

American River College (ARC) offers 84 degrees and certificates across a variety of Career and Technical Education (CTE) fields. These programs span all major campus pathways, with a primary focus on Health and Education, Public Safety, and Manufacturing, Construction, and Transportation. Many of these several programs are unique within the community college environment, with some being the only ones of their kind in the region. For instance, ARC's Geographic Information Systems (GIS) program boasts one of the most comprehensive course offerings in the country, with 11 courses available—more than most other higher education institutions. This program recently won the Excellence in Education award from the California Geographic Information Association (CGIA) and the Lifetime Achievement Award for Two-Year Geospatial Education from the GeoTech Center. The Funeral Services program is one of only three community college programs in California (ARC, Canada and Cypress College), with only ARC north of the Bay Area. ARC's Respiratory Care program ranks in the top 10% nationwide and has received the President's Award for the past 10 years. Many of our programs that require certification exams boast outstanding pass rates. For example, ARC's Nursing Department has a 100% pass rate on the National Council Licensure Examination (NCLEX), while our Paramedic students have a 100% first-attempt pass rate for the National Registry Paramedic certification exam. Our EMT students have an 82.5% first-attempt pass rate, which is significantly higher than the national average of 69% and the California average of 73%.

ARC's CTE programs have slowly recovered from the pandemic years improved their enrollment over the past 3 years, raising the enrollment from 21,132 (21-22) to 23,828 (23-24) coming out of the pandemic. During that time, the new Tech Ed building was being built. That building has had a soft opening this spring which bring an anticipated substantial boost to many of our CTE programs as most will be housed in that building and were previously displaced.

Figure 1 Unduplicated headcount by Ethnicity



Figure 2 Unduplicated headcount by Gender



Our CTE programs serve a diverse student population as shown in Figure 1. It is important to note that while there has been a slight increase for most of the populations, there has been a dramatic increase in the headcount for Hispanic/Latino students. The gender gap in our CTE

fields (despite a slight reduction on female participation in 22-23) has remained relatively consistent over the 22-24 academic year span. The percentage of female headcount in 21-22 was 42% female and 57% male, and was 41% and 57% respectively in 23-24. These numbers overall could and should be improved to provide more parity.

Figure 3 CTE program Awards Gender



Figure 4 CTE Program Awards by Race/Ethnicity



Figure 3 illustrates that over the 3-year span awards to females CTE students has remained consistent. However, it also indicates a dramatic increase in the number of CTE program awards to males in the academic year 23-24. This corresponds to a dramatic increase in the number of Hispanic/Latino students receiving awards as well as an increase in for whites in 23-24. An analysis of the awards to ARC CTE students reveals that majority of the students were in the 30-39 range. Figures 4 and 5 illustrate that the largest gain in program awards was in the 30-39 age group. This corresponds to the increase headcounts for the timespan as well.

Figure 4 CTE Program Awards by Age

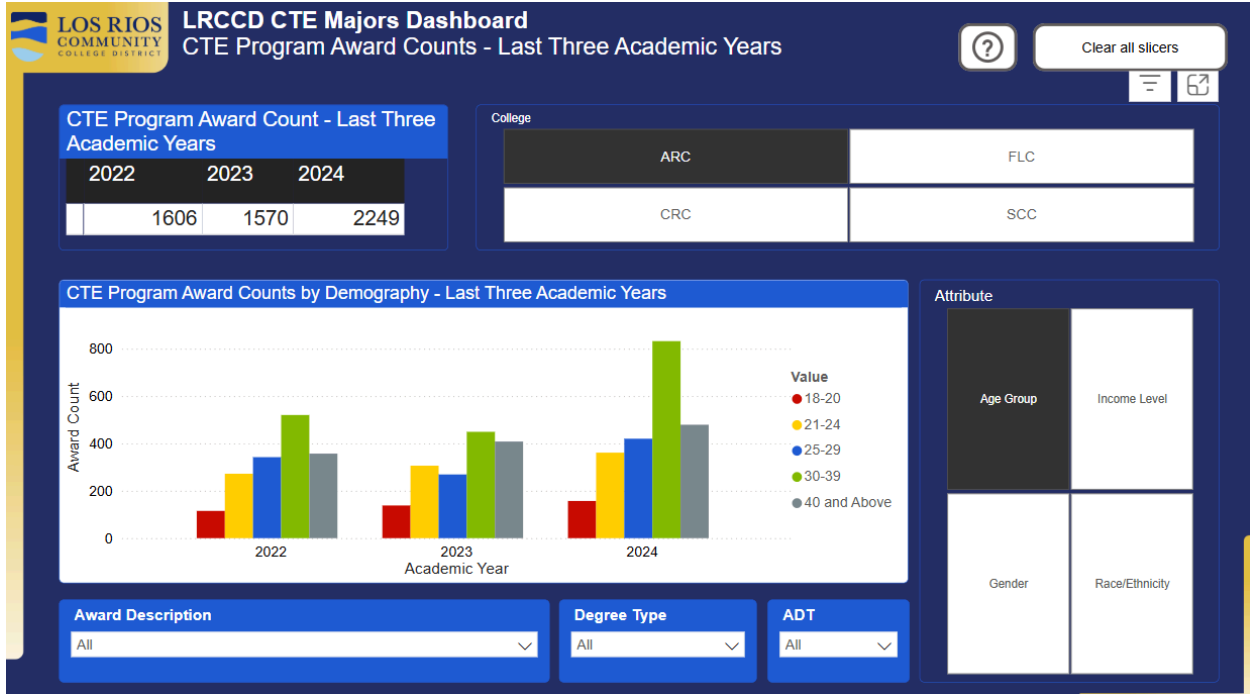
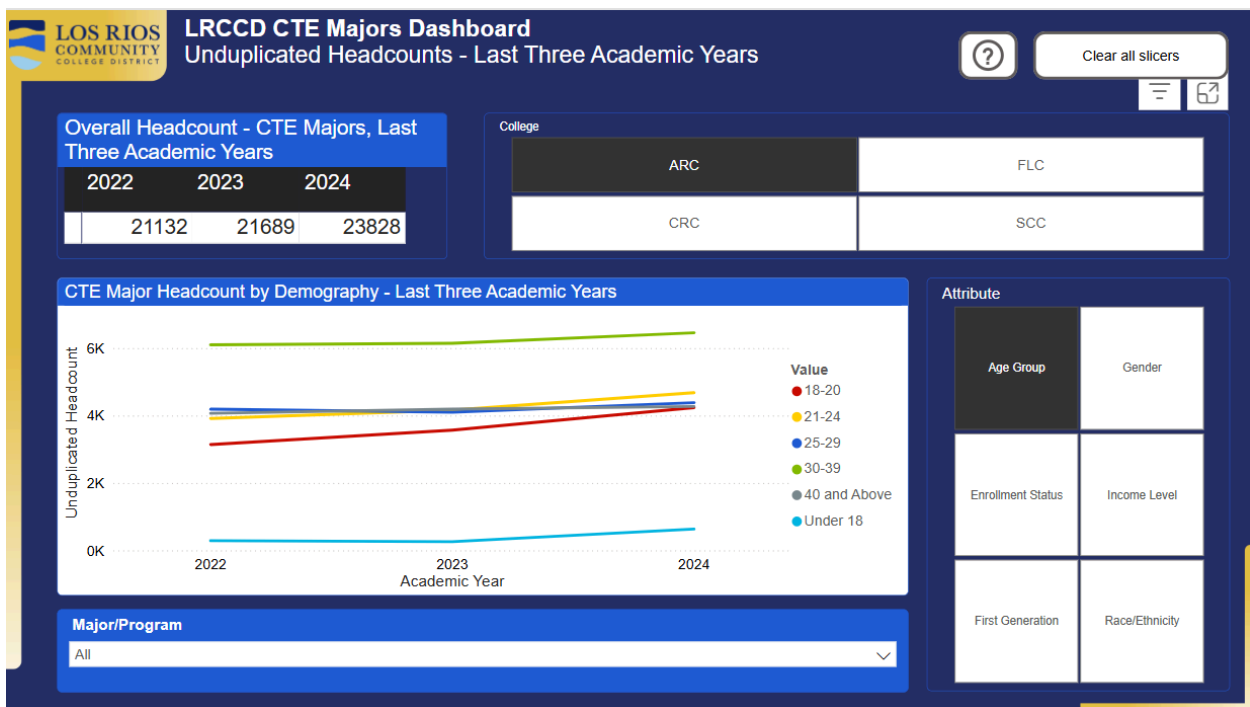


Figure 5 Unduplicated Headcount by Age



Given that our enrollment in the CTE fields trends to mostly in the 30-39 demographic, it is unsurprising that most of the CTE awards are to that demographic. The dramatic increase in

23-24 comes from Hispanic/Latino and white males in the 30-39 bracket from indeterminate income brackets.

### Outcomes Survey

The latest Career and Technical Education Employment Outcomes Survey (2023) indicates high satisfaction among ARC students. According to the data, 48.5% of respondents were very satisfied, 40.9% were satisfied, and 10.6% reported other responses. The survey also shows positive employment outcomes, regardless of whether students earned a credential or transferred. On average, students saw a 67% increase in hourly wages (approximately \$12.00) after completing their training. Additionally, 73.2% of respondents secured employment related to their training, with 49.6% finding jobs that were very closely related, and 23.6% finding jobs that were somewhat related. While 23.1% of respondents found jobs in their field immediately, 40.7% found work within three months, and 7.1% found work within an additional three months. Unfortunately, 19.1% took seven or more months to find employment.

### **Responding to Student Needs**

Our CTE departments have employed several ways of engaging our students creating more opportunities for them to be successful. They have also sought out opportunities to enhance their own skill level, become better teachers and learn how to better support our Disproportionately Impacted students. Each CTE department is addressing these gaps and improving success in various ways. Below are examples of initiatives faculty have undertaken to foster excellence in the classroom and increase success for all students and:

#### *Enhanced learning opportunities*

The American River Immersive Education and Innovations Lab (ARIEIL) provides virtual learning opportunities for our CTE students. Instructors can schedule time to bring their class or a student can arrange time separately to come to the center and work through various techniques or simulations virtually. This provides a tremendous learning opportunity and gives those who don't have background experience the opportunity to develop in a safe environment.

The Funeral Service Department will be providing dignified burials for the indigent population of the Sacramento area. Without our services, these families would not be able to have the closure they need through viewings and funeral services. This service will give our students real experience in navigating and understanding business aspects as well as learning to help people manage their grief and the grieving portions.

Through a partnership with SETA, ARC has a person located in both the Career Center and in the Manufacturing, Construction and Technology Homebase. This person's role is to assist with getting students into jobs related to fields of study.

### Greater collaboration

The Design Hub has been collaborating with departments across campus and outside the college in the Sacramento region since its inception. These collaborations give real life experience to students on how to collaborate and work as a team to find solutions. The situations presented to them will often solve a problem for a department on campus. Computer Information Science faculty have participated in several projects and one reports that participating in the Design Hub has allowed him to change his role from a teacher to a supervisor. He feels that this experience helps students learn about what it is like to be at work. They learn hard technical knowledge but also put into practice soft skills but with the safety of working with an instructor that is helping them learn.

The use of the virtual reality lab, ARIEL, is another example of departments and programs working together to support students. The collaboration between the BUSTEC programs at ARC, CRC and FLC should be acknowledged as they work together to better support students. The same is true for the Work Experience and Internships Programs at these 3 campuses. They work together well and produced recommendations in response to legislative changes to work experience statutes.

### Zero Textbook Costs (ZTC)

Because of their strong commitment to equity and accessibility in higher education, many of our programs have moved to ZTC models or are very close to it. Welding, Speech Language Pathology Assistant and Fire Technology and Business Technology are just a few of the programs that are ZTC.

### Curriculum Re-development

Several programs, including Welding, BUSTEC, EMT/Paramedic, and Respiratory Care, have revised their curricula to better align with industry needs. Additionally, stackable certificates have been introduced to enhance students' marketability. The Early Childhood Education program has also aligned its course outlines with the California Curriculum Alignment Project to better serve diverse students.

### Professional Development

Training for understanding equity, equity data, and actions continues to be a point of emphasis. Several of our faculty have gone through the Equity Data Training, the ARC Understanding Your Individual Course Data Training, the Equity Action Institute, the ARC Equitable Grading Training, the ARC Equity & Culturally Responsive Online Teaching Institute, and the Developing an Equity-minded Syllabus Training. It is critical that faculty and staff continue to hone their skills and try to remain in touch with today's students.

### LinkedIn

The Department of Labor grant continues to provide significant benefits to BUSTEC students and the college as a whole. This grant has facilitated the creation of a groundbreaking partnership, the first of its kind in the country at the community college level. As part of this partnership, all ARC students, staff, and faculty, along with BUSTEC students at FLC and CRC, will gain premier access to LinkedIn. This access will allow them to take full advantage of LinkedIn's networking opportunities, on-demand learning resources, and certification and badging options. Faculty will also have the opportunity to incorporate these resources into their courses if they choose. Additionally, the partnership provides access to LinkedIn's analytics, helping us track students as they pursue employment and assess their employability. Moreover, the collaboration allows us to advertise job openings, broadening our applicant pool and enhancing our recruitment efforts.

### **Deeper Dive**

Our programs are successful but they can improve and be better. The following pages do a deeper dive into 3 representative CTE programs at ARC: Welding, Respiratory Care and Business Technology. Each has improvements that it needs to make and one is reinventing itself adjusting to the new technology of today and its students.

### **Welding Program Overview**

The Welding Department, led by two full-time faculty members and eight adjunct instructors, is dedicated to the success of our students in this high-demand career field. We offer an Associate of Science (AS) degree in Welding Technology, where students gain the skills and knowledge required for manual and semi-automatic welding processes used in the metal fabrication and construction industries. Upon completing the degree, students are proficient in welding techniques such as Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW), as well as welding procedures.

Our program also offers industry-recognized certifications, including welder qualifications and non-destructive testing inspector certifications. Students can earn the following certificates as part of their degree or in place of earning a degree:

1. Shielded Metal Arc Plate and Pipe Certificate which promotes competency in plate and pipe welding, focusing on power sources, electrode selection, joint designs, techniques, and welding positions.
2. Welding Metallurgy and Inspection Certificate (270 hours), which provides in-depth knowledge of metallurgy and weld inspection. This includes the identification and selection of irons and steels, mechanical and physical properties of metals, crystal structures, welding construction industry regulations, and inspection methods.
3. Welding Technology Certificate, which covers manual and semi-automatic welding processes used in metal fabrication and construction. Students learn to join ferrous and non-ferrous metals using SMAW, GMAW, FCAW, and GTAW. Additional topics include oxyacetylene welding, oxyacetylene cutting, and plasma arc cutting.
4. Gas Metal Arc and Flux Core Arc Welding Plate Certificate (252 hours), which emphasizes welding with different metal transfer types, shielding gases, electrode selection, and welding on fillet and groove welds according to structural and pipe standards.
5. Gas Tungsten Arc Plate and Pipe Welding Certificate (180 hours), which focuses on welding both ferrous and non-ferrous materials using GTAW equipment, with an emphasis on proper setup, process variables, material requirements, and welding procedures.
6. Pipe Welding Certificate, which emphasizes welding techniques for pipes, power sources, electrode/filler metal selection, joint designs, and welding positions.
7. Welding Equipment Maintenance and Blueprint Interpretation Certificate (234 hours), which covers troubleshooting equipment, mathematical and manufacturing problems, metal placement, measurement, tool layout, blueprint reading, and welding equipment repair.

American River College's welding program is nationally accredited by the American Welding Society (AWS). The program meets all AWS QC4 standards for Accreditation of Test Facilities for the Certified Welder Program. Our faculty bring decades of industry experience, and most continue to work in the field. The faculty also collaborate closely with local employers to ensure that students are acquiring the skills and knowledge necessary for a successful career. In addition to the College's program review every six years, the department convenes an advisory committee annually to assess student progress, industry trends, and the demonstration of competency in the field. Our advisory board has representatives from key stakeholders. The following companies are represented on our board:

- Siemens
- Miller Electric
- QTC
- Berger Steel
- CRC Welding
- CTE Cal
- Ironworkers Union
- ALTEC
- GNB
- Clark Pacific

Key Industry Partners and Labor Market Alignment

Our program aligns well with the labor market, where data shows a significant need for welders in the region. The demand for skilled welders is expected to remain strong. The region's diverse economy and ongoing infrastructure projects contribute to a steady need for welding professionals. According to the latest data from the Center of Excellence, the median hourly wage for a welder is \$27.75, with demand for welders exceeding current supply. This provides excellent career opportunities for our students. In fact, many of our students are being hired before completing their degrees or certificates, as they demonstrate the necessary competencies to meet industry needs.

Table 1. Enrollment and Demographics

| Fall 2023 Race/Ethnicity Enrollment Percentage |                      |                |                               |
|--|----------------------|----------------|-------------------------------|
|  | ARC Welding Students | ARC Population | U.S. Welding Workforce (2024) |
| African American                               | 3.75%                | 9%             | 3.50%                         |
| Asian  | 3.75%                | 14%            | 3%                            |
| Filipino                                       | 1.30%                | 3%             | NR                            |
| Hispanic/Latino                                | 35.49%               | 27%            | 26.70%                        |
| Multi-Race                                     | 6.48%                | 7%             | NR                            |
| Native American                                | 0.68%                | 0%             | NR                            |
| Other Non-White                                | 0.34%                | 0%             | NR                            |
| Pacific Islander                               | 0.68%                | 1%             | NR                            |
| Unknown  | 2.73%                | 2%             | NR                            |
| White  | 44.71                | 37%            | 82.20%                        |

NR = not reported

The Welding program experienced significant growth in Fall 2023, particularly in its Latino/Hispanic student population, which more than doubled compared to the previous year. Other ethnic groups also experienced modest growth (Table 1). However, the small numbers of students from diverse racial/ethnic backgrounds, as well as the comparison to the overall ARC demographic data, highlight the need for more targeted recruitment efforts.

Additionally, the percentage of female students in the Welding program in Fall 2023 was 11%, which is considerably lower than ARC’s overall demographic of 56%. However, this percentage outperforms the national average. According to the U.S. Bureau of Labor Statistics, women made up 5.8% of the welding workforce in 2023 and 6.0% in 2024. The enrollment percentages for African American and Asian students are in line with the national workforce trends, but there is clearly a need for more focused efforts to recruit African American, Asian, and female students into the welding field. Welding is a lucrative career for our students, and increasing diversity in the workforce would benefit the industry.

Enrollment & Access Analysis

Enrollment has grown steadily over the past 4 years to the point where it surpasses our pre-pandemic numbers. Despite being a small department, the faculty have worked to create ways that will allow them to more efficiently and effectively serve students. The modality of course offerings has been adjusted to give students much more flexibility by offering more lecture/lab combinations and focusing the in-person contact on lab hours. This speaks to the dedication of the faculty. This small department prioritizes putting students first, offering the face-to-face portion of courses both during day and evening and on weekends to provide flexibility in scheduling for our students who need these options. Course success rates dating back to 2015 have traditionally been above 80% ranging from a low of 81% to a high of 85% from Fall 2015 through Fall 2023. The exceptions to the range were in 2016 (77%) and 2020 (62%).

Table 2. Welding Enrollment Headcount

|        | 2017-18 | 2018-19 | 2019-20 | 2020-2<br>1 | 2021-2<br>2 | 2022-2<br>3 | 2023-2<br>4 | 2024-2<br>5 |
|--------|---------|---------|---------|-------------|-------------|-------------|-------------|-------------|
| Fall   | 426     | 411     | 414     | 117         | 251         | 338         | 553         | 570         |
| Spring | 486     | 520     | -       | 167         | 269         | 365         | 604         | 638         |
| Summer | 61      | 57      | -       | 85          | 38          | 79          | 115         |             |
| Total  | 973     | 988     | 414     | 369         | 558         | 782         | 1272        | 1208        |

COVID, obviously, impacted 2020. However, faculty pulled together and created additional ways to assist students. One of the ideas they settled on was the creation of an open lab where students could come and practice the skills they needed to demonstrate and get extra help if needed. This also allowed those who didn't have a background or exposure to this market the opportunity to use tools they likely didn't have at home. This was a practice begun during COVID and has continued because of the impact that it had for students. As a result, you can see the rate in certificates and degrees awarded post COVID has increased dramatically each year.

Retention from year-to-year can be improved. It ranges from a low of 38% to a high of 46%. As noted earlier, students are being employed once they are able to demonstrate certain competencies, making it less likely that they will stay to complete a course. In addition, some of the students are industry members that take courses like WELD 115 to learn or demonstrate certain skills only. This is done for salary advancement purposes. Because the faculty are all American Welding Society certified, the faculty can give certification for meeting industry standards before the completion of a course. While these students tend to finish the course, they may not return for more courses as they have met their goal. The strategies to provide greater incentives to stay on the program are discussed below.

### Barriers to Access

In recent years, faculty have worked tirelessly to eliminate or reduce barriers for students. Historically, the cost of the program and related expenses have posed significant barriers. Students were previously required to purchase their own textbooks, provide some of their PPE, and buy their own tools when starting their careers. Depending on which Welding degree or certificate a student is working toward, the average cost of books, access and materials is about \$1,200. Faculty implemented a learning management system that enables the program to achieve zero-textbook-cost status. As a result, students no longer need to purchase textbooks. The department also provides personal protective equipment (PPE) and does not require students to pay lab fees. Thanks to a contribution from a private partner through the Foundation, students are supplied with the PPE and tools necessary to begin their careers upon graduation.

Another challenge faced by many students is the need to work while enrolled in the program. According to the most recent Student Experience Survey conducted in 2020, 29% of ARC's African American, Latinx, and Native American students indicated "Not enough money to cover general living costs" as a challenge to completion. These students had significantly lower course success rates (75% vs. 82%) and higher drop rates (14% vs. 9%) than students who did not indicate this as a challenge to completion.

To address these challenges, the department employed several strategies such as creating open lab sessions, achieving Zero Textbook Cost status, and providing lab PPE and materials at no cost for students. Our program now offers time-saving online lecture instruction, with a strong emphasis on hands-on lab experience. To increase flexibility, course offerings have been modified to include more hybrid options, allowing students to choose when to take their courses. Classes are available throughout the day, evening, and on weekends to accommodate various schedules. These strategies were also designed to better serve those disproportionately impacted in the program which, according to college data, are Hispanic and African American students and individuals living below the poverty level. Open lab sessions, developed in response to social distancing during the COVID pandemic, provide students with increased access to tools, equipment, and instructional support to practice welding skills at no additional cost. The open lab concept provides a completely free and flexible environment to support the instruction and projects completed in class. Open lab sessions are available Monday through Friday, 8am to 8pm and Saturdays from 9 am to 4 pm.

#### Achievement & Retention Analysis

Although the rates shown in the table are generally high compared to the college's overall 72% success rate for Fall 2023, there is still work to be done to address the disproportionate impact on certain groups. The most significant disparities are observed among African Americans, African American males, and females below the poverty level. Disproportionate impact is also seen, though to a lesser degree, among Latinos, Latino males, and females below the poverty level. The table below (Table 3) highlights these disparities over an 11-year period.

Table 3 Disproportionate Impact

| WELD - Welding                |                             |                  |                      |                     |                            |                                 |   |                         |                      |   |  |
|-------------------------------|-----------------------------|------------------|----------------------|---------------------|----------------------------|---------------------------------|---|-------------------------|----------------------|---|--|
| Number of sections: 413       |                             |                  |                      |                     |                            |                                 |   |                         |                      |   |  |
| Summer 2013 to Summer 2024    |                             |                  |                      |                     |                            |                                 |   |                         |                      |   |  |
| Disproportionate impact table |                             |                  |                      |                     |                            |                                 |   |                         |                      |   |  |
| Group Name                    | Student group               | Student subgroup | Enrollment at census | Number of successes | Student group success rate | Comparison Enrollment at Census | Number of successes in Comparison Group | Comparison success rate | Percentage point gap | Additional successes needed to erase percentage point gap | Additional successes needed to reach threshold |
| Race/Ethnicity                | African American            |                  | 497                  | 348                 | 70%                        | 10,035                          | 8,186                                   | 82%                     | -12                  | 58  | 38   |
|                               | African American            | Male             | 433                  | 298                 | 69%                        | 64                              | 50                                      | 78%                     | -9                   | 41  | 23   |
| Race/Ethnicity                | Hispanic/Latino             |                  | 2,468                | 1,952               | 79%                        | 8,064                           | 6,582                                   | 82%                     | -3                   | 63  | 14   |
|                               | Hispanic/Latino             | Male             | 2,241                | 1,764               | 79%                        | 227                             | 188                                     | 83%                     | -4                   | 92  | 48   |
| Veteran                       | Not Veteran                 |                  | 10,275               | 8,316               | 81%                        | 257                             | 218                                     | 85%                     | -4                   | 400   | 195  |
| Income                        | Income: Below Poverty Level |                  | 3,212                | 2,474               | 77%                        | 7,320                           | 6,060                                   | 83%                     | -6                   | 186   | 121  |
|                               | Income: Below Poverty Level | Female           | 267                  | 187                 | 70%                        | 2,945                           | 2,287                                   | 78%                     | -8                   | 21  | 7  |

For more information about this or related reports, contact [ABC's research office](#) or initiate an [ABC Research Request](#). Please note that in some instances student counts shown on Precision Campus reports may differ slightly from those found in reports generated by ABC's research office. A data dictionary can be found [here](#).

In recent years, efforts have been made to reduce this impact through adjustments and enhancements to the curriculum, enhanced student support, and long-term initiatives such as supporting a talent pipeline from high school to college. Some of the actions taken include:

1. The use of multiple modalities and course offerings throughout the day and weekends to offer more flexibility to students;
2. Offering time-saving online lecture instruction, with a strong emphasis on hands-on lab experience;
3. Through implementation of the AWP learning management system, students have access to very high quality digital and printed material available in 9 different languages;
4. Instructors making a conscientious effort to review the lecture materials and connect them to the lab work the day before starting the lab, ensuring students can apply what they've learned in real-time;
5. Increased availability of instructional assistants in the classroom to support student learning;
6. Partnering with the American River Immersive Education Lab to provide virtual learning enhancement opportunities for those that need time beyond class and open lab;
7. Diversification of faculty and staff to better reflect the student population;
8. Offering local college competitions as an alternative to attending the cost-prohibitive Skills USA Competition, and providing students with critical opportunities to showcase their talents and develop soft skills;

9. Dual enrollment programs in targeted high schools to allow students to begin skill development in a familiar environment.

The department is also working toward becoming an Accredited Testing Facility (ATF) to support equitable employment outcomes for students. Becoming an ATF would give us the ability to offer nationally recognized, accredited welding certifications to our students. These certifications are turn-key welder qualifications that give workers the ability to weld on projects requiring these types of certifications. Potential employers can search for welders qualified in their areas of need on the AWS website. Welders qualified in this program are also issued an ID card that lists all certifications and provides a better means of record keeping and identification. This is a huge advantage over the type of certifications we currently offer and is the preferred type of certification in industry. Achieving ATF certification would provide disproportionately impacted students with the opportunity to receive nationally accredited welding certifications, which would otherwise be costly and could pose a barrier to entering the welding workforce. Welder Qualification Testing is the industry standard in qualifying potential employees in the welding industry.

In addition to the strategies listed above, Welding has developed a non-lab companion to their introductory class, WELD 300. This class allows the program to partner with local high schools to offer dual enrollment and will potentially add to enrollment down the road as these students continue their education and potentially come to ARC.

### Support Services

In addition to the support services mentioned above the following services and supports are provided for WELD students beyond what is readily accessible for the average college student: counseling, health center access, mental health resources, career counseling and tutoring in the LRC. Welding students have access to a SETA job developer to assist them with seeking employment in their chosen field.

As mentioned previously, our students quite frequently are hired as they go through the program reducing the incentive to complete. That being said, we can do more to encourage students to apply for the certificates that they have earned (Table 4). We could have the Homebase Specialists do brief classroom presentations, sending alerts in Canvas and letting them know where they can receive help with the petition. In 2017, we had someone whose role was to do just that and it is believed that is why the 2018 and 2019 awards numbers are higher. In addition, if we are alerted that a student becomes eligible or is close, then we can reach out to them and it increases our efficiency. The ability to do auto-award makes a lot of this easier and would likely significantly increase the awards as well.

Table 4 Degrees and Certificates by Year

Measures: Count of Degrees and Certificates Awarded

|          | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Measures | 56        | 60        | 31        | 6         | 15        | 39        | 29        |

Reflects all awards conferred, irrespective of how many awards a given student earned in a given year. For more information about this or related reports, contact [ARC's research office](#) or initiate an [ARC Research Request](#). Please note that in some instances student counts shown on Precision Campus reports may differ slightly from those found in reports produced by ARC's research office. A data dictionary can be found by clicking [here](#).

Data loaded 12-Sep-2024

We do not have accurate data on job placement statistics although we know our students are getting jobs that pay very well. With the partnership with LinkedIn and the access that now gives, we should be able to much more accurately provide job placement data.

### Resources & Support Needed

Our waitlists are full for nearly all classes with multiple sections. The welding industry is experiencing a significant demand, creating ample opportunities for our students. We are eager to accommodate all those who want to enter our program. To help manage overcrowded classes, we have added additional instructors, temporary instructional assistants, and student help for our open lab program. We are also fortunate to have secured another permanent faculty hire for the upcoming Fall semester.

As we expand the number of sections and courses we offer, it's essential to also increase the support in our classrooms. In our new facility, we will have the ability to offer two lab sections simultaneously. In addition, we will be able to give students state of the art experiences as we will be able to teach the use of robotic welders, plasma cutters and a CNC as we move towards teaching fabrication. While temporary classified help has been useful as a short-term solution, we require the security and ongoing support that permanent instructional assistants (IAs) can provide. Managing our lab and material processing activities is a large task, and additional permanent staff will be crucial. To meet the growing student demand and maintain our standards of vibrant, effective, and resilient teaching, we will need additional full-time equivalent (FTE) staff to offer these extra sections.

Funding is needed to cover the costs of both the AWS Digital Library (for code texts) and the CWB online LMS and digital textbooks. Our faculty has developed a free, open-sourced curriculum on Canvas, supplemented by services like the AWS Digital Library and Online Learning. While we aim to provide high-quality online resources, these services require ongoing funding. The CWB American Welding Program, typically a pay-per-user service, has agreed to a

one-time annual fee for unlimited LMS access and digital textbook PDFs. Students will have free access to all learning content through Canvas and may purchase printed textbooks if desired. Each year, we need funding to cover the costs of these valuable resources.

### **Respiratory Care Program Overview**

The Respiratory Care program is comprised of two full-time faculty members and 4 adjuncts. The degree and its courses prepare students for licensure as a Respiratory Care Practitioner in the state of California at the Advanced Registered Respiratory Therapist level. Its training focus for students is on diagnostic procedures, treatment, and the management of patients with conditions affecting the cardiopulmonary system. Course work includes physical assessment, medical gas therapies, mechanical life support, airway care, pharmacology, neonatal/pediatric therapy, and specialized cardiopulmonary procedures. The Respiratory Care curriculum is a two-year program designed to prepare the student for employment participating as a member of a direct patient healthcare team. Experience in respiratory care is provided in selected local hospitals where the student participates in clinical externships. Safe, ethical, and professional levels of practice are necessary for retention of students in the Respiratory Care Program. Students must be highly skilled and trained to meet the expectations of a Respiratory Care Practitioner (RCP). They must provide care in a number of critical situations such as:

- Respiratory Care Practitioners (RCPs) are first responders in the hospital to any cardiopulmonary emergency (ACLS)
- RCPs provide artificial airways and manage life support equipment in the emergency room, trauma, and intensive care units, high risk births, CODE Blues, and rapid responses
- RCPs work with any patient that has chronic breathing issues
- RCPs provide expertise in the hospital, asthma clinics, education, home care, skilled nursing facilities, PFT labs, ABG labs, pulmonary rehabs, CF clinics, pharmaceutical and medical sales

The Respiratory Care program provides an associate's degree in Respiratory Care and a certificate of achievement in Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Science. Students entering the program must have completed 2 years of prerequisites. The program itself is a 2 year, cohorted program requiring 750 hours of clinical externships under the supervision of a licensed practitioner. The certificate recognizes the significant time and effort that English as a Second Language (ESL) students must make in order to complete both advanced academic ESL course work and introductory coursework in several health science fields.

Students intending to enter the degree program must meet the following eligibility criteria:

- Graduate from an accredited high school (graduates from outside the United States must have transcripts evaluated by an independent agency) or successfully completed the General Educational Development (GED) Test or California High School Proficiency Examination (CHSPE) as defined by the current requirements of the State of California and National Board for Respiratory Care.
- Overall, complete the prerequisite courses with a GPA of 2.5 or better.
- Individually, complete the following courses with a grade of “C” or better:
  - AH 311
  - BIOL 430 and BIOL 431.
  - BIOL 440 or BIOL 442.
- Have a current college GPA of 2.0 or better.
- Have a Curriculum Planning Summary Sheet completed by an ARC counselor and dated within the year the enrollment application packet is submitted.
- Have completed pre-enrollment application.

The American River College (ARC) Respiratory Care (RC) program is accredited by the Commission on Accreditation for Respiratory Care (CoARC). The program has received national recognition by the accrediting board for being one of the top 25% educational institutions in the nation that awards AS, BS, and/or MS in RC. The RC team effectively uses their advisory board to help review the program and local industry needs on an annual basis to ensure that our program remains one of the top programs in the country.

### **Key Industry Partners and Labor Market Alignment**

Our program aligns well with the labor market, where data shows a significant need for respiratory care practitioners in the region. The demand for skilled practitioners is expected to remain strong. The region's increased population growth contributes to a steady need for healthcare providers. According to the latest data from the Center of Excellence, the median hourly wage for a practitioner is \$55.88, with the demand exceeding the supply substantially. Although it is a significant commitment, this is an excellent career opportunity for our students.

### **Enrollment and Demographics**

As expected from a high-demand, cohorted program, the Respiratory Care (RC) program maintains steady enrollment. However, the enrollment data is somewhat misleading. Each spring term, the program admits about 40 new students. Entering students must enroll in RC110. The enrollment count taken at census for that (Table 1) doesn't accurately reflect the significant loss of students by that time. From Spring 2015 to the next spring, there has been a

significant increase in withdrawal rates, from 4% to upwards of 24% (Table 2). Faculty report that the overall attrition rate in the first semester is actually more like 50-60% when you include the students lost between the first day of class and census. One primary reason that students cite for leaving is the compact nature of the course material, which doesn't leave enough time for instructors to adequately cover everything. As a result, many students feel overwhelmed that they must learn material independently, leading some to transfer to other schools or change majors. Another contributing factor is that students often apply for both RC and Nursing. Students will often leave to pursue nursing when they hear they were admitted in those first couple of weeks.

Table 1. Head count by Term

Measures: Students

|          | Spring 2015 | Spring 2016 | Spring 2017 | Spring 2018 | Spring 2019 | Spring 2020 | Spring 2021 | Spring 2022 | Spring 2023 | Spring 2024 |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Measures | 42          | 43          | 52          | 50          | 51          | 49          | 18          | 32          | 59          | 52          |

Table 2. Withdrawal Rates by term

Measures: Withdraw rates by class and student

|          | Spring 2015 | Spring 2016 | Spring 2017 | Spring 2018 | Spring 2019 | Spring 2020 | Spring 2021 | Spring 2022 | Spring 2023 | Spring 2024 |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Measures | 4%          | 24%         | 20%         | 19%         | 15%         | 18%         | 0%          | 22%         | 12%         | 23%         |

Table 3. RC 110 Head count by Race/Ethnicity

Measures: Students

| Race/Ethnicity   | Spring 2015 | Spring 2016 | Spring 2017 | Spring 2018 | Spring 2019 | Spring 2020 | Spring 2021 | Spring 2022 | Spring 2023 | Spring 2024 |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| African American | 0           | 1           | 1           | 0           | 3           | 0           | 0           | 3           | 2           | 3           |
| Asian            | 3           | 2           | 7           | 4           | 5           | 5           | 0           | 4           | 7           | 3           |
| Filipino         | 0           | 1           | 1           | 0           | 4           | 1           | 0           | 5           | 4           | 2           |
| Hispanic/Latino  | 5           | 6           | 1           | 5           | 4           | 5           | 0           | 7           | 8           | 5           |
| Multi-Race       | 2           | 0           | 0           | 1           | 3           | 2           | 0           | 4           | 3           | 4           |
| Native American  | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 1           | 1           |
| Other Non-White  | 2           | 2           | 0           | 1           | 0           | 0           | 0           | 0           | 0           | 0           |
| Pacific Islander | 0           | 3           | 2           | 3           | 0           | 0           | 0           | 0           | 0           | 0           |
| Unknown          | 0           | 0           | 0           | 0           | 1           | 1           | 0           | 0           | 1           | 1           |
| White            | 12          | 15          | 22          | 18          | 15          | 19          | 0           | 9           | 12          | 10          |
| <b>Total</b>     | <b>24</b>   | <b>30</b>   | <b>34</b>   | <b>32</b>   | <b>35</b>   | <b>33</b>   | <b>0</b>    | <b>32</b>   | <b>38</b>   | <b>29</b>   |

For the first time since at least Fall 2015, the number of students identifying as people of color (excluding multiracial students) surpassed those identifying as White (Table 3). The program is predominantly female, with the median female percentage during this period standing at 69%. According to the U.S. Bureau of Labor Statistics, in 2024, the workforce in respiratory care was 82.1% female and 17.9% male.

Table 4. Program Race/Ethnicity Demographics

| 2023 Race/Ethnicity Demographics for RC Program, ARC, US RC Workforce (2024) |                                 |                   |                                 |
|--|---------------------------------|-------------------|---------------------------------|
|  | ARC<br>Resp.<br>Care<br>Program | ARC<br>Population | U.S.<br>Resp. Care<br>Workforce |
| African American   | 6.80%                           | 9%                | 10.10%                          |
| Asian  | 20.50%                          | 14%               | 9.60%                           |
| Filipino   | 6.80%                           | 3%                | NR                              |
| Latino/Hispanic  | 18.20%                          | 27%               | 11.50%                          |
| Multi-Race   | 9.10%                           | 7%                | NR                              |
| Native American  | 0.00%                           | 0%                | NR                              |

|                  |        |     |        |
|------------------|--------|-----|--------|
| Other            | 0.00%  | 0%  | NR     |
| Pacific Islander | 0.00%  | 1%  | NR     |
| Unknown          | 2.20%  | 2%  | NR     |
| White            | 36.40% | 37% | 76.60% |

NR=Not Reported

The percentage of African Americans attending ARC closely aligns with the percentage of African Americans in the U.S. respiratory care workforce (Table 4). Unfortunately, the percentage of African American RC students at RC is lower than the African American representation on the ARC campus as a whole and lower than African American representation in the U.S. respiratory care workforce. There is significant opportunity for growth in recruiting and serving Latino/Hispanic and African American populations, especially if the goal is to reflect the demographics of the campus.

**Barriers for DI populations**

There are several barriers facing DI populations in this program. One of the most significant barriers is the large number of prerequisite courses required to be eligible for admission. Completing these prerequisites takes two years and involves demanding coursework, which requires a significant level of commitment and dedication. This challenge is further compounded for ESL students, who must overcome additional obstacles and much more coursework to succeed in the program.

Table 6 RC 110 Term by Race/Ethnicity

Measures: Students

| Race/Ethnicity   | Spring 2015 | Spring 2016 | Spring 2017 | Spring 2018 | Spring 2019 | Spring 2020 | Spring 2021 | Spring 2022 | Spring 2023 | Spring 2024 |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| African American | 0%          | 3%          | 3%          | 0%          | 9%          | 0%          | 0%          | 9%          | 5%          | 10%         |
| Asian            | 13%         | 7%          | 21%         | 13%         | 14%         | 15%         | 0%          | 13%         | 18%         | 10%         |
| Filipino         | 0%          | 3%          | 3%          | 0%          | 11%         | 3%          | 0%          | 16%         | 11%         | 7%          |
| Hispanic/Latino  | 21%         | 20%         | 3%          | 16%         | 11%         | 15%         | 0%          | 22%         | 21%         | 17%         |
| Multi-Race       | 8%          | 0%          | 0%          | 3%          | 9%          | 6%          | 0%          | 13%         | 8%          | 14%         |
| Native American  | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 3%          | 3%          |
| Other Non-White  | 8%          | 7%          | 0%          | 3%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Pacific Islander | 0%          | 10%         | 6%          | 9%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Unknown          | 0%          | 0%          | 0%          | 0%          | 3%          | 3%          | 0%          | 0%          | 3%          | 3%          |
| White            | 50%         | 50%         | 65%         | 56%         | 43%         | 58%         | 0%          | 28%         | 32%         | 34%         |
| Total            | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        |

Students from the DI populations are being admitted to the program but they are leaving the program quickly and at a higher rate than others. Past incoming classes are reflected in Table 6. Faculty report that a significant issue for DI students, as with others, is that they are under-prepared for the rigors and structure of the RC program, not that they are incapable or do not have the knowledge base. A lot is demanded of them to get through this program.

The perception is that topics are not given the depth of lecture needed and so students must spend even more time on their own learning and understanding the material. The same topics are taught by other campuses in the region. The difference is how much lecture and lab time is given for each topic. At ARC, we offer significantly fewer hours of instruction than the other campuses in the region. As the regulations have changed, faculty have added to the existing courses. This has created a circumstance where the classes have become very rigorous and a lot is demanded of students in a short period of time. Faculty are intending to increase hours for instruction so that students have more time to process the material and have more opportunity to gain subject mastery with an instructor.

**Success Rates**

Clearly, the faculty teach well and the students that have remained do exceptionally well in learning the course material as the success rates (A, B, C, Pass) for students of all races and ethnic backgrounds are extremely high (Table 7). An analysis of the grades assigned in the corresponding fall terms indicates that almost all students earn either an A or a B. There are few exceptions and where there are, there are usually just 2 or 3 students from that ethnicity and when one struggles it dramatically affects the statistics. From the time period of Fall 2015 to Fall 2023, there literally have been no withdrawals after the Drop-No-W notation date with the exception of Fall 2019 (Table 8). Please note that these are fall semesters, after the incoming class has had a chance to stabilize and become accustomed to the program.

Table 7. Course Success Rates by Ethnicity/Race

Measures: Success Rate

| Race/Ethnicity   | Fall 2015  | Fall 2016   | Fall 2017  | Fall 2018   | Fall 2019  | Fall 2020  | Fall 2021   | Fall 2022   | Fall 2023   |
|------------------|------------|-------------|------------|-------------|------------|------------|-------------|-------------|-------------|
| African American | 0%         | 100%        | 100%       | 0%          | 50%        | 100%       | 0%          | 100%        | 100%        |
| Asian            | 88%        | 100%        | 100%       | 100%        | 100%       | 100%       | 100%        | 100%        | 100%        |
| Filipino         | 100%       | 0%          | 0%         | 0%          | 100%       | 100%       | 100%        | 100%        | 100%        |
| Hispanic/Latino  | 100%       | 100%        | 100%       | 100%        | 100%       | 83%        | 100%        | 100%        | 100%        |
| Multi-Race       | 90%        | 100%        | 0%         | 0%          | 50%        | 67%        | 100%        | 100%        | 100%        |
| Other Non-White  | 100%       | 100%        | 100%       | 100%        | 100%       | 0%         | 0%          | 0%          | 0%          |
| Pacific Islander | 0%         | 0%          | 100%       | 100%        | 100%       | 0%         | 0%          | 0%          | 0%          |
| Unknown          | 0%         | 0%          | 0%         | 0%          | 0%         | 100%       | 100%        | 0%          | 100%        |
| White            | 98%        | 100%        | 97%        | 100%        | 100%       | 93%        | 100%        | 100%        | 100%        |
| <b>Total</b>     | <b>97%</b> | <b>100%</b> | <b>98%</b> | <b>100%</b> | <b>92%</b> | <b>93%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

Table 8 Fall Withdrawal Rates by Class

Measures: Withdraw rates by class and student

|          | Fall 2015 | Fall 2016 | Fall 2017 | Fall 2018 | Fall 2019 | Fall 2020 | Fall 2021 | Fall 2022 | Fall 2023 |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Measures | 0%        | 0%        | 0%        | 0%        | 8%        | 0%        | 0%        | 0%        | 0%        |

Table 9 illustrates the number of degrees and certificates awarded and reflects the persistence of students through the program.

Table 9. Degrees and Certificates awarded

Measures: Count of Degrees and Certificates Awarded

| Race/Ethnicity   | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| African American | 1         | 0         | 0         | 2         | 0         | 0         | 2         |
| Asian            | 0         | 3         | 1         | 2         | 3         | 0         | 3         |
| Filipino         | 0         | 0         | 0         | 2         | 1         | 0         | 2         |
| Hispanic/Latino  | 3         | 2         | 1         | 2         | 1         | 0         | 5         |
| Multi-Race       | 0         | 0         | 0         | 0         | 2         | 0         | 3         |
| Other Non-White  | 2         | 0         | 1         | 0         | 0         | 0         | 0         |
| Pacific Islander | 0         | 1         | 2         | 0         | 0         | 0         | 0         |
| Unknown          | 0         | 0         | 0         | 0         | 1         | 0         | 0         |
| White            | 10        | 13        | 11        | 8         | 9         | 0         | 6         |
| <b>Total</b>     | <b>16</b> | <b>19</b> | <b>16</b> | <b>16</b> | <b>17</b> | <b>0</b>  | <b>21</b> |

### Barriers to Access:

As noted previously, the large number of prerequisite courses needed to be eligible to get into the program is a barrier to students accessing the program. This is further compounded for ESL students. Faculty have discussed making changes to the curriculum to reduce and eliminate some of the requirements. For instance, two semesters of physics were required but the topics that were needed were not covered with the focus and the depth needed, while other topics were not needed. It was determined that these topics could be covered in more depth in some of the existing RC program courses with adjustment to the curriculum and so that revision has taken place and the prerequisite removed.

The RC degree is a very compacted 40-unit program. There is a lot of material crammed into those units requiring students to do a lot of work on their own. Two colleges in the region, Butte and Napa teach the program in 54 and 52 units respectively. A compacted program like this really challenges the student's ability to stay on task, stay focused and dedicated keeping out all outside distractions.

### Achievement & Retention Analysis

We are aware that being a difficult and fast-paced program may have an effect on our DI students. To help provide an equity-minded and insightful program, we have instituted a mentoring program in which students receive professional development points and a retention specialist program. The retention specialist (content specialist) program helps with student success and retention. The retention specialist works with students on study skills, test taking, and coping strategies for both classroom, lab, and clinical work. Struggling students are also able to get extra help one-on-one and in open labs. Our mentoring program gives our second-year students an opportunity to mentor our first-year students, thereby strengthening

the new students and their own knowledge. Both of these programs are critical to our student's success in the program

### **Support Services**

In addition to the support services mentioned above the following services and supports are provided for RC students. RC students are entitled to and have access to all services that are readily accessible for the average college student (counseling, health center access, mental health resources, career counseling and tutoring in the LRC).

### **Resources & Support Needed**

Listed and described below are a number of resources needed to implement strategies to better serve our students:

- Curriculum Redevelopment: The faculty have reviewed our program versus others in the region and CoARC standards. It has been determined that other campuses give more time towards certain topics than we do. Faculty believe that allowing for more instructional time on key topics and dedicating time to emerging needs would assist with increasing student success. More FTE would be needed and release time would be needed to redesign the curriculum.
- Additional FTE: To help make things more efficient and to cover additional labs should more FTE be given; a dedicated lab assistant would be needed. Currently, we have one Lab Tech for about 20-40%. The rest of the time, he supports Nursing.
- Hire full-time retention specialist: The current specialist is a temporary classified employee paid for with Strong Workforce funds. This means there are limited hours and limited days of availability.
- More Clinical Instructors: The two faculty members teach a huge portion of the program offerings. More instructors, most likely a full-time instructor, is needed. Unfortunately, hiring, recruiting and retaining an adjunct or a full-time faculty member is hard due to the difference in compensation between education and the hospitals.
- Clinical Placements: There are many private schools that can pay for their clinical placements and there are 4 in the Sacramento region. We are all vying for the same clinical spots for our students. More focused effort in securing and sustaining these partnerships is needed.
- Early outreach and recruitment: DI populations should have early outreach and recruitment to inform and guide them toward a career pathway in respiratory care.

### **Business Technology Department Program Overview**

The Business Technology (BUSTEC) Department is dedicated to preparing students for first-time employment, re-entry, or career advancement in various administrative and office settings. Over the past several years, the Department has experienced a downward trend in its enrollment and certificate completion. The Department needed a deep evaluation and reinvention of itself. Because of the financial support of a Department of Labor grant, they were able to do just that. With ARC leading the charge, the Business Technology programs at FLC, CRC, and ARC collaborated to evaluate and enhance their offerings. Supported by a Department of Labor grant, these three programs, in partnership with industry and community stakeholders, worked together to create coordinated certificates and courses. This collaboration enables students to easily access a range of instructional options across the district. This allows them to choose courses and modalities that best suit their needs, complete their degrees or certificates more efficiently, enter the workforce sooner and make it easier for those that change their educational focus to earn a business degree. The data shown below clearly indicates a program that needed to re-evaluate itself in terms of industry needs and adjusting to student needs for the program.

#### Enrollment and Demographics

The Bustec Department has faced declining enrollment for several years (Table 10). However, the Department of Labor (DOL) grant has provided an opportunity to start reversing this trend. With the support of the grant, the Bustec Department now has direct outreach programs that engage with industry and community organizations in need of the educational and training services we offer. The department has formed closer partnerships with the Sacramento Employment Training Agency (SETA) and the Institute for Local Government to facilitate greater participation in Business Information Professional (BIP) training, specifically targeting individuals with employment barriers and placing them in public sector careers. Additionally, we now have formalized referral processes for the program, placement procedures, and program assessments.

Table 10. Enrollment by Race/Ethnicity and Term

## Measures: Students

| Race/Ethnicity   | Fall 2018  | Fall 2019  | Fall 2020  | Fall 2021  | Fall 2022  | Fall 2023  |
|------------------|------------|------------|------------|------------|------------|------------|
| African American | 32         | 27         | 11         | 17         | 14         | 21         |
| Asian            | 25         | 24         | 26         | 14         | 10         | 12         |
| Filipino         | 5          | 4          | 6          | 4          | 3          | 1          |
| Hispanic/Latino  | 35         | 32         | 23         | 33         | 33         | 28         |
| Multi-Race       | 19         | 13         | 11         | 8          | 6          | 7          |
| Native American  | 0          | 3          | 0          | 2          | 1          | 1          |
| Other Non-White  | 0          | 0          | 0          | 1          | 0          | 0          |
| Pacific Islander | 4          | 2          | 0          | 2          | 1          | 2          |
| Unknown          | 4          | 8          | 7          | 7          | 4          | 3          |
| White            | 88         | 75         | 61         | 47         | 48         | 37         |
| <b>Total</b>     | <b>212</b> | <b>188</b> | <b>145</b> | <b>135</b> | <b>120</b> | <b>112</b> |

## Degrees and Certificate, Course Success, and Disproportionate Impact

The department serves a highly diverse group of students, with demographic percentages that generally exceed those of the college as a whole. However, the department faces challenges in degree and certificate attainment, as well as course success rates, which are not as favorable. In addition to the enrollment decline, a low number of students are earning or applying for their degrees or certificates (Table 11). While the number of degrees and certificates awarded hasn't seen a dramatic decline, the overall figures are still low.

Table 11. Degrees and Certificates awarded by Year

## Measures: Count of Degrees and Certificates Awarded

| Race/Ethnicity   | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| African American | 0         | 0         | 1         | 0         | 0         | 0         | 0         |
| Asian            | 0         | 5         | 1         | 2         | 1         | 1         | 1         |
| Filipino         | 1         | 0         | 0         | 0         | 0         | 0         | 0         |
| Hispanic/Latino  | 0         | 0         | 1         | 2         | 1         | 4         | 0         |
| Multi-Race       | 0         | 0         | 0         | 1         | 0         | 0         | 0         |
| White            | 6         | 2         | 1         | 2         | 9         | 3         | 2         |
| <b>Total</b>     | <b>7</b>  | <b>7</b>  | <b>4</b>  | <b>7</b>  | <b>11</b> | <b>8</b>  | <b>3</b>  |

Table 12. Success by Race/Ethnicity and Term

| Success by Race/Ethnicity |            |            |            |            |            |            |            |            |            |            |           |            |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|
| Success Measures          | Fall 2018  |            | Fall 2019  |            | Fall 2020  |            | Fall 2021  |            | Fall 2022  |            | Fall 2023 |            |
|                           | Success    | Percent    | Success    | Percent    | Success    | Percent    | Success    | Percent    | Success    | Percent    | Success   | Percent    |
| African American          | 12         | 29%        | 18         | 47%        | 6          | 55%        | 12         | 55%        | 7          | 41%        | 8         | 36%        |
| Asian                     | 18         | 58%        | 22         | 67%        | 32         | 82%        | 16         | 89%        | 13         | 81%        | 10        | 71%        |
| Filipino                  | 1          | 20%        | 0          | 0%         | 5          | 83%        | 3          | 75%        | 3          | 100%       | 0         | 0%         |
| Hispanic/Latino           | 18         | 37%        | 19         | 48%        | 23         | 66%        | 26         | 67%        | 28         | 64%        | 19        | 59%        |
| Multi-Race                | 8          | 36%        | 12         | 55%        | 7          | 64%        | 10         | 91%        | 8          | 80%        | 7         | 64%        |
| Native American           | 0          |            | 1          | 33%        | 0          |            | 1          | 33%        | 1          | 100%       | 0         | 0%         |
| Other Non-White           | 0          |            | 0          |            | 0          |            | 0          | 0%         | 0          |            | 0         |            |
| Pacific Islander          | 3          | 75%        | 1          | 50%        | 0          |            | 2          | 67%        | 1          | 100%       | 1         | 33%        |
| Unknown                   | 2          | 25%        | 4          | 40%        | 5          | 63%        | 9          | 82%        | 6          | 86%        | 4         | 100%       |
| White                     | 63         | 54%        | 59         | 57%        | 77         | 77%        | 44         | 73%        | 37         | 71%        | 45        | 85%        |
| <b>Total</b>              | <b>125</b> | <b>45%</b> | <b>136</b> | <b>53%</b> | <b>155</b> | <b>74%</b> | <b>123</b> | <b>72%</b> | <b>104</b> | <b>69%</b> | <b>94</b> | <b>67%</b> |

The overall course success rates (A, B, C, Pass) have been gradually declining over the past several years (Table 12). Although some ethnic groups have shown improvements in success rates, there is a noticeable gap for African American and Latino students. While success rates for Latino/Hispanic students have generally been on the rise, African American students have seen only slight improvements, yet their success rates continue to decline.

Withdrawal rates (Table 12) might be a contributing factor, but they do not seem to have a direct correlation with the lack of classroom success. The withdrawal rates for most demographic groups are higher than the college's overall withdrawal rates, which range between 14-18%.

Table 13. Withdrawal Rates by Term and Race/Ethnicity

Measures: Withdraw rates by class and student

| Race/Ethnicity   | Fall 2018  | Fall 2019  | Fall 2020  | Fall 2021  | Fall 2022  | Fall 2023  |
|------------------|------------|------------|------------|------------|------------|------------|
| African American | 22%        | 11%        | 27%        | 23%        | 53%        | 27%        |
| Asian            | 16%        | 12%        | 10%        | 6%         | 6%         | 21%        |
| Filipino         | 60%        | 75%        | 0%         | 0%         | 0%         | 100%       |
| Hispanic/Latino  | 22%        | 38%        | 26%        | 18%        | 30%        | 31%        |
| Multi-Race       | 41%        | 27%        | 27%        | 9%         | 20%        | 18%        |
| Native American  | 0          | 33%        | 0          | 67%        | 0%         | 0%         |
| Other Non-White  | 0          | 0          | 0          | 100%       | 0          | 0          |
| Pacific Islander | 25%        | 50%        | 0          | 33%        | 0%         | 0%         |
| Unknown          | 0%         | 20%        | 25%        | 9%         | 14%        | 0%         |
| White            | 24%        | 23%        | 16%        | 23%        | 17%        | 13%        |
| <b>Total</b>     | <b>24%</b> | <b>23%</b> | <b>18%</b> | <b>19%</b> | <b>23%</b> | <b>21%</b> |

A closer analysis of the success data reveals that African American students experience a disproportionate impact compared to other groups (Table 14). Success rates for African American students (46%) are significantly lower than those of the general student population (74%). Similarly, students who identify as "Multi-race" (56% vs. 64%) and those "Below the Poverty Level" (58% vs. 67%) also show disproportionate impact.

Table 14. Disproportionate Impact

| American River College->Business->Business Technology |                |                     |                      |                            |                         |                      | Summer 2018 to Spring 2024                                |  |
|---|----------------|---------------------|----------------------|----------------------------|-------------------------|----------------------|---|--|
| Disproportionate impact table                         |                |                     |                      |                            |                         |                      |   |  |
| Course  | Group Name     | Student group       | Enrollment at census | Student group success rate | Comparison success rate | Percentage point gap | Additional successes needed to erase percentage point gap |  |
| BUSTEC  | Race/Ethnicity | African American    | 314                  | 45%                        | 66%                     | -21                  | 66  |  |
|   |                | Multi-Race          | 174                  | 56%                        | 64%                     | -8                   | 14  |  |
|   | Income         | Below Poverty Level | 891                  | 58%                        | 67%                     | -8                   | 76  |  |

**Disproportionate Impact in Specific Courses**

Data analysis highlights disproportionate impact on African American students in several courses. The success rates for African American students in the following courses are notably lower than those of the comparison group:

- **BUSTEC 100.1 - Keyboarding Skills: Beginning**  
Success Rates: African American 23%, Comparison Group 47%
- **BUSTEC 101 - Computer Keyboarding: 10-Key**  
Success Rates: African American 33%, Comparison Group 66%
- **BUSTEC 300.1 - Keyboarding/Applications: Beginning**  
Success Rates: African American 47%, Comparison Group 63%
- **BUSTEC 305 - Introduction to Business Information Technology**  
Success Rates: African American 54%, Comparison Group 73%
- **BUSTEC 350 Small Business Management - Entrepreneurship (No longer offered)**  
Success Rates: African American 35%, Comparison Group 58%

### **Barriers to DI populations**

Keyboarding skills acquisition requires time, practice, and access to technology. Not all students have the same access to computers or keyboards. Limited access to these tools can hinder the opportunity to practice and develop keyboarding skills. Some of our DI students may come from schools in underrepresented communities and may lack resources, such as up-to-date technology and quality instruction in keyboarding. This can result in fewer opportunities to learn and practice these skills. Families with lower incomes might need to prioritize basic necessities over investing in technology, which can limit the time and resources available for learning keyboarding.

From 2015-2024, most of the students in this program are from “below poverty level” and “low but above poverty” economic status. These students are often in need of employment and often leave school because of this need. As such, employment while working, support for class resources, and a quick path to completion. Addressing these challenges requires a multifaceted approach that includes improving access to technology, providing quality education, offering economic support, and creating inclusive and accommodating environments.

### **Key Industry Partners and Labor Market Alignment**

The department’s updated programs are aligned with labor market needs. According to data from the Center of Excellence, there is a significant demand for secretaries and administrative assistants in the region, a demand that is expected to remain strong. In the past few years, the average annual job openings were 2,372 job openings for administrative assistants, yet only 73 degrees were awarded by regional community colleges in this field from 2020-2023. Clearly the demand is outpacing the supply. The median hourly wage for this role is \$23.26.

To address this gap, the department has established formal partnerships with the Sacramento Employment Training Agency (SETA) and the Institute for Local Government (ILG), along with other key stakeholders. In order to review the progress, the Department hosts an advisory meeting quarterly. The program's advisory board includes representatives from the following organizations:

- Valley Vision
- West Ed
- Institute for Local Government
- Sacramento Employment Training Agency
- SMUD
- Kaiser
- CalHR
- LinkedIn
- Caltrans
- AMA (American Management Association)
- ASAP (American Society of Administrative Professionals)

### **Adjustments and Realignment**

With the resources that have been provided by the DOL grant, the BUSTEC program did a deep dive and made major changes to the program to address industry and student needs. These changes are outlined below.

*Curriculum and certificate redesign*-In partnership with industry partners and our sister colleges, the department has worked to realign curriculum to meet industry needs and student expectations. This insures more relevant topics, skill development, industry recognized certifications and badging. As of January 1, 2025, the following degrees and certificates are offered at ARC:

a. **Business Technology (BUSTEC) AS Degree**

The Associate of Science degree is designed to develop advanced skills for careers in upper-level administrative support and office management.

Coursework includes communication skills, organizational management, business documents and projects, teamwork, financial data management, ethics, and various computer and office technologies.

b. **Business Information Professional I (BIP I) Certificate**

This certificate prepares students for entry-level office, computer, and administrative support positions across multiple industries. It includes courses in

oral and written business communications, basic computer applications (Excel, Word, Outlook), the fundamentals of computer systems, and critical thinking and problem-solving.

c. **Business Information Professional II Certificate**

Building on the BIP I, this certificate equips students with skills for mid-level office and administrative support roles. It covers business and communication skills, as well as advanced applications such as Access, Excel, QuickBooks, and Word. Successful completion of this certificate also prepares students for certification exams in Microsoft Excel and Microsoft Word at the Expert level.

d. **Law Office Clerical Assistant Certificate**

This certificate provides the skills required for entry-level clerical positions in law offices, with a focus on workforce skills and legal terminology. Note that this certificate is not approved by the American Bar Association and does not prepare students for paralegal or legal assistant roles under California law.

e. **Office Assistant Certificate**

This certificate offers training in clerical procedures for entry-level office positions.

Modifications have removed redundant topics and consolidated courses to minimize units and cost. This redesign was to intentionally aid in increased persistence and productivity and to move students through more quickly. This was done in collaboration with some of our sister colleges, Valley Vision, SETA, SCOE and ILG. The department is also engaged in discussions with industry partners, and colleagues about how to best utilize current technologies such as VR/AR and AI in industry and is teaching students about the appropriate and responsible use of AI in the workplace.

*Finances, Experience and Engagement* - As part of the redesign there was a shift in the focus from getting students paid internships at the end of the program by working directly with SETA initiatives with Sac County, CalTrans, Kaiser Permanente, and SMUD. This allows the students to earn and learn and hopefully help retain students. This redesign provides students with the opportunity to reinforce classroom learning and demonstrate mastery of tools in the workplace environment. This redesign hopes to help retain more of those students who have historically withdrew due to the need for immediate income and daily survival.

*LinkedIn Learning/Premiere* – The DOL grant has facilitated three years of free student access. LinkedIn Learning (available to students in up to 225 languages can be a valuable resource for students looking to expand their knowledge and skills. Here are some ways it proves beneficial:

1. **Access to Diverse Courses:** Students can explore a wide range of topics, from coding and graphic design to business and personal development, which complement traditional academic learning.
2. **Practical Skills for Careers:** Courses are designed to be practical and career-focused, helping students acquire skills that are directly applicable to the job market.
3. **Flexible Learning:** With bite-sized video lessons, students can learn at their own pace, making it easier to balance with studies or part-time work.
4. **Certificates of Completion:** Upon finishing a course, students receive a certificate, which can be showcased on their LinkedIn profiles to enhance their résumés and attract potential employers.
5. **Industry Experts:** Courses are often taught by professionals with real-world experience, providing insights that go beyond textbook learning.
6. **Preparation for the Future:** By gaining technical skills, soft skills, and industry knowledge, students can better prepare for internships and job opportunities.

The Department itself is connecting with and providing student connection to several professional organizations such as American Association of Administrative Professionals and the International Association of Administrative Professionals. It will be purposely reaching out to build connection to black professional associations and other associations representing our DEI populations to provide mentorship and guidance. These connections and long-term relationships provide the mentorship, training, and necessary support previously unavailable to our student population.

The department is largely ZTC and has secured over \$720k of textbook and supply funding. The program design will encourage students to donate their free materials/text back to library for future student access.