Career Education courses also trend to have greater volatility than other courses, a phenomenon that may warrant further investigation (Figure 8).

Figure 8. Difference in Course Type Successes by Race (Spring 2019)¹¹



Action Plan

This action plan outlines three steps moving forward that Southwestern College may take to better understand and improve success and retention rates.

1. Identify and support the efforts that are driving growing retention and success rates. This could include:
 - a. Examination of top support programs.
 - b. Exit interviews with students.
 - c. Explore efficacy and efficiency of support services and resources.

2. Uncover some of the drivers in performance that vary by race and ethnicity. Once these drivers are identified, develop strategies to mitigate negative differences and improve performance. This may include:
 - a. A student survey that digs into student challenges and successes and includes demographics.
 - b. Interviews with specific student populations.

¹¹ California Community College Chancellor's Office Management Information Systems Data Mart

3. Investigate what drives the high volatility in performance among Career Education courses. This effort ought to be two-fold: 1) what are the courses doing well that are driving some populations to achieve high success rates? 2) why are other populations performing at a lower rate in certain Career Education courses? Potential steps forward include:
 - a. A student survey that determines what types of students are drawn to Career Education programs and if they are any different from other student populations.
 - b. Examination of Career Education program structure and marketing.
 - c. Test ideas drawn from Career Education courses on credit courses and examine the impact.

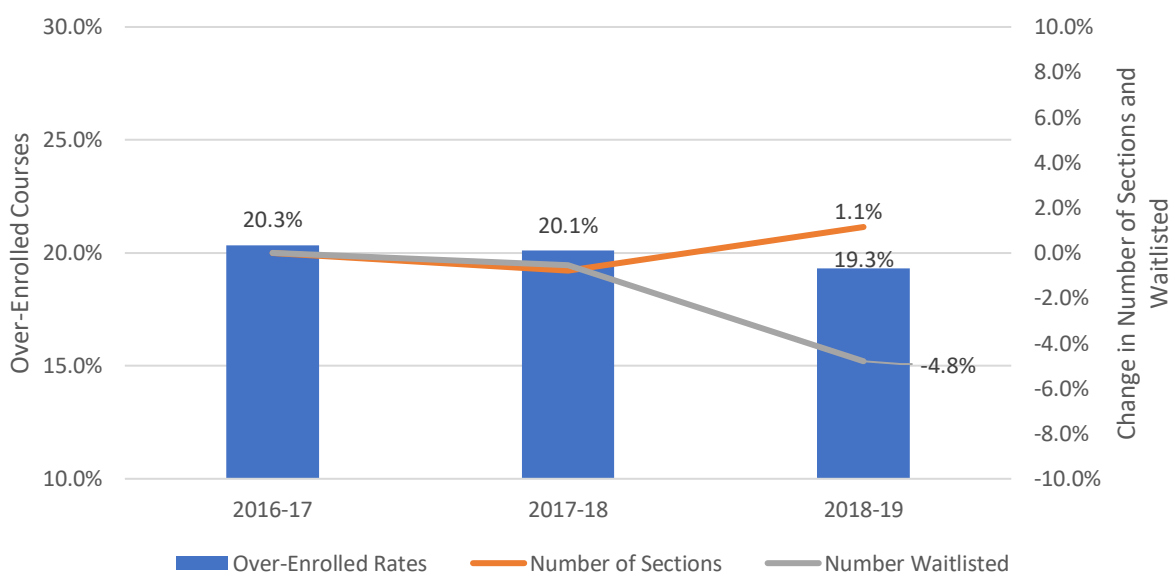
Element 2: Program Size, Scope, and Quality to Meet the Needs of All Students

This section of the CLNA investigates the size, scope, and quality of the overall Career Education program as well as specific courses and career pathways at SWC. The analysis of these factors culminates in the framing of specific actions and changes that can be made in order to better meet the needs of the SWC student body and community.

General Enrollment Data

General enrollment trends are moving in positive directions. The share of over-enrolled courses dropped to just below 1 in 5, while the number of sections available throughout the entire academic year increased by a modest 1% (about 50 courses). Furthermore, the number of waitlisted students declined nearly five percent between the 2016-17 and 2018-19 academic years (Figure 9).

Figure 9. Change in Enrollment, Section, and Waitlist Counts

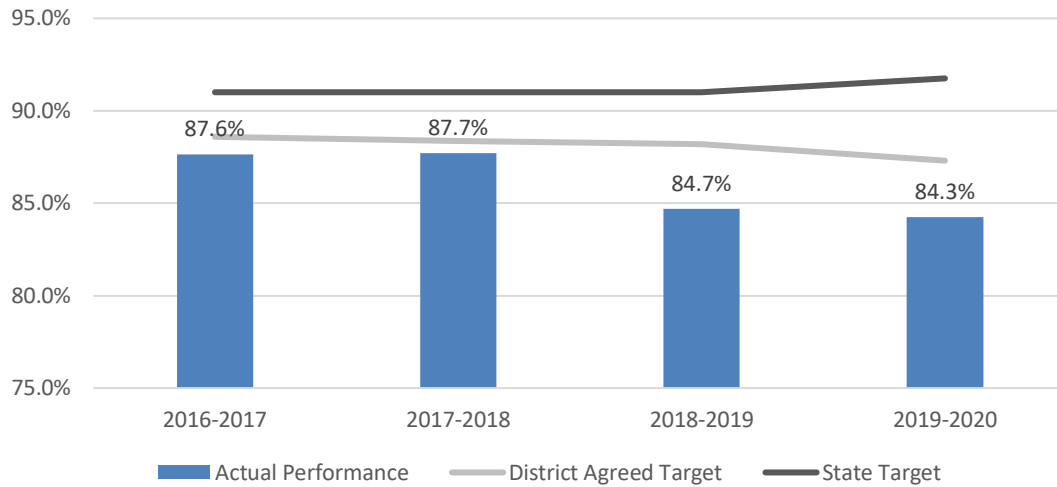


Technical Skill Attainment

Over the course of the past four academic years, SWC Career Education students have failed to pass Technical Skills Assessments relevant to their field in rates that meet the district and state targets.

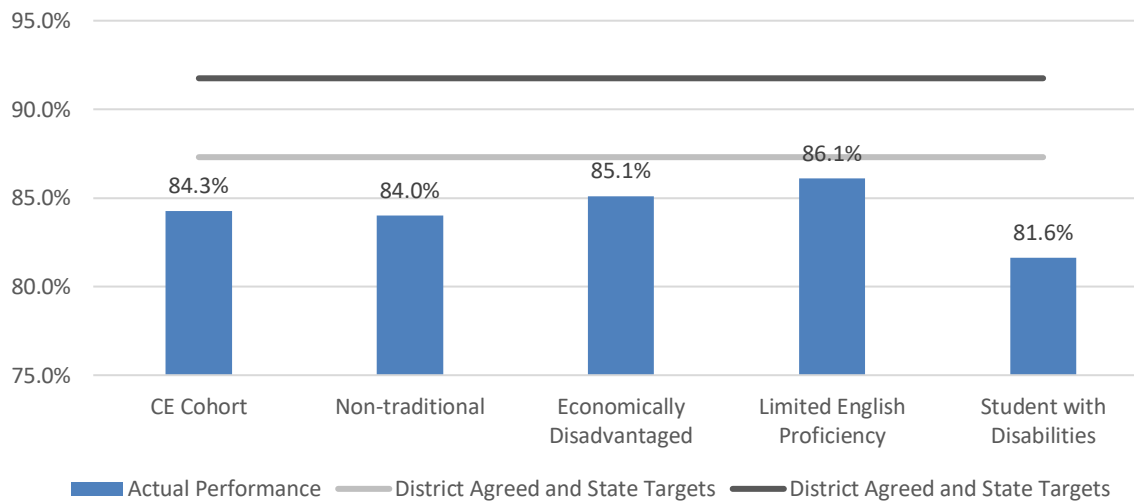
This metric captures the share of CE concentrators who passed technical skills assessments that are aligned with industry-recognized standards, if available and appropriate. Over the two most-recent years, passing rates have declined (Figure 10). This figure represents all Career Education programs; specific programs may outperform or underperform this average.

Figure 10. CE Technical Skill Attainment Over Time¹²



Some special populations perform moderately better than the broader CE cohort. Students with disabilities are one exception, where nearly two in ten students fail to pass relevant Technical Skills Assessments (Figure 11).

Figure 11. CE Technical Skill Attainment (2019-2020 Academic Year)¹³



High School Special Program and College Bound

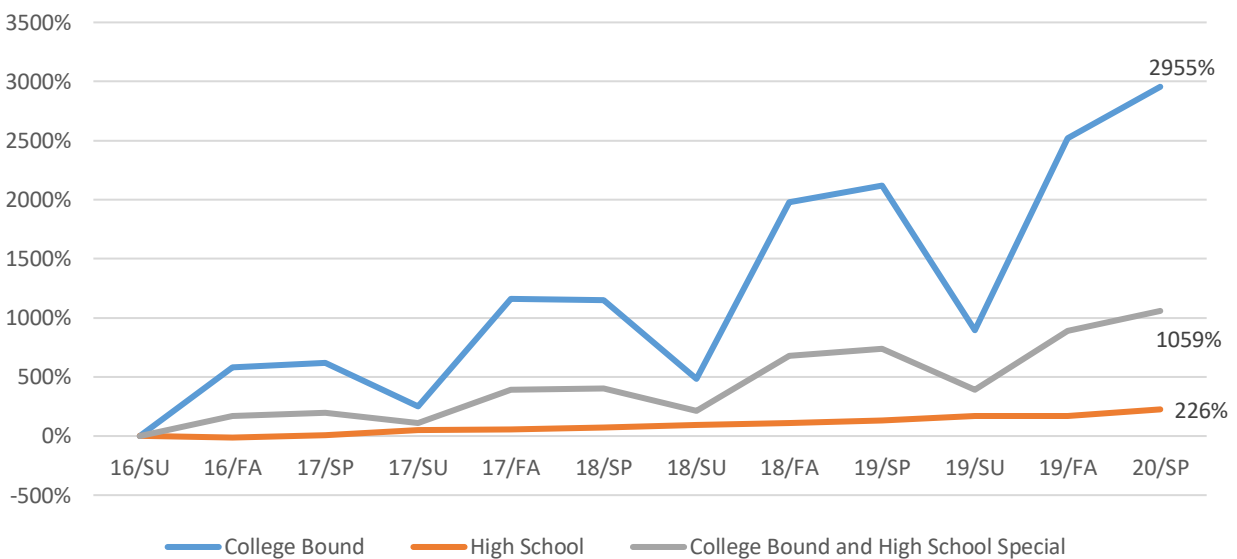
High school students are reaching higher benchmarks in greater numbers. There are two programs for high school students; the High School Special Program allows high school students in grades 10-12 concurrently enroll at Southwestern College and the College Bound Program allows Sweetwater Union

¹² California Community College Chancellor's Office Career Technical Education (CE) (Perkins IV)

¹³ California Community College Chancellor's Office Career Technical Education (CE) (Perkins IV)

High School District students to earn elective college credits at high school that are transferrable to Southwestern College or any University of California or California State University Campus. Over fewer than four academic years, Southwestern College has increased the number of high school students receiving college credit and those that were college bound nearly ten-fold. Much of this growth has been driven by an increase in college bound individuals, which has increased nearly thirty-fold (Figure 12). It is worth noting that if a student qualifies as both High School Special Program and College Bound, they will be counted as College Bound only. For example, while there were 482 students who qualified as High School Special Program, 1,986 students qualified as High School Special Program *and* College Bound.

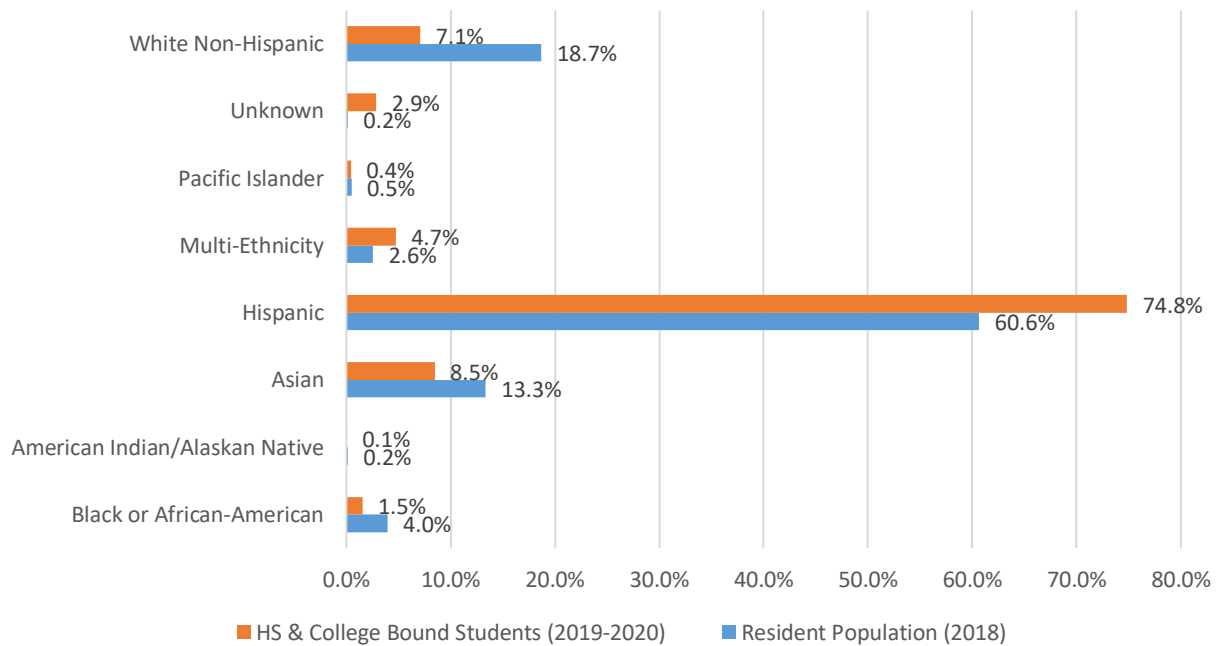
Figure 12. Growth in High School Special Program and College Bound Students¹⁴



High School Special program and College Bound students are relatively representative of the SWC regional population; in fact, about three in four students are of Hispanic background, and nearly 9% are Asian (including Filipino). These representations are important and demonstrate that the program is successful in providing access to youth across race and ethnicity (Figure 13). Stakeholders and former students introduced the idea of reaching out specifically to local high school special education departments in order to ensure that these early education opportunities are made known to these students.

¹⁴ Data provided by Southwestern College

Figure 13. Representation Among HS Special Program & College Bound Students¹⁵



While the high school special program and college bound data is helpful, the two charts above highlight the extent of the data available to Southwestern College. Tracking metrics--such as number of articulations and student outcomes (i.e. how do these students do as they transition to Southwestern College) --may better illuminate some strengths and opportunities for these programs.

Work-based Learning (WBL)

Students completed more than 24,300 Work-based Learning Experiences in the 2018-2019 academic year. Work-based Learning (WBL) opportunities provide students with hands-on opportunities to tie what they are learning in the classroom into experiences in the world of work. These experiences are valuable opportunities for students to discover the realities and possible end-results of their studies. WBL experiences include informational interviews, guest lectures, industry tours, internships, career fairs, mentorships, clinical experience, and simulated workplace experiences. Simulated workplace experiences, such as clinicals in Nursing, are by far the most common WBL method employed, followed by informational interviews and workplace tours (Figure 14).

¹⁵ Data provided by Southwestern College

Figure 14. Frequency of Work-Based Learning Opportunities (2018-2019 academic year)¹⁶

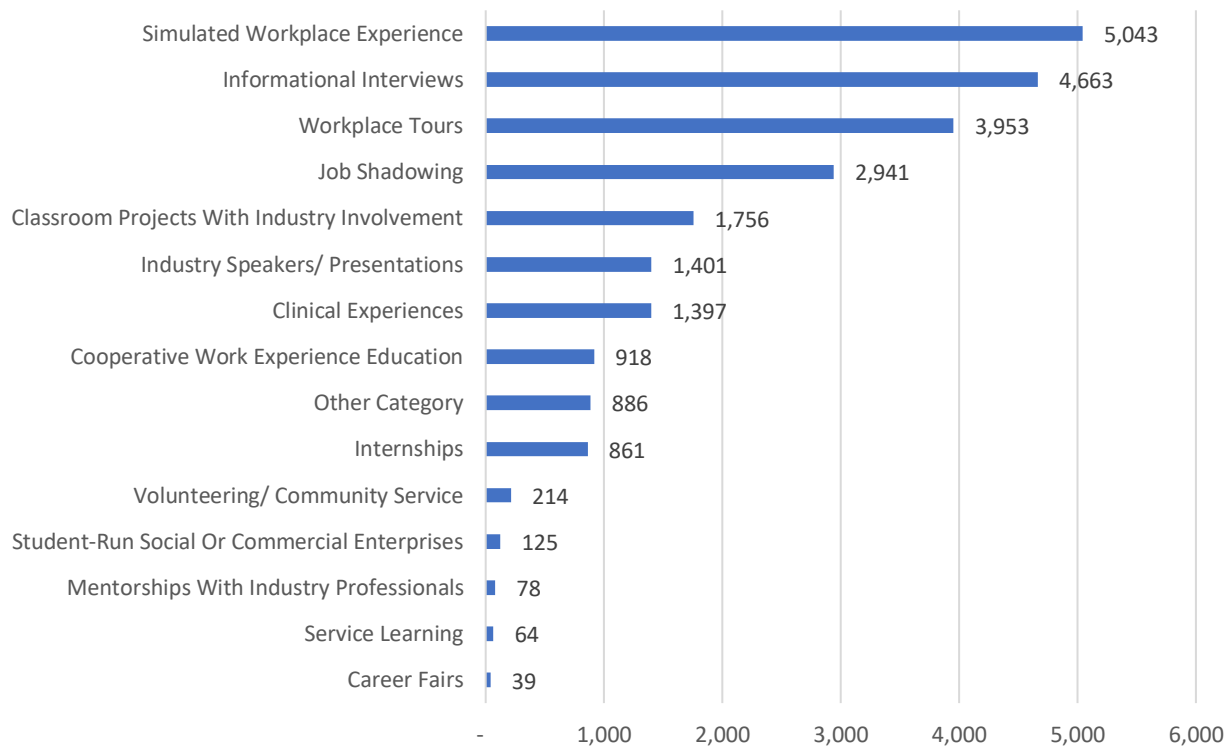
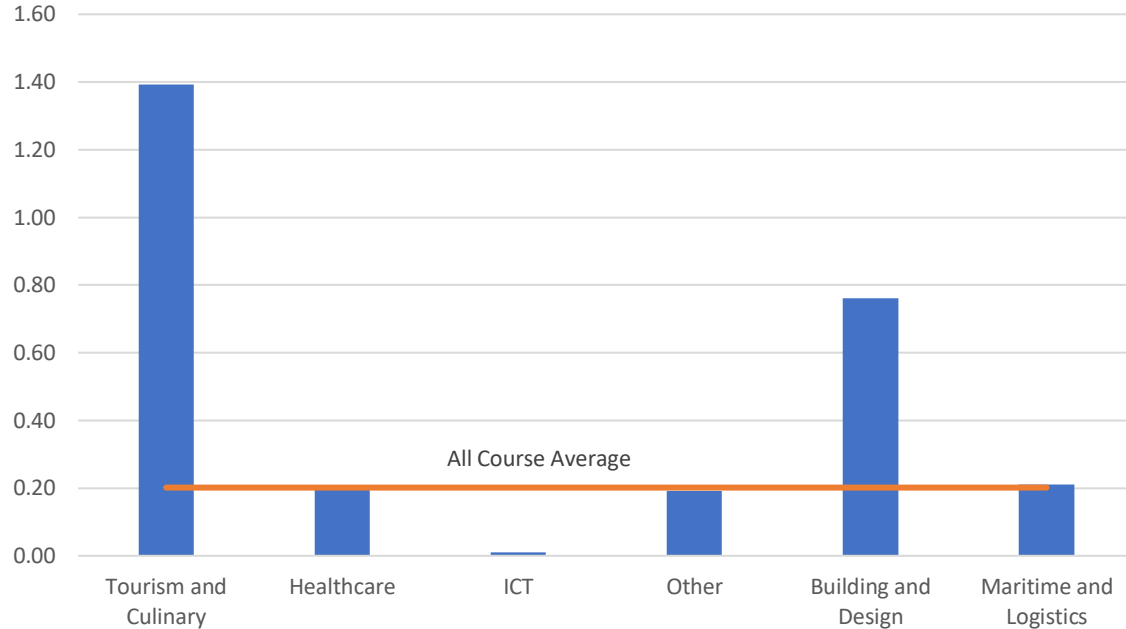


Figure 15 shows the average number of WBL experiences per course completion. This means that, on average, a student at SWC will complete one WBL experience for every five courses taken. However, this value varies greatly by program; on average, courses in Tourism and Culinary offer 1.4 WBL opportunities per course. In comparison, ICT courses only average WBL experiences for one out of every 100 courses.¹⁷

¹⁶ Data provided by Southwestern College

¹⁷ This is based on total students per course. A small class that offers a WBL opportunity will result in a lower number than a larger section with a WBL opportunity.

Figure 15. Work Based Learning Experiences per Completion for Selected Industries¹⁸



Stakeholder and student feedback frequently emphasized the importance and benefits of WBL opportunities across all programs. Supporting industry-specific job fairs and allowing work experience/internships to count towards credit were among the recommendations and ideas generated by stakeholders and former students.

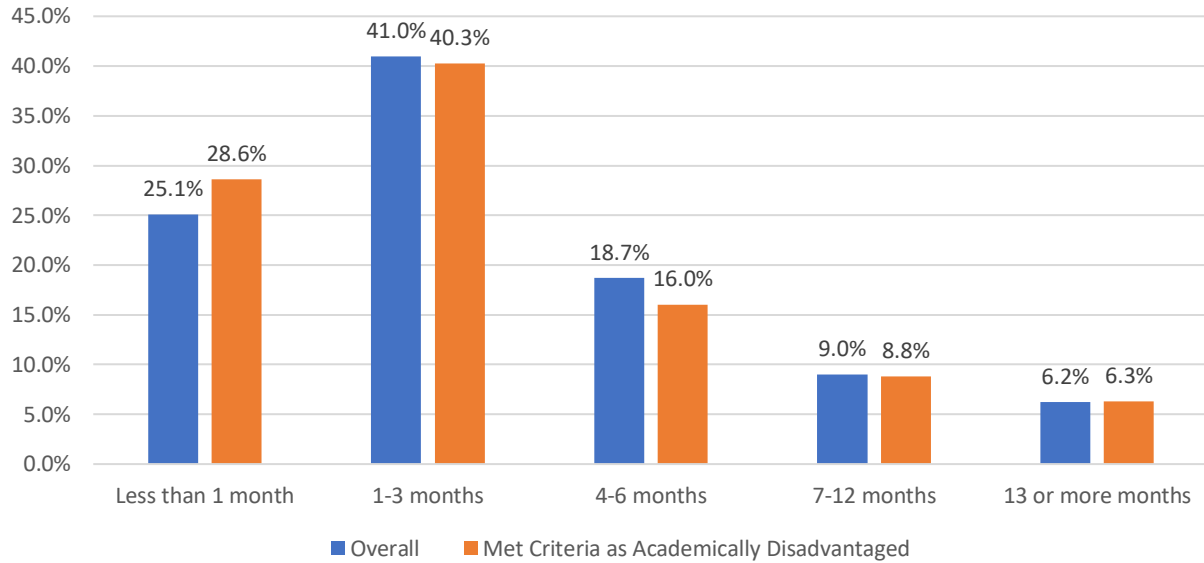
Student Outcomes

The Career Education Employment Outcomes Survey (CTEOS) is a statewide California Community College survey to assess the employment outcomes of students after they leave a college. Data specific to Southwestern College reveals a number of trends and highlights the challenges that students face upon graduating.

Two-thirds (66%) of those seeking work were able to find a job within three months or less upon graduating, suggesting that Southwestern College graduates are attractive prospects in the labor market. About 15% were looking for work for 6 months or longer. Encouragingly, students who met at least one criterion for being academically disadvantaged achieved employment slightly faster than the average student (Figure 16).

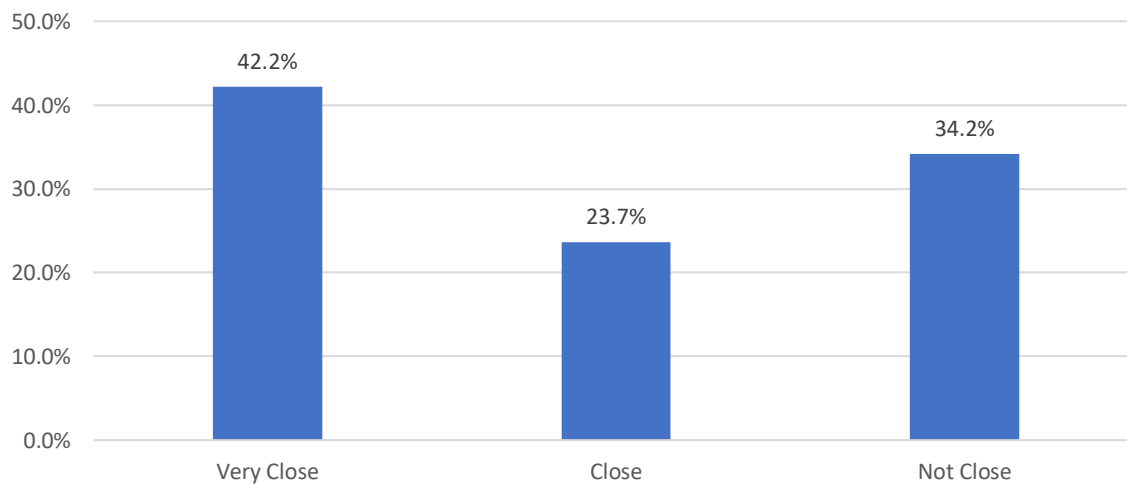
¹⁸ Data provided by Southwestern College

Figure 16. Duration of Job Search Upon Graduating (Respondents 2016-2019) ¹⁹



Two-thirds (66%) of respondents who are working feel that their current role is ‘very closely’ or ‘closely’ related to their field of study. In fact, a little more than four-in-ten feel that their role is ‘very closely’ related (Figure 17). This suggests that, on average, the education that Southwestern CE graduates receive is integral to the jobs they attain.

Figure 17. Graduate Responses to “How closely related to your field of study is your current job?” (2016-2019)²⁰

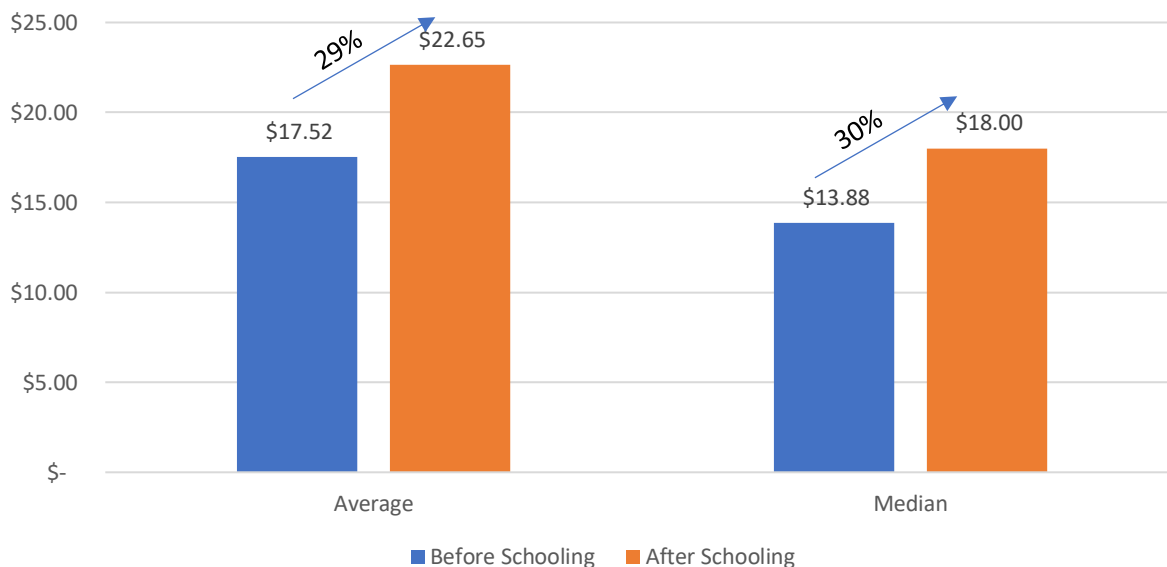


¹⁹ CE Employment Outcomes Survey (CTEOS) Data. 2016-2019

²⁰ CE Employment Outcomes Survey (CTEOS) Data. 2016-2019

On average, the wages of graduates who sought employment immediately after completing their CE program increased by 29% relative to the wages before attending the college. The living wage San Diego County is \$19.98 per hour for a single individual without children. The living wage for a family in the Southwestern College study region is about \$68,200²¹ for a family of four (one adult working, two children). Figure 18 suggest that CE programs substantially boost wages. It is also worth noting that these values do not include benefits, such as health insurance, retirement, or pensions.

Figure 18. Growth in Wages Upon Completion of CE Program (2016-2019)²²



Program Deep-Dive

This section highlights several key programs that were identified for a deeper analysis to reveal specific strengths, challenges, and opportunities that will help bolster student retention, completion, and placement. By analyzing metrics such as student skill attainment, completion, and placement, as well as regional openings and median earnings of SWC graduates, a clear picture of a program’s outcomes can be achieved. Median annual earnings are based on Southwestern College graduates who pursued employment upon graduating and did not transfer to a postsecondary institution. It should be noted that the median annual earnings of the average occupation in San Diego County is \$54,094 per year, and the living wage for a single person with no dependents is approximately \$41,558. These values will be useful for comparison purposes.

Southwestern College has large portfolio of programs available to students. The 15 specific programs below were selected based on internal review of programs by SWC faculty and staff, an analysis of funding requests to improve these programs, and regional labor market data. Many of these tables contain data aggregated at the four-digit TOP code level (Taxonomy of Programs, the California

²¹ For more information on the regional living wage, please see page 58.

²² CE Employment Outcomes Survey (CTEOS) Data. 2016-2019

Community Colleges categorization system). As such, they may not align with the more detailed six-digit TOP code analysis detailed in Section 6 (Labor Market Analysis) of this report.

Skill Attainment: CE concentrators who passed technical skills assessments that are aligned with industry-recognized standards, if appropriate.

Completion: Number of CE concentrators who received an industry recognized credential, certificate, or degree.

Persistence: Number of CE concentrators who remain enrolled in their original postsecondary institution or transferred to another 2- or 4-year postsecondary institution.

Placement: the share of CE concentrators who were placed in employment, military service, or apprenticeship in the 2nd quarter following the program year in which they left postsecondary education.

Dental Hygienists

The Dental Hygienist program at SWC has some notable successes, including high rates of skill attainment, completion, placement, Work-based Learning opportunities, and well above-average median annual earnings. However, other aspects could benefit from improvement, including the relatively low persistence rate of 70%, and a nearly all-female student body (709 out of 777 students are females) (Table 3). Boosting persistence and male enrollment are worthwhile aspirations for this program.

Table 3. 2018-2019 Dental Hygienist (124020) Program Summary

	2018-2019
Skill Attainment	100%
Completion	97%
Persistence	70%
Placement	86%
2018-2019 Enrolled	777
Females Enrolled	709
WBL Completions	319
Program Articulations	1
Program Completions	56

Annual SWC Regional Openings	29
Annual County Openings	176
Median Annual Earnings of SWC Graduates (2016-2017)	\$58,772

Emergency Medical Services (EMS/EMT)

The Emergency Medical Services program at SWC is often a precursor to the Paramedic program and many students go on to complete the more advanced Paramedic program. The EMS/EMT program performs well across a number of metrics, however program has a low completion rate (69%) and relatively fewer Work-based Learning (WBL) opportunities for an occupation that requires hands-on experience (Table 4).

Table 4. 2018-2019 Emergency Medical Services (125000) Program Summary

	2018-2019
Skill Attainment	81%
Completion	69%
Persistence	85%
Placement	94%
2018-2019 Enrolled	733
Females Enrolled	176
WBL Completions	116
Program Articulations	1
Program Completions	1
Annual SWC Regional Openings*	16
Annual County Openings*	137
Median Annual Earnings of SWC Graduates (2016-2017)	\$23,448

**These openings include those for EMTs as well as Paramedics*

Paramedic

The Paramedic program, a more advanced stage of the EMS/EMT program, has some success in student skill attainment, completion, and persistence, but falters when it comes to placement; about three- out of every four graduates of the 2018-2019 cohort were able to find employment by the second quarter following their completion (Table 5). Given the highly specialized nature of this program, ensuring students are given adequate field experience is paramount.

Table 5. 2018-2019 Emergency Medical Services – Paramedics (125100) Program Summary

	2018-2019
Skill Attainment	86%
Completion	95%
Persistence	88%
Placement	74%
2018-2019 Enrolled	194
Females Enrolled	18
WBL Completions	397
Program Articulations	2
Program Completions	14
Annual SWC Regional Openings*	16
Annual County Openings*	137
Median Annual Earnings of SWC Graduates (2016-2017)	\$51,058

*These openings include those for EMTs as well as Paramedics

Administration of Justice & Cyber Security

The Administration of Justice and Cyber Security program at SWC has high completion and persistence rates, a relatively balanced ratio of males and females, high enrollment, and high median earnings. However, lower skill attainment (79%) and placement (80%) indicate that some students may be missing out on important aspects of the program (Table 6).

Table 6. 2018-2019 Administration of Justice/ Cyber Security (210500) Program Summary

	2018-2019
Skill Attainment	79%
Completion	94%
Persistence	88%
Placement	80%
2018-2019 Enrolled	2,599
Females Enrolled	1,324
WBL Completions	282
Program Articulations	3

Program Completions	274
Annual SWC Regional Openings	197
Annual County Openings	567
Median Annual Earnings of SWC Graduates (2016-2017)	\$21,556

Logistics/Materials Transport

The Southwestern College Study Region’s proximity to the U.S.-Mexico Border mean that occupations relevant to the Logistics/Materials Transport program are in high demand. Students involved in the Logistics and Materials Transportation Program perform well in skill attainment, but seem to underperform in completion (50%), persistence (78%), and placement (67%) (Table 7). These low indicator rates suggest that this program ought to be examined. The large number of annual openings in relevant occupations suggests that this program has high potential.

Table 7. 2018-2019 Logistics/Materials Transport (051000) Program Summary

	2018-2019
Skill Attainment	100%
Completion	50%
Persistence	78%
Placement	67%
2018-2019 Enrolled	74
Females Enrolled	24
WBL Completions	100
Program Articulations	3
Program Completions	8
Annual SWC Regional Openings	276
Annual County Openings	1,030
Median Annual Earnings of SWC Graduates (2016-2017)	\$42,052

Civil and Construction Management Technology

The Civil Construction and Management Technology program has relatively strong performance among the core indicators of skill attainment (88%), completion (82%), and persistence (83%), but notably low placement rates of only 60% (Table 8). Given that San Diego County has 566 annual openings in relevant

occupations, increasing employer relationships and WBL opportunities may help the program reach its full potential.

Table 8. 2018-2019 Civil and Construction Management Technology (095700) Program Summary

	2018-2019
Skill Attainment	88%
Completion	82%
Persistence	83%
Placement	60%
2018-2019 Enrolled	132
Females Enrolled	18
WBL Completions	78
Program Articulations	4
Program Completions	17
Annual SWC Regional Openings	84
Annual County Openings	566
Median Annual Earnings of SWC Graduates (2016-2017)	\$46,180

Family Studies

Students in the Family Studies program achieved high skill attainment and completion rates, though persistence (76%) and placement (66%) rates are low. Low placement rates suggest that growing partnerships and communication with regional primary educational institutions may be helpful. It is also noteworthy that most (3,390 out of 3,744) students are female and there are more than 1,800 annual openings for relevant occupations across San Diego County (Table 9).

Table 9. 2018-2019 Family Studies (130800) Program Summary

	2018-2019
Skill Attainment	91%
Completion	82%
Persistence	76%
Placement	66%
2018-2019 Enrolled	3,744
Females Enrolled	3,390
WBL Completions	5,212

Program Articulations	10
Program Completions	124
Annual SWC Regional Openings	223
Annual County Openings	1,854
Median Annual Earnings of SWC Graduates (2016-2017)	\$22,720

Computer Information Systems (CIS) & Digital Media

The Computer Information Systems and Digital Media programs at SWC have high completion rates but low placement rates. These programs also have very WBL opportunities. Increased partnerships with regional employers would help boost placement rates. Additionally, low skill attainment and persistence rates in CIS and Digital Media respectively suggest that many students are struggling in these programs (Table 10). Increasing resources available to students may help remedy these areas of performance. It is also worth mentioning that the high number of entrepreneurs in this field mean that the number of openings in these fields are often undercounted.

Table 10. 2018-2019 CIS (070000) and Digital Media (061400) Program Summary

	2018-2019 CIS	2018-2019 Digital Media
Skill Attainment	70%	87%
Completion	98%	90%
Persistence	90%	65%
Placement	59%	52%
2018-2019 Enrolled	2,426	48
Females Enrolled	871	24
WBL Completions	18	0
Program Articulations	9	10
Program Completions	17	23
Annual SWC Regional Openings	210	9
Annual County Openings	4,367	169
Median Annual Earnings of SWC Graduates (2016-2017)*	\$29,792	\$22,956

**These figures are from the Information and Communication Technology -Digital Media Sector*

Automotive Technology

The Automotive Technology program at SWC has high rates of skill attainment (89%) and completion (84%), but lower among rates of persistence (79%) and placement (80%). The automotive repair industry requires specific knowledge and skillsets, and the industry is evolving as onboard electronics and circuitry takes on increasing complexity and electric vehicles grow more and more popular. The San Diego Association of Governments (SANDAG) projects that the number of electric vehicles in San Diego County will increase from 35,000 in 2019 to more than 110,000 by 2025.²³ Keeping up with cutting edge technology and new skillsets needed is crucial to giving graduates their best chance at success and increasing placement rates. Given the importance and the scale of these changes, SWC decision makers have outlined plans in the 2018 Facilities Master Plan to relocate the automotive technology complex to Otay Mesa, where greater availability of land will allow a new, larger facility geared towards electric vehicle maintenance and repair to be built.²⁴

Table 11. 2018-2019 Automotive Technology (094800) Program Summary

	2018-2019
Skill Attainment	89%
Completion	84%
Persistence	79%
Placement	80%
2018-2019 Enrolled	609
Females Enrolled	39
WBL Completions	567
Program Articulations	5
Program Completions	34
Annual SWC Regional Openings	91
Annual County Openings	787
Median Annual Earnings of SWC Graduates (2016-2017)	\$24,552

Business and Management

Relevant occupations to the Business and Management program have more than 6,700 annual openings across San Diego County. Skill attainment (79%) and placement (72%) rates are two core indicators that

²³ "SANDAG Infobits: Electric Vehicles in the San Diego Region". October 2019. SANDAG.

²⁴ "2018 Southwestern College Facilities Master Plan" <https://www.swccd.edu/swc-community/propositions-r-and-z/files/facilities-master-plan-2018.pdf>

are relatively low among the Business and Management program (Table 12). Placement rates are particularly low, though this may be because many of these programs are transfer programs. This may also suggest that working with regional employers to develop curriculum that adds value to student resumes (such as more leadership or management workshops) may prove most beneficial. Even if students do continue education further, more in-field experience will bolster their resumes and provide a real-world application to the materials they learn in class.

Table 12. 2018-2019 Business and Entrepreneurship (050000) Program Summary

	2018-2019
Skill Attainment	79%
Completion	90%
Persistence	84%
Placement	72%
2018-2019 Enrolled	2,941
Females Enrolled	1,272
WBL Completions	655
Program Articulations	31
Program Completions	386
Annual SWC Regional Openings	716
Annual County Openings	6,742
Median Annual Earnings of SWC Graduates (2016-2017)	\$29,764

Applied Photography

The Applied Photography program is a primary component of the SWC drone technology curriculum. While skill attainment (94%) and completion (95%) rates are quite high, persistence (75%) and placement rates (70%) are lower. Work-based Learning opportunities are also relatively infrequent (Table 13). These metrics suggest that increasing partnerships with regional employers and practice with the tools and software in greatest demand are important potential areas of improvement. Photography is a field where a number of workers operate as freelance or entrepreneurs, likely resulting in artificially lower annual opening statistics.

Table 13. 2018-2019 Applied Photography (101200) Program Summary

	2018-2019
Skill Attainment	94%
Completion	95%

Persistence	75%
Placement	70%
2018-2019 Enrolled	530
Females Enrolled	291
WBL Completions	125
Program Articulations	2
Program Completions	9
Annual SWC Regional Openings*	<10
Annual County Openings*	35
Median Annual Earnings	18,240

**These figures are of Photographer SOC occupation, likely undercounting the true employment opportunities for graduates of the drone program.*

Radio and Television

The Radio and Television program at SWC scores well among most key metrics, though nearly three out of every ten graduates (28%) do not find employment soon after graduating (Table 14). Increasing student exposure to industry professionals and workplace environments, cutting-edge technologies, and burgeoning specializations may help increase placement rates.

Table 14. 2018-2019 Radio and Television (060400) Program Summary

	2018-2019
Skill Attainment	96%
Completion	93%
Persistence	88%
Placement	72%
2018-2019 Enrolled	592
Females Enrolled	232
WBL Completions	319
Program Articulations	6
Program Completions	24
Annual SWC Regional Openings	39
Annual County Openings	557
Median Annual Earnings	\$79,026

Architecture and Architectural Technology Program

The Architecture and Architectural Program at SWC has many strengths, including high completion and persistence rates, relatively even distribution of student genders, and relatively numerous WBL opportunities. However, placement rates are noticeably low (53%), though this program has a considerable proportion of students that transfer to other learning institutions (Table 15). Architecture is a field in which experience, skills, and one’s portfolio are given great consideration. Ensuring that students are given plenty of field experience and opportunity to develop their portfolio and experience is essential. This program also has a large portion of students who transfer to postsecondary institutions upon completing the program at SWC.

Table 15. 2018-2019 Architecture (020100) Program Summary

	2018-2019
Skill Attainment	82%
Completion	88%
Persistence	88%
Placement	53%
2018-2019 Enrolled	374
Females Enrolled	138
WBL Completions	282
Program Articulations	5
Program Completions	28
Annual SWC Regional Openings	9
Annual County Openings	170
Median Annual Earnings	\$19,940

Computer-Aided Design and Drafting

The Computer-Aided Design and Drafting program has strong regional demand for graduates and relatively high skill attainment (84%), completion (83%), and persistence (89%) rates. However, placement rates are low; about two in three students (67%) find employment within half a year after graduating (Table 16). Expanded partnerships with regional employers could help more graduates find employment.

Table 16. 2018-2019 Computer-Aided Design and Drafting (095300) Program Summary

	2018-2019

Skill Attainment	84%
Completion	83%
Persistence	89%
Placement	67%
2018-2019 Enrolled	247
Females Enrolled	46
WBL Completions	164
Program Articulations	5
Program Completions	4
Annual SWC Regional Openings	18
Annual County Openings	120
Median Annual Earnings	\$24,720

Action Plan

This action plan outlines ways in which Southwestern College can better meet the needs of all students throughout their CE journey.

1. Increase the number and offering of WBL opportunities. This may be accomplished by:
 - a. Increasing employer engagement and building relationships to strengthen relationships, resulting in more job shadows, internships, and workplace tours.
 - b. Providing additional support for programs that currently offer very few WBL opportunities, such as ICT programs.

2. Maintain records of students involved in the High School Special and College Bound programs as they transition out of high school. Key considerations include:
 - a. Do they attend Southwestern College or other Community Colleges?
 - b. Are these students more likely to complete programs than SWC students who did not participate in either program?

These insights may not only improve the High School Special and College Bound programs but may reveal ways to improve SWC programs as well.

Element 3: Progress Towards Implementation of CE Programs of Study

This section addresses the strengths and weaknesses determined over the course of the CE needs assessment by outlining specific new or modified policies, activities, and organizational structures to remediate and improve upon the gaps identified.

Tracking Industry Credentials and Certifications

Southwestern College currently does not track sought-after industry certifications or credentials that students can earn while completing their CE program. As a consequence, SWC is unable to see if students are achieving certifications that may be crucial to their prospective employment. While this insight may be more useful for some programs than others, it is a metric that could relatively easily be captured through faculty cooperation.

K-12 Career Pathways

While Southwestern College has had some notable success in its High School Special Program and College Bound Program, the College has not focused on the development of K-12 career pathways and the data on these programs is surface-level. A potential first step in developing these pathways would include tracking the number of articulations at relevant High Schools so that decisions makers can develop a better understanding of incoming student flows as well as general successes and challenges of specific articulations. Clearly defining these pathways would allow students to develop a better understanding of next steps in pursuing their career at SWC. It would also save students time and resources.

Career Exploration and Assessment

Career exploration is the crucial first step in making the decision to pursue any education. As a first step, guided career exploration or assessment tools should be available to current and maybe even potential students. Ideally, these tools and resources would be available to SWC students before the start their first semester and included in orientation or registration process. Career exploration is also crucial for younger potential students as they consider which courses to take in high school. Allowing high school students engaged in the Special or College Bound Program access to these tools and resources may help these students decide on paths earlier and more resolutely.

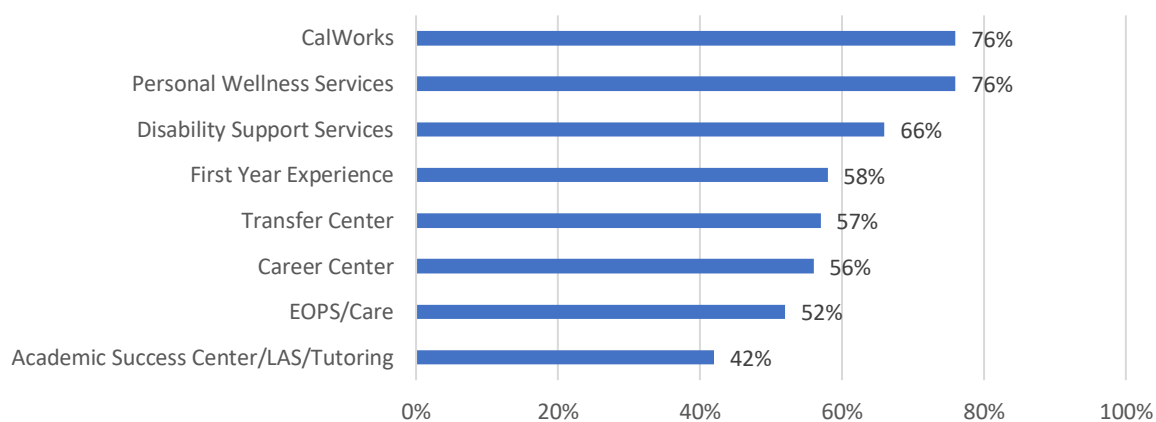
Guided Pathways

In 2017 Southwestern College was one of 20 California colleges to be chosen for the California Guided Pathways Project. This project, funded by the College Future Foundation and the Teagle Foundation, sought to clarify the paths to student goals, help students chose among these pathways, help them stay on the path, and ensure they are learning along the way. The result of this work is Guided Pathways (known as “Jaguar Pathways” at SWC). Jaguar Pathways are Southwestern College’s version of Programs of Study and they allow SWC students to see an outline of sample course schedules, from first-semester to last, for any program. This allows students to see up front what courses are required to complete the program, which have prerequisites, and a provides a realistic idea of course load and time commitment.

Student Awareness of Resources

Discussions with stakeholders revealed that while availability of resources was a challenge for some students, awareness of resources was another challenge entirely. One former student stated “what [SWC] lacked was advertising more for those types of services that they have for different types of students”.²⁵ A 2017-2018 student survey confirms this view; more than three-quarters of respondents stated they were at most ‘slightly familiar’ with CalWorks and Personal Wellness Services, and more than half of students reported little familiarity with the Career Center, Transfer Center, or the First Year Experience (Figure 19). A lack of dynamic and comprehensive online orientation—particularly given the new remote learning environment—contributes to this challenge. Awareness of these programs and services is the first step to boosting their use and subsequently students’ success.

Figure 19. Students Not Familiar (‘Slightly Familiar’ or ‘Not at all Familiar’) with Services²⁶



Career Education and the Coronavirus

As the world grapples with the new reality that COVID-19 has brought, higher education—and the way it is provided—will undergo substantial changes. The data included in this report reflects a pre-COVID-19 world. To better understand the impact COVID-19 has on students’ education and success, as well as changes into the labor market, Southwestern College is encouraged to revisit much of this data as it is available.

Additionally, Southwestern College has already determined the fall 2020 semester, and potentially spring 2021, will be conducted online except for a very small percentage of health and public safety courses. While this represents a substantial change, about a fifth (21%) of all courses taken were already

²⁵ “Perkins V Local Comprehensive Needs Assessment: Consultation Report”. San Diego and Imperial Community Colleges Career Education. Prepared by UC San Diego Extension.

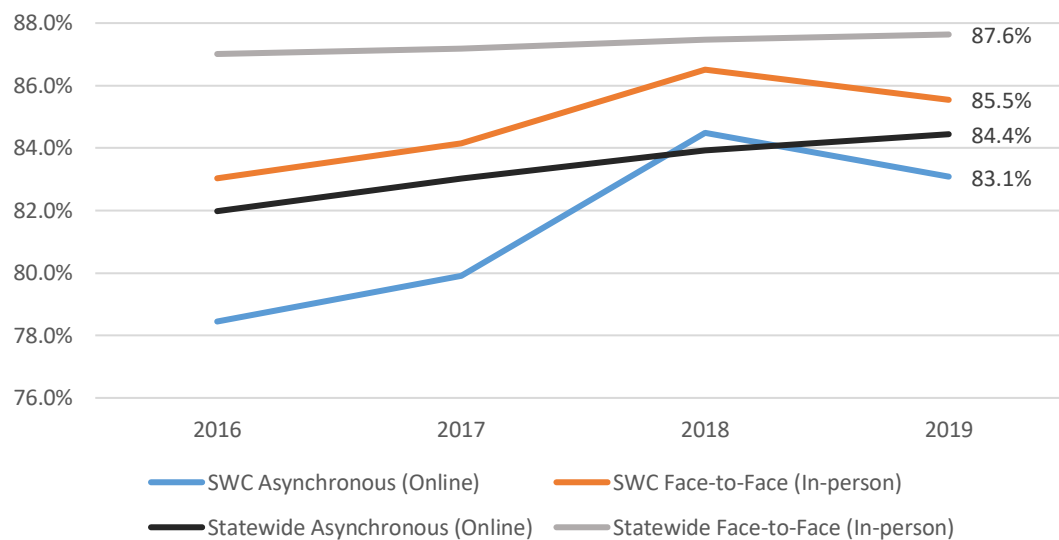
²⁶ These are just a few of the services included in the survey. For more information, please see the Southwestern College 2017-2018 Student Feedback Survey. <https://www.swccd.edu/administration/institutional-research-and-planning/files/reports-surveys/student-satisfaction-survey-reports/2018-student-feedback-survey-report.pdf>

online. Among career education courses this rate is even higher: 35% of all career education courses taken in the Spring of 2019 were online. Examining the successes and challenges of online learning that has already taken place provides insights into what Southwestern College can do to improve the online learning experience. It is also worth noting that the internet-based courses below are “delayed interaction” or “asynchronous”, meaning course lectures and tests are pre-recorded and are accessible anytime thereafter. Thus, Southwestern College’s recent transition to online courses—hosted live by faculty—are a hybridized combination of the “in-person” and “internet-based” courses described below.

In-person and Online Courses

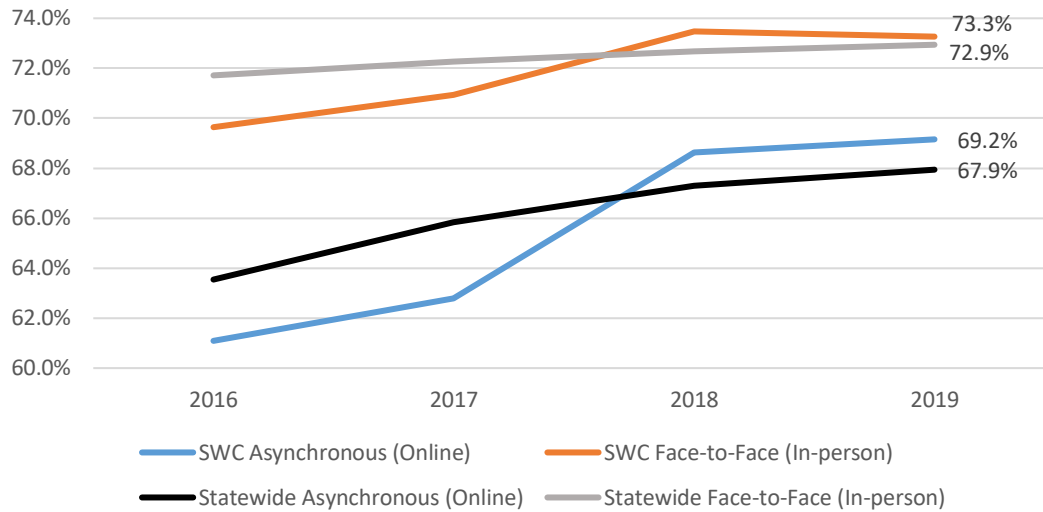
Retention and completion rates are greater among in-person courses than their internet-based counterparts, though the discrepancy is declining. The difference between the two course offerings appears to be diminishing, as internet-based courses have made substantial progress in retention and completion over recent years (Figure 20 and Figure 21). This progress may be attributable to the Distance Education Faculty Training (DEFT) program, which provides faculty with a primer on online education and some best practices. Viewed in the context of statewide figures, it is clear that SWC has made significant improvement—particularly in success rates—over the past four years.

Figure 20. Retention Rates Among In-Person and Internet-Based Courses²⁷



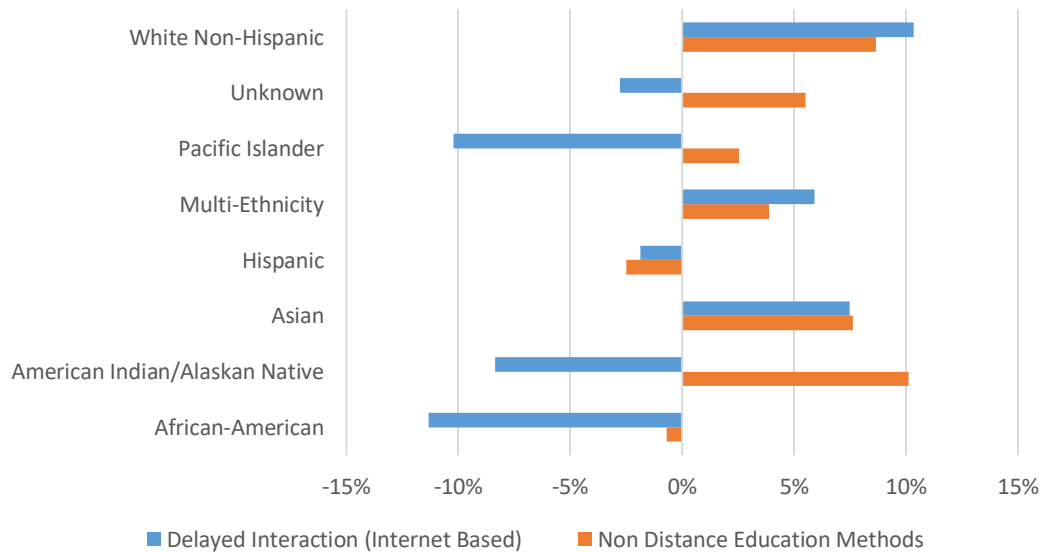
²⁷ California Community College Chancellor’s Office Management Information Systems Data Mart

Figure 21. Success Rates Among In-Person and Internet-Based Courses²⁸



The discrepancy between internet based and in-person courses varies among race and ethnicity as well. Pacific Islander, Hispanic, American Indian or Alaskan Native, and African-American struggle with internet-based courses. Success rates among Hispanic and African-American students in-person learning are lower as well, relative to the rest of the student body (Figure 22).

Figure 22. Difference in Average Success Rates of Course by Method and Race (Spring 2019)²⁹

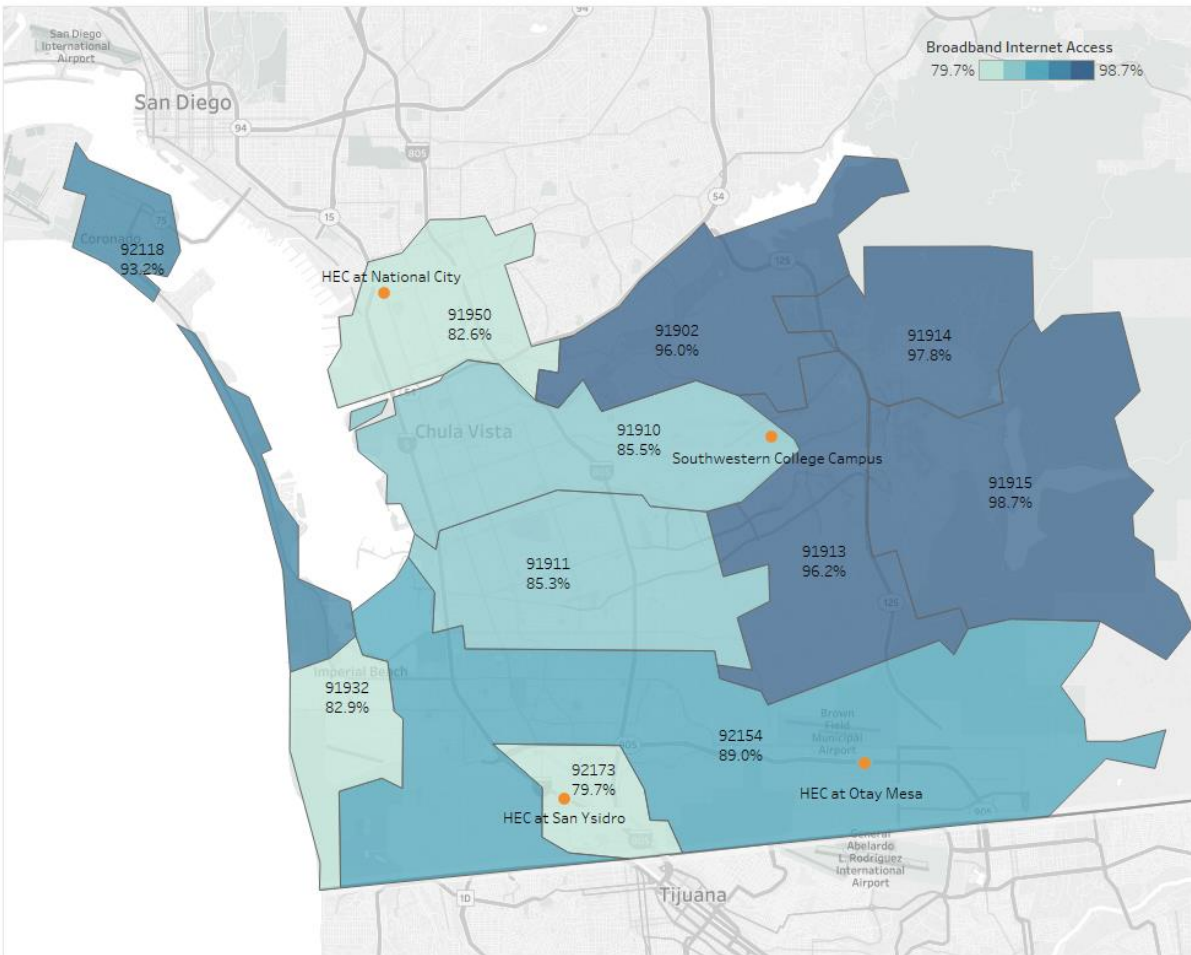


²⁸ California Community College Chancellor’s Office Management Information Systems Data Mart

²⁹ California Community College Chancellor’s Office Management Information Systems Data Mart

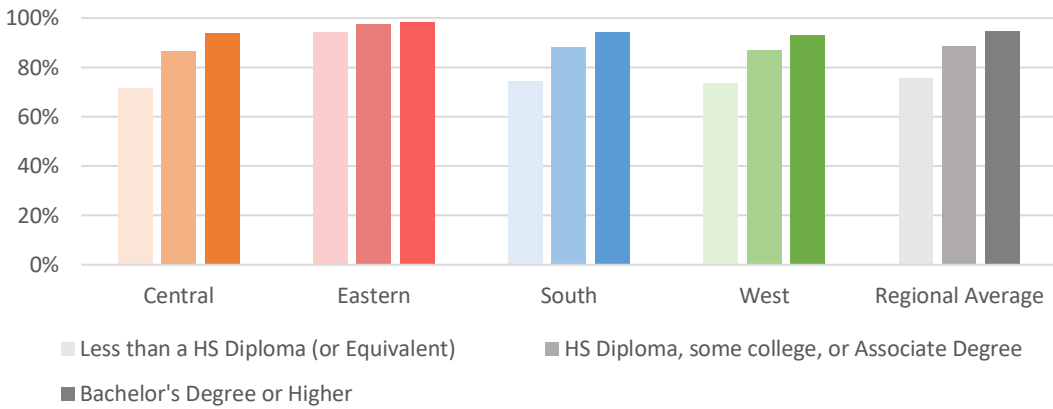
Between one and two out of every ten households in six zip codes within the Southwestern College study region do not have broadband internet access (Figure 23). More critically, households with lower educational attainment levels tend to have lower rates of broadband internet access (Figure 24). This creates a situation where some of the very students who need the greatest support will have trouble accessing education. Even in the era of mobile phones and 4G networks, it is important to consider that some populations may have difficulties accessing online education.

Figure 23. Internet Access Among Households with a Computer (2018)³⁰



³⁰ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

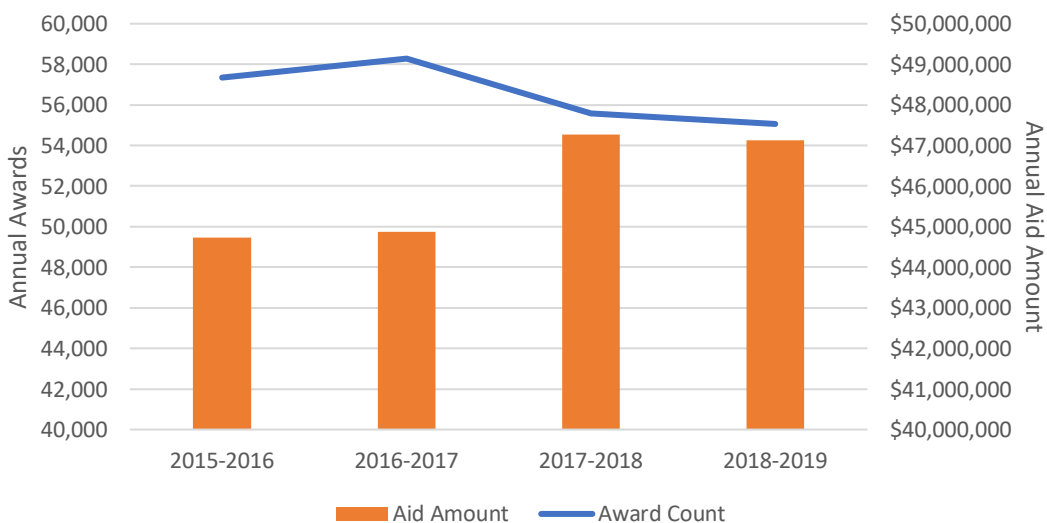
Figure 24. Internet Access by Household Educational Attainment³¹



Financial Aid

More than 15,600 students received financial aid during the 2018-2019 academic year. In total, more than \$47.1 million in grants, scholarships, and loans were given to these students. Figure 25 shows the increase in total financial aid awarded between the 2015-2016 and 2018-2019 academic years. It is also worth noting that much of this growth was due to an increase in grants and scholarships rather than loans; grants (excluding California College Promise Grants) increased by 13% during this time, and total value of scholarships provided increased by almost 18%.

Figure 25. Financial Aid Awards (2015-2016 through 2018-2019 Academic Year)³²



³¹ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

³² California Community College Chancellor's Office Management Information Systems Data Mart

Action Plan

This action plan concentrates on key opportunities and challenges for Southwestern College's CE Programs of Study.

1. Further examine the growing success rate of online courses. Is performance increasing because the quality of courses is increasing, students are becoming more technology savvy, or some other effects? Steps may provide answers to these questions include:
 - a. Student interviews.
 - b. Review of any new initiatives or programs that may have led to this increase and can help converge the success rates of online and in-person courses.
2. Ensure students have access to internet. This effort could include:
 - a. Working with CBOs to improve and ensure access.
 - b. Have Wi-Fi-enabled and socially distant sections of campus accessible to students.
 - c. Offer students in need internet-capable devices through a loaning system.
3. Consider including an introduction to campus resources for all incoming and potential students. This is based on the fact that:
 - a. Current students may not know that these resources exist and therefore will not look for them.
 - b. Potential students may forgo applying or inquiring further if they think they have barriers that cannot be addressed.

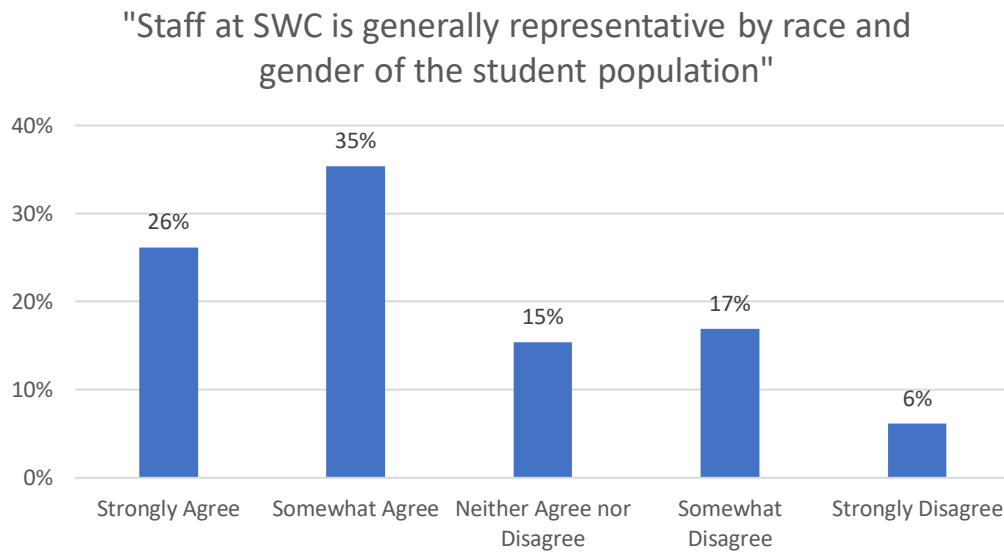
Element 4: Improving Recruitment, Retention, and Training of CE Professionals

This section of the CLNA examines the recruitment, retention, training, and demographics of faculty and staff at SWC. Student interactions and experiences with faculty and staff can have profound impacts on the success of a student, so it is vital to analyze the dynamics of faculty and administrative professionals at SWC. The section concludes with an action plan to better attract, retain, and develop SWC faculty and staff so that they may better serve and prepare students.

Faculty and Staff Demographics

Nearly two-thirds (62%) the faculty and staff surveyed feel that the staff at SWC is generally representative of the student population. About a quarter (26%) of survey respondents “strongly agree” with that staff is generally representative, and another 35% “somewhat agree”. It is also noteworthy that nearly a quarter (23%) of respondents either “somewhat disagree” or “strongly disagree” with the statement (Figure 26).

Figure 26. Faculty and Administrator Responses to Representativeness of Staff



Among academic positions, both tenured, full time non-tenured and adjunct, females make up a slight majority of staff. Females account for two-thirds of administrator positions (Table 17). This suggests that the college has been successful in hiring a mix of staff of all sexes, though may benefit from increases in male administrator occupations.

Table 17. Occupation Share by Sex (Fall 2018)³³

	Academic, Temporary	Academic, Tenured/Tenure Track	Classified	Educational Administrator	Grand Total
Female	51.2%	56.4%	56.5%	66.7%	53.9%
Male	48.8%	43.6%	43.5%	33.3%	46.1%

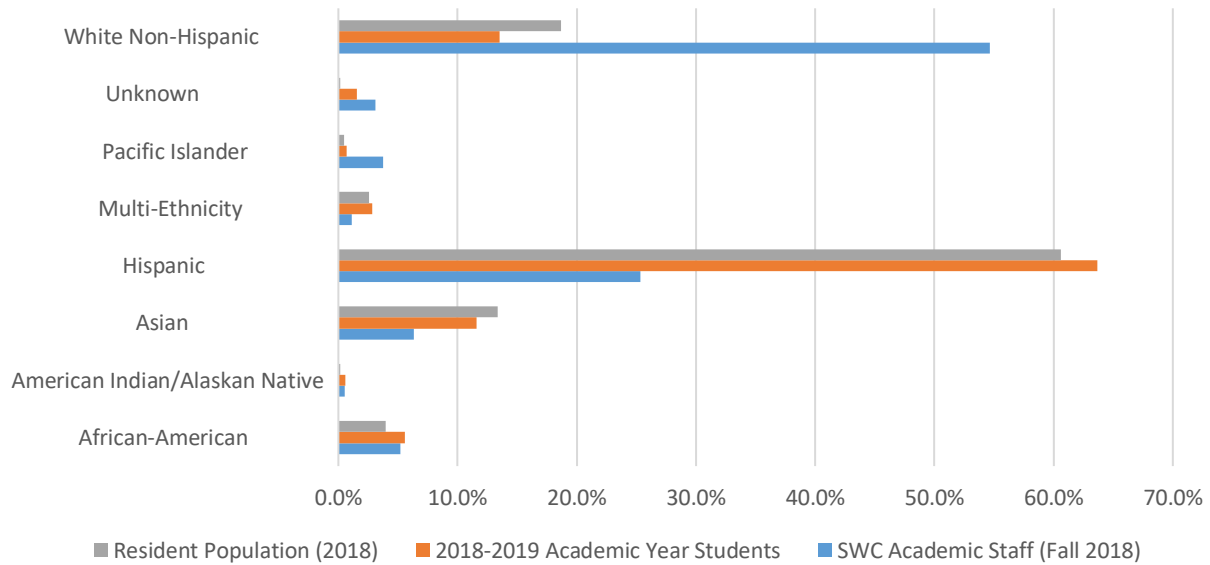
While students are representative of the local population, faculty remain relatively White and Non-Hispanic. SWC students during the 2018-2019 academic year were relatively representative of the SWC study region population, with a slightly higher of students who are Hispanic and slightly smaller proportion of students who are White Non-Hispanic and Asian. SWC academic faculty (only employees who are temporary or tenure/tenure track) are considerably more White and Non-Hispanic than the resident and student populations (Figure 27). Given that a number of studies³⁴ have shown that students benefit from educators who look like them, SWC would benefit from more representative faculty.

³³ California Community College Chancellor's Office Management Information Systems Data Mart

³⁴ "The Long-Run Impacts of Same-Race Teachers" Gershenson, et. al. IZA Institute of Labor Economics. 2017.

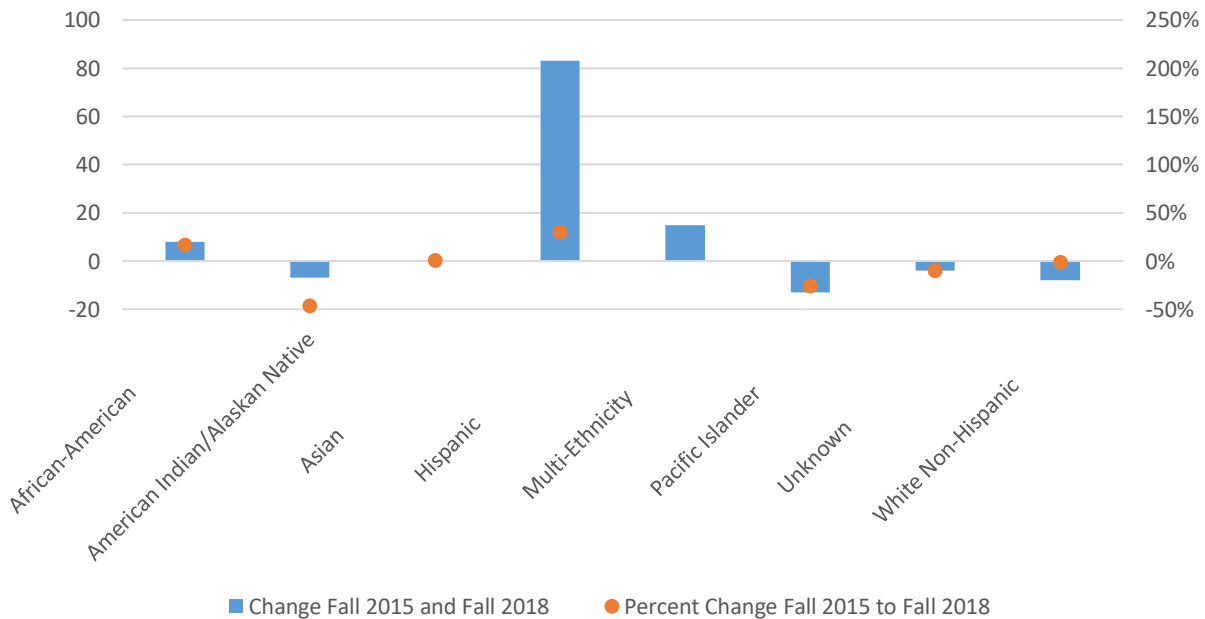
<https://www.iza.org/publications/dp/10630>

Figure 27. Resident, Student, and Academic Staff Populations³⁵



SWC has been making progress in the hiring of more racial and ethnically diverse staff (Figure 28). Between 2015 and 2018, SWC increased its Hispanic staff by 83 individuals (about a 29% increase).

Figure 28. Race and Ethnicity of SWC Staff³⁶



³⁵ California Community College Chancellor’s Office Management Information Systems Data Mart

³⁶ California Community College Chancellor’s Office Management Information Systems Data Mart

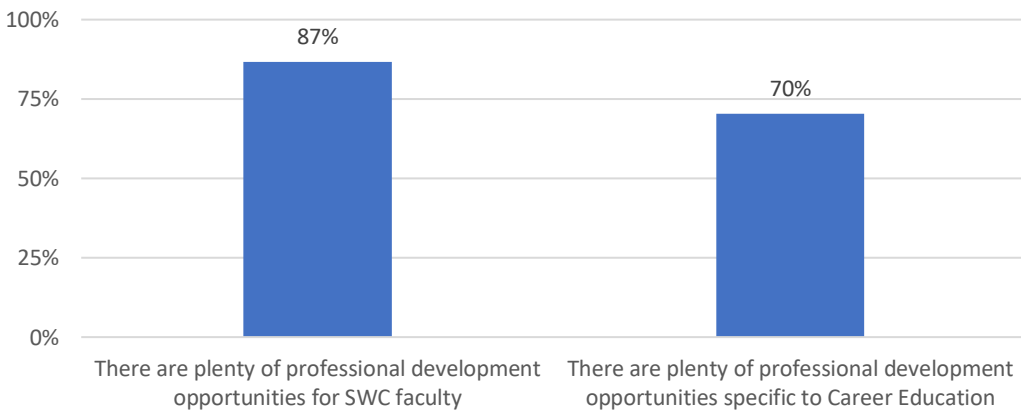
A Plan to Create Employee Equity

In recent years, Southwestern College has drastically changed the way it has gone about race relations and diversity among faculty and staff. In the fall of 2017, an Advisory Task Force on Inclusion and Race Relations was established in order to enact a new vision as SWC as “the mecca of educational equity”. This transition included an assessment of human resources processes, increasing accountability measures, a plan to create an equity, diversity, and inclusion scorecard, assessment and training through outside resources including the USC Race and Equity Center, and an explicit effort to be data informed. Researcher’s from USC’s Race and Equity Center issued a report which included 12 recommendations, many of which have already been integrated into SWC, including employee listening sessions, creating a dedicated committee, and examining and quarterly employee forums on race.

Professional Development

Nearly nine in ten (87%) faculty and administrator respondents feel there are plenty of professional development opportunities. A smaller majority (70%) feel that there are enough professional development opportunities specific to Career Education (Figure 29).

Figure 29. Faculty and Administrators’ Agreement with Statements About



For the 2019-2020 academic year, Southwestern College is a member to 160 different industry professional associations and institutions. These memberships ensure that students and faculty are able to learn about the current challenges and topics of interest within their field and become certified or credentialed across various professions and fields. These memberships include the Board of Registered Nursing Continuing Education Providers, the American Dental Association, Microsoft Developers Network Academic Alliance, and the National Career Development Association to name only a few.

Action Plan

The action plan below outlines efforts that SWC can introduce and sustain in order to improve faculty representation and training.

1. Continue to seek qualified staff, staff and administrators that are representative of the student body and the local population. Studies have shown that students perform better when educators are more representative of the student population. Since 2015, SWC has onboarded a number of Hispanic staff and should seek to continue that trend. Additionally, SWC should:
 - a. Introduce peer-recruitment or referral program that is focused on bringing graduates from similar programs or industries.
 - b. Sustain campaigns that include greater desire for equity, diversity and inclusion.
2. Investigate why fewer SWC faculty feel there is insufficient professional development specific to Career education. Examine what resources or trainings are felt to be missing.

Element 5: Progress Towards Equal Access to CE Programs for All Students

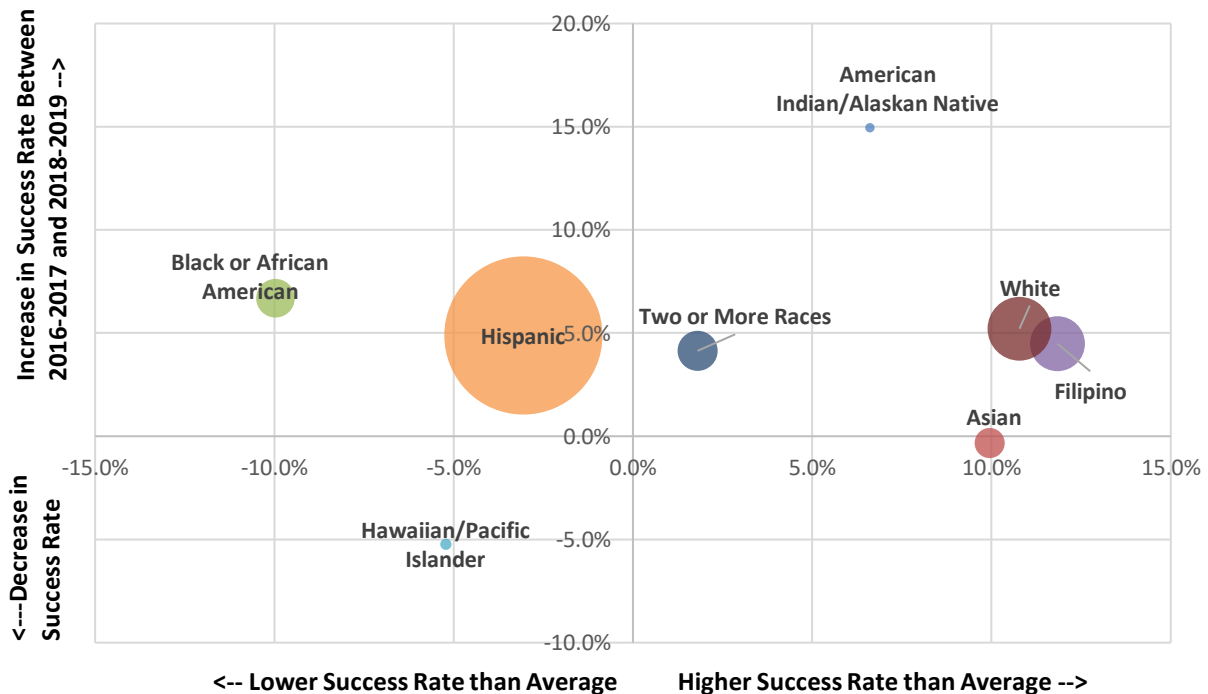
This section evaluates the equity and opportunities for students from all populations in the SWC study region. Once successes and challenges have been outlined, this section provides the framework for program initiatives and adaptations that can improve accessibility for CE students.

Ensuring equal access to all students is a predominant goal at Southwestern College. As a Hispanic-Serving Institution, as recognized by the U.S. Department of Education, Southwestern College involved in actively addressing and mitigating some of the challenges of the educational system that Hispanics face. In fact, in 2019, Southwestern College received a \$3.5 million grant to partner with San Diego State University to help create more bilingual and culturally competent K-12 educators.

Enrollment and Success by Race and Ethnicity

Success rates vary by race. As Figure 30 shows along the horizontal axis, Hispanic, Hawaiian/ Pacific Islander, and Black or African American students have success rates that are between 3% and 10% lower than the student body on average. Conversely, Filipino, White, and Asian students all have success rates that are 10% greater than average. Encouragingly, success rates (as shown along the vertical axis) have increased for nearly all races and ethnicities in recent years.

Figure 30. Success Rate and Change in CE Success Rate by Race and Ethnicity (2016-2017 to 2018-2019 Academic Years)*

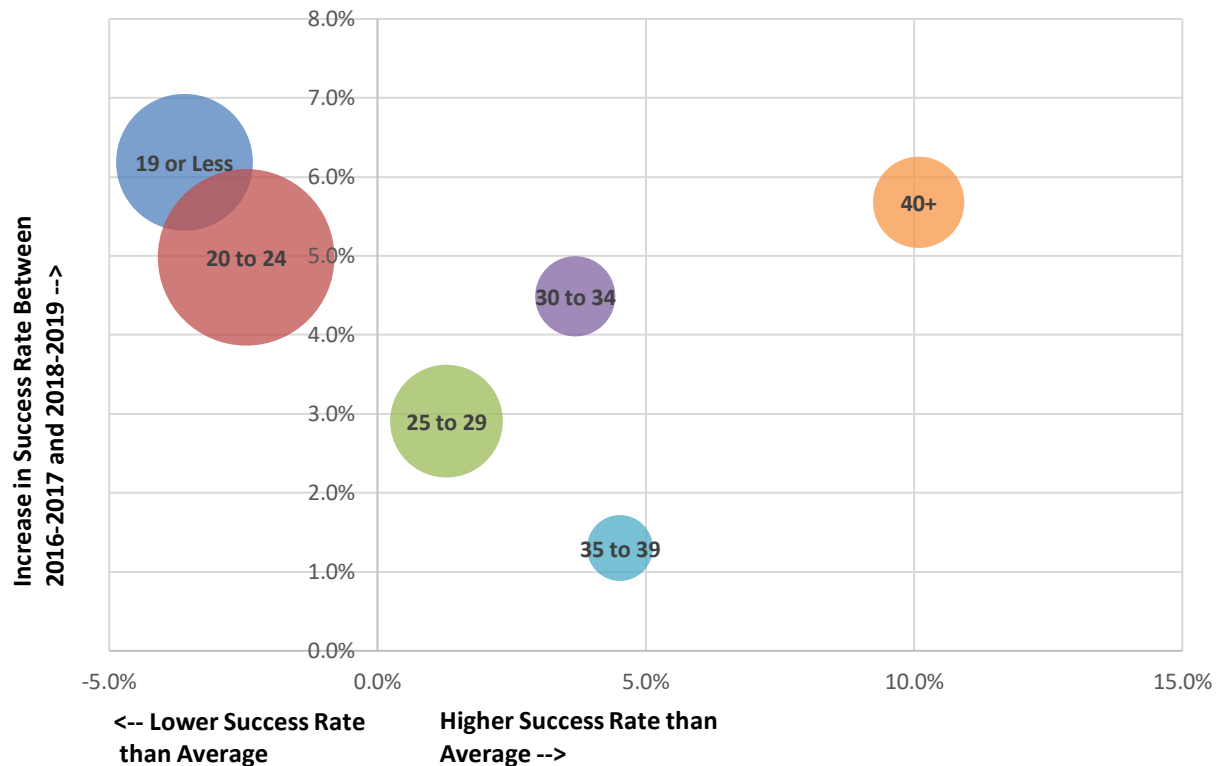


*Size of Bubble Reflects the Relative Number of Enrollees

Enrollment and Success by Age

Success rates increase with a student's age. On average, CE students 25 years of age or older had higher success rates than their younger counterparts. In fact, students aged 40 and older had success rates 10% greater than the overall average (Figure 31). While this trend is not specific to Southwestern College, it remains worth keeping in mind.

Figure 31. Success Rate and Change in Success Rate by Age Cohort (2016-2017 to 2018-2019 Academic Years)*

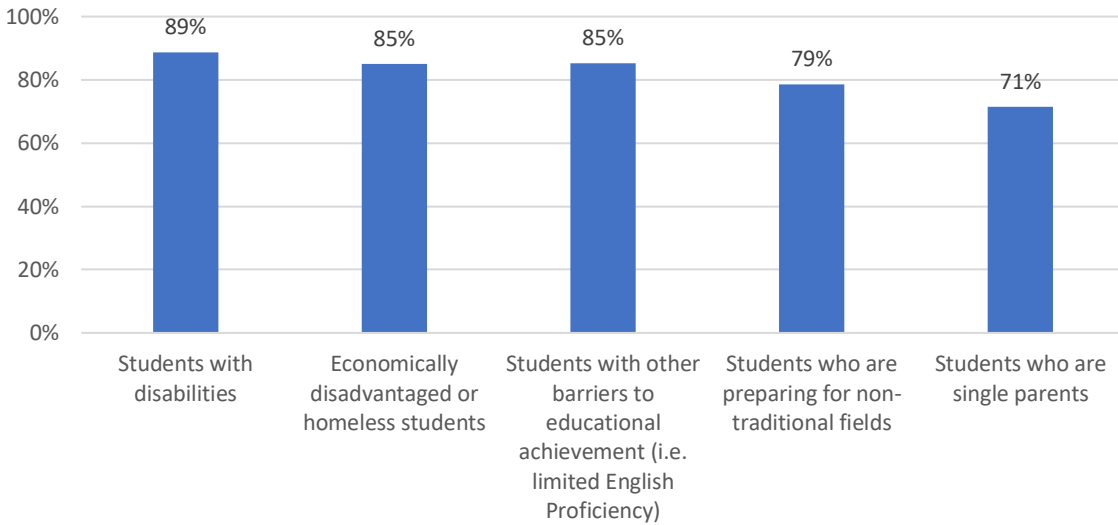


*Size of Bubble Reflects the Relative Number of Enrollees

Special Population Enrollments

Most faculty, staff and administrators feel that SWC provides adequate support for special populations. About nine-out-of-ten faculty and administrator survey respondents feel that adequate resources are provided for students with disabilities. However, respondents were less confident about other populations, including students preparing for non-traditional fields and students who are single parents (Figure 32).

Figure 32. Faculty and Administrators Who ‘Strongly Agree’ or ‘Somewhat Agree’ that SWC Provides Adequate Support For Specific Special Populations



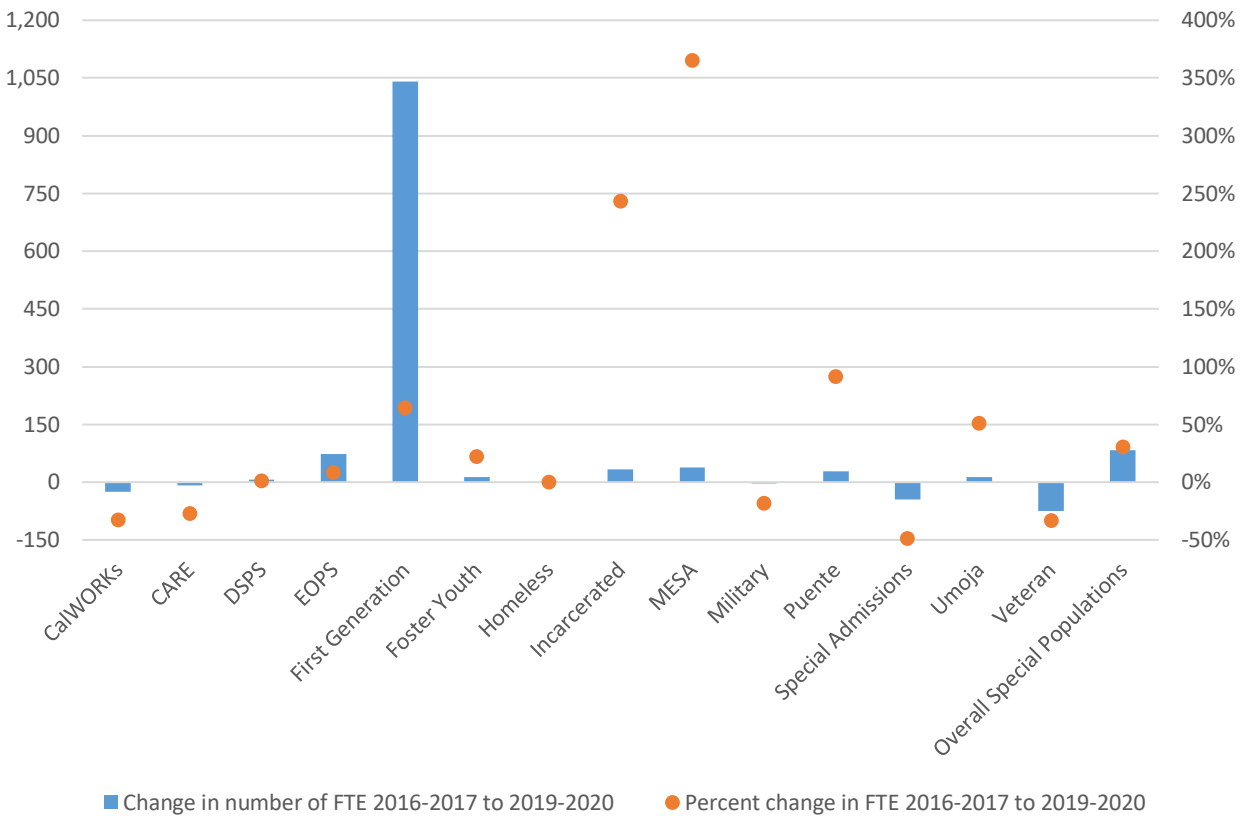
Special population CE enrollments and fulltime equivalencies are on the rise. Between the academic years of 2016-2017 and 2019-2020, the number of fulltime equivalents of 8 different special populations at SWC increased. The number of FTE special population students increased by 31% during this same time period. Conversely, full-time equivalent participation in five populations (including CalWORKS, CARE, Military, Special Admissions³⁷, and Veterans) decreased during this time. It is worth noting that most of these declines were modest, and Special Admissions FTE’s have increased since the two preceding academic years (Figure 33). Awareness and familiarity with some of these services and organizations may play a role in why these special populations are declining; 76% of student respondents were not at all familiar or slightly familiar with CalWORKS while 52% of respondents were, at most ‘slightly familiar’ with CARE/EOPS.³⁸ It is also worth noting that these programs and services received relatively high ratings from students.

³⁷ Special Admissions are for programs that require special applications for admission (i.e. Dental Hygiene, Nursing, Paramedic, etc.).

³⁸ Southwestern College 2017-2018 Student Feedback Survey.

<https://www.swccd.edu/administration/institutional-research-and-planning/files/reports-surveys/student-satisfaction-survey-reports/2018-student-feedback-survey-report.pdf>

Figure 33. Special Population Full-Time Equivalents ^{39 40 41}



Special Population Persistence and Completions

Special population persistence and completions outperformed the broader CE cohort. During the 2019-2020 academic year, rates of completions (including credentials, certificates, licenses, and degrees) exceeded the negotiated district levels. Two of these categories (non-traditional and students with disabilities) also exceeded the negotiated state levels (Figure 34).

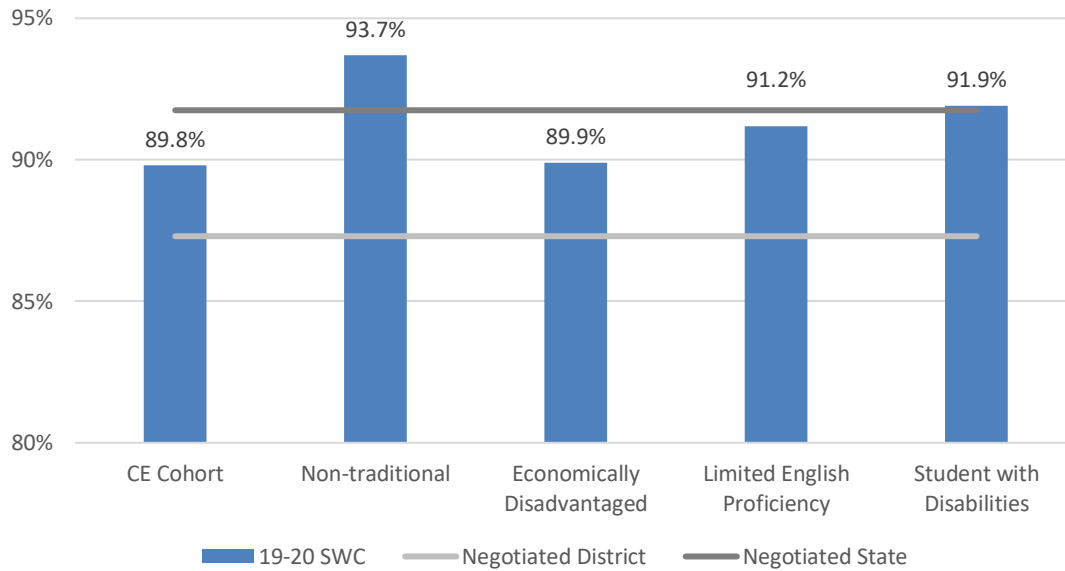
³⁹ California Community College Chancellor’s Office Management Information Systems Data Mart

⁴⁰ For more information on definitions, please see Appendix B
 CalWORKS - California Work Opportunity & Responsibility to Kids
 CARE - Cooperative Agencies Resources for Education

DSPS - Disabled Students Programs & Services
 EOPS - Extended Opportunity Programs & Services
 MESA - Mathematics, Engineering, and Science Achievement
 Military includes Active Duty, Active Reserve, and National Guard

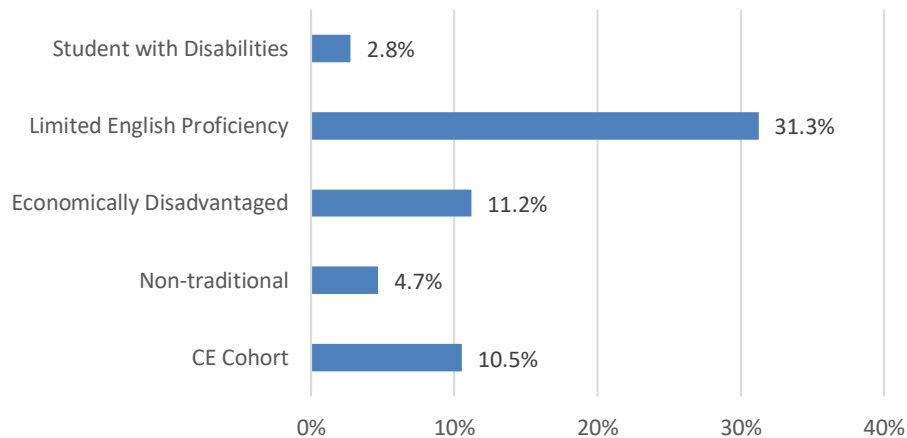
⁴¹ These special populations are disaggregated categories of special populations and include some populations that may not meet the Department of Education’s Special Population categories.

Figure 34. Completion Rates Among Student Populations⁴²



Notable progress in completions has also been made across student populations between the 2016-2017 and 2019-2020 academic years. Completion rates among students with limited English proficiency increased from 69.5% in 2016-2017 to 90.3% in 2019-2020, representing a 31% increase (Figure 35).

Figure 35. Change in Completion Rates 2016-2017 Academic Year to 2019-2020 Academic Year⁴³

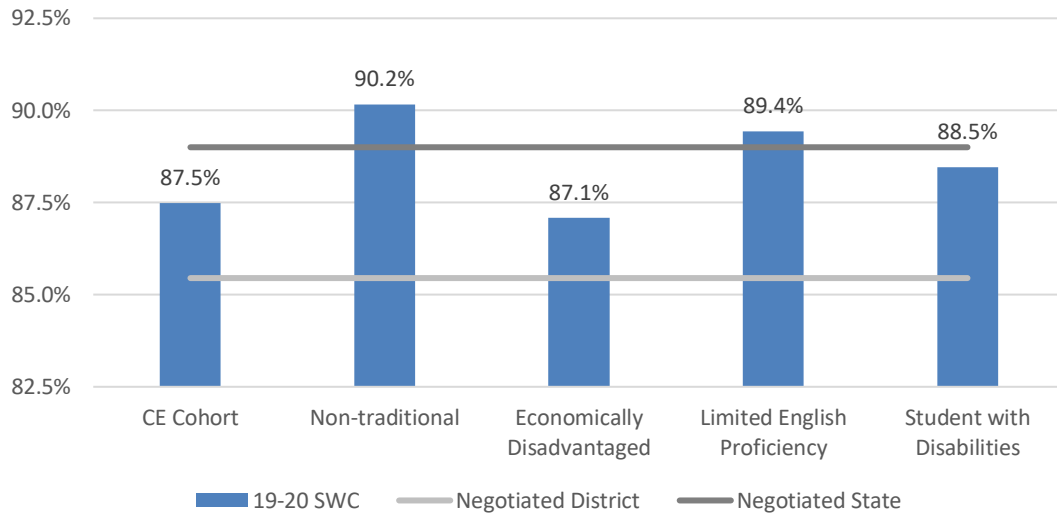


Rates of persistence and transfer are also higher across all CE student populations than the negotiated district rates. Two out of five student populations (limited English proficiency and all non-traditional) exceed the negotiated state targets as well (Figure 36).

⁴² California Community College Chancellor’s Office Management Information Systems Data Mart

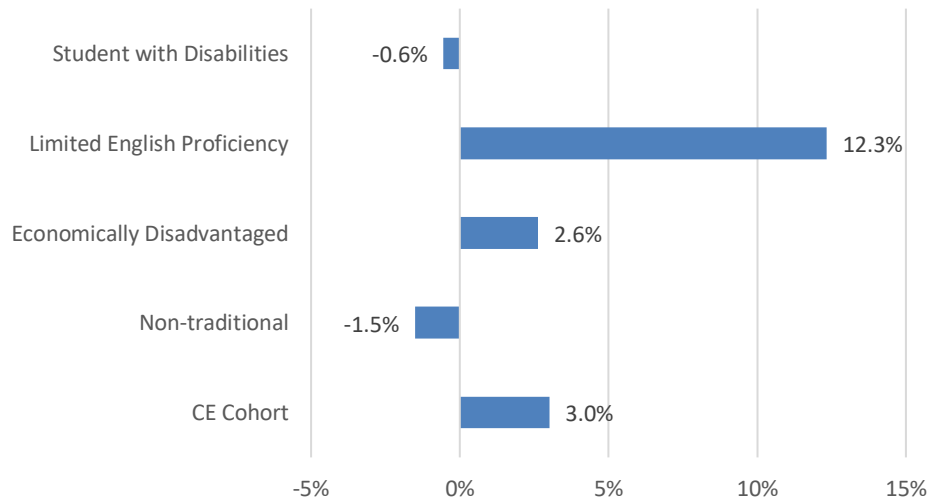
⁴³ California Community College Chancellor’s Office Management Information Systems Data Mart

Figure 36. Persistence and Transfer Rates⁴⁴



Persistence and transfer rates among the broad CE cohort, economically disadvantaged, and limited English proficiency populations increased between the 4-most recent academic years. Persistence and transfer rates of students with limited English proficiency increased by the largest percentage, increasing from 79.6% in the 2016-2017 academic year to 89.4% in the 2019-2020 academic year. Persistence and transfer rates during this time declined modestly among non-traditional students and students with disabilities (Figure 37).

Figure 37. Change in Persistence and Transfer Rates from 2016-2017 Academic Year to 2019-2020⁴⁵



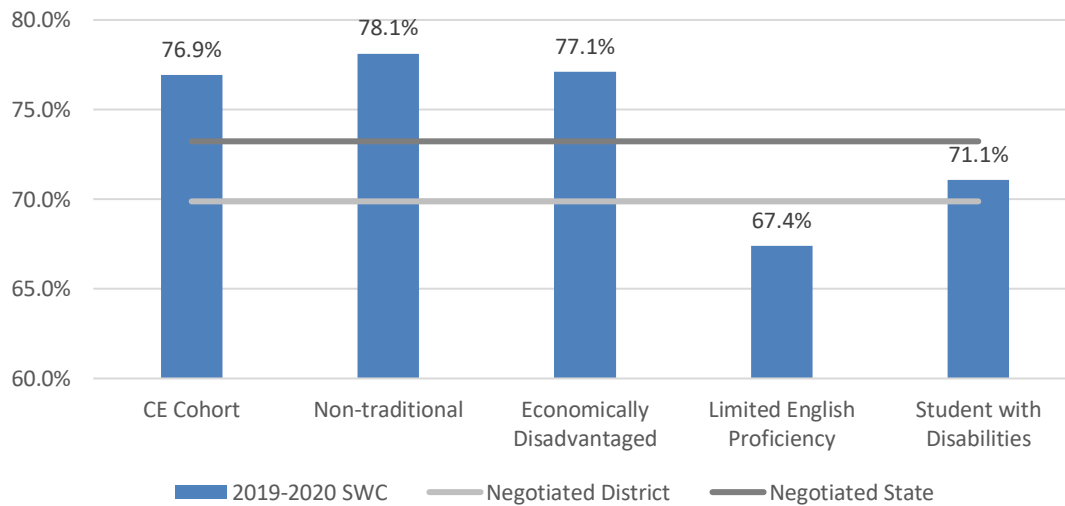
⁴⁴ California Community College Chancellor’s Office Management Information Systems Data Mart

⁴⁵ California Community College Chancellor’s Office Management Information Systems Data Mart

Special Population Employment

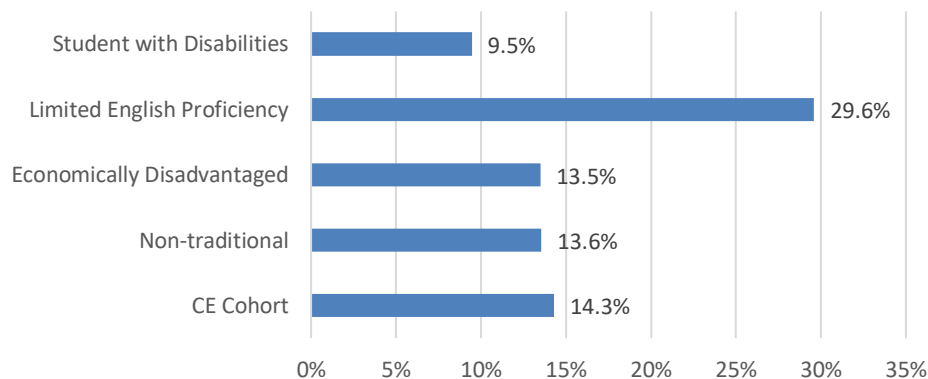
Nearly all special population categories exceed the negotiated district target for employment. With exception of students with limited English proficiency, all student populations exceeded the negotiated district level and three populations (broader CE cohort, non-traditional, and economically disadvantaged) exceeded the state levels (Figure 38). Stakeholders revealed that increased job preparation, such as coaching in resume writing and interviewing, may help students succeed in securing gainful employment.

Figure 38. Employment Rates by Student Population⁴⁶



Employment rates among all student populations increased notably between the four most-recent academic years. Students with limited English proficiency saw the greatest growth in employment, growing from 52.0% to 67.3% over four years (Figure 39).

Figure 39. Change in Employment Rates between 2016-2017 and 2019-2020 Academic Years⁴⁷



⁴⁶ California Community College Chancellor's Office Management Information Systems Data Mart

⁴⁷ California Community College Chancellor's Office Management Information Systems Data Mart

Restorative Justice Program

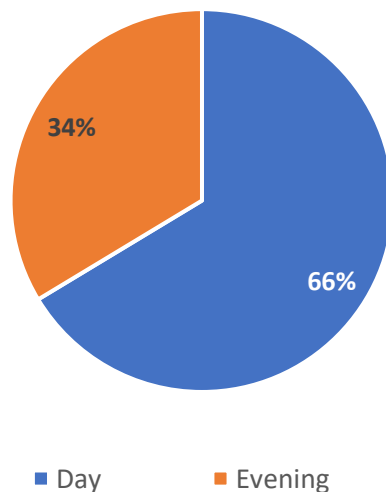
Southwestern College offers educational opportunities at two separate incarceration facilities to help reduce recidivism by giving individuals valuable skills that will help them re-enter the workforce.

These programs are currently offered at the Richard J. Donovan Correctional Facility and the San Diego County Jail in East Mesa. An ADT in Business administration is available at the RJD Correctional Facility, while courses in personal development, reading, communication, financial literacy, and computer skills can be taken at the SD County Jail. These programs work with a number of community-based organizations, including Second Chance, to help these individuals develop skills that will allow them to advance in the world of work or in further academic pursuits.

Non-Credit Career Education

Southwestern College had 3,909 students enrolled across 191 sections of non-credit career education courses between Summer of 2018 and Spring of 2019. The number of enrollments has remained relatively constant since the 2016-2017 academic year. As Figure 40 shows, about two thirds of these enrollments were during daytime course offerings.

Figure 40. Share of Enrollments⁴⁸



⁴⁸ California Community College Chancellor's Office Management Information Systems Data Mart

Element 5 Action Plan

The above data demonstrates that while progress has been made towards increasing equity across all student populations at Southwestern College, there is still some progress to be made. Three potential steps for improvement include:

1. Increasing awareness of specific programs and services, particularly CalWORKS and EOPS/CARE, as three-quarters (76%) and half (52%) of students surveyed in 2017-2018 said they were at most “slightly familiar” with these programs. Most students reported not using services but most of those who had suggested that they were satisfied with the services provided.
 - a. Awareness campaigns for services
 - b. Make awareness campaigns part of the onboarding process for students
 - c. Peer recommendation/reference programs or initiatives that promote peer-to-peer communication
2. Continuing to improve the completion rates of special populations, including economically disadvantaged and limited English proficiency students. It is encouraging that the populations with the lowest completion rates have seen notable improvements in recent years, suggesting that SWC is on track to help these populations achieve completion rates of their peers.
 - a. Investigate recent changes and continue or expand upon current services or initiatives that are in place.
 - b. Further investigate potential housing support programs for economically disadvantaged individuals. A third of students surveyed stated they would be interested in housing offered through SWC.
 - c. Increase ESL support and outreach programs. A mentor or peer-to-peer type program may have some success and foster community.
3. Investigating new or supplementing existing programs that help students with limited English proficiency and disabilities find gainful employment upon completion.
 - a. Promote pairing of ESL courses with Career Education Courses.
 - b. Work to increase internship opportunities, particularly for these populations, by increasing outreach with local employers. Bilingual employees are increasingly important in the workplace.
 - c. Encourage coursework that promotes written and verbal communication and presentation of ideas.

Element 6: Alignment to Labor Market Information (LMI)

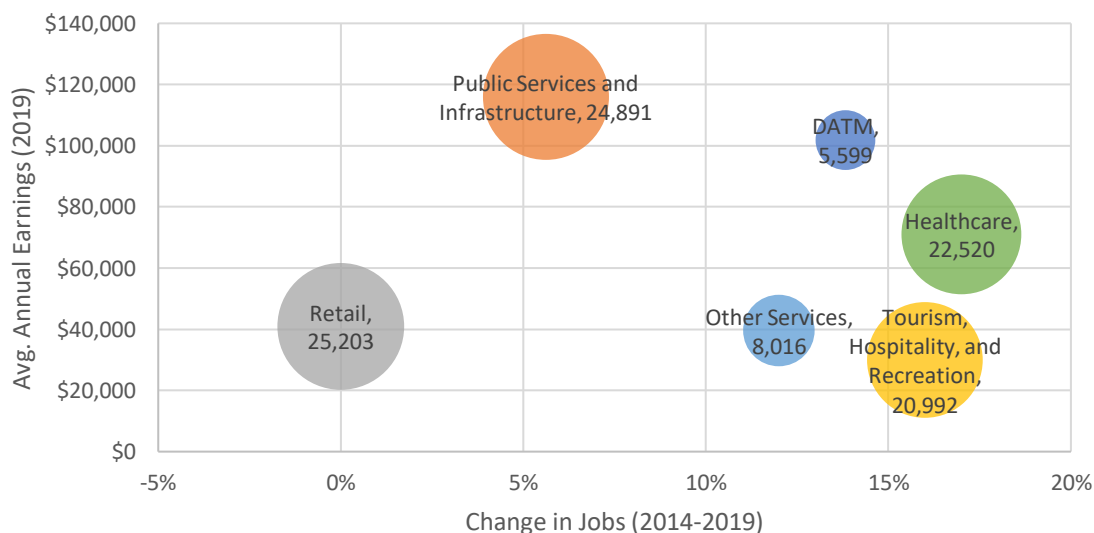
In this section, the region's economy is outlined through industry clusters and SWC's CE curriculum is analyzed in the context of labor market information in order to identify strengths, weaknesses, and opportunities for CE programs to meet the needs of industry. Once these gaps are presented, this section provides a series of proposed program modifications in order to better prepare SWC for the regional labor market.

General Industry Cluster Analysis

Viewing the SWC study region's economy through the lens of industry clusters gives an idea of what types of industries are the fastest growing and will provide the best employment opportunities. Industry clusters are a way of grouping industries with similar products and supply chains together, which shows a region's competitive advantage relative to other regions. These industry clusters are defined by NAICS (North American Industry Classification System, a classification system used by the United States, Canada, and Mexico) codes and include all workers in a given industry. This means that employment numbers and wages are not reflective exclusively of SWC graduates. The purpose of the analysis is to show the dynamics and magnitude of the overall regional employment landscape. The second half (beginning on page 63) of this section includes wages of SWC graduates only.

Figure 41 shows the six industry clusters in the SWC study region that have the greatest concentration of jobs relative to the national average. That means that a greater percentage of the workforce is in these industries than the corresponding share of workers on nationally. Of these industry clusters, Healthcare; Tourism, Hospitality, and Recreation; and Defense, Aerospace, and Transportation Manufacturing (DATM) were the fastest growing between 2014 and 2019.

Figure 41. High Concentration Industry Clusters* ⁴⁹

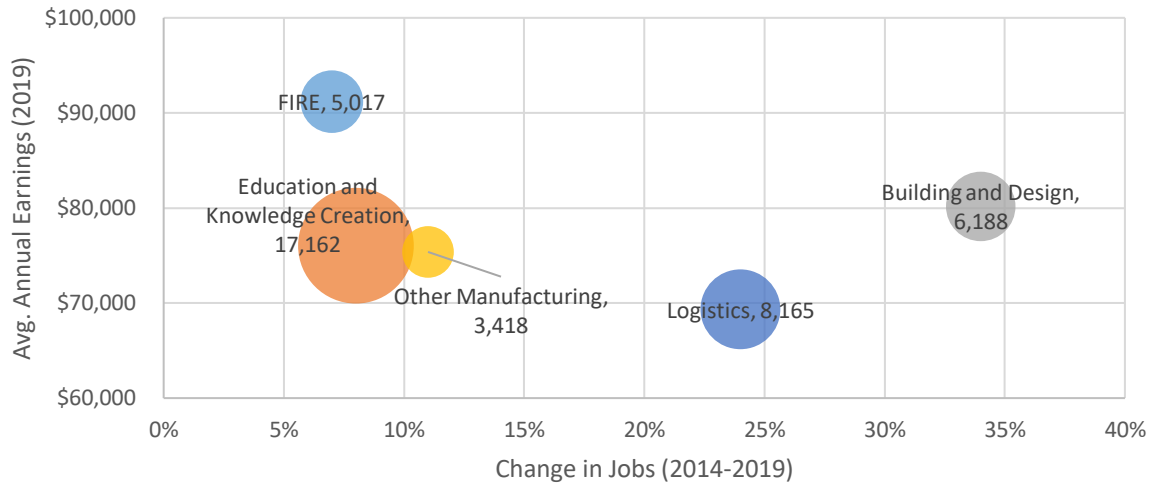


*The size of the bubbles is proportional to the number of jobs in 2019.

⁴⁹ EMSI QCEW and non-QCEW Employment 2020.1

The Building and Design and the Logistics industry clusters have seen substantial employment growth between 2015 and 2019, increasing 34% and 24% respectively. The Finance, Banking, Insurance, and Real Estate (FIRE) industry cluster has the highest average earnings, with workers earning more than \$91,000 per year on average (Figure 42). These earnings are regional estimates, including SWC graduates as well as the rest of the workforce.

Figure 42. Average Concentration Industry Clusters* ⁵⁰

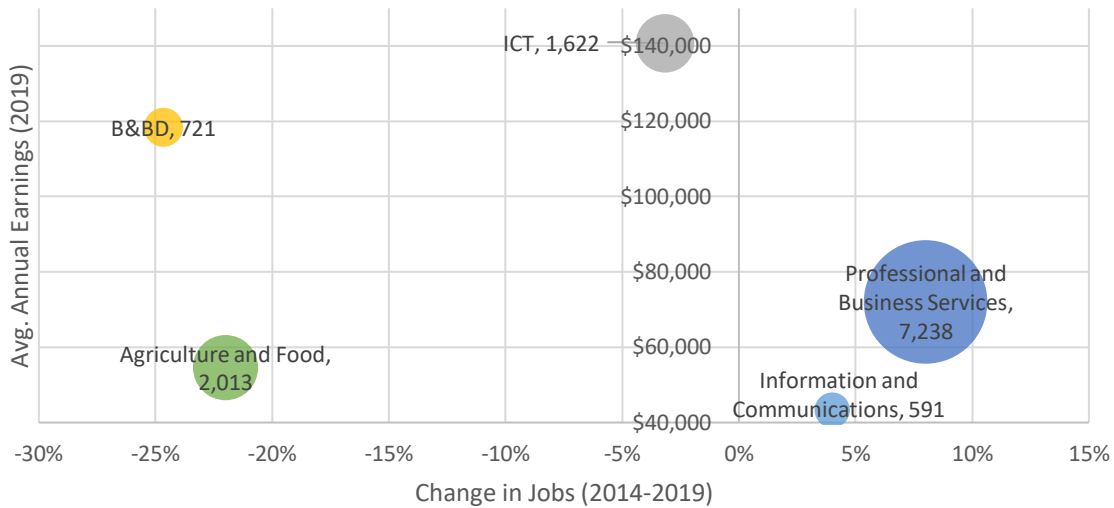


*The size of the bubbles is proportional to the number of jobs in 2019.

Most low-concentration industry clusters have relatively few jobs in the SWC study region; Professional and Business Services is by far the largest industry cluster and accounts for just over 7,200 jobs. The Information and Communications Technology (ICT) industry cluster has the highest average earnings, with workers earning more than \$140,000 per year, but employment in the industry cluster declined 3% between 2014 and 2019.

⁵⁰ EMSI QCEW and non-QCEW Employment 2020.1

Figure 43. Low Concentration Industry Clusters* ⁵¹



*The size of the bubbles is proportional to the number of jobs in 2019.

Regional Supply and Demand

Table 18 highlights the 75 programs available at Southwestern College. Programs are organized by TOP (Taxonomy of Program) code, which allows California Community Colleges to better categorize programs and align them to regional labor markets. The ‘Regional Completions’ column includes completions from Southwestern College as well as other community colleges in the region. Thus, the table provides a program-level view of both the supply and demand for graduates of these programs. The ‘Openings per Completion’ column is the number of completions divided by the annual openings. For example, there are about 900 openings for International Business/Trade positions⁵² for every regional completion.

Organizing the programs this way allows an immediate understanding of where there is high employment demand relative to regional completions. Not surprisingly, the region’s proximity to the U.S. Mexico Border results in high demand for occupations aligned to International Business/Trade and Logistics/Materials Transport programs. Additionally, there is high demand for occupations aligned to business, including the Small Business & Entrepreneurship and General Business and Commerce programs.

Ultimately this analysis reveals that SWC has been successful in aligning its programs to regional labor markets; none of the 75 programs over-supply regional labor, even when including completions at other regional institutions. Conversely, Table 18 shows that there is an under-supply of for many occupations

⁵¹ EMSI QCEW and non-QCEW Employment 2020.1

⁵² These occupations are determined through a TOP-SOC crosswalk created by the California Community Colleges Chancellor’s Office Centers of Excellence. For more information on this crosswalk, please visit <http://www.coeccc.net/>

relevant to specific programs. Twenty-one programs (the first twenty-one programs in the table below) have 20 or more annual openings for every regional completion.

About the Data

These regional completions and openings are provided by the California Community Colleges Centers of Excellence. Because some TOP (Taxonomy of Programs, the California Community Colleges categorization system) codes do not correspond perfectly with SOC codes (Federal classifications of occupations) some programs may not align to specific occupations and subsequently lack supply-side data. Median annual wages were available through LaunchBoard and are based on SWC graduates who pursued employment in the Southwestern College District immediately after completion of their program. Additionally, because these programs are at the six-digit level, they may not align perfectly with the program deep dive tables in Section 2 of this report, as many of those tables are reported at the more aggregate four-digit level.

Table 18. Regional Supply and Demand by Program

TOP CODE	TOP Description	SD County Annual Openings	Regional Completions	Openings per Completion	Median Annual Wages of SWC Graduates
050800	International Business/Trade	1,809	2	905	\$37,376
050640	Small Business & Entrepreneurship	1,463	2	732	\$31,340 ^a
050100	Business and Commerce, General	4,552	8	569	\$28,510
043000	Biotechnology/Biomedical Tech	1,175	4	294	\$23,700
051410	Legal Office Technology	205	1	205	\$23,842 ^a
095700	Construction Inspection	566	3	189	\$46,180
050900	Marketing and Distribution	334	2	167	\$35,643
050970	Business Management	261	2	131	\$21,380 ^a
051000	Logistics/Materials Transport	1,030	8	129	\$42,052
050400	Banking and Finance	1,094	11	99	\$26,430
130630	Culinary Arts	2,551	30	85	\$22,024
070210	Software Applications	165	2	83	\$32,594 ^a
050630	Management Dev & Supervision	1,584	25	63	\$34,084
120500	Medical Laboratory Technology	272	6	45	\$50,678
051100	Real Estate	1,015	26	39	\$34,618
050200	Accounting	3,499	97	36	\$31,498
130700	Hospitality	200	7	29	\$28,944
140200	Paralegal	510	19	27	\$28,912
094800	Automotive Technology	787	34	23	\$24,552
123020	Licensed Vocational Nursing	466	22	21	\$37,224
122310	Health Information Coding	163	8	20	^c
051400	Office Technology/Office Computer Applications	2,630	146	18	\$24,068

125000	Emergency Medical Services	137*	9	15	\$23,448
210510	Administration of Justice/ Cyber Security	235	17	14	^c
095300	Drafting Technology	120	9	13	\$24,720
123010	Registered Nursing	1,601	137	12	\$38,544
095720	Construction Inspection	159	14	11	\$46,706
125100	Paramedic	137*	14	10	\$51,058
030300	Environmental Technology	88	9	10	\$39,096
100500	Commercial Music	96	11	9	\$15,424
060400	Film, Television & Media Arts	91	11	8	\$22,020 ^a
213300	Fire Technology	239	30	8	\$29,684
210550	Police Academy	347	54	6	\$35,052
20100	Arch & Architectural Tech	170	28	6	\$19,940
121700	Surgical Technician	97	19	5	\$47,468
130500	Family Studies	1,953	430	5	\$16,399
124020	Dental Hygienist	176	56	3	\$58,772
210500	Administration of Justice	567	257	2	\$21,556
126000	Radiation Therapy Technician	89	85	1	^c
103000	Graphic Art and Design	58	70	<1	\$17,052
083520	Fitness Trainer	11	15	<1	\$17,296
010920	Floriculture/Floristry	53	^b	^b	\$14,552 ^a
094830	Motorcycle, Outboard, and Small Engine Repair	34	^b	^b	^c
093410	Computer Electronics	120	^b	^b	
051200	Insurance	748	^b	^b	\$24,212
302020	Piloting	32	^b	^b	\$27,056 ^a
051420	Medical Office Technology	^b	984	^b	^c
120900	Hospital Central Serv Tech	^b	77	^b	\$37,998
061220	Film Production	^b	^b	9	\$20,588 ^a
101200	Applied Photography	^b	12	^b	\$18,240
060420	Television (TV/Film/Video)	^b	13	^b	\$19,542
010910	Landscape Design/Maintenance	^b	4	^b	\$28,370
010930	Nursery Technology	^b	1	^b	\$25,080 ^a
010940	Turfgrass Technology	^b	^b	^b	^c
094610	Energy Systems Technology	^b	71	^b	^c
095670	Industrial and Occupational Safety and Health	^b	8	^b	^c
061420	Electronic Game Design	^b	6	^b	\$21,992 ^a
061430	Website Design and Development	^b	17	^b	\$28,873
070100	Information Technology, General	^b	37	^b	\$23,904
070200	Computer Information Systems	^b	5	^b	\$29,792
070710	Computer Programming	^b	1	^b	\$25,916
070810	Computer Networking	^b	1	^b	\$32,188

070820	Computer Support	b	3	b	\$32,188
070900	World Wide Web Administration	b	b	b	\$43,208 ^a
070910	E-Commerce	b	b	b	\$36,000 ^a
130720	Lodging Management	b	3	b	\$30,972 ^a
050500	Business Administration	b	302	b	
050600	Business Management	b	83	b	\$25,108
214000	Legal and Community Interpreter	b	16	b	\$20,304
220610	Geographic Information Systems	b	5	b	\$24,164
130590	Infants and Toddlers	b	24	b	\$26,396
130800	Family Studies	b	31	b	\$22,720
120810	Clinical Medical Assisting	b	8	b	\$13,798
120820	Administrative Med Assisting	b	22	b	\$21,344
123030	Certified Nursing Assistant	b	78	b	\$23,244

**These programs fall under the same SOC code and therefore have the same number of annual openings.*

^a *These wages are based on graduates of all community colleges in San Diego and Imperial Counties because data were unavailable at the Southwestern District level.*

^b *The California Community Colleges' Centers of Excellence do not provide specific occupations related to these TOP codes.*

^c *Wages unavailable at District or County level.*

Element 6 Action Plan

Analyzing SWC programs in the context of regional labor market information highlighted a number of potential actions to better match Southwestern College programs and graduates to the local opportunities available. These actions include efforts to:

1. Increase emphasis on programs that focus on international business, trade, and logistics. Table 18 demonstrated that there is substantial local demand for occupations related to these programs. The proximity to the U.S.-Mexico border and the amount of trade activity that goes on in San Diego is a regional strength that ought to be capitalized upon. Some of these efforts may include:
 - a. Marketing campaigns that highlight potential occupations and career pathways may attract greater attention to these programs.
 - b. Enhance WBL opportunities for these programs. First-hand experience and face-to-face opportunity may aid in graduate placement.
 - c. Emphasize the potential advantage for bilingual students. Students who are bilingual may have greater demand in international business. Highlighting success stories and potential advantages may boost interest in these programs.

2. Consider expansion efforts for programs with high jobs per regional completion rates. High jobs per completion rates are indicative that there may be a relative shortage in the talent pool and may suggest that employers are in greater need of talent and thus more likely to work with SWC on curriculum or worksite visits, offer internships, and employ graduates. There are nine programs where the number of annual openings relative to the number of regional completions exceeds 100. Another 12 programs have 20 or more annual openings per completion.

3. Connect programs to industry clusters. There are several benefits that may extend from doing so, including
 - a. A better understanding of where SWC graduates can and do work, allowing programs to better tailor curriculum to industries that are most frequent for SWC graduates.
 - b. Help students better understand the career pathways available to them. A specific roadmap of what lies ahead may boost retention and completion.
 - c. Industry clusters offer broader opportunities for students. Experience and specialization in an industry cluster may allow graduates to advance quicker in their careers or transition from one occupation to another with greater ease.

Part II: Regional Data and Context for the CLNA

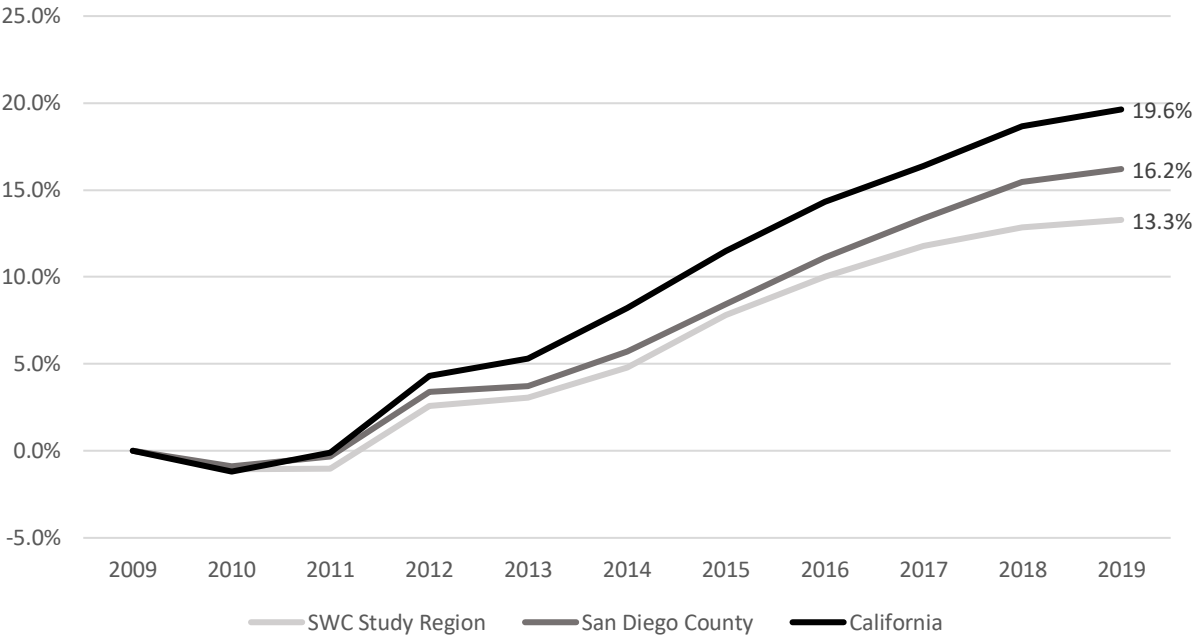
Regional Economic Analysis

This section of the report focuses on the overall type and number of jobs in the Southwestern College study region. Looking at the number and types of jobs, and how they have changed in recent years compared to other regions allows SWC stakeholders and decision-makers to better understand the regional economic ecosystem and better prepare the forthcoming workforce.

Regional Employment

In 2019 there were more than 177,000 jobs in the Southwestern College study region. This represents an increase of about 20,000 jobs since 2009, or a growth rate of about 13%. This growth rate is slower than that of broader San Diego County and the state (Figure 44).

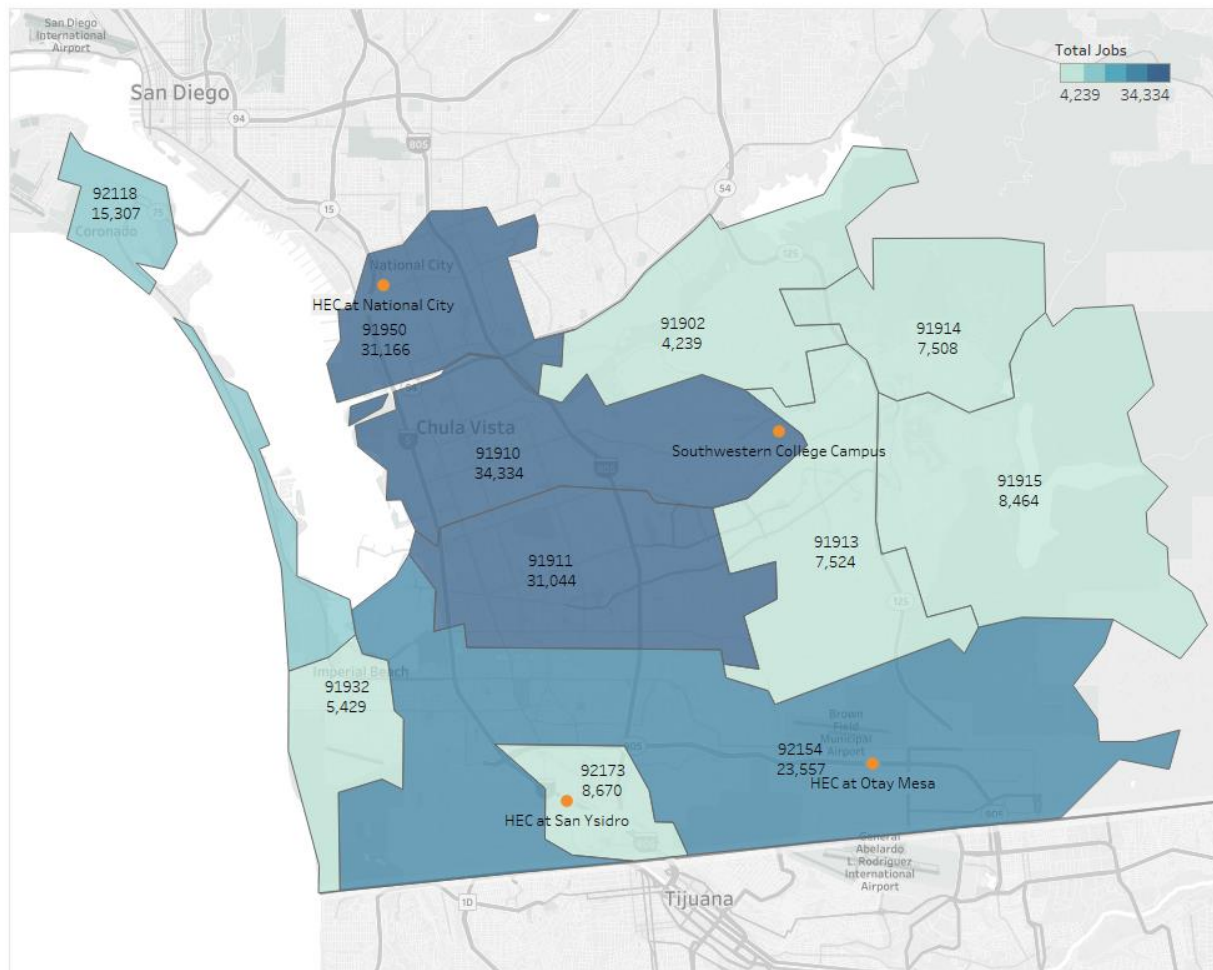
Figure 44. Change in Employment (2009-2019)⁵³



⁵³ EMSI QCEW and non-QCEW Employment 2020.1

Employment in the SWC study region is primarily in the three zip codes that encompass National city and Chula Vista (91950, 91910, and 91911). These three zip codes contain nearly 55% of the region’s employment (Figure 45).

Figure 45. Employment by Zip Code (2019)⁵⁴



Job Quality

Job quality is a crucial aspect of the labor market that has far-reaching effects on a region’s economic activity and quality of life. In an area such as the Southwestern College study region, where the cost of living is expensive, job quality is particularly important to examine. Job quality—determined by a job’s required skillsets and average pay —has a notable impact on the livelihoods of job holders and can mean the difference between struggling to make ends meet and earning a comfortable and sustainable income. ***This analysis is based on the occupations that are in the Southwest College study area and does not include the jobs of Southwest Study Region residents who work outside the region.***

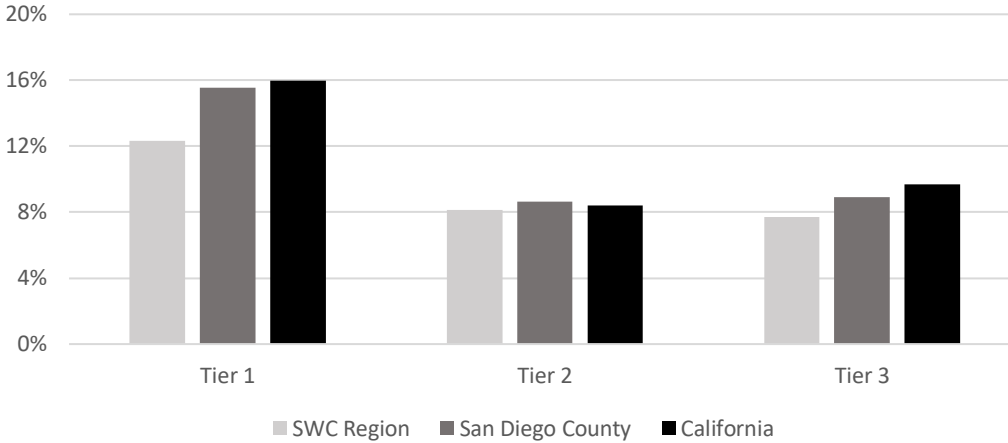
⁵⁴ EMSI QCEW and non-QCEW Employment 2020.1

This report categorizes jobs into three different quality categories:

Tier 1 Occupations	Tier 2 Occupations	Tier 3 Occupations
<p>Tier 1 occupations are typically the highest-paying, highest-skilled occupations in the economy. This occupational category includes positions such as managers (e.g., Chief Executives and Sales Managers), professional positions (e.g., Lawyers and Physicians) and highly skilled technology occupations, such as scientists, engineers, computer programmers, and software developers.</p> <p>Average Earnings: \$95,988</p>	<p>Tier 2 occupations are typically the middle-skill, middle-wage occupations. This occupational category includes positions such as technicians, teachers, office and administrative positions (e.g., Accounting Clerks and Secretaries), and manufacturing, operations, and production positions (e.g., Assemblers, Electricians, and Machinists).</p> <p>Average Earnings: \$51,462</p>	<p>Tier 3 occupations are typically the lowest-paying, lowest-skilled occupations that have historically provided the largest portion of employment in the region. These occupations include positions such as security guards, food service and retail positions, building and grounds cleaning positions (e.g., Janitors), and personal care positions (e.g., Home Health Aides and Child Care Workers).</p> <p>Average Earnings: \$27,849</p>

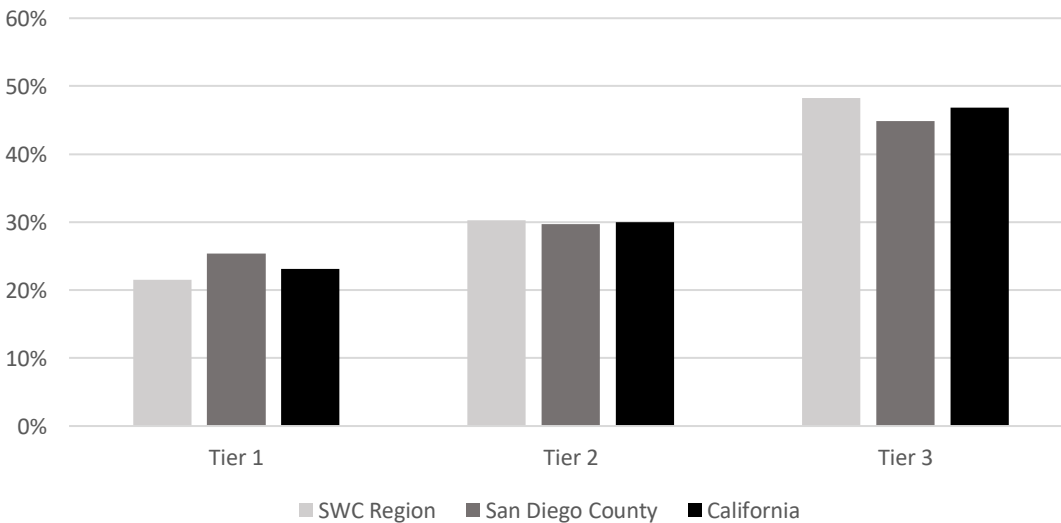
Tier 1 (high-skill, high-wage) jobs saw the greatest growth in the SWC study region between 2014-2019. This means that job quality in the SWC study region is improving, as an increasing share of workers have higher-skill, higher-paying occupations. However, growth rates across all job quality categories in the SWC study region were lower than the county-wide and state-wide counterparts (Figure 46).

Figure 46. Growth in Employment by Occupational Tier (2014-2019)⁵⁵



Even though Tier 1 jobs are the fastest growing in the SWC study region, they comprise the smallest part of the local labor force; less than a quarter of all jobs in the SWC study region are Tier 1. The SWC study region also has a greater proportion of tier 3 jobs (those that are generally the lowest-skill and the lowest-paying) than the county and statewide averages (Figure 47). This suggests that the SWC study region’s job quality is improving, but there is still room for improvement. The “Propel San Diego” program by the South County Economic Development Council worked to increase the number of higher-paying tier 1 jobs in industries such as cybersecurity, aerospace and aviation, and defense.

Figure 47. Proportion of Each Job Tier (2019)⁵⁶

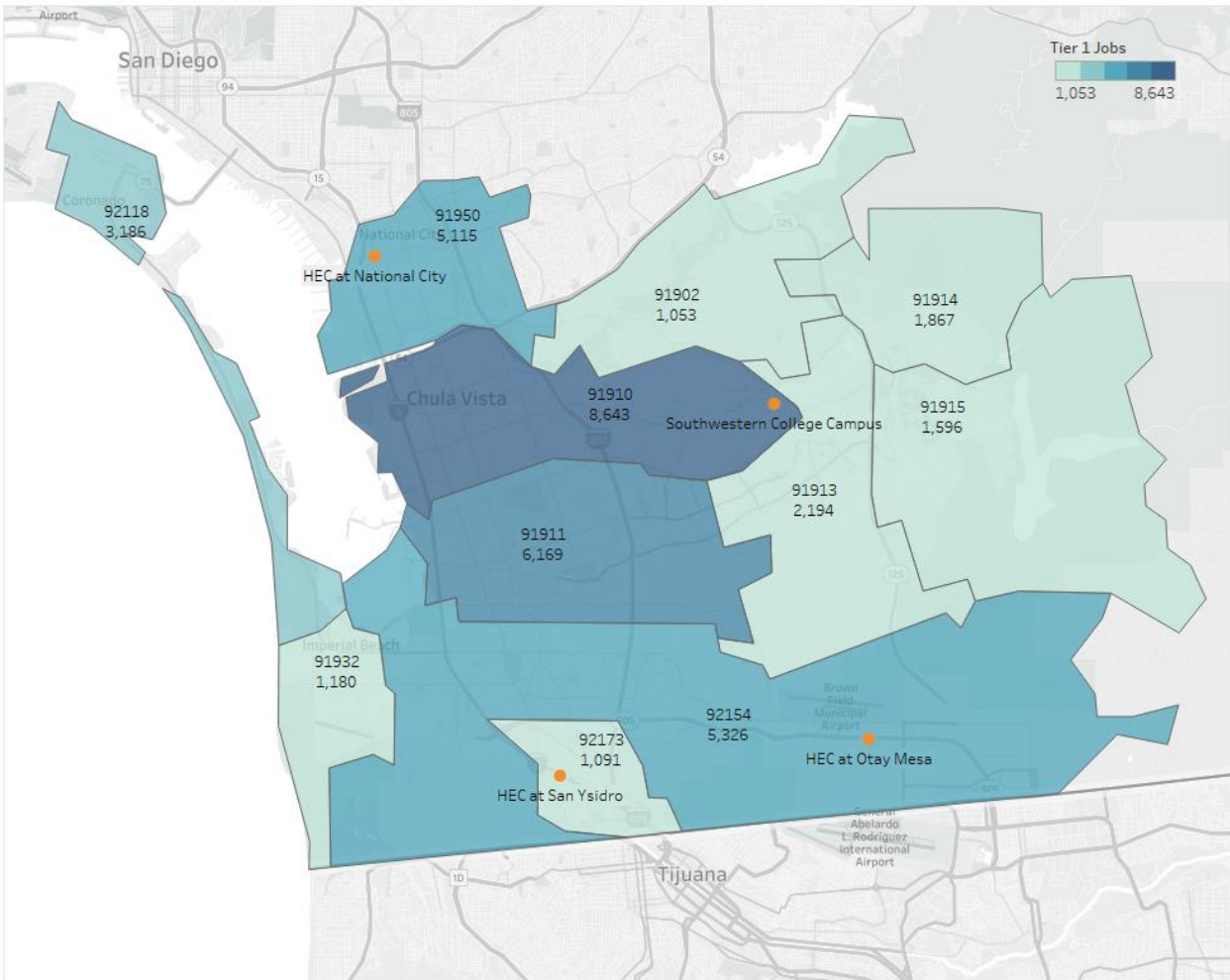


⁵⁵ EMSI QCEW and non-QCEW Employment 2020.1

⁵⁶ EMSI QCEW and non-QCEW Employment 2020.1

Tier 1 (higher-skill, higher-paying) jobs are most frequent around Chula Vista and Castle Park (zip codes 91910 and 91911). National City (91950) and Otay Mesa (92154) also have a notable number of Tier 1 jobs, each with more than 5,000 tier 1 jobs (Figure 48). The five most numerous tier 1 jobs in the SWC study region are Registered Nurses, Business Operations Specialists, General and Operations Managers, All Other Managers, and Logisticians.⁵⁷

Figure 48. Tier 1 Jobs (2019)⁵⁸



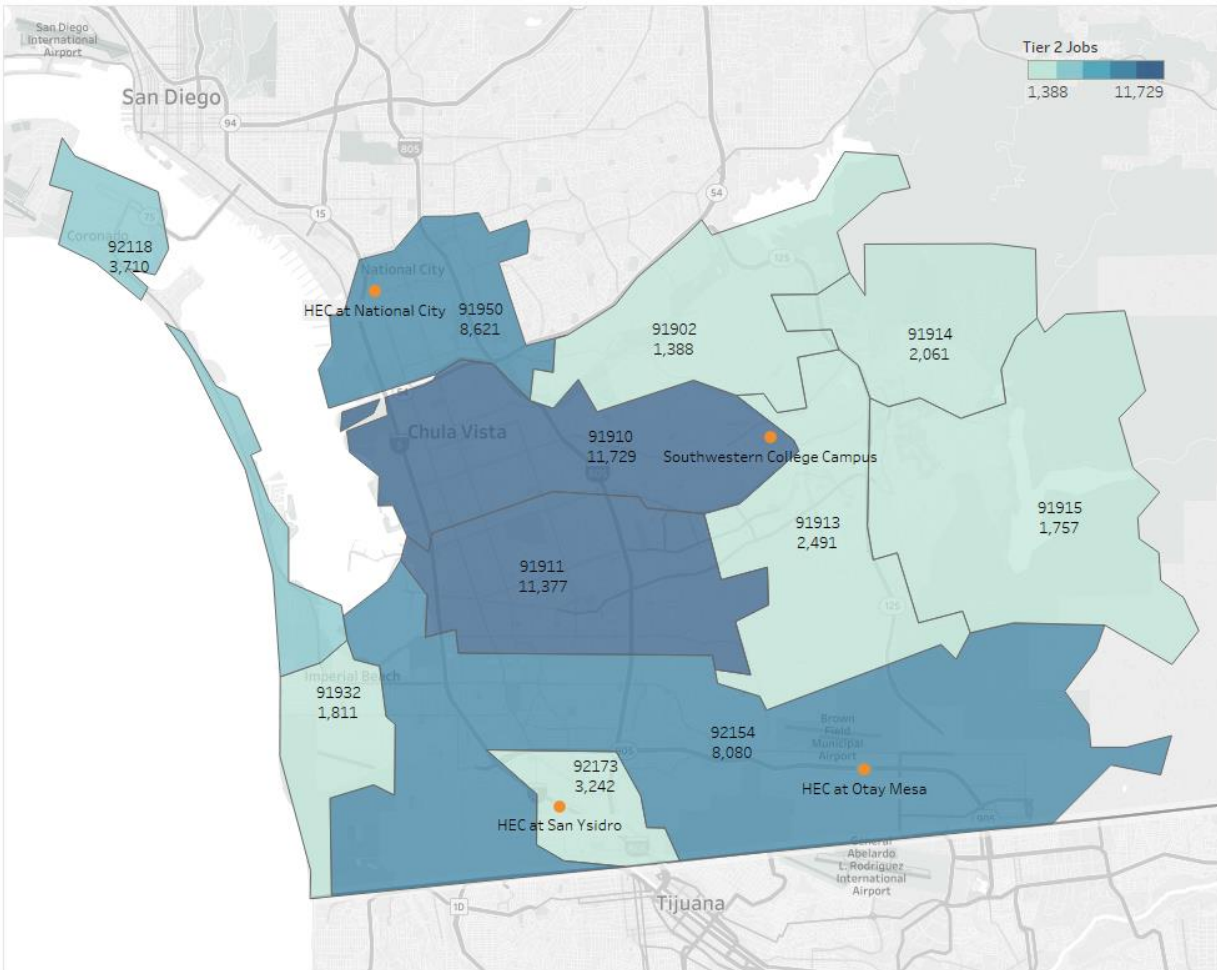
Similar to Tier 1 jobs, Tier 2 (mid-skill, mid-wage) jobs are most frequent in the central sub-region of the Southwestern College study area. The zip codes 91910 and 91911 around Chula Vista and Castle Park have the greatest number of Tier 2 jobs, with more than 11,000 tier 2 jobs each (Figure 49). The most numerous tier 2 jobs in the SWC study region are Secretaries and Administrative Assistants (except Legal, Medical, and Executive), First-Line Supervisors of Retail Sales Workers, Elementary School

⁵⁷ EMSI QCEW and non-QCEW Employment 2020.1

⁵⁸ EMSI QCEW and non-QCEW Employment 2020.1

Teachers (except Special Education), Secondary School Teachers (Except Special and Career/Technical Education), and Bookkeeping, Accounting, and Audit Clerks.⁵⁹

Figure 49. Tier 2 Jobs (2019)⁶⁰



⁵⁹ EMSI QCEW and non-QCEW Employment 2020.1

⁶⁰ EMSI QCEW and non-QCEW Employment 2020.1

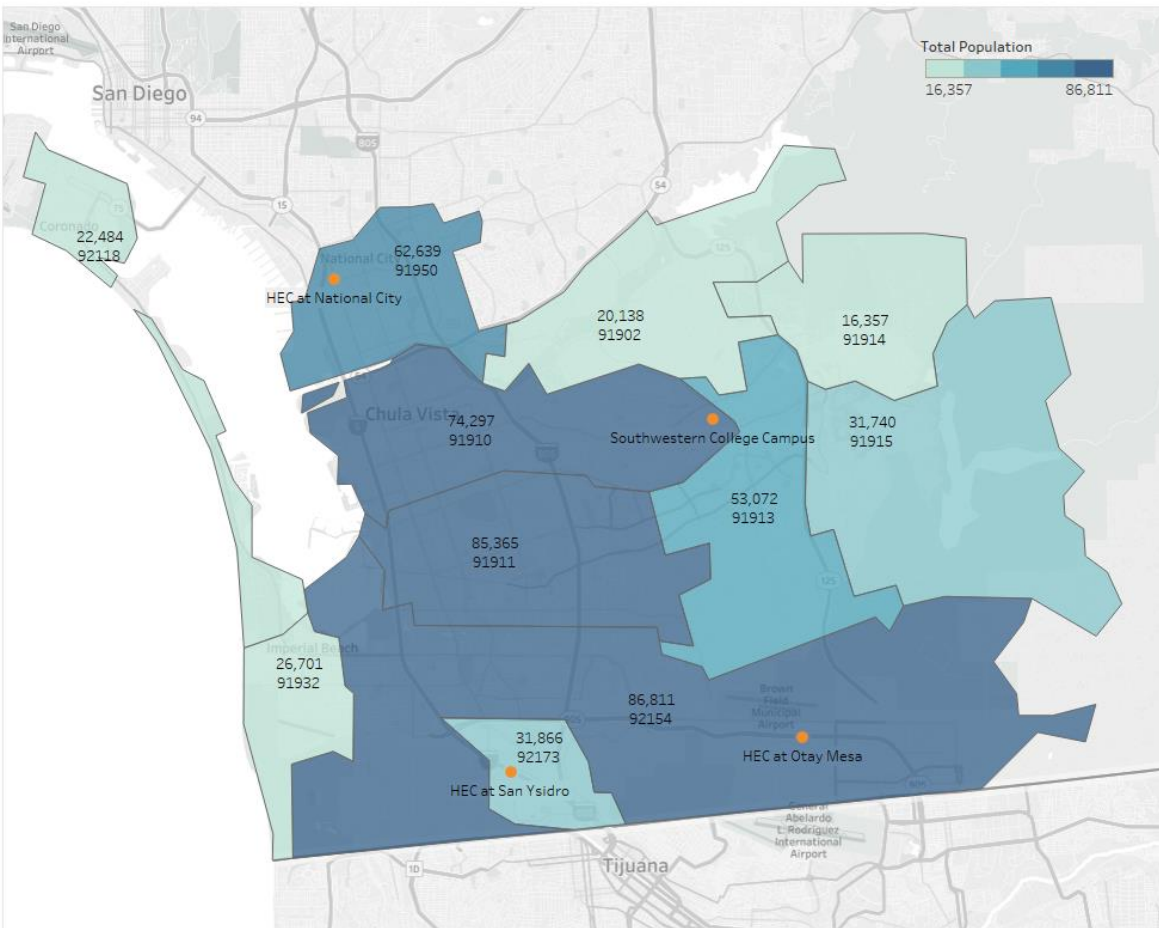
Regional Population Analysis

This section discusses key aspects of the Southwestern College study region's population. Thoroughly understanding these aspects of the region can provide educational providers with a better picture of the strengths and challenges a region and its residents face.

Population and Age

There are more than 511,000 residents within the SWC study region. The south and central sub-regions have the greatest number of residents, and the zip codes 91911, 92154, and 91910 each account for 15 percent or more of the region's population (Figure 50).

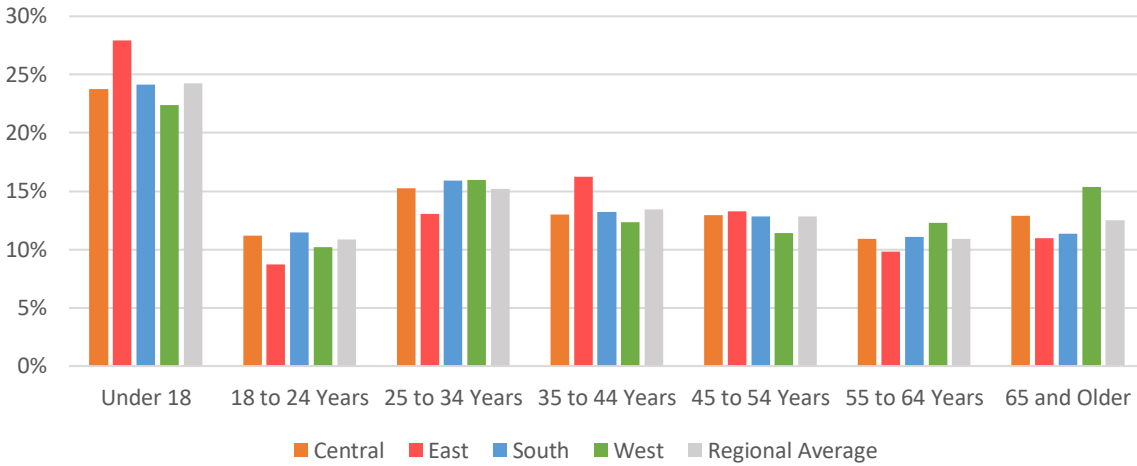
Figure 50. Population (2018)⁶¹



The Southwestern College study region has a relatively young population; nearly a quarter (24 percent) of the population is under the age of 18. The east sub-region has the greatest youth population, while the west and central sub-regions have relatively older populations (Figure 51).

⁶¹ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

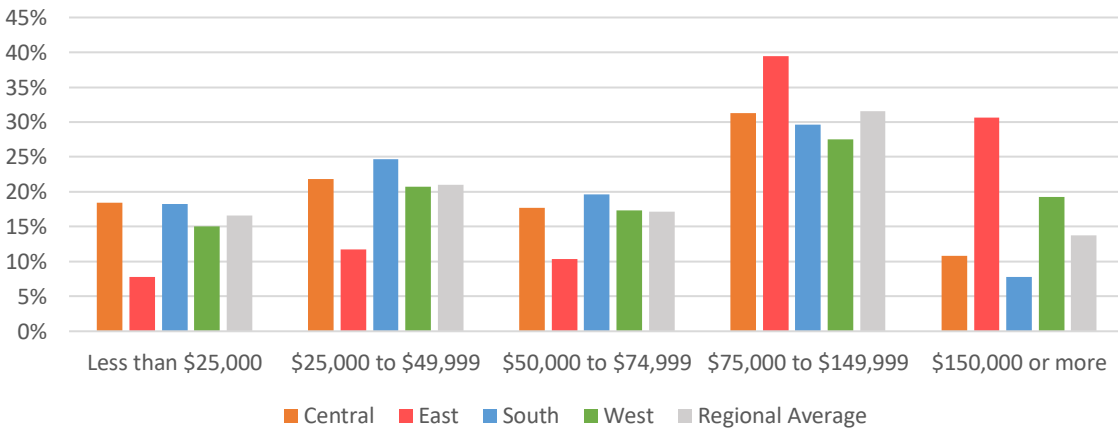
Figure 51. Age Distribution (2018)⁶²



Household Income

The median household income for the Southwestern College study region is just under \$70,000 per year. The central and southern sub-regions have more low-earning residents than the east and west sub-regions (Figure 52). Residents in the east sub-region have substantially higher earnings than the rest of the region; the median household income is more than \$111,700 in the east sub-region (Figure 53).

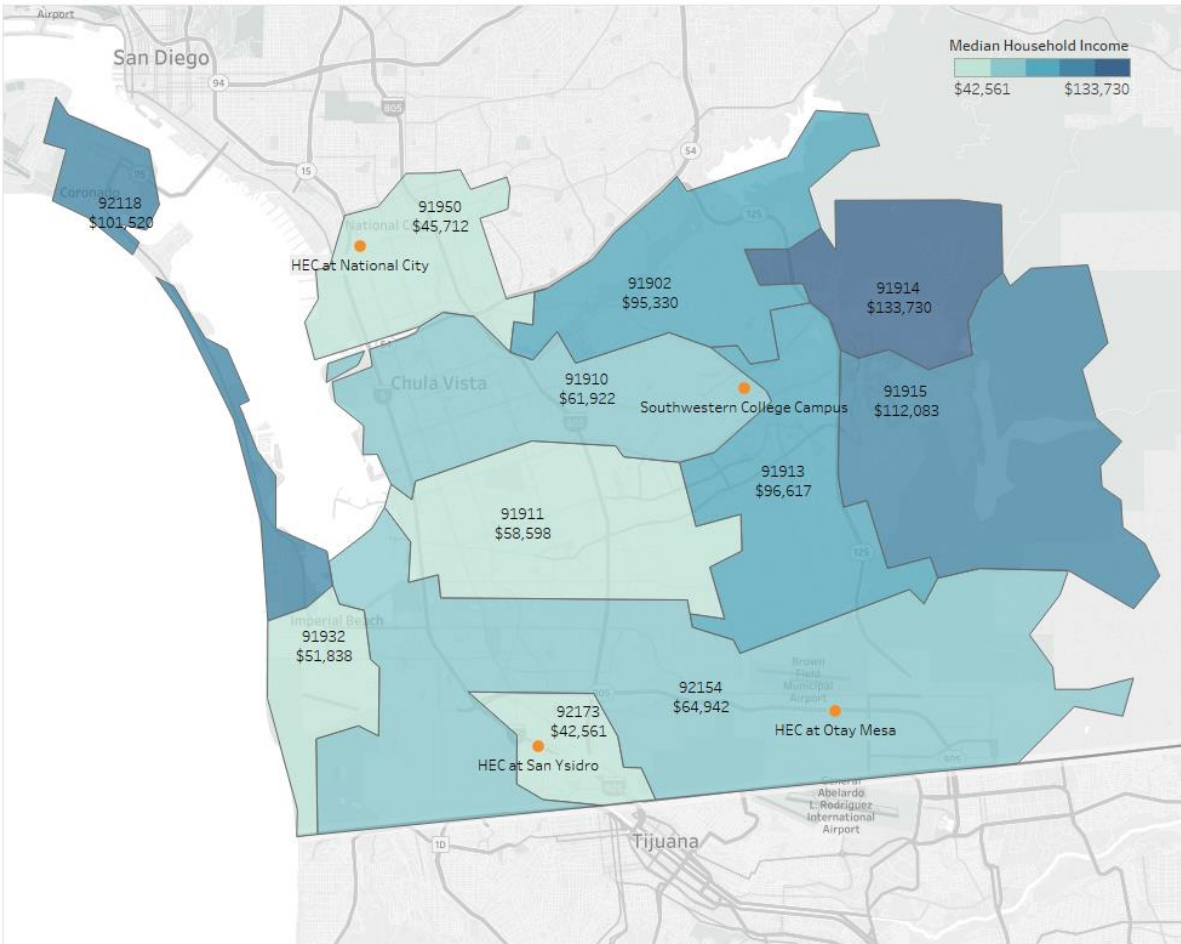
Figure 52. Distribution of Household Income (2018)⁶³



⁶² U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

⁶³ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

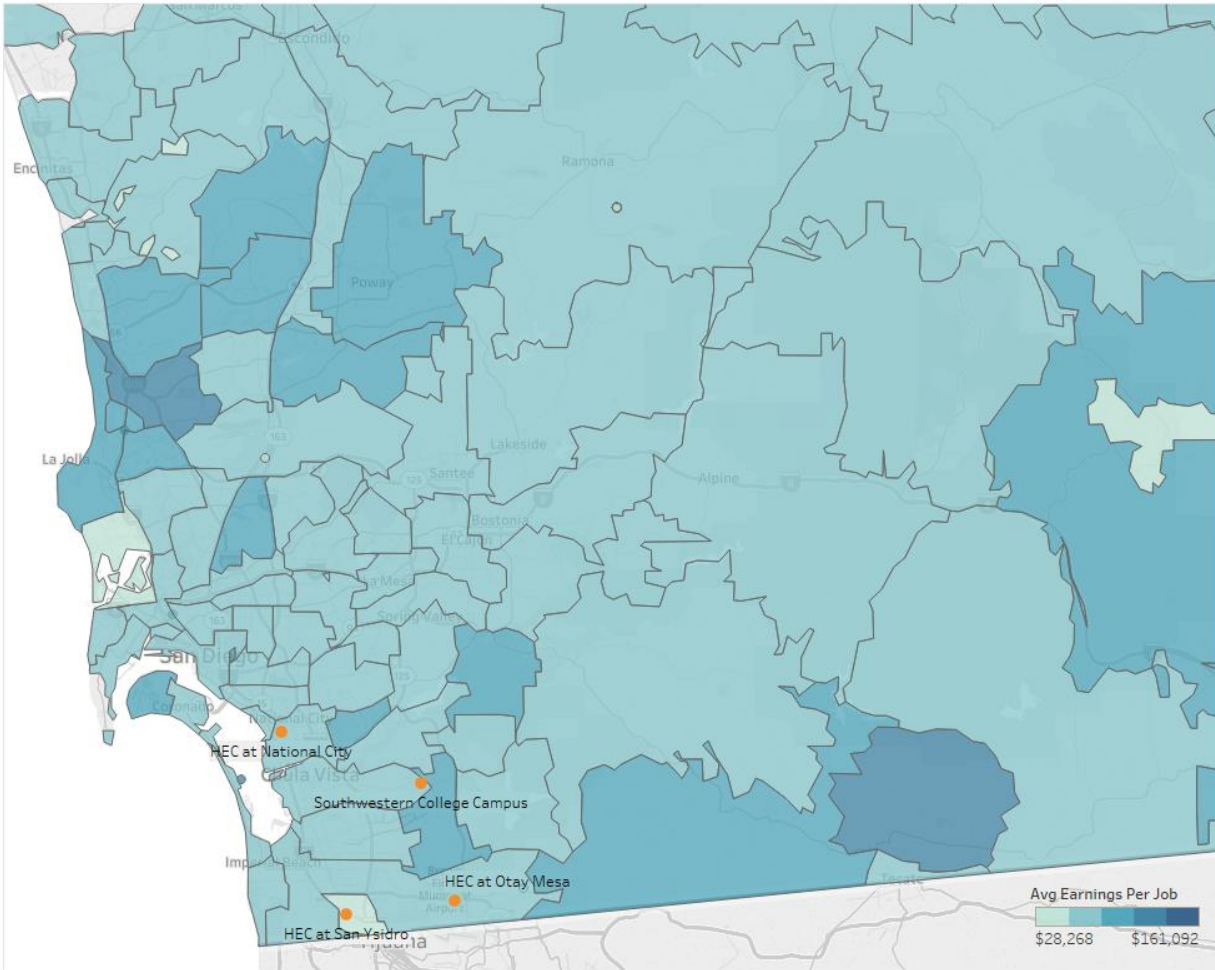
Figure 53. Median Household Income (2018)⁶⁴



The average earnings per job in the SWC study region is about \$69,100 per year. This is slightly lower but generally comparable to other zip codes surrounding the region (light blue area in Figure 54). This suggests that while a number of workers may commute out of the region, they are likely driven by specific industries that exist outside of the SWC region rather than the same industries that simply pay more.

⁶⁴ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 54. Average Earnings Per Job by Zip Code Outside SWC Study Region (2019)⁶⁵



Living Wage

The federal poverty line is based on national averages and therefore does not fully capture the true economic wellbeing of a region, particularly when regionally dependent factors, such as housing, food, and insurance are as high as they are in San Diego County and the SWC study region. To circumvent this issue, researchers at M.I.T. developed the Living Wage calculator, which uses regionally specific costs to determine the “living wage” or the threshold to meet basic needs. The SWC study region living wage is estimated to equate to \$19.98 for a single individual and about \$33.94 per hour or \$68,200 per year⁶⁶ for a family of four (two children and one working adult). If both parents are working, this living wage will be even higher, given the additional costs such as childcare. Viewed in the tandem with household incomes, it is estimated that at least 38% of households in the SWC region struggle to make ends meet.

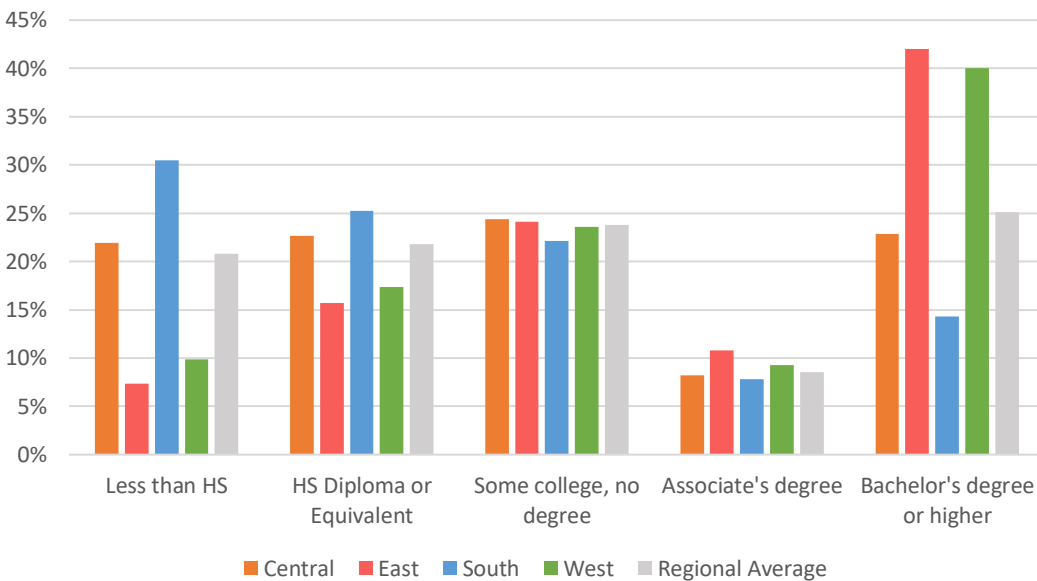
⁶⁵ EMSI QCEW and non-QCEW Employment 2020.1

⁶⁶ This extrapolated from San Diego County results from MIT Living Wage Calculator (<https://livingwage.mit.edu/>) using SWC regionally-specific data.

Educational Attainment

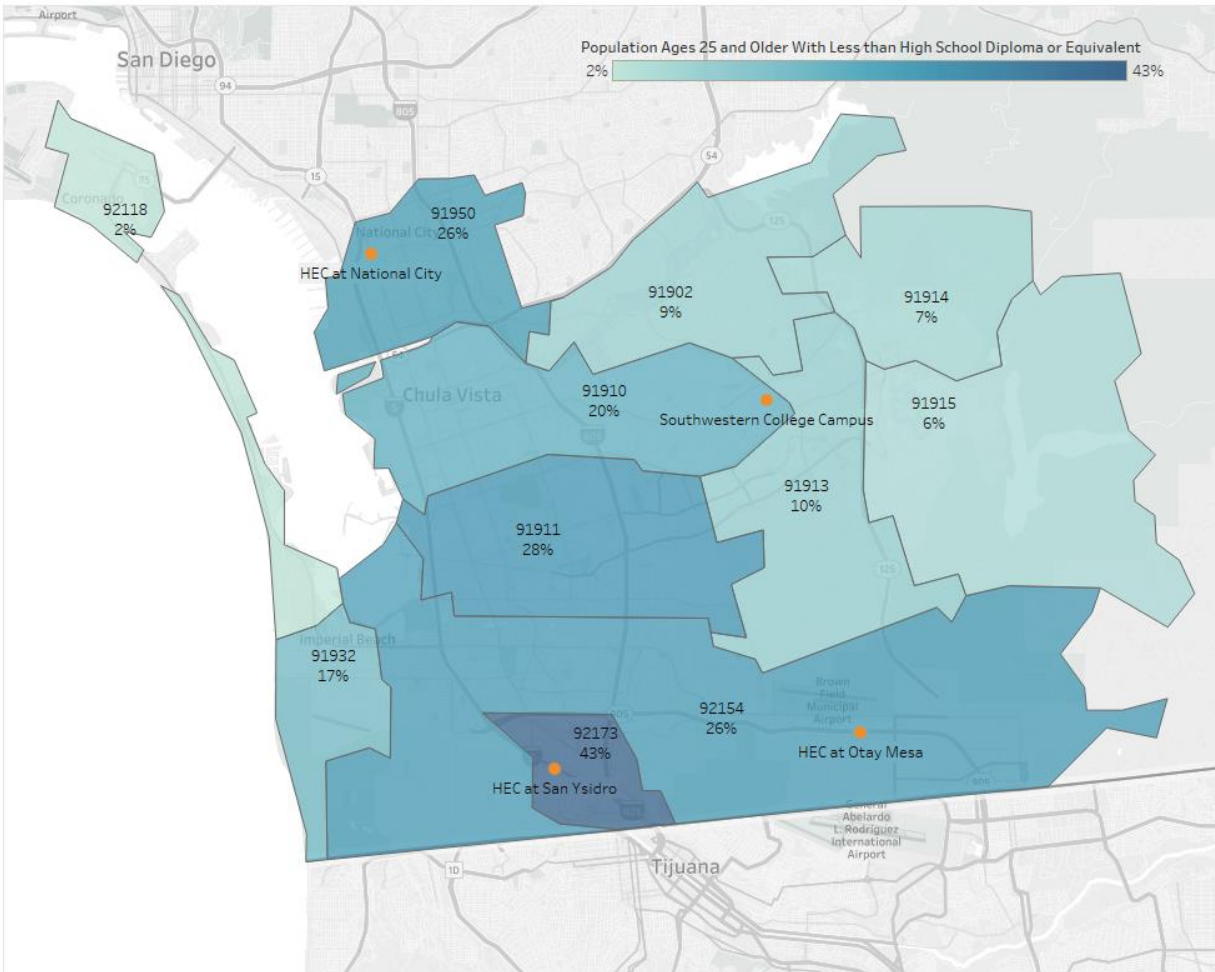
Similar to household income, the east and west sub-regions have noticeably higher rates of advanced education; at least 40 percent of residents aged 25 and older in these sub-regions have a bachelor's degree or higher. Conversely, the south and central sub-regions have lower educational attainment. Nearly a third of residents in the south sub-region do not have a high school diploma or equivalent (Figure 55). This rate is particularly high in the zip code 92173, where 43% of residents aged 25 or older do not have a high school diploma or equivalent (Figure 56).

Figure 55. Educational Attainment of Population 25 Years and Older (2018)⁶⁷



⁶⁷ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 56. Adults (25 Years and Older) Without a High School Diploma or Equivalent⁶⁸



Race and Ethnicity

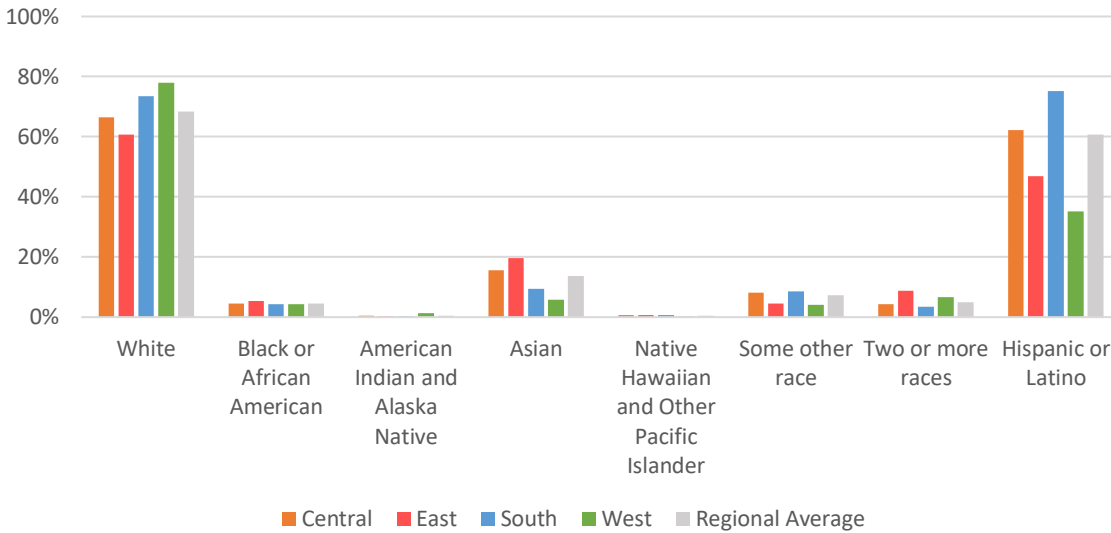
Sixty percent or more of the SWC study region population is White.⁶⁹ The central and east sub-regions have the greatest share of non-white residents, of which Asian is the most common. About 60% of residents in the study region identify as Hispanic or Latinx, and the south and central sub-regions have the highest percentages Hispanic/Latinx residents (

⁶⁸ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

⁶⁹ This population includes Hispanic individuals, which is counted as an ethnicity in the census. The White Non-Hispanic population is smaller, at around 19% of the population.

Figure 57). The U.S. Census Bureau considers Hispanic/Latinx to be an ethnicity, not a race. Thus, an individual is counted for a specific race, and then identified as Hispanic or non-Hispanic in addition to that race.

Figure 57. Race by Sub-Region (2018)⁷⁰



Language Spoken at Home

Nearly eight in ten residents within the south sub-region speak a language other than English at home (Figure 58). Of the residents in the study region who speak a language other than English at home, Spanish is by far the most common language (Figure 59).

⁷⁰ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 58. Language Other Than English Spoken at Home (2018)^{71 72}

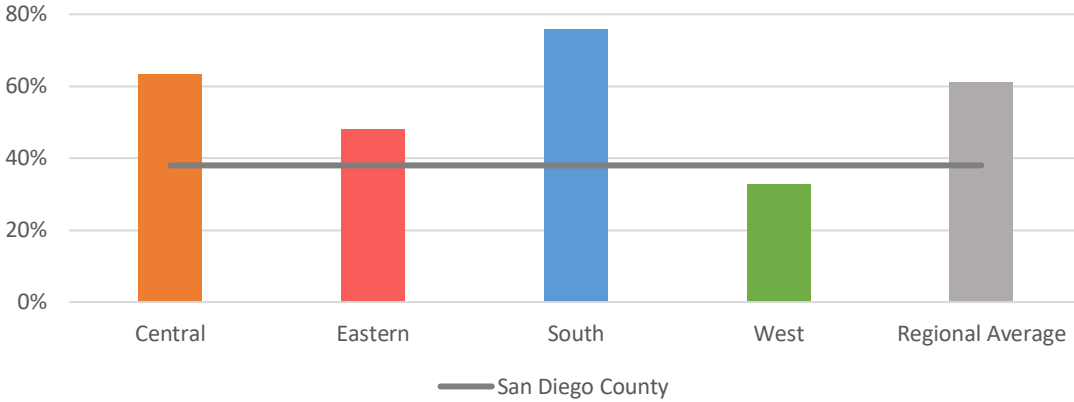
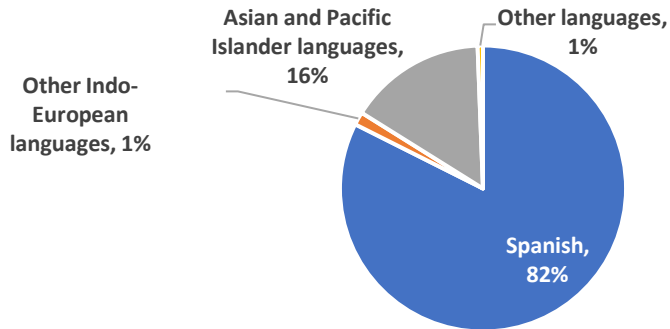


Figure 59. Languages Other Than English Spoken at Home (2018)⁷³



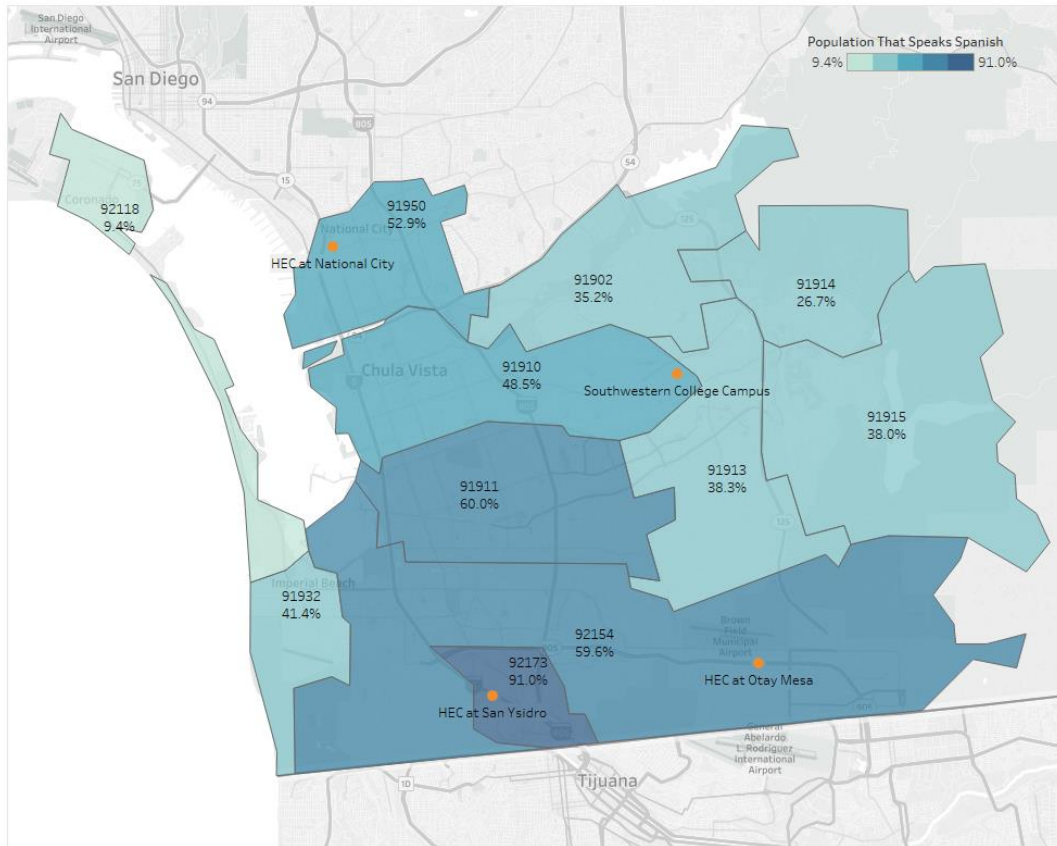
Not surprisingly, zip codes closer to the U.S.-Mexico border tend to have higher rates of households that speak Spanish. In fact, 91% of households in the zip code 92173 (San Ysidro) speak Spanish (Figure 60).

⁷¹ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

⁷² Many of these people also speak English in addition to the other language(s).

⁷³ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 60. Percent of Population that Speak Spanish at Home (2018)⁷⁴



Among the 16% of the population that speak an Asian or Pacific Islander language, Tagalog (including Filipino), is by far the most common, accounting for nearly three-fourths (74%) of those who do speak an Asian or Pacific Islander Language (Figure 61). The zip code of Coronado (92118) has the greatest concentration of residents who speak an Asian or Pacific Islander language (Figure 62).

⁷⁴ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 61. Asian and Pacific Islander Languages Spoken at Home (2018)⁷⁵

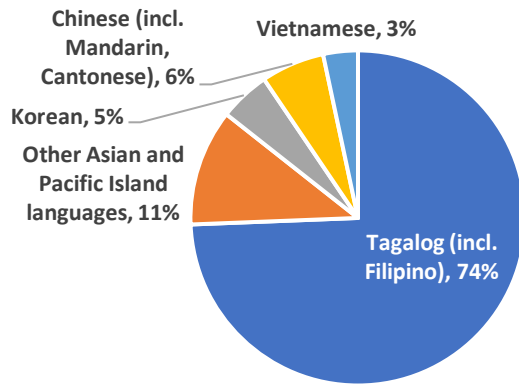
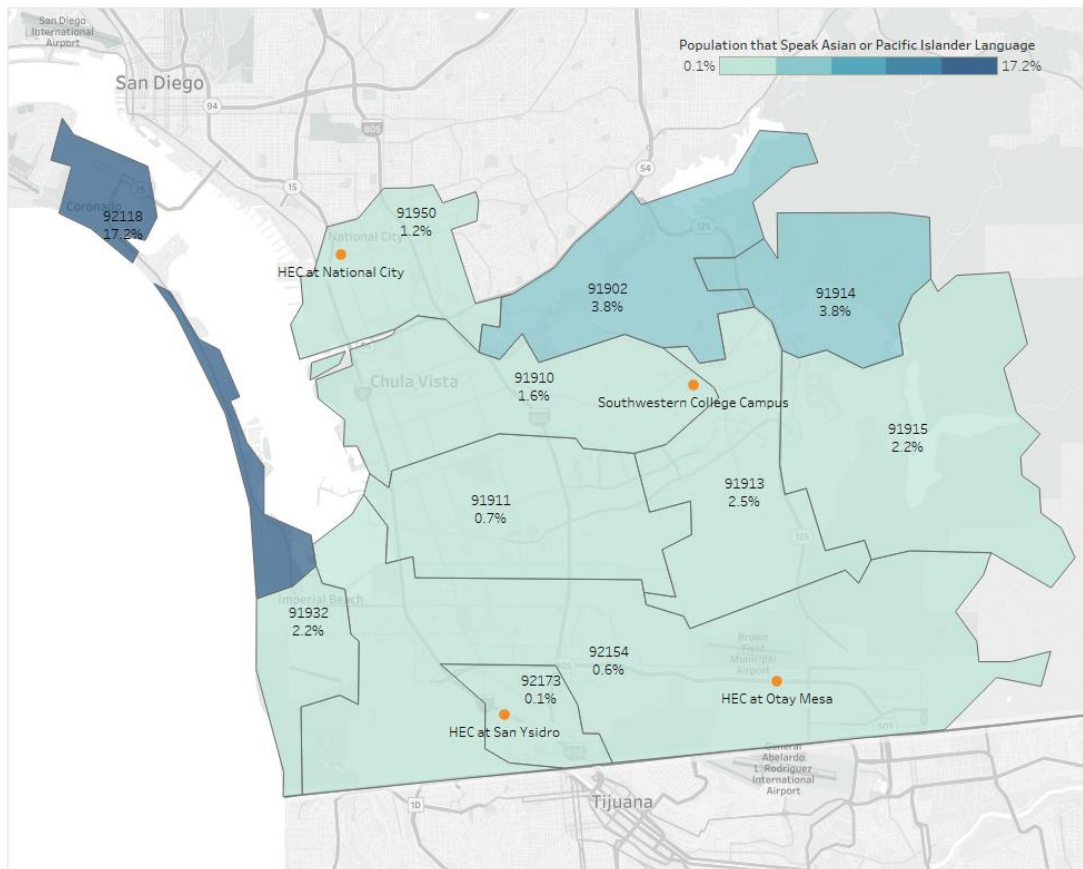


Figure 62. Percentage of Population that Speaks Asian or Pacific Islander Language (2018)⁷⁶



⁷⁵ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

⁷⁶ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Housing Characteristics

Housing is a notable expense and challenge for many SWC students. In the 2018 SWC student satisfaction survey, 49% of respondents reported paying a monthly rent or mortgage and a third of students said they would be interested in housing options through SWC.⁷⁷ Similarly, Figure 63 highlights that just over half of households in the Southwestern College study region own their domiciles. However, the share of renters is notably higher in some sub-regions, particularly in the east sub-region, where 75% of residences are rented. The median monthly rental rates also vary notably across the Southwestern College study region. Coronado (zip code 92118) and the East-most zip codes (91914 and 91915) both have notably higher median monthly rental rates than the zip codes in the central parts of the region (Figure 64).

Figure 63. Share of Renters and Homeowners by Sub-Region (2018)⁷⁸

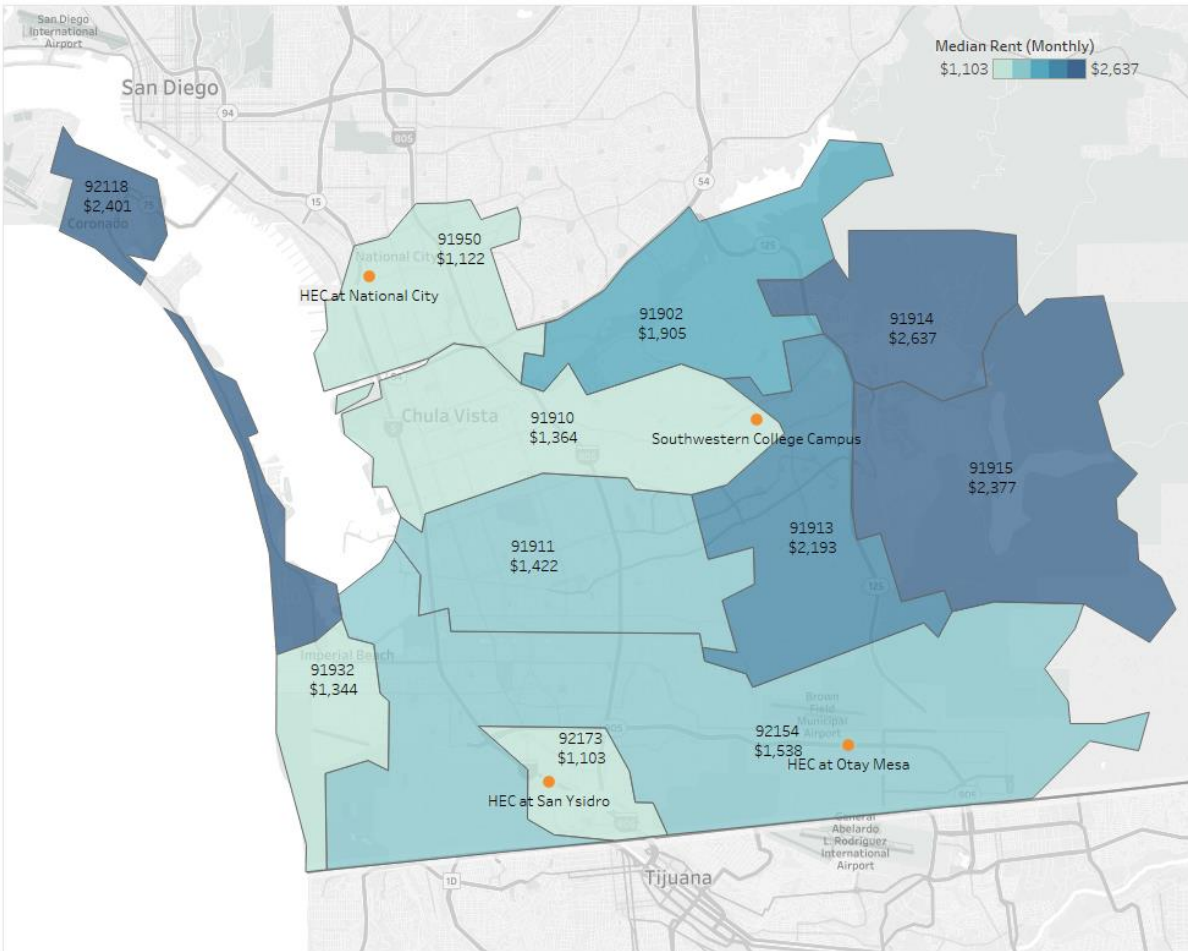


⁷⁷ Southwestern College 2017-2018 Student Feedback Survey.

<https://www.swccd.edu/administration/institutional-research-and-planning/files/reports-surveys/student-satisfaction-survey-reports/2018-student-feedback-survey-report.pdf>

⁷⁸ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

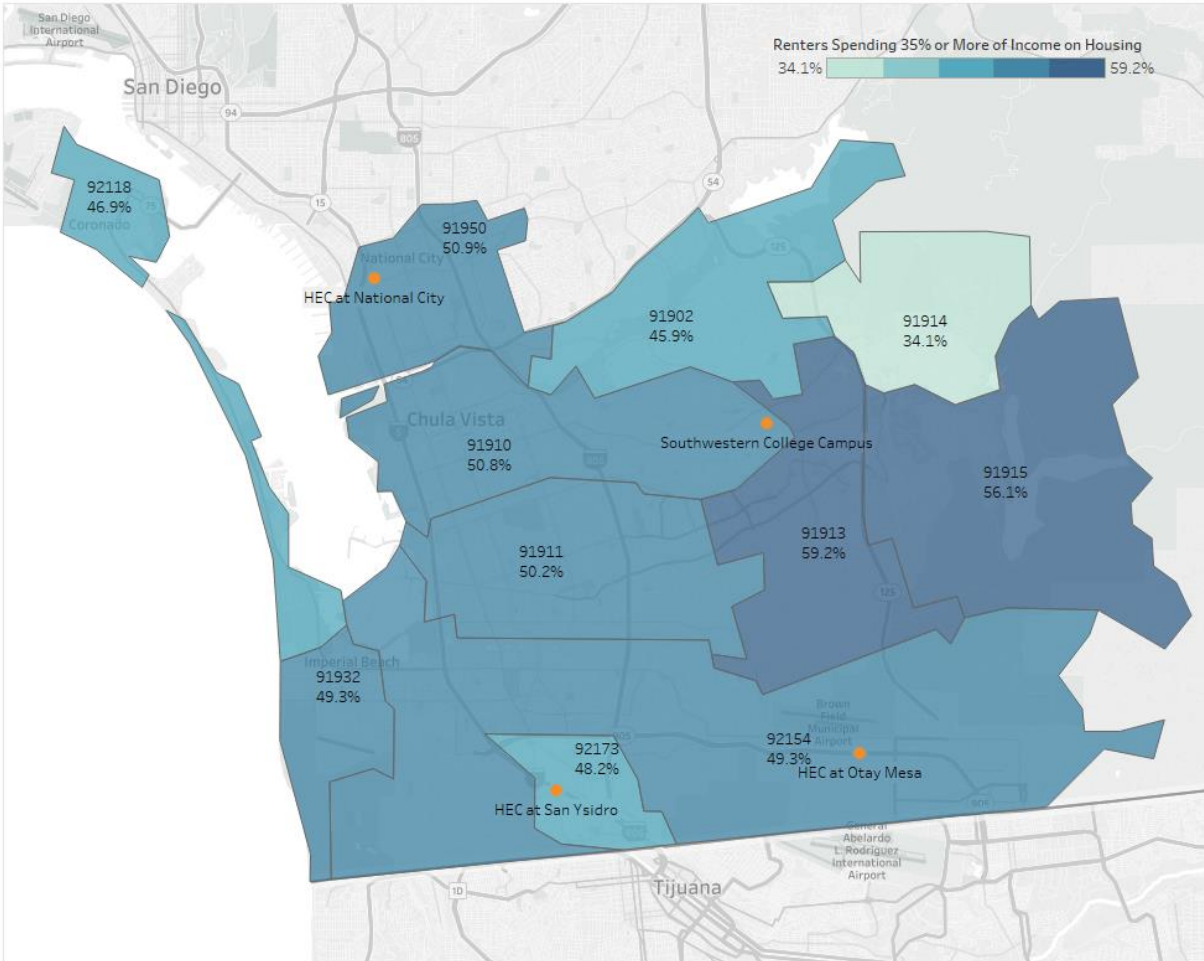
Figure 64. Median Rental Rate (Monthly) (2018)⁷⁹



Despite median rental rates varying across the region, there is a large portion of renters spending 35% or more of their income on housing. In fact, in nearly every zip code in the Southwestern College study region, 45% or more of renters spend more than a third of their income on housing costs (Figure 65). Even more drastic, 56% and 59% of renters in neighboring zip codes of 91915 and 91913 spend 35% or more of their income on housing.

⁷⁹ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 65. Share of Renters Spending 35% or More of Their Income on Housing⁸⁰



Worker Profile

Overall, the Southwestern College study region is a net exporter of workers. This means that there are more residents in the workforce than there are jobs within the region. In total, there are nearly 240,000 study region residents in the workforce, but fewer than 180,000 jobs in the study region, meaning that more than 60,000 residents have to leave the study region to go to work. This out flow of workers occurs across all occupations, though is most drastic among service occupations and higher-paying management, business, science, and arts occupations (Figure 66).

⁸⁰ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 66. Resident Workforce vs. Jobs in the Study Region (2019)⁸¹

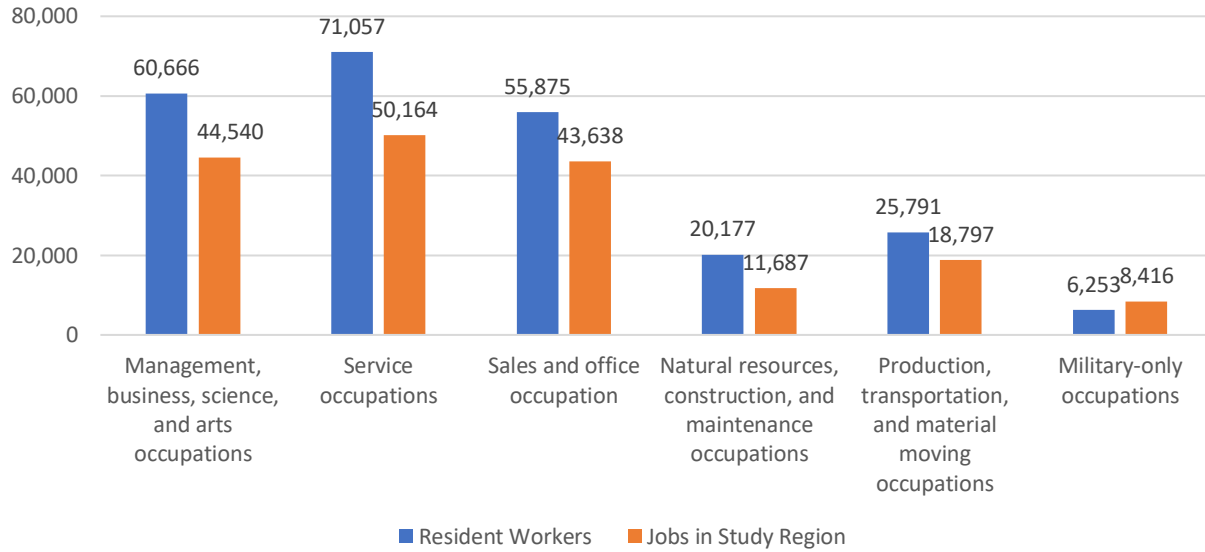
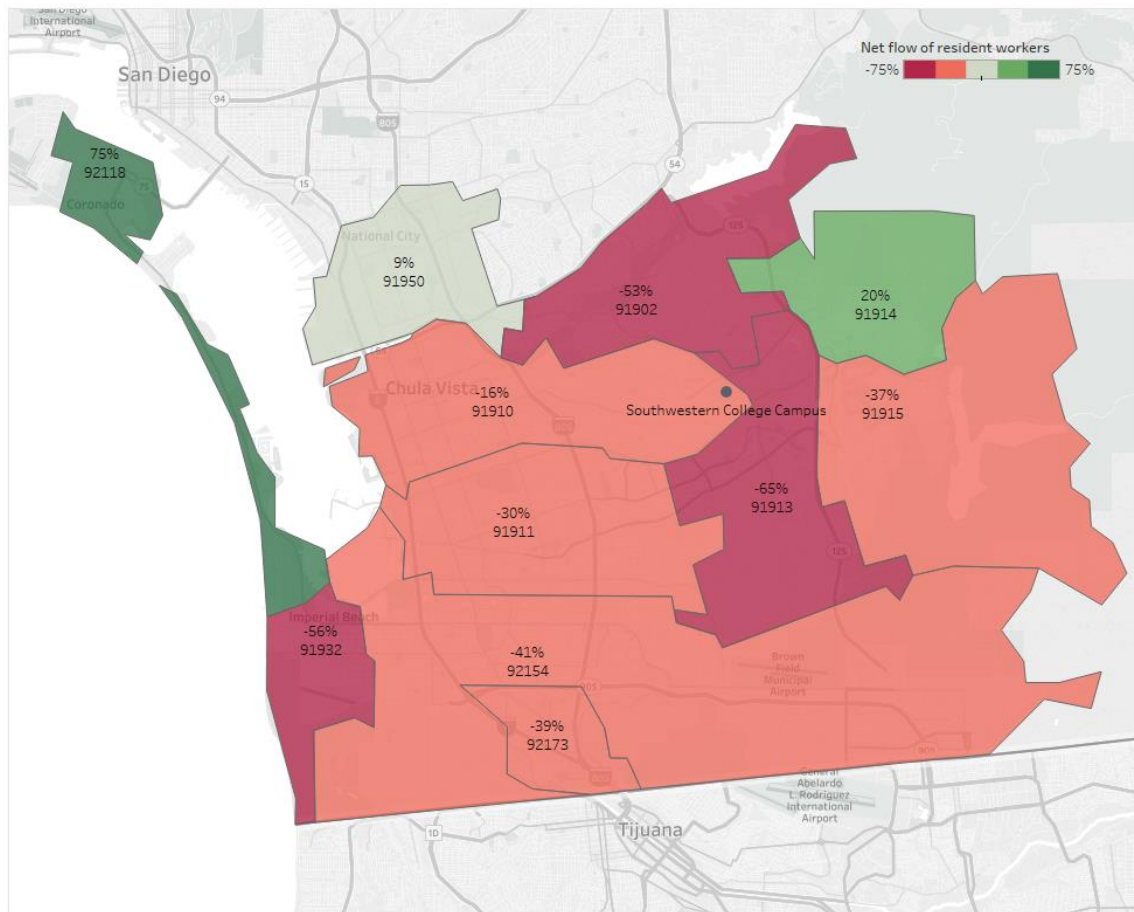


Figure 67 highlights that most residents within the Southwestern College study area have to leave their zip code to go to work. Only three zip codes, 92118, 91950, and 91914, import workers on average. A net 65 percent of the resident workers zip code 91913 have to leave the zip code to reach their place of work. The availability of inexpensive housing relative to the number of employment opportunities likely plays a role in these trends.

⁸¹ EMSI QCEW and non-QCEW Employment 2020.1

Figure 67. Net Flow of Resident Workers by Zip Code⁸²



Commuting Profile

Across the Southwestern College study region, driving passenger vehicles alone was the primary means of transportation. About one in ten study area residents carpooled, and an average of one in twenty work from home. The west sub-region had the greatest share of workers using alternative methods—nearly a third (31%) used another means to get to work (Figure 68). Residents in the study region also have relatively long commutes, about two and a half minutes more than the San Diego County average (Figure 69) and a higher percentage of long commuters (those with commutes 60 minutes or more each way) (Figure 70).

⁸² EMSI QCEW and non-QCEW Employment 2020.1

Figure 68. Means of Commuting (2018)⁸³

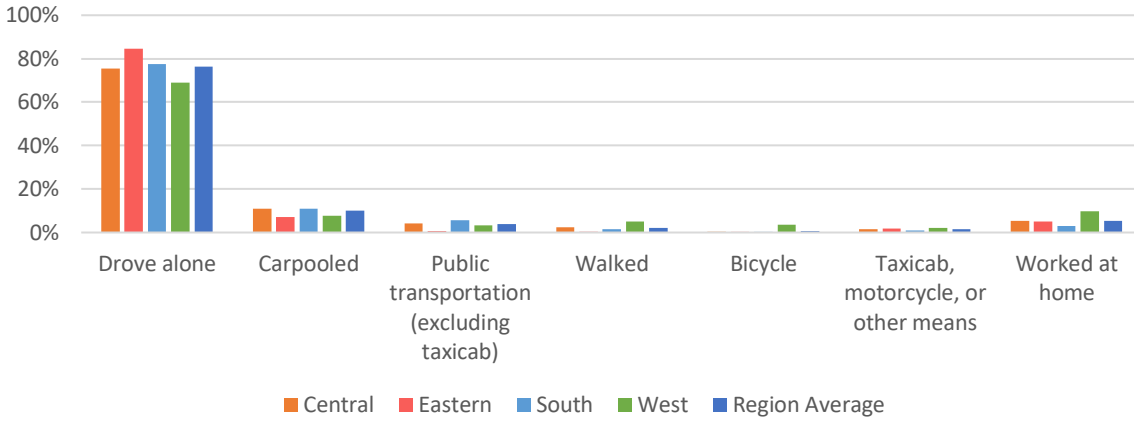
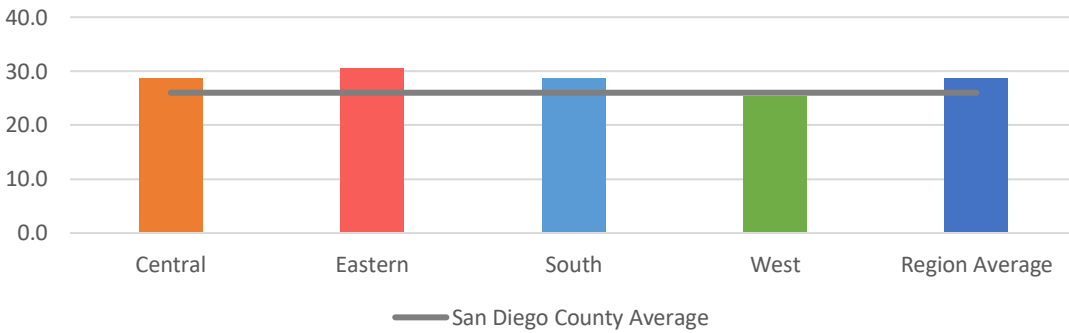


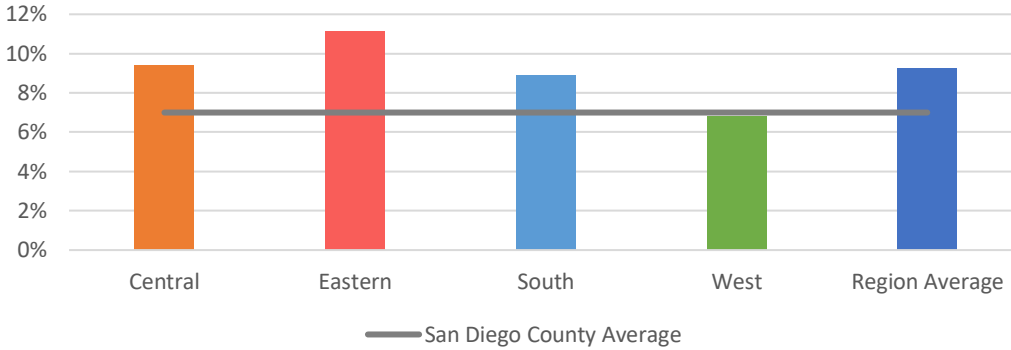
Figure 69. Average Travel Time to Work (minutes) (2018)⁸⁴



⁸³ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

⁸⁴ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 70. Share of Long Commuters (60 Minutes or More Each Way) (2018)⁸⁵



Potential Student Populations

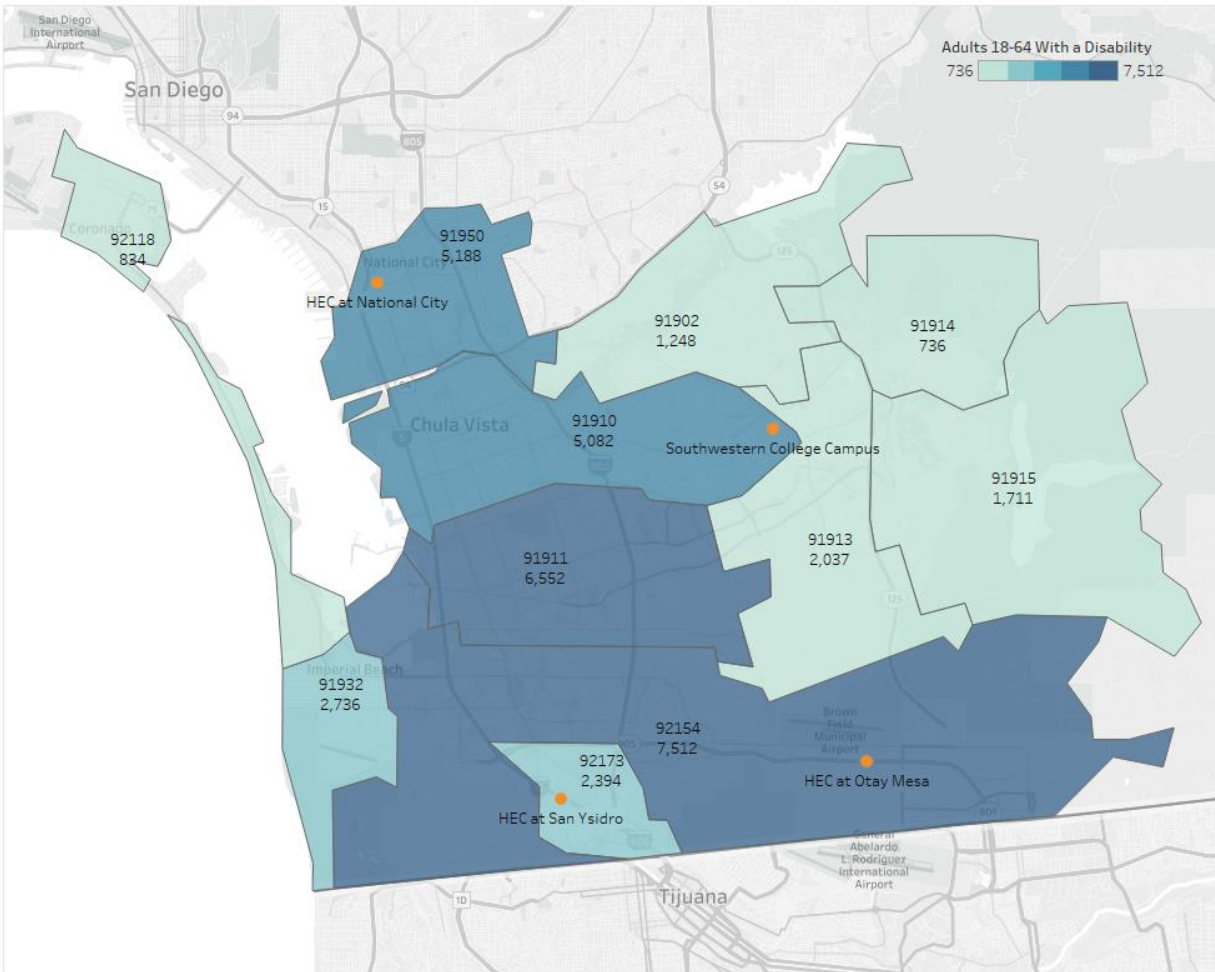
This section of the report highlights key populations in the Southwestern College study area that meet the basic criteria for the student populations mentioned. While focusing on these demographics casts a wide net, these figures provide an overall perspective of the region that is useful in understanding where these populations reside and the scale of the local potential student population.

Adults with a Disability

There are about 36,000 adults with disabilities in the SWC study region, with the greatest share residing in the central and south zip codes in the Southwestern College study region. The zip codes 91911 and 92154 (including South Chula Vista, Imperial Beach, and Otay Mesa) each have more than 6,500 residents with a disability between the ages of 18 and 64.

⁸⁵ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 71. Adults Ages 18-64 With Disabilities⁸⁶



Potential Career Education Students

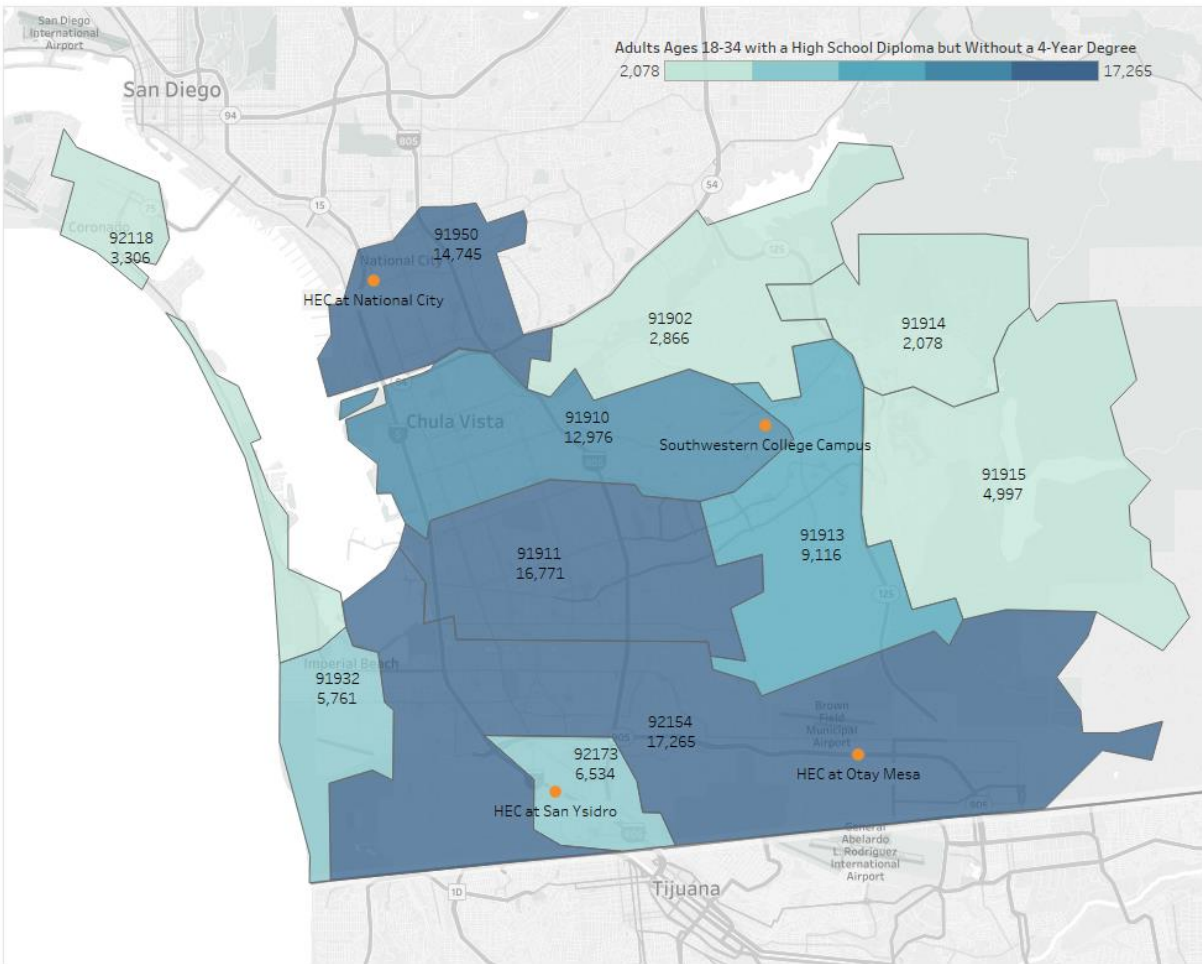
This population includes adults ages 18-34 years of age who have at most attained a high school diploma, some college, or an associate degree. While a sizable portion of this population may not be actively considering further education, and this narrow scope does not encompass all potential career education students, focusing on these specific demographics provides an overview of the populations that are most common career education students. The age parameters further narrow this population to likely CE candidates, as 82% of the student population at SWC in the 2018-2019 academic year fell within this age bracket.⁸⁷

⁸⁶ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

⁸⁷ California Community College Chancellor's Office Management Information Systems Data Mart

There are more than 96,400 residents who meet these criteria. Nearly three-quarters (74%) of the potential CE students live in five zip codes (92154, 91911, 91950, 91910, and 91913) that stretch from National City to Imperial Beach and Otay Mesa (Figure 72).

Figure 72. Potential CE Students (Adults Ages 18-34 with High School Diploma but Without a 4-Year Degree)⁸⁸

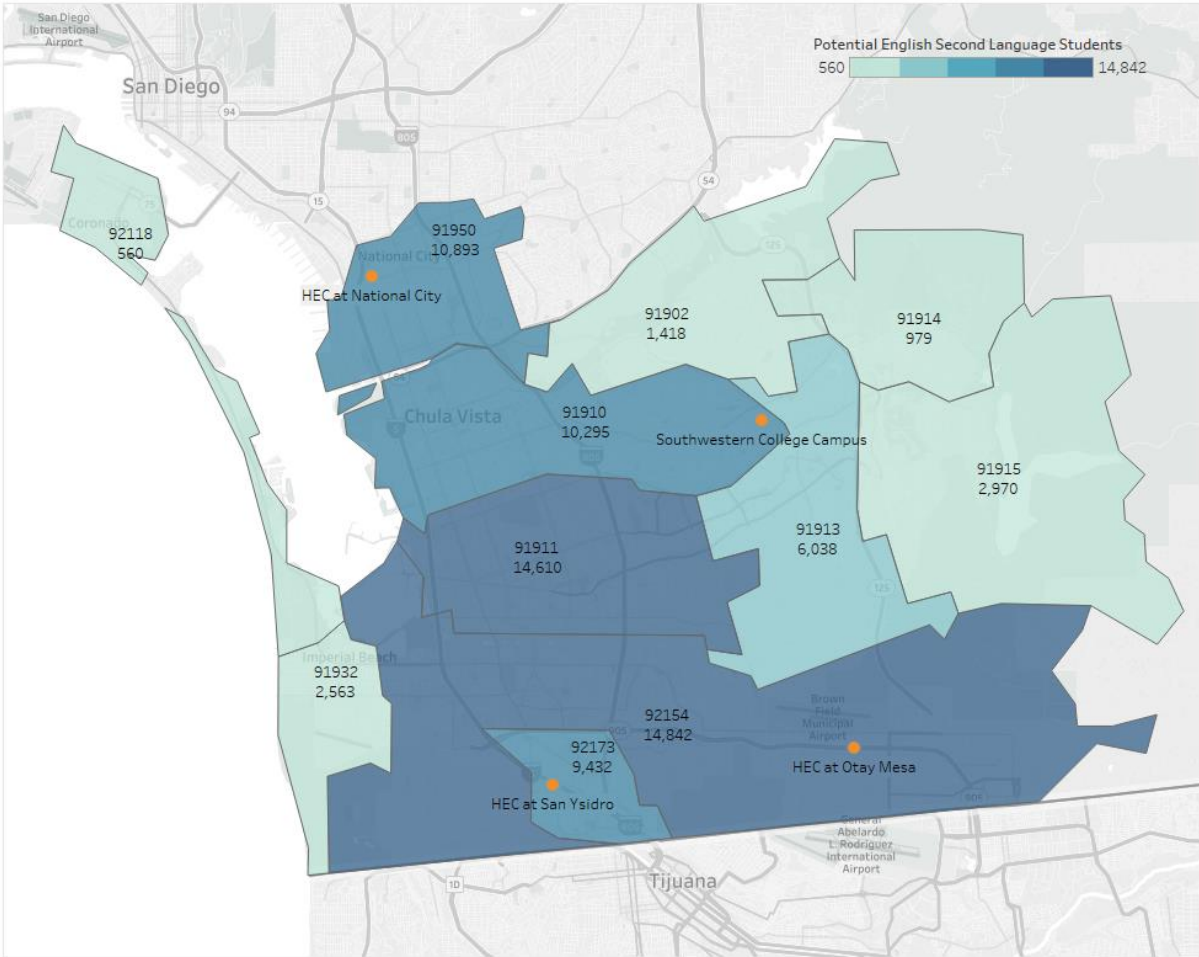


Potential English Second Language (ESL) Students

This population consists of adult (ages 18-64) residents who speak English less than “very well”. It is not surprising that the greatest number of potential ESL students are among the zip codes closest to the U.S.-Mexico border, but zip codes around National City and Chula Vista (91950 and 91910) each have more than 10,000 residents who speak English less than “very well” (Figure 73).

⁸⁸ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure 73. Potential English Second Language (ESL) Students (Adults 18-64 Who Speak English Less than "Very Well") (2018)⁸⁹



⁸⁹ U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Consortium Coordination Strategy

The Comprehensive Local Needs Assessment is a document that will need to be updated every two years. This section is designed to reflect on the drafting process and illuminate some of the challenges and opportunities that future authors ought to consider or address in future versions of this report.

The research team found that gathering nearly all datapoints for the drafting of the CLNA was relatively easy from both internal and external sources. Additionally, most faculty and stakeholder groups seemed eager to participate and contribute their thoughts. We found this enthusiasm refreshing and the insights often helpful. The faculty and staff survey administered internally at SWC also received good feedback, including a few insights that otherwise would not have been evident through the other data available. The survey allowed the research team to get a modest consensus view of faculty and staff. Given that these individuals are most knowledgeable about student needs and successes, this medium provided invaluable insight into key challenges and opportunities at Southwestern College.

Reaching stakeholders in a timely and in-depth manner was more challenging given the chaos that the COVID-19 crisis spurred. Teleconference and tele-presenting offered a satisfactory substitute for in-person meetings, though these mediums had noticeably less opportunity for active engagement. While the COVID-19 crisis presented some challenges in collecting data and stakeholder input, the crisis presented an opportunity to address the online aspects of Southwestern College. Another challenge the research team came across was gaps or lack of depth in certain datapoints. While the inability to dig deeper into specific questions was suboptimal, these discoveries were useful in themselves as they provided the research team with a number of recommendations that included capturing this data in the future.

Ultimately, the research team developed a few recommendations for the future drafting of the CLNA. First and foremost, earlier collection and compiling of data into a rough draft to be shared with stakeholders would have been useful in eliciting a second round of feedback on conclusions and recommendations. The second recommendation for future drafting would be to include a few more multiple-choice responses that would allow respondents to rank their choices. This would provide more detailed insight than static multiple choice but provide more direction than open-ended questions. The combination of ranked-choice and open-ended questions would likely be the optimal combination to retrieve faculty feedback at scale.

Appendix A: Methodology

The data for this report were collected through a variety of methods and sources. Each of these methods are outlined below.

Secondary Research

Current and historical student data was obtained through Southwestern College, the California Community Colleges Chancellor's Office's Career Technical Education Portal (https://misweb.cccco.edu/perkins/Core_Indicator_Reports/Default.aspx) and the Chancellor's Office's Management Information Systems Data Mart (https://datamart.cccco.edu/Courses/Course_Details.aspx).

Population, demographic, poverty figures at the zip code level were obtained from the U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

BW Research utilized EMSI for employment and regional education completion figures. EMSI updates data quarterly. The 2020.1 dataset was used for this report.

Survey Research

This report incorporates data from the CE Employment Outcomes Survey (CEOS) Data. This data was collected over four years (2016-2019) and is part of a broader statewide effort to collect employment outcomes of students who completed CE coursework at California Community Colleges. Santa Rosa Junior College was responsible for data collection. For more information, please visit:

<https://cteos.santarosa.edu/>

The research team also conducted an internal survey at SWC of CE and non-CE faculty and administration members. The survey was distributed internally via email by SWC leadership and was available online from April 23rd to April 30th, 2020. Eighty-one faculty completed the survey. Respondent completion times averaged 15 minutes.

Appendix B: Definitions

The definitions below are provided through the California Community Colleges Management Information System (<https://webdata.cccco.edu/ded/sb/sb.htm>) and/or Southwestern College.

CalWORKs	The student is eligible and participates in CalWORKs, which offers support services (such as funds for textbooks, transportations, and childcare services), personal, academic, and career counseling, and employment services.
CARE	A student is eligible and participates in Extended Opportunity Programs and Services (EOPS) and CalWORKS programs. CARE provides singles parents with additional assistance for tuition and transportation, as well as academic and career counseling
DSPS	A student is eligible and participates in Disability Support and Program Services (DSPS). Services can include academic and personal counseling, learning disability assessments, and assistive technology and media production.
Economically Disadvantaged	<p>1. Student is identified as a recipient of CalWORKs/TANF/AFDC. OR</p> <p>2 Student is identified as a recipient of Supplemental Security Income program (SSI). OR</p> <p>3 Student is identified as a recipient of a general assistance program (GA). OR</p> <p>4 Student is identified as a recipient of a supplemental nutrition assistance program under the Food and Nutrition Act. OR</p> <p>5 Student is identified as being in a family with total family income that does not exceed the higher of the poverty line or 70% of the lower living standard income level. OR</p> <p>6 Student is identified as an individual with a disability whose own income is below the poverty line but who is a member of a family whose income does not meet this requirement. OR</p> <p>7 Student is identified as a homeless individual or homeless child or youth or runaway youth. OR</p> <p>8 Student identified as “Other” economically disadvantaged. “Other” means an adult who is eligible under the guidelines provided in the “California State Plan for Career Technical Education” (Appendix G, Request for Waiver of Section 132 Distribution Formula)</p>
Enrollment	<ul style="list-style-type: none"> • A: Received a letter grade of “A” • B: Received a letter grade of “B” • C: Received a letter grade of “C” • D: Received a letter grade of “D” • F: Failing (in a letter graded course) • P: Pass • NP: No Pass • I: Incomplete • IPP: Incomplete Pass • FW: Withdrawn without permission & without having achieved a final passing grade • W: Withdrew (after last day to drop) • DR: Drop Census Data Section: On or after first census date and before withdraw period.

EOPS	A student is eligible and participates in Extended Opportunity Programs and Services (EOPS). EOPS is a state-funded program that offers special assistance (priority registration, money for books, unlimited tutoring) for students who are socially, economically, and academically or language disadvantaged.
Foster Youth	The student is now, or has ever been, in a court-ordered out-ofhome placement.
Incarcerated	1 The student is incarcerated in a city or county correctional facility. OR 2 The student is incarcerated in a California Youth Authority correctional facility. OR 3 The student is incarcerated in a California Department of Corrections and Rehabilitation correctional facility. OR 4 The student is incarcerated in an out-of-state correctional facility. OR 5 The student is incarcerated in a U.S. Federal Bureau of Prisons correctional facility. OR 6 The student is incarcerated in a private correctional facility.
MESA	The student met the educational and financial eligibility criteria and received services from the Mathematics, Engineering, and Science Achievement (MESA) program. The student may also be referred to as a “MESA Club member”, a “friend of MESA”, or “Mesa Associate”, etc.
Non-Traditional	Number of CE participants from underrepresented gender groups who participated in a program that leads to employment in nontraditional fields during the reporting year.
Persistence and Transfer	includes students of transfer programs who successfully completed a minimum of 12 units related to CE who persist in education at the community college level or transfer to a two- or four-year institution.
Puente	A student who participates in Puente, a learning community that assists students with counseling, English instruction, and mentoring
Retention	<ul style="list-style-type: none"> • A: Received a letter grade of “A” • B: Received a letter grade of “B” • C: Received a letter grade of “C” • D: Received a letter grade of “D” • F: Failing (in a letter graded course) • P: Pass • NP: No Pass • I: Incomplete • IPP: Incomplete Pass • FW: Withdrawn without permission & without having achieved a final passing grade
Special Admission	A student had to use a special application to apply to a specific program. For example, at SWC programs like Nursing and Dental Hygiene require specific application processes.
Success	<ul style="list-style-type: none"> • A: Received a letter grade of “A” • B: Received a letter grade of “B” • C: Received a letter grade of “C” • P: Pass • IPP: Incomplete Pass

Targets	Goals that are negotiated and set by the district, state, and Department of Education
Technical Skills Attainment	The number of students who passed technical skill assessments that are aligned with industry-recognized standards, if available and appropriate, during the reporting year.
Umoja	A student who participates in Umoja, a year-long learning community that focuses on university transfer and the African American Experience and includes courses in English and personal development.