

PROGRAM DEMAND GAP ANALYSIS (PDGA)

By EMSI

INTRODUCTION

- Workforce misalignment
 - Employer training becomes more tailored and comprehensive
 - Businesses come and go, and certain educational programs become more or less pertinent in a specific region
 - Rapid advances in technology and business create curriculum needs that few educational institutions possesses
 - As economic conditions shift, businesses have different hiring requirements

IMPORTANCE

- Connect the economy and demand for skilled labor to planning efforts at Cerritos College



PDGA ANALYSIS

- Economic Modeling Specialists Intl. (EMSI), a labor market analytics firms
 - Conducted environmental scan of region's economy
 - Provides program demand gap analysis (PDGA) of Cerritos program offerings
 - Make recommendations for new program development
- PDGA
 - Assess supply and demand of skilled workers and educational programs to fill existing or future gaps
 - Weighs educational output of Cerritos College and other postsecondary educational institutions in the region against the number of job openings related to the college's program offerings
 - Determines if deficit or oversupply of skilled workers

PURPOSE

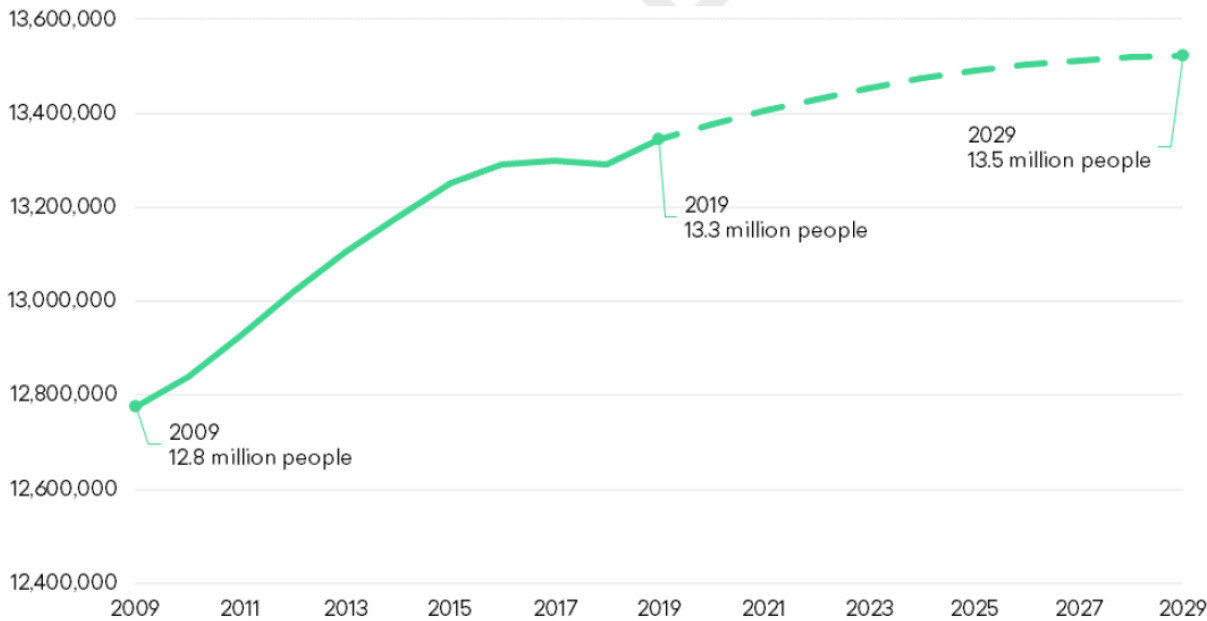
- Initiate conversation on evaluating program effectiveness
 - Deficit (gap)
 - Oversupply (surplus)

SERVICE AREA



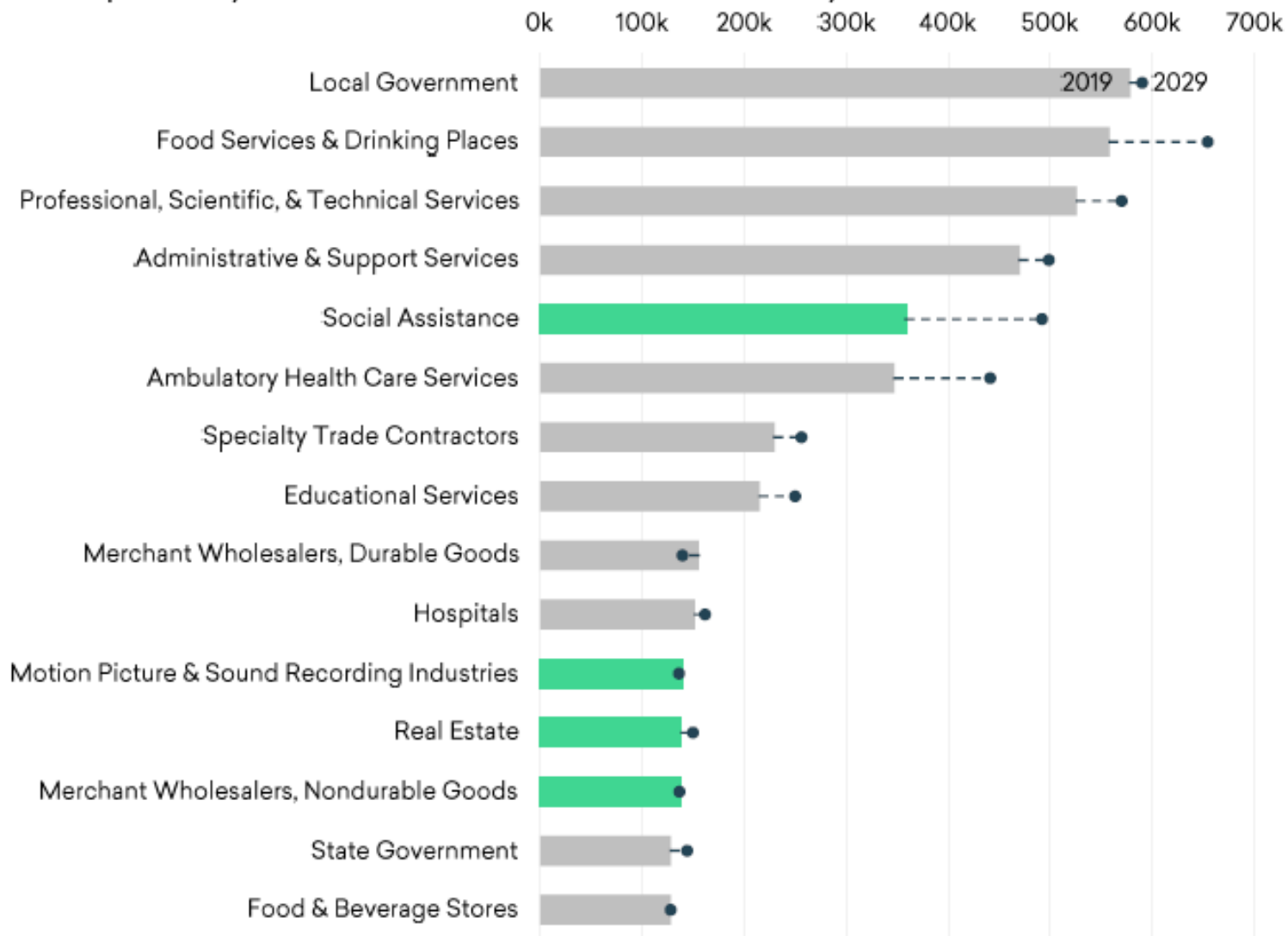
POPULATION PROFILE

Figure 2.2: Historical and Projected Population Growth in the Cerritos Service Area, 2009 through 2029



Source: Emsi demographics data, U.S. Census Bureau, U.S. Health Department.

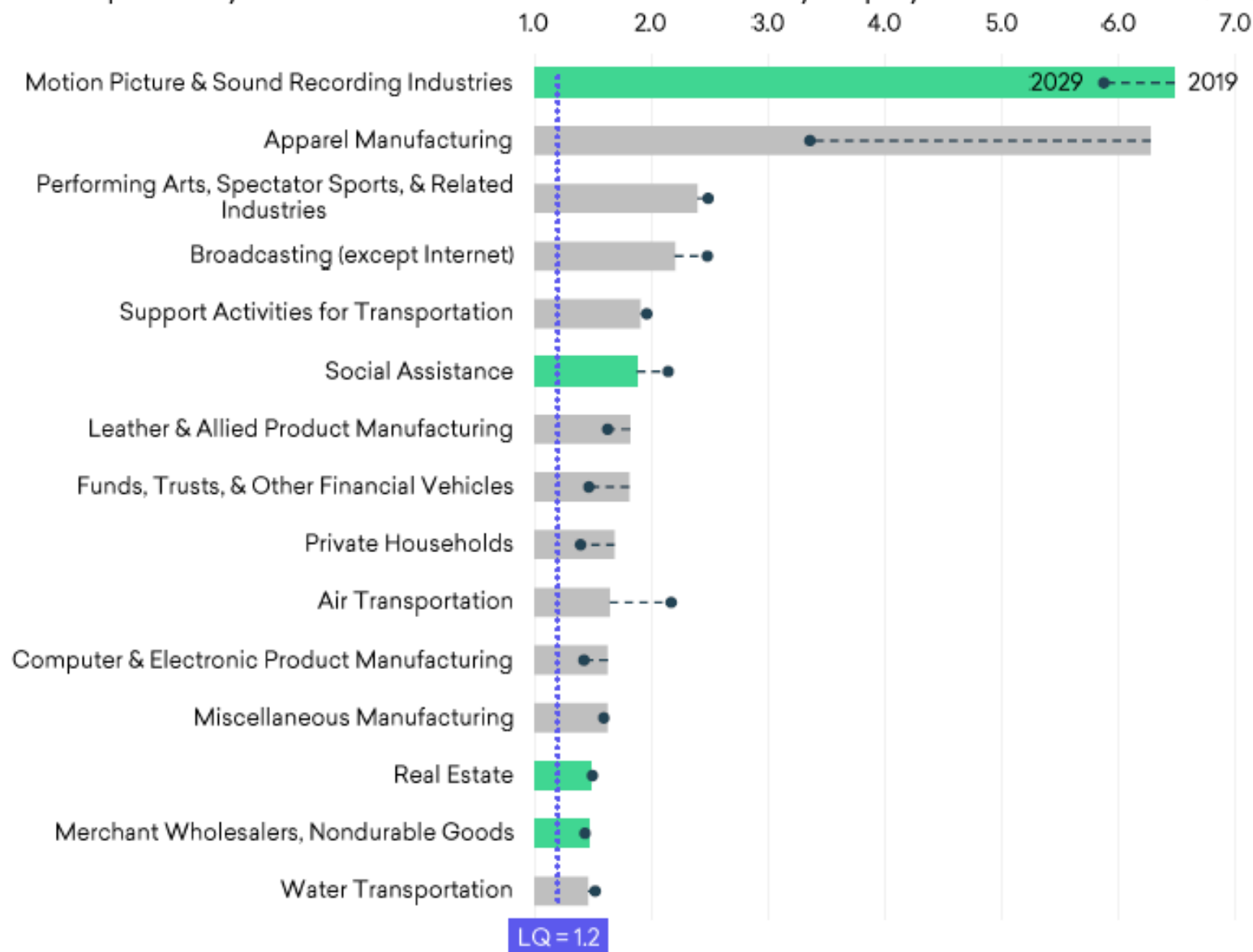
Figure 2: Top Industry Subsectors in the Cerritos Service Area by Jobs



Green colored bars represent industry subsectors that are both strong in jobs and high in LQ.

Source: Employees & Self-Employed 2020.1.

Figure 3: Top Industry Subsectors in the Cerritos Service Area by Employment Concentration (LQ)



Green colored bars represent industry subsectors that are both strong in jobs and high in LQ.
 Source: Employees & Self-Employed 2020.1

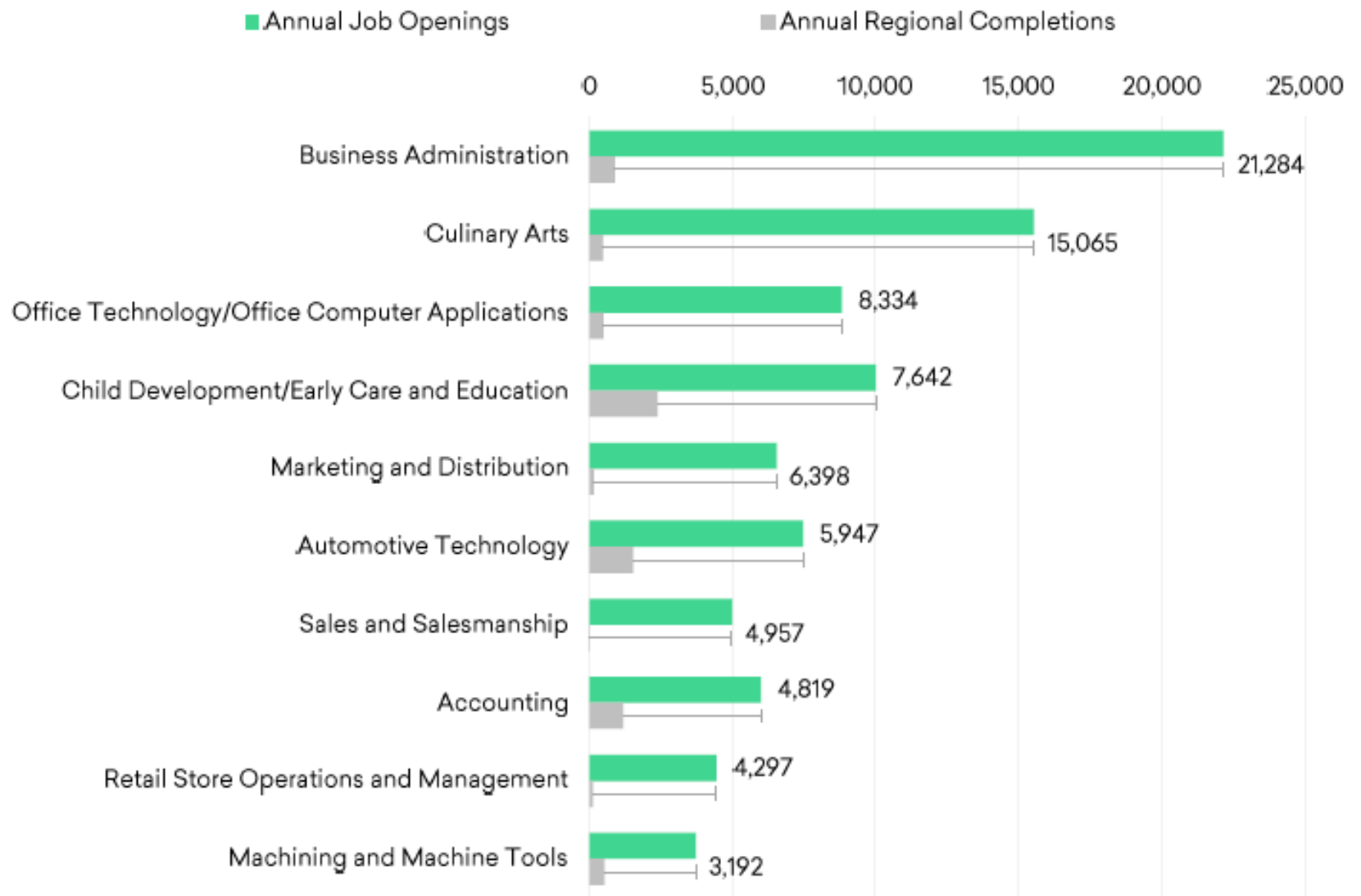
High demand, low supply programs are those that have a high number of annual job openings but lack of adequate regional completers. These programs have large gaps and should be considered for expansion since there is a demand for people with these skill sets in the Cerritos Service Area workforce. Consideration should be given to the median hourly wage of the program.

High demand, high supply programs are those that have a high number of annual job openings as well as a high number of regional completers. These programs are satisfying the region's labor market demands and are worth to continue offering at Cerritos.

Low demand, low supply programs are those that lack both annual job openings and completers in the Cerritos Service Area. Since there is not an apparent need for these skill sets in the regional workforce, it is worth reevaluating the need for offering these programs at Cerritos.

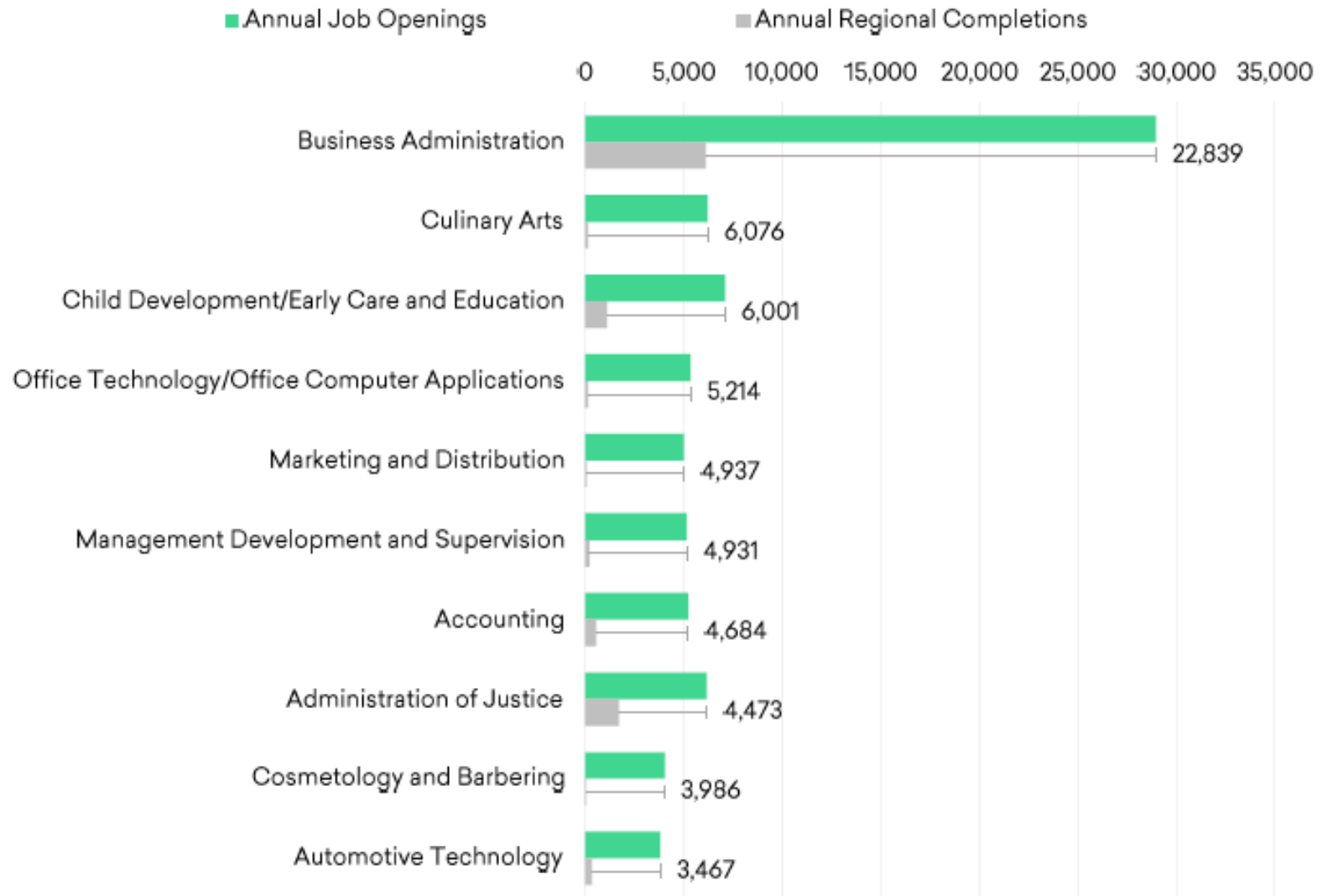
Low demand, high supply programs are those that produce far more regional completers than there are annual job openings. Large surpluses could suggest that completers are finding employment outside the Cerritos Service Area. It may be beneficial to track where completers are finding work to evaluate the skills being sought by employers to better prepare completers for in-region employment.

Figure 4: Top 10 CTE Certificate Level Gaps



Source: Emsi program demand gap model.

Figure 5: Top 10 CTE Associate Degree Level Gaps



Source: Emsi program demand gap model.



RECOMMENDATIONS

HIGH DEMAND, LOW SUPPLY

How do we start or scale programs?

Manufacturing and Industrial Technology (CERT)

Marketing and Distribution (CERT & ASSOC)

Sales and Salesmanship (CERT & ASSOC)

Cosmetology and Barbering (ASSOC)

Machining and Machine Tools (ASSOC)

HIGH DEMAND, HIGH SUPPLY

What opportunities exist to do even more?

Child Development/Early Care & Edu. (CERT & ASSOC)

Automotive Technology (CERT)

Accounting (CERT)

Business Administration (ASSOC)

Administration of Justice (ASSOC)

LOW DEMAND, LOW SUPPLY

Why continue offering these programs?

Court Reporting (CERT)

Educational Technology (CERT)

Computer Systems Analysis (CERT & ASSOC)

Ceramics (ASSOC)

Industrial Arts (ASSOC)

LOW DEMAND, HIGH SUPPLY

Where are graduates working?

Speech/Language Pathology and Audiology (CERT & ASSOC)

Medical Assisting (CERT)

Physical Therapist Assistant (ASSOC)

See Chapter 3 for a description of the quadrants included in the recommendations chart.
Source: Emsi program demand gap model.

Table 4.1: Cerritos' Programmatic Areas of Opportunity at the CTE Certificate Level

SOC TITLE	2019 JOBS	% JOB CHANGE	ANNUAL OPENINGS	ANNUAL COMPLETIONS	GAP	MEDIAN HOURLY WAGE
Construction Laborers	53,053	13.8%	4,112	9	4,103	\$18.65
Nursing Assistants	43,505	21.4%	4,574	1,092	3,483	\$15.15
Carpenters	42,326	6.6%	3,128	23	3,105	\$23.63
Shipping, Receiving, & Traffic Clerks	36,269	(6.8%)	2,588	7	2,581	\$15.32
Medical Secretaries	29,689	15.4%	2,258	457	1,801	\$19.15
Industrial Truck & Tractor Operators	18,503	2.7%	1,615	2	1,613	\$17.56
Licensed Practical & Licensed Vocational Nurses	26,027	21.0%	2,076	539	1,537	\$25.31
Billing & Posting Clerks	21,618	8.8%	1,630	122	1,508	\$20.45
First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	16,625	4.3%	1,208	2	1,206	\$26.17
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	10,317	19.3%	950	82	867	\$26.95
Telecommunications Equipment Installers & Repairers, Except Line Installers	11,482	(11.1%)	856	67	789	\$28.23
Operating Engineers & Other Construction Equipment Operators	6,876	13.0%	669	2	666	\$38.94
First-Line Supervisors of Housekeeping & Janitorial Workers	7,755	12.2%	664	0	664	\$20.71
Interviewers, Except Eligibility & Loan	8,408	3.8%	652	0	652	\$18.80
Massage Therapists	13,197	22.7%	1,218	567	651	\$16.81
Insurance Claims & Policy Processing Clerks	14,404	(0.4%)	794	154	640	\$18.35
Loan Interviewers & Clerks	9,869	2.8%	584	1	583	\$21.06

Table 4.2: Cerritos' Programmatic Areas of Opportunity at the CTE Associate Degree Level

SOC TITLE	2019 JOBS	% JOB CHANGE	ANNUAL OPENINGS	ANNUAL COMPLETIONS	GAP	MEDIAN HOURLY WAGE
Radiologic Technologists	6,043	15.2%	277	155	122	\$36.24
Cardiovascular Technologists & Technicians	1,706	8.8%	70	9	61	\$34.61
Respiratory Therapists	7,002	17.5%	350	302	48	\$36.34
Morticians, Undertakers, & Funeral Directors	498	12.4%	42	10	32	\$21.86
Diagnostic Medical Sonographers	2,321	19.3%	114	93	20	\$42.48
Nuclear Medicine Technologists	520	9.9%	22	6	16	\$52.47

Numbers may not sum due to rounding.

Source: Emsi program demand gap model.