Draft Review Guidelines

This draft version of the report gives you an opportunity to review the initial findings and report any concerns you may have. It is also an opportunity to suggest any edits to the text that you would like us to incorporate into the final version.

Please note that the results found in this draft report are preliminary and subject to change. Because of this, we recommend against publishing or publicizing the findings presented below until you have your finalized results.

Consider the environmental impact of printing this report.

Editing Guidelines

- Please provide suggested revisions as one electronic document or digital comments on a single copy of each of the reports. Please send either as a word document or PDF file. Do not make changes in the actual text, as this makes it difficult for us to find and track changes.
- It is only necessary to indicate iterative revisions (for example, capitalizing a word, which we have consistently not capitalized) at the first instance, not at every instance.
- Before sending us suggested revisions, if you have received feedback from multiple people, please be sure that their suggestions do not contradict each other.

Emsi

San Bernardino Community College District

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

January 2020

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

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

Source: Emsi program demand gap model.

INTRODUCTION

For purposes of this analysis, SBCCD serves a region, called the SBCCD 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 SBCCD'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 SBCCD as the district continues to develop programs using data-based decision-making strategies. The following figures and table display key findings of the analyses.

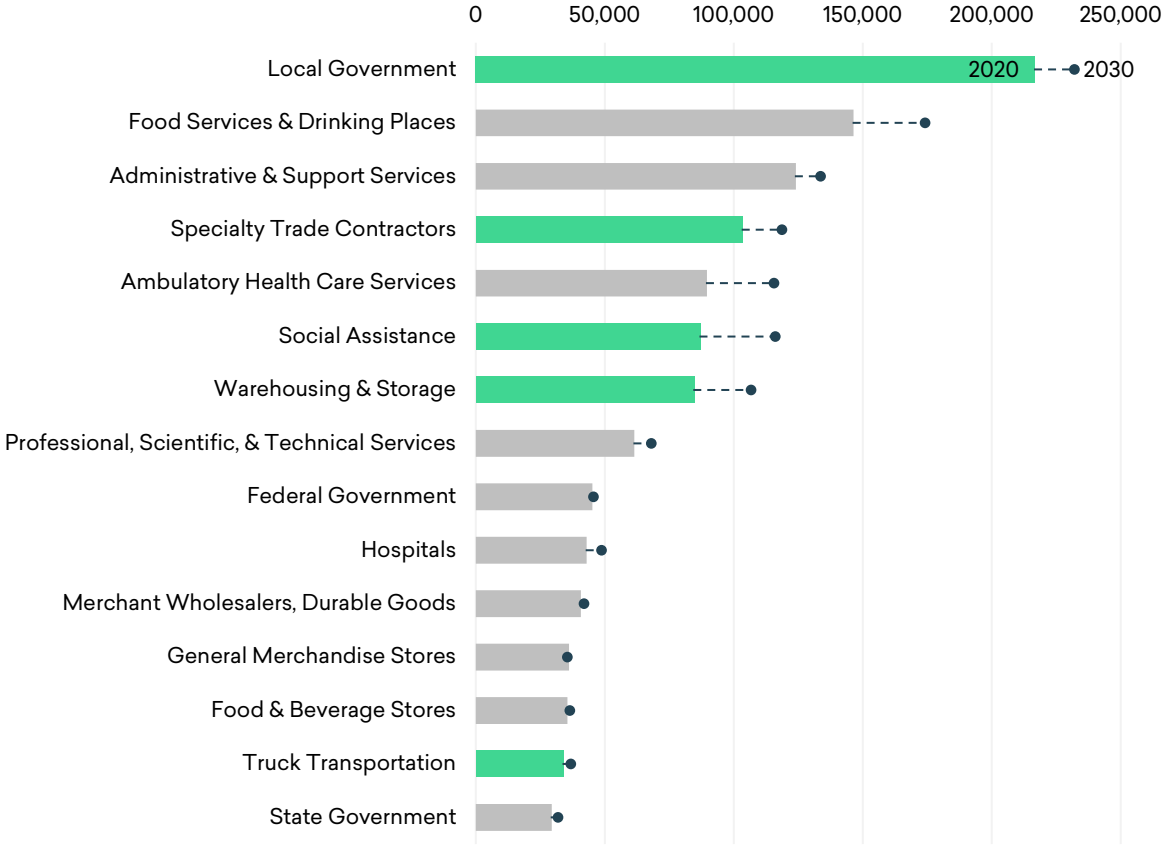
Figure 1: Map of the SBCCD Service Region

Source: Emsi Analyst. Region provided by SBCCD.

ENVIRONMENTAL SCAN

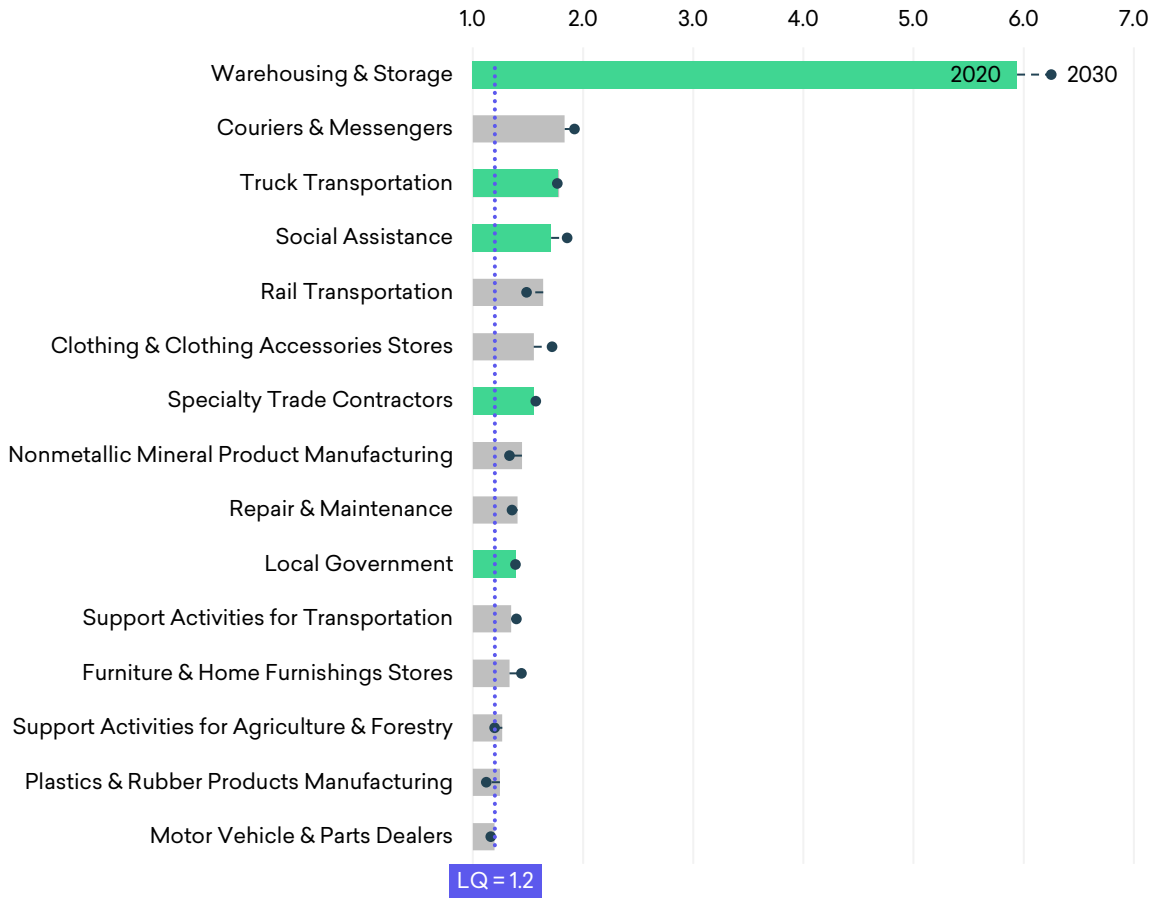
Figure 2 displays the top industry subsectors in terms of employment in the SBCCD Service Region, and Figure 3 shows the top industry subsectors in terms of employment concentrations, referred to as location quotients (LQs). High LQs (usually anything greater than 1.2) are an indication that the region 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

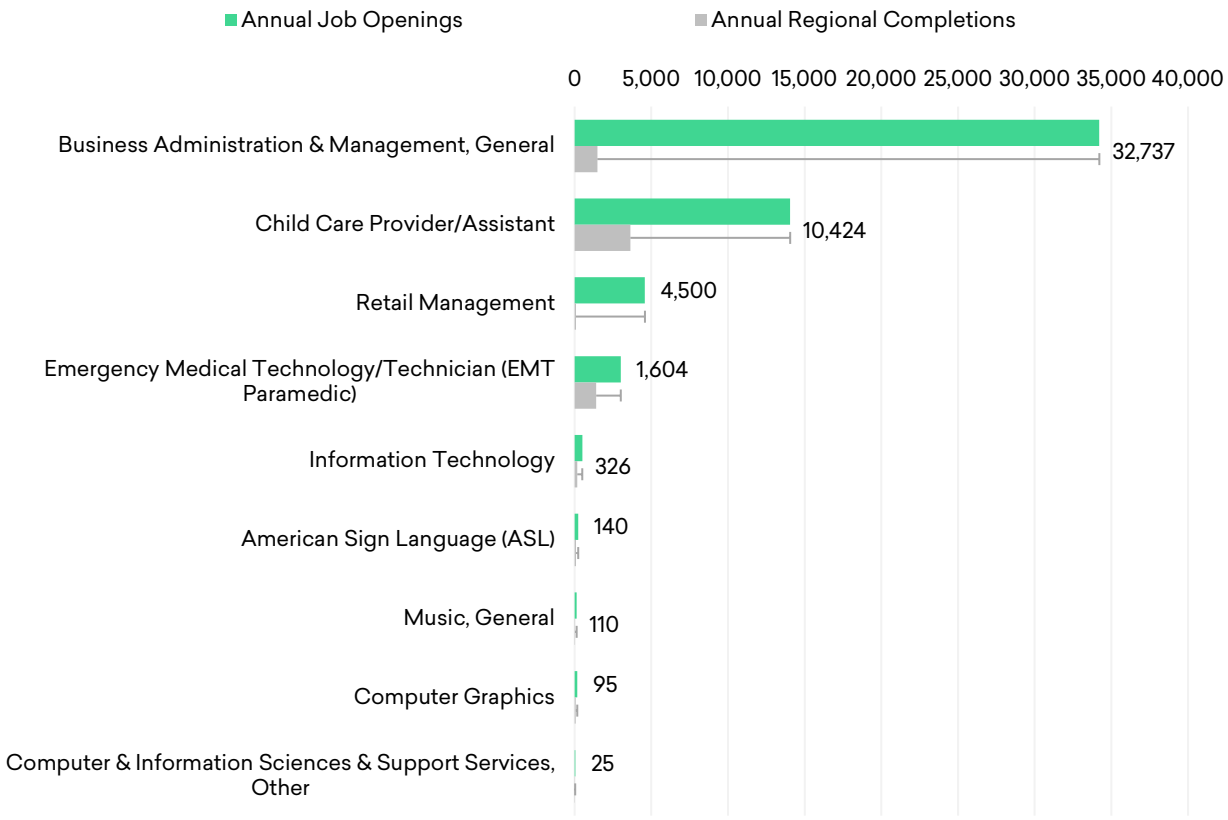
PROGRAM DEMAND GAP ANALYSIS

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.[1] 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 the gaps at Crafton Hills College and figure 5 shows the top ten gaps at San Bernardino Valley College, both at the certificate level.

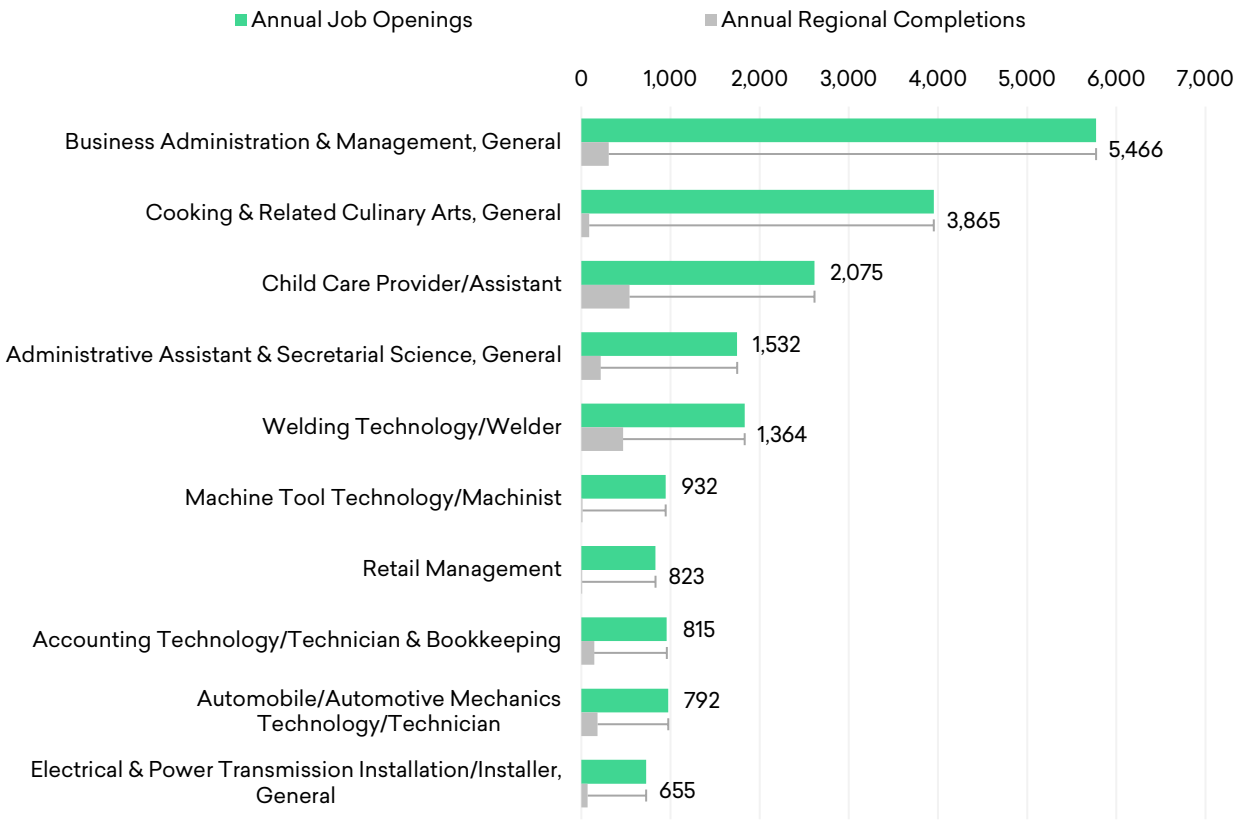
1 CIP refers to the Classification of Instructional Program and was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES).

Figure 4: Certificate Level Gaps for Crafton Hills College



Source: Emsi program demand gap model.

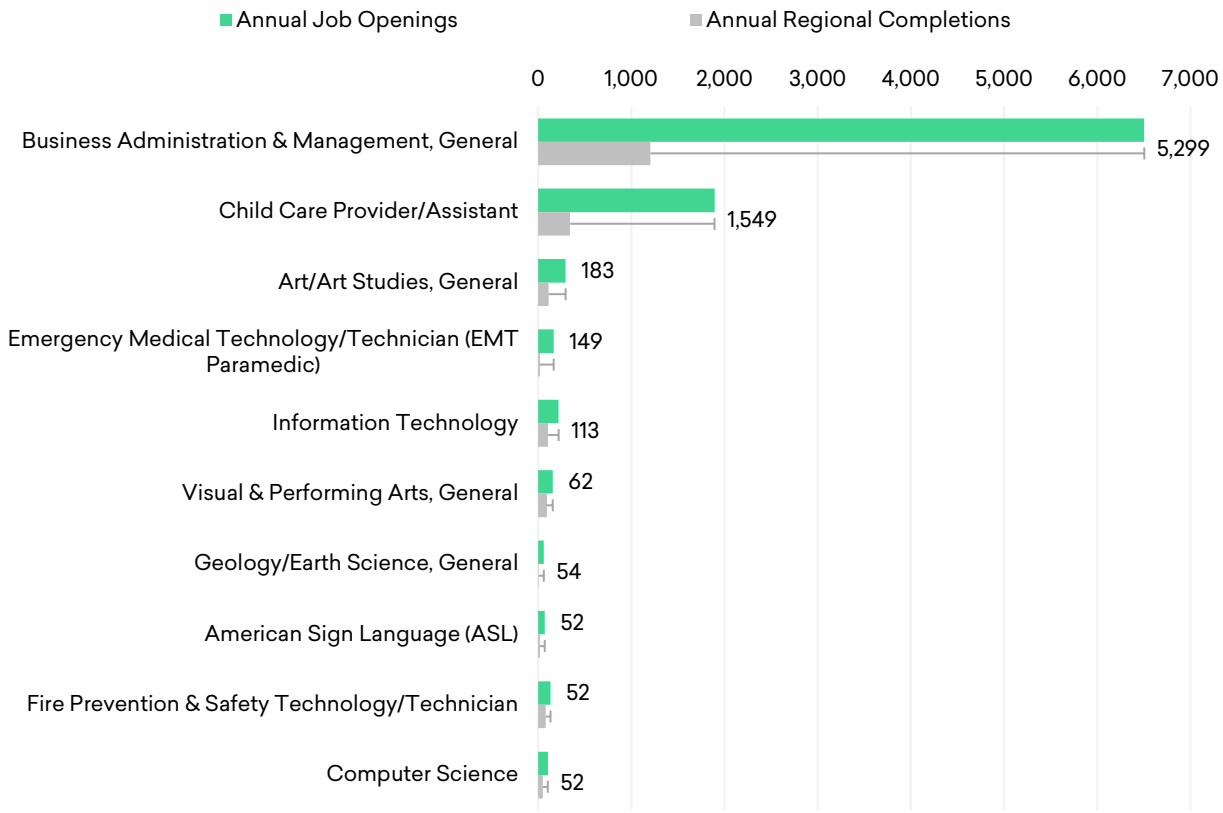
Figure 5: Top 10 Certificate Level Gaps for San Bernardino Valley College



Source: Emsi program demand gap model.

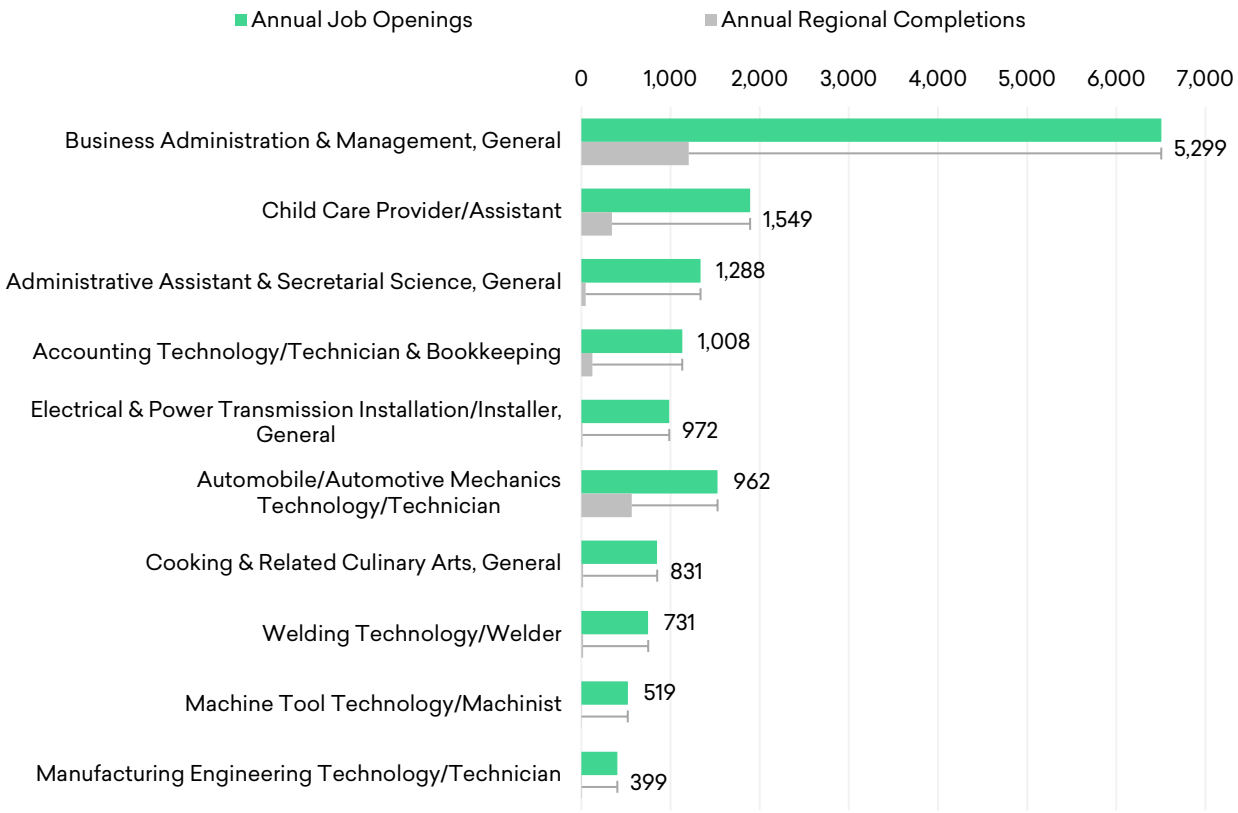
At the associate degree level, nine programs have a significant gap. Figure 6 displays the top ten gaps at Crafton Hills College and figure 7 shows the top ten gaps at San Bernardino Valley College, both at the associate degree level. Several should be considered for a district-wide expansion, many of 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.

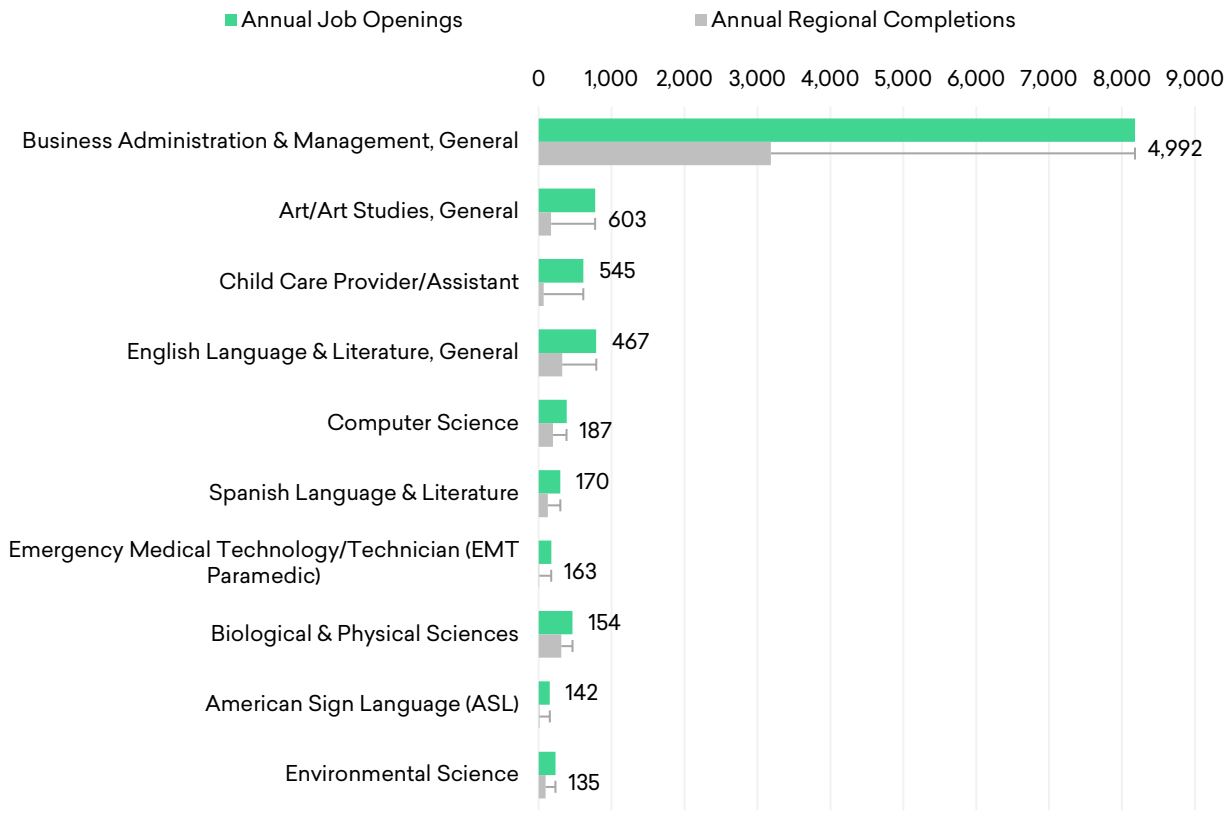
Figure 7: Top 10 Associate Degree Level Gaps for San Bernardino Valley College



Source: Emsi program demand gap model.

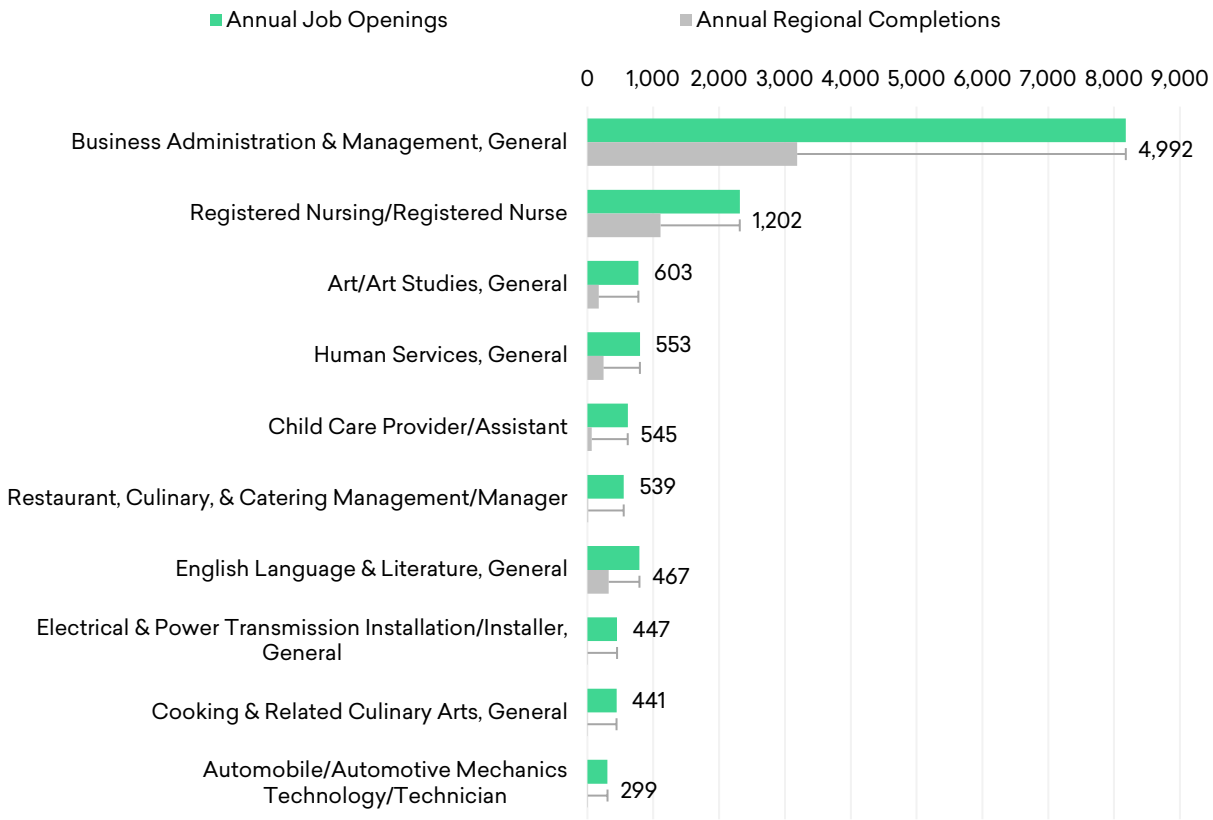
All of SBCCD's associate degree programs have also been analyzed at the transfer-track level where the openings are measured as if a completer goes on to complete a bachelor's degree. At this bachelor's degree level six programs have a significant gap above the 500-openings level of significance. Figure 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

SOC TITLE	2020 JOBS	ANNUAL JOB OPENINGS	ANNUAL COMPL.	GAP	MEDIAN HOURLY WAGE	ED. LEVEL
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
Painters, Construction and Maintenance	7,190	479	3	476	$17.77	CERT
Operating Engineers and Other Construction Equipment Operators	4,445	416	2	414	$39.51	CERT
Nursing Assistants	8,438	912	542	369	$16.23	CERT
Order Clerks	3,045	252	1	251	$17.39	CERT
Dental Assistants	6,316	604	436	168	$17.46	CERT
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.