



# San Bernardino Community College District

Program Demand Gap Analysis:  
Environmental Scan and  
Review of Academic Programs

March 2021

# Executive Summary

The San Bernardino Community College District (SBCCD) is one of the 72 community college districts which, together, provide affordable and accessible higher education to all Californians. SBCCD serves an area centered on the city of San Bernardino, along with the surrounding region of San Bernardino and Riverside Counties, referred to as the SBCCD Service Region. It provides its services primarily through two community colleges – San Bernardino Valley College and Crafton Hills College. This report outlines the region’s economy and provides a program demand gap analysis to determine how well SBCCD’s program offerings satisfy regional workforce demand. The following figures and table display key findings of the analyses.

## RECOMMENDATIONS

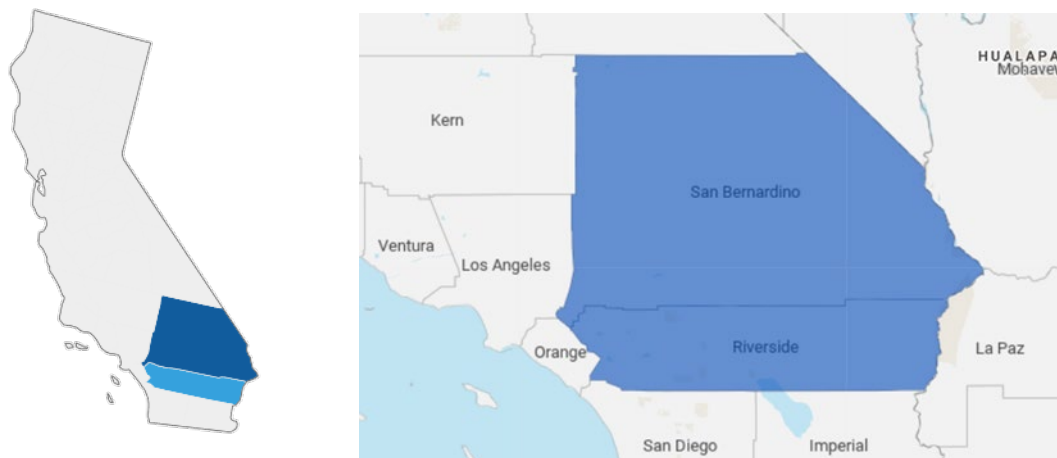
<p><b>HIGH DEMAND, LOW SUPPLY</b></p> <p><i>How can we expand these program opportunities?</i></p> <p>Cooking &amp; Related Culinary Arts, General (CERT &amp; ASSOC)</p> <p>Machine Tool Technology/Machinist (CERT &amp; ASSOC)</p> <p>Real Estate (ASSOC)</p> <p>Electrical/Electronics Equipment Installation &amp; Repair, General (ASSOC &amp; T-T)</p>	<p><b>HIGH DEMAND, HIGH SUPPLY</b></p> <p><i>Can we maintain focus on program quality &amp; student success?</i></p> <p>Welding Technology/Welder (CERT)</p> <p>Emergency Medical Technology/Technician (EMT Paramedic) (CERT)</p> <p>Automobile/Automotive Mechanics Technology/Technician (ASSOC)</p> <p>Information Technology (ASSOC &amp; T-T)</p>
<p><b>LOW DEMAND, LOW SUPPLY</b></p> <p><i>Should we discontinue these programs?</i></p> <p>Philosophy (ASSOC)</p> <p>Astronomy (T-T)</p>	<p><b>LOW DEMAND, HIGH SUPPLY</b></p> <p><i>Are we connecting these programs to opportunities outside the region?</i></p> <p>Criminal Justice/Police Science (CERT)</p> <p>Social Sciences, General (ASSOC)</p> <p>Anthropology (T-T)</p>

Source: Emsi program demand gap model.

## INTRODUCTION

For purposes of this analysis, SBCCCD serves a region, called the SBCCCD Service Region, comprised of two counties in California: Riverside County and San Bernardino County. This report conducts an environmental scan and uses the region’s average annual projected job openings between 2020 and 2030 as a measurement of labor market demand. When job openings are compared to the region’s supply of educational program completions, the analysis determines how well SBCCCD’s program offerings satisfy regional workforce demand. In addition, this report offers recommendations for new program development. In its entirety, the analysis is a starting point for SBCCCD as the district continues to develop programs using data-based decision-making strategies. The following figures and table display key findings of the analyses.

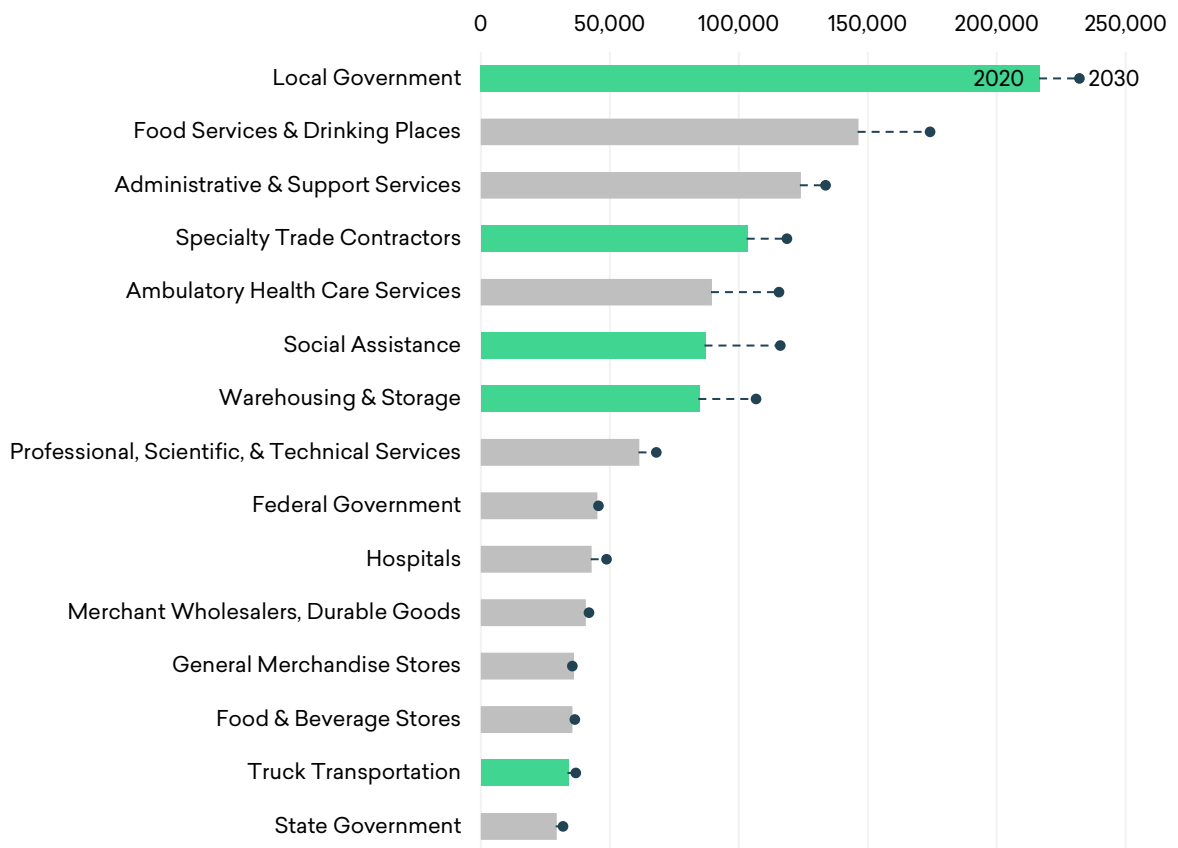
Figure 1: Map of the SBCCCD Service Region



Source: Emsi Analyst. Region provided by SBCCCD.

Figure 2 displays the top industry subsectors in terms of employment in the SBCCD Service Region, and Figure 3 shows the top industry subsectors in terms of employment concentrations, referred to as location quotients (LQs). High LQs (usually anything greater than 1.2) are an indication that the region has a comparative advantage or specialization in certain industry subsectors relative to the rest of the nation or potentially to other regions.

**Figure 2: Top Industry Subsectors in the SBCCD Service Region by Jobs**



Source: Employees & Self-Employed 2020.3.

Figure 3: Top Industry Subsectors in the SBCCD Service Region by Employment Concentration (LQ)



Source: Employees & Self-Employed 2020.3.

Note the green bars in the figures. Across all of the SBCCD Service Region's industry subsectors, five are within the top 15 in terms of jobs with relatively high LQs. The appearance of these industry subsectors provides an indication of their strength in the region's economy and offers the district insight into potential employment opportunities for its students. These industry subsectors, ranked by 2020 jobs, are:

- Local Government;
- Specialty Trade Contractors;
- Social Assistance;
- Warehousing & Storage; and
- Truck Transportation

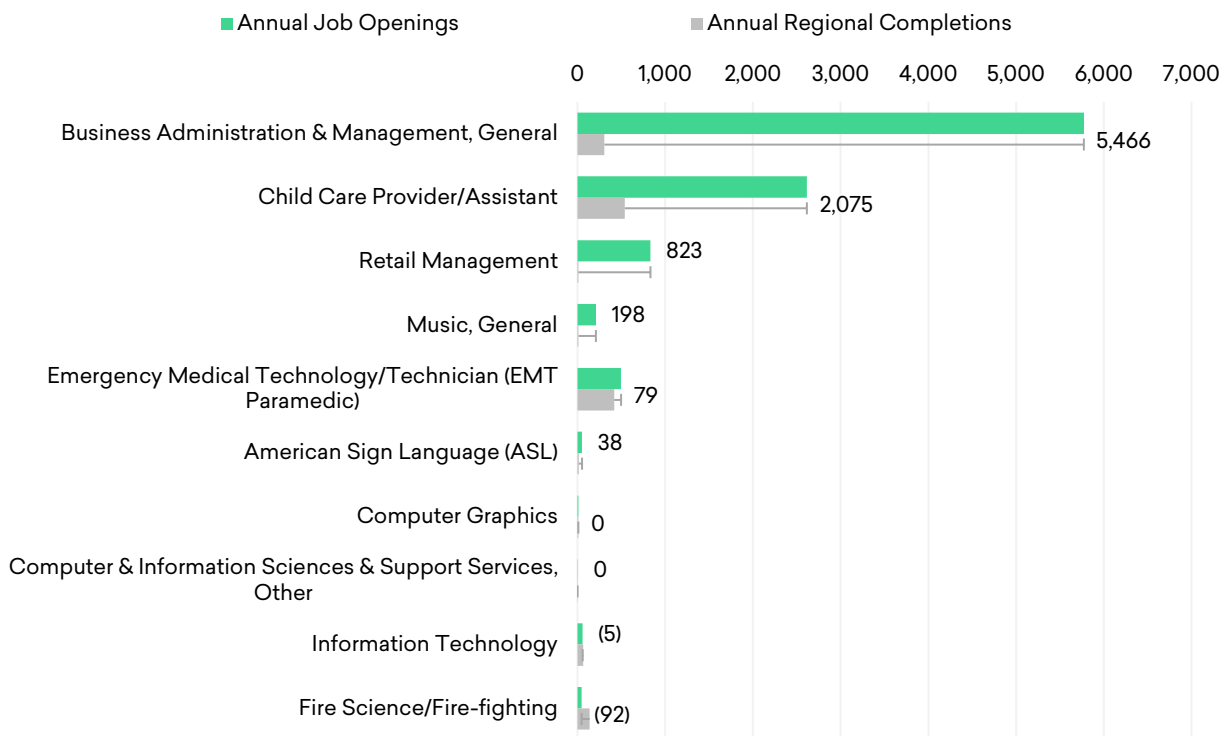


## PROGRAM DEMAND GAP ANALYSIS

The program demand gap analysis provides results across all of SBCCD’s certificate and associate degree level programs, which have been classified by their formal CIP code.<sup>1</sup> The analysis connects the district’s program completers with the availability of regional job openings. Furthermore, the analysis focuses on the gaps and surpluses in the programs by award level. A gap or surplus larger than 500 is considered beyond normal labor market fluctuations and therefore an area of consideration for program development.

SBCCD offers 46 certificate level programs, twelve of which have a significant gap above the 500-openings level of significance. Many of which should be expanded to meet the current and future needs of employers in the SBCCD Service Region, emphasis should be placed on programs with high median hourly wages. No programs at this award level have a significant surplus. Figure 4 displays Crafton Hills College’s certificate programs and figure 5 shows the top ten gaps at San Bernardino Valley College, both at the certificate level.

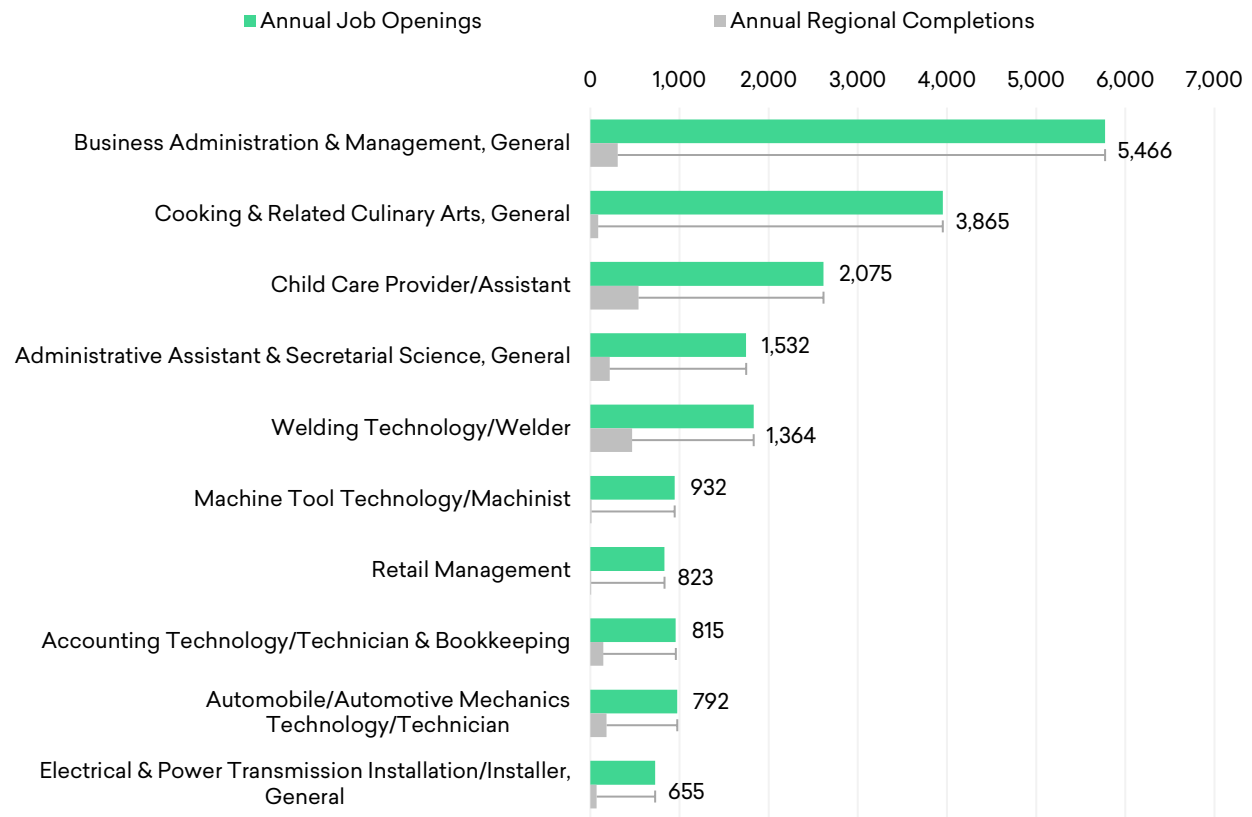
Figure 4: Certificate Level Gaps for Crafton Hills College



Source: Emsi program demand gap model.

1 CIP refers to the Classification of Instructional Program and was originally developed by the U.S. Department of Education’s National Center for Education Statistics (NCES).

Figure 5: Top 10 Certificate Level Gaps for San Bernardino Valley College

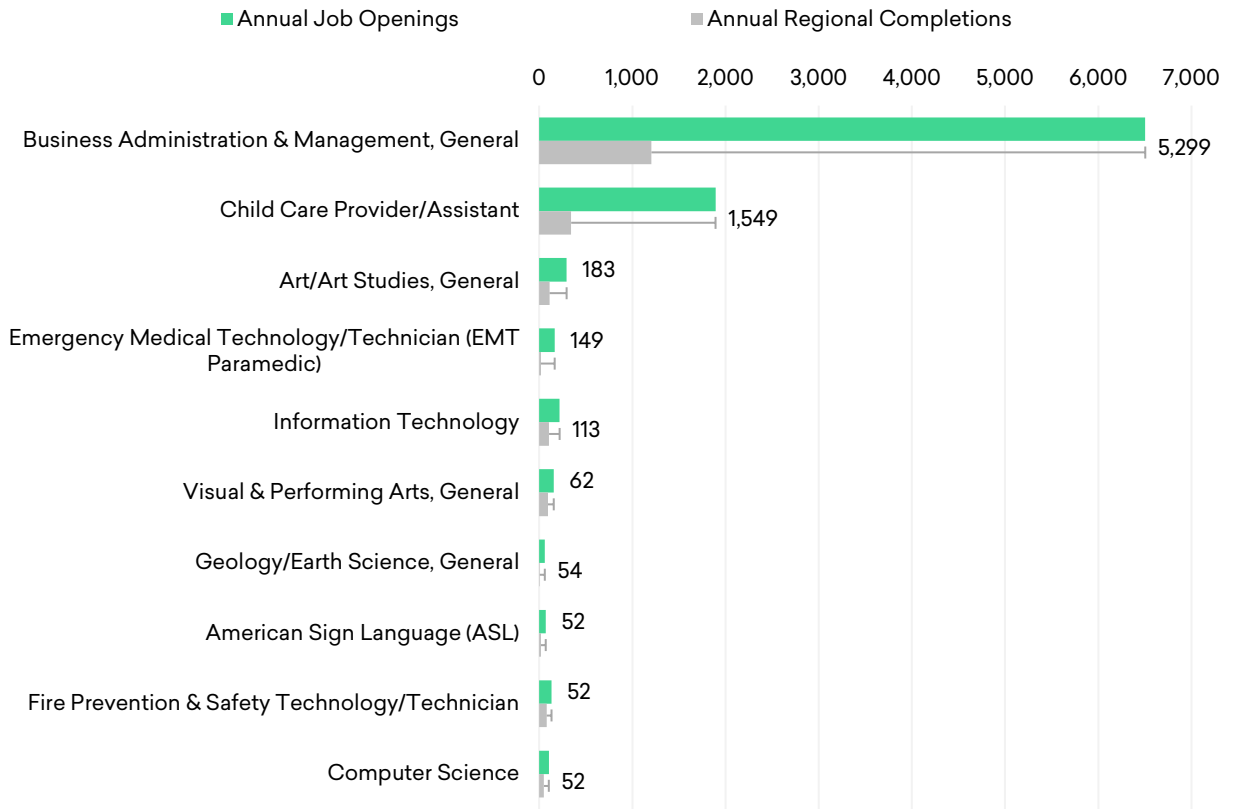


Source: Emsi program demand gap model.

At the associate degree level, nine programs have a significant gap. Figure 6 displays the top ten gaps at Crafton Hills College and figure 7 shows the top ten gaps at San Bernardino Valley College, both at the associate degree level. Several should be considered for a district-wide expansion, many of which are related to other associate degree level programs without a significant 500-openings gap. Many should be considered for expansion, with more priority given to the programs with a significant gap and high median hourly wage. Furthermore, if the associate degree level program is associated with a formal industry-specific certificate, permit, or license required for employment, it is also recommended for expansion. One program at this award level has a significant surplus.



Figure 6: Top 10 Associate Degree Level Gaps for Crafton Hills College

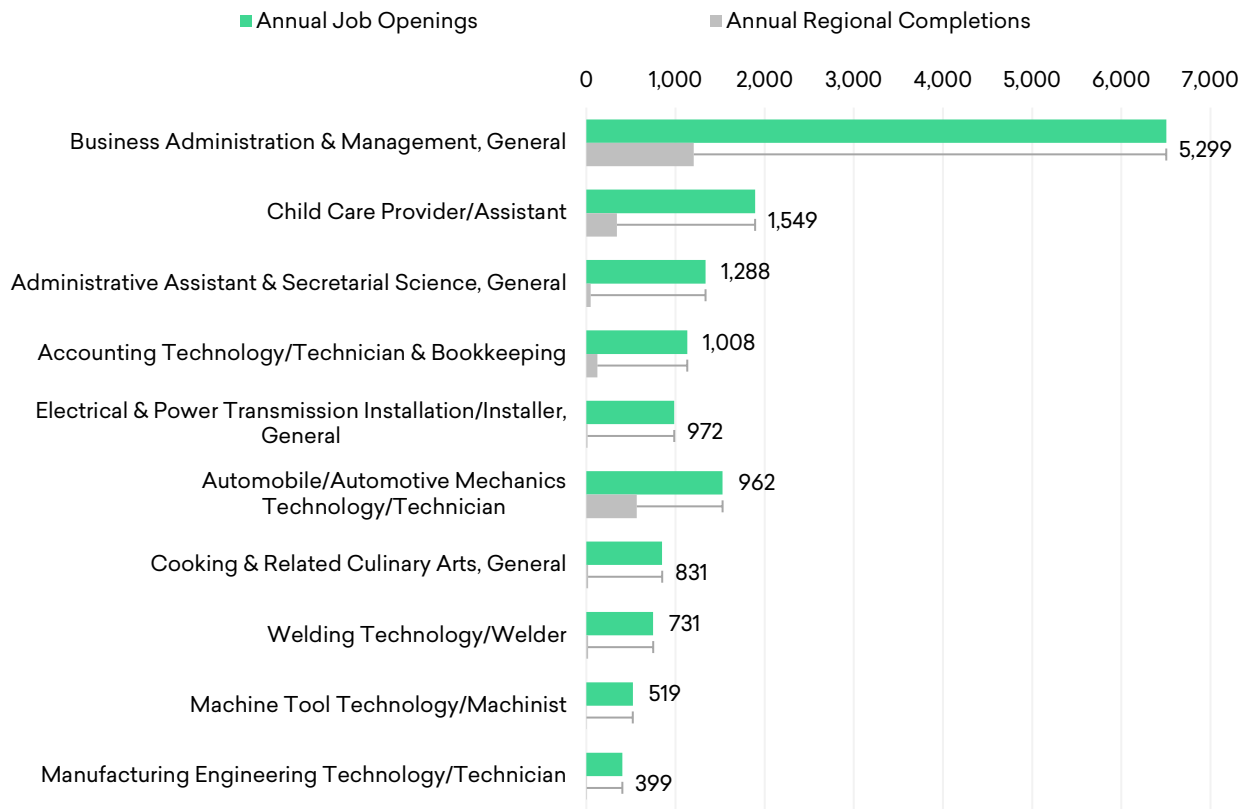


Source: Emsi program demand gap model.





Figure 7: Top 10 Associate Degree Level Gaps for San Bernardino Valley College

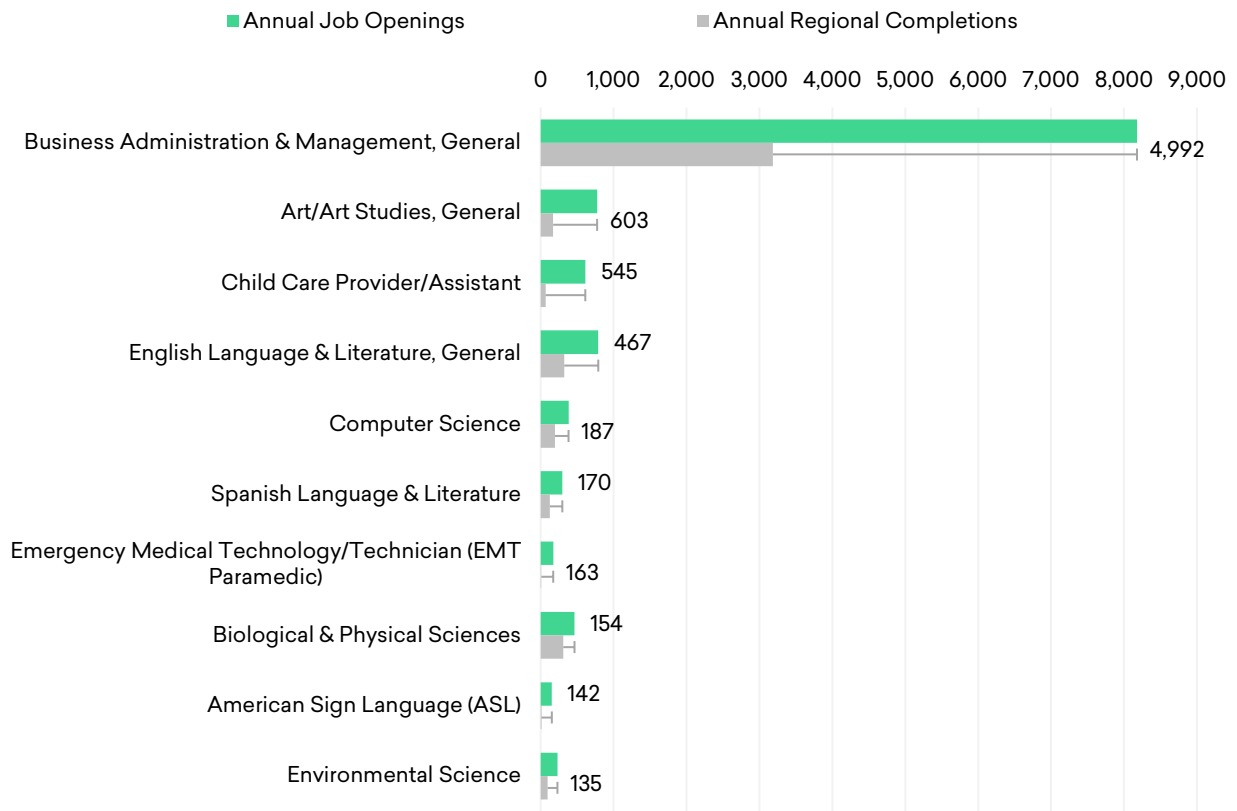


Source: Emsi program demand gap model.

All of SBCCD's associate degree programs have also been analyzed at the transfer-track level where the openings are measured as if a completer goes on to complete a bachelor's degree. At this bachelor's degree level six programs have a significant gap above the 500-openings level of significance. Figure 8 displays the top ten gaps at Crafton Hills College and figure 9 shows the top ten gaps at San Bernardino Valley College, both at the transfer-track level. A program expansion should consider the process by which SBCCD's students transfer into regional bachelor's degree level programs. Administrative and academic support measures at SBCCD would enable student success. One program at this award level has a significant surplus.



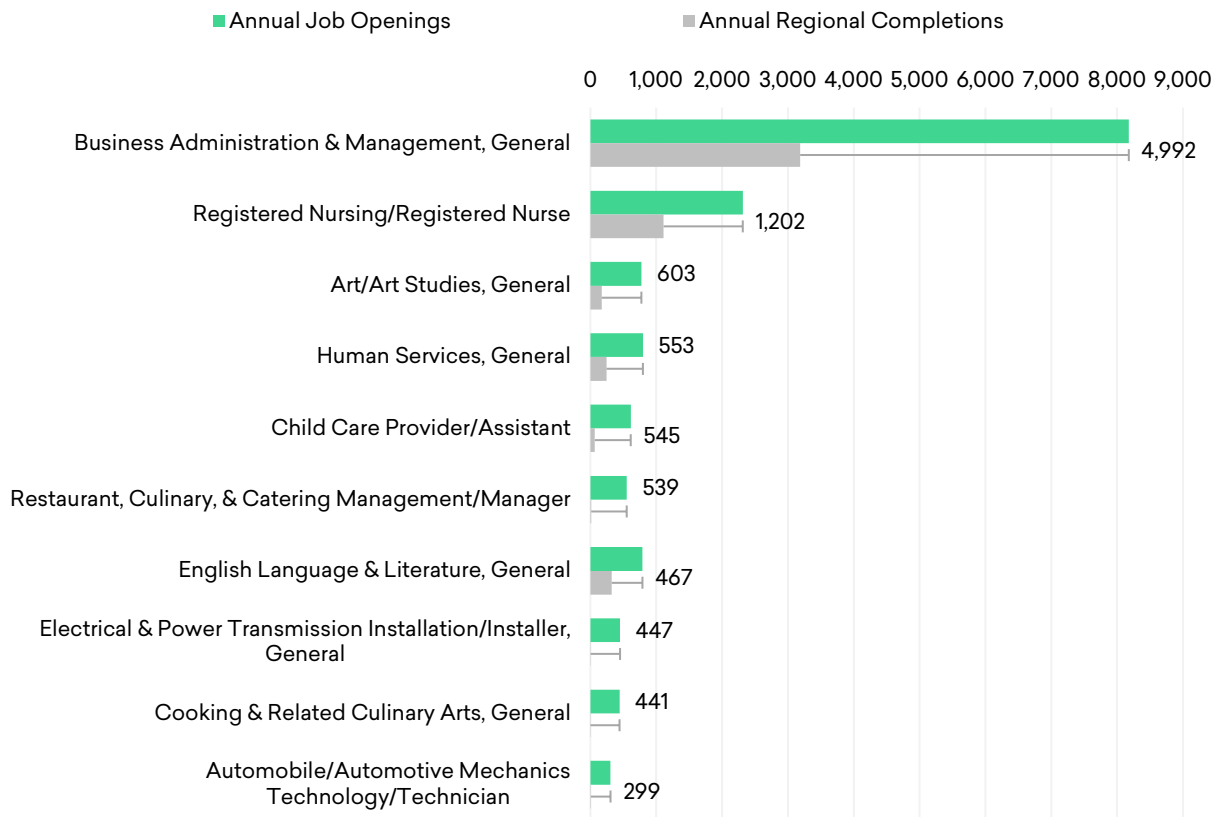
Figure 8: Top 10 Transfer-Track Degree Level Gaps for Crafton Hills College



Source: Emsi program demand gap model.



Figure 9: Top 10 Transfer-Track Degree Level Gaps for San Bernardino Valley College



Source: Emsi program demand gap model.

A liberal arts program expansion is not recommended at this time, but SBCCD administrators should be aware that students can find success in a variety of business-related occupations. Using Emsi’s Profile Analytics database, many liberal arts program completers are currently employed as retail salespersons, administrative assistants, and customer service representatives, as well as a variety of managers and supervisors. These occupations have a considerable number of job openings in the SBCCD Service Region. The colleges’ liberal arts program, therefore, serves as a starting point to students’ career goals beyond an associate degree level of education.

## PROGRAM ADDITIONS

A variety of certificate level programmatic areas of opportunity have been identified in the program demand gap analysis, many of which are related to Installation, Maintenance, & Repair Occupations; Office & Administrative Support Occupations; and Construction & Extraction Occupations. At the associate degree level, there are fewer opportunities for new

programs, considering the district's current offerings. Nonetheless, SBCCD should consider new programs related to Healthcare Practitioners & Technical Occupations, whether its focus is on job openings in the SBCCD Service Region or California. A variety of transfer-track degree level programmatic areas of opportunity were identified in the program demand gap analysis, many of which are related to Business & Financial Operations Occupations; Sales & Related Occupations; and Architecture & Engineering Occupations. For all award levels, many program additions are related to the district's current program offerings, which indicates an opportunity for a curriculum adjustment to better align with the region's current and projected labor market demand. A selection of these occupations, which have the most regional job openings by award level, appear in Table 1.

Table 1: Program Additions by Education Level

<b>SOC TITLE</b>	<b>2020 JOBS</b>	<b>ANNUAL JOB OPENINGS</b>	<b>ANNUAL COMPL.</b>	<b>GAP</b>	<b>MEDIAN HOURLY WAGE</b>	<b>ED. LEVEL</b>
<b>Crafton Hills College</b>						
Heavy and Tractor-Trailer Truck Drivers	31,981	3,160	4	3,156	\$22.56	CERT
Office Clerks, General	30,905	2,563	377	2,186	\$17.36	CERT
Carpenters	22,088	1,648	8	1,641	\$22.54	CERT
Construction Laborers	19,914	1,582	8	1,574	\$18.73	CERT
Bookkeeping, Accounting, and Auditing Clerks	15,836	1,198	75	1,123	\$20.31	CERT
Dental Hygienists	1,988	117	50	67	\$45.73	ASSOC
Occupational Therapy Assistants	367	44	0	44	\$35.16	ASSOC
Cardiovascular Technologists and Technicians	545	22	0	22	\$30.92	ASSOC
Registered Nurses	31,755	2,148	816	1,332	\$49.75	T-T
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	9,919	706	8	697	\$21.90	T-T
Insurance Sales Agents	5,693	311	0	311	\$21.14	T-T
Production, Planning, and Expediting Clerks	5,112	287	0	287	\$22.31	T-T
Real Estate Sales Agents	4,765	251	2	249	\$27.28	T-T
<b>San Bernardino Valley College</b>						
Heavy and Tractor-Trailer Truck Drivers	31,981	3,160	4	3,156	\$22.56	CERT
Carpenters	22,088	1,648	8	1,641	\$22.54	CERT
Construction Laborers	19,914	1,582	8	1,574	\$18.73	CERT
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	8,838	760	0	760	\$27.06	CERT
Medical Secretaries and Administrative Assistants	8,571	655	106	549	\$17.76	CERT



<b>SOC TITLE</b>	<b>2020 JOBS</b>	<b>ANNUAL JOB OPENINGS</b>	<b>ANNUAL COMPL.</b>	<b>GAP</b>	<b>MEDIAN HOURLY WAGE</b>	<b>ED. LEVEL</b>
Dental Hygienists	1,988	117	50	67	\$45.73	ASSOC
Respiratory Therapists	1,885	99	38	61	\$35.33	ASSOC
Occupational Therapy Assistants	367	44	0	44	\$35.16	ASSOC
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	9,919	706	8	697	\$21.90	T-T
Insurance Sales Agents	5,693	311	0	311	\$21.14	T-T
Office and Administrative Support Workers, All Other	5,089	295	0	295	\$15.99	T-T
Production, Planning, and Expediting Clerks	5,112	287	0	287	\$22.31	T-T
Securities, Commodities, and Financial Services Sales Agents	3,375	210	2	208	\$23.81	T-T

SOC refers to the Standard Occupational Classification system used to classify occupations. Average annual job openings represent regional data from 2020 to 2030. Numbers may not sum due to rounding.

Source: Emsi program demand gap model.

