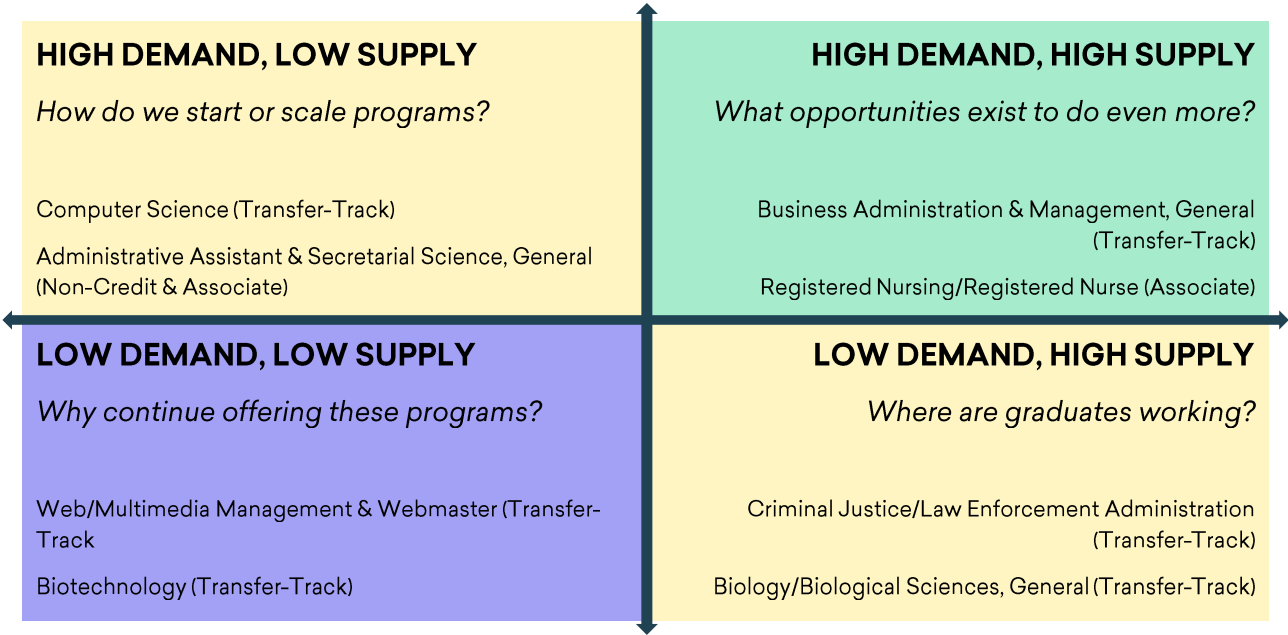# Executive Summary

CUNY Kingsborough Community College (KCC) is a public, two-year postsecondary educational institution in New York. To further its goal of providing the region with well-trained and well-educated residents, KCC continually pursues improvement in various forms. An up-to-date understanding of the regional economy and the demand for skilled labor is vital to the planning efforts of the college as it seeks to adapt its program offerings to the requirements of an ever-changing workforce. KCC partnered with Emsi, a leading provider of labor market data, to complete a program demand gap analysis, which assesses regional job openings against educational program completions.

RECOMMENDATIONS

HIGH DEMAND, LOW SUPPLY

How do we start or scale programs?

Computer Science (Transfer-Track)

Administrative Assistant & Secretarial Science, General (Non-Credit & Associate)

HIGH DEMAND, HIGH SUPPLY

What opportunities exist to do even more?

Business Administration & Management, General (Transfer-Track)

Registered Nursing/Registered Nurse (Associate)

LOW DEMAND, LOW SUPPLY

Why continue offering these programs?

Web/Multimedia Management & Webmaster (Transfer-Track

Biotechnology (Transfer-Track)

LOW DEMAND, HIGH SUPPLY

Where are graduates working?

Criminal Justice/Law Enforcement Administration (Transfer-Track)

Biology/Biological Sciences, General (Transfer-Track)

> *"Strong community colleges assess trends in job growth and salaries to determine what programs will be needed for high-demand jobs. They then structure their programs and enrollment in accordance with those demands."*
>
> *Josh Wyner in* What Excellent Community Colleges Do: Preparing All Students for Success

INTRODUCTION

For purposes of the program demand gap analysis, KCC serves a larger region beyond its main campus in Brooklyn, New York. This region, called the Kingsborough Service Region, is comprised of two counties in New York: Kings County and New York County. This region was chosen as it best represents the labor market region KCC's students are most likely to enter. This report outlines the region's economy and uses the region's average annual projected job openings between 2018 and 2028 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 KCC's program offerings satisfy regional workforce demand. In addition, this report offers recommendations for new program development. In its entirety, the PDGA is a starting point for KCC as the college continues to develop programs using data-based decision-making strategies. The following figures and table display key findings of the analyses.

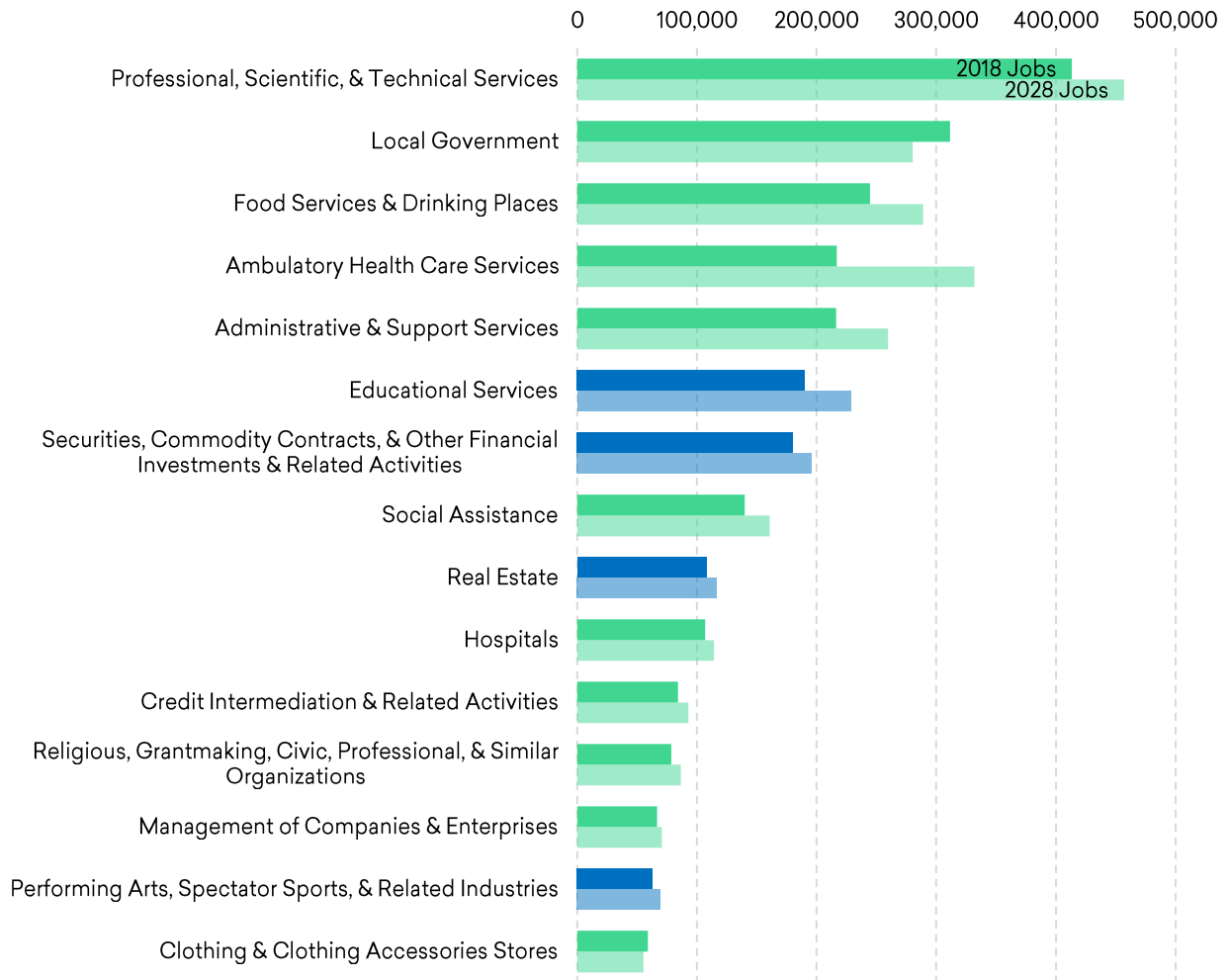Figure 1: Map of the Kingsborough Service Region
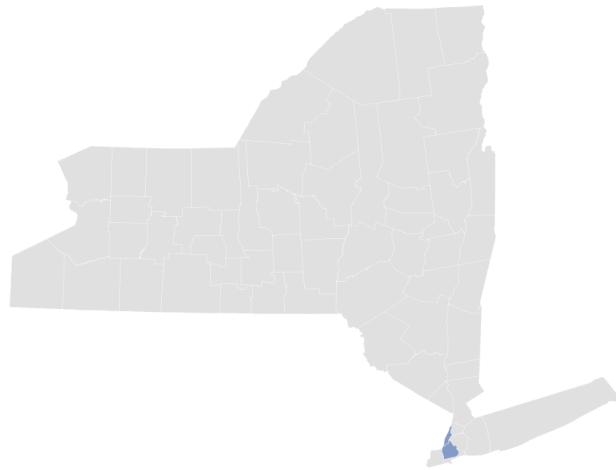
Source: Emsi Analyst. Region provided by KCC.

ECONOMIC OVERVIEW

Figure 2 displays the top industry subsectors in terms of employment in the Kingsborough 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.
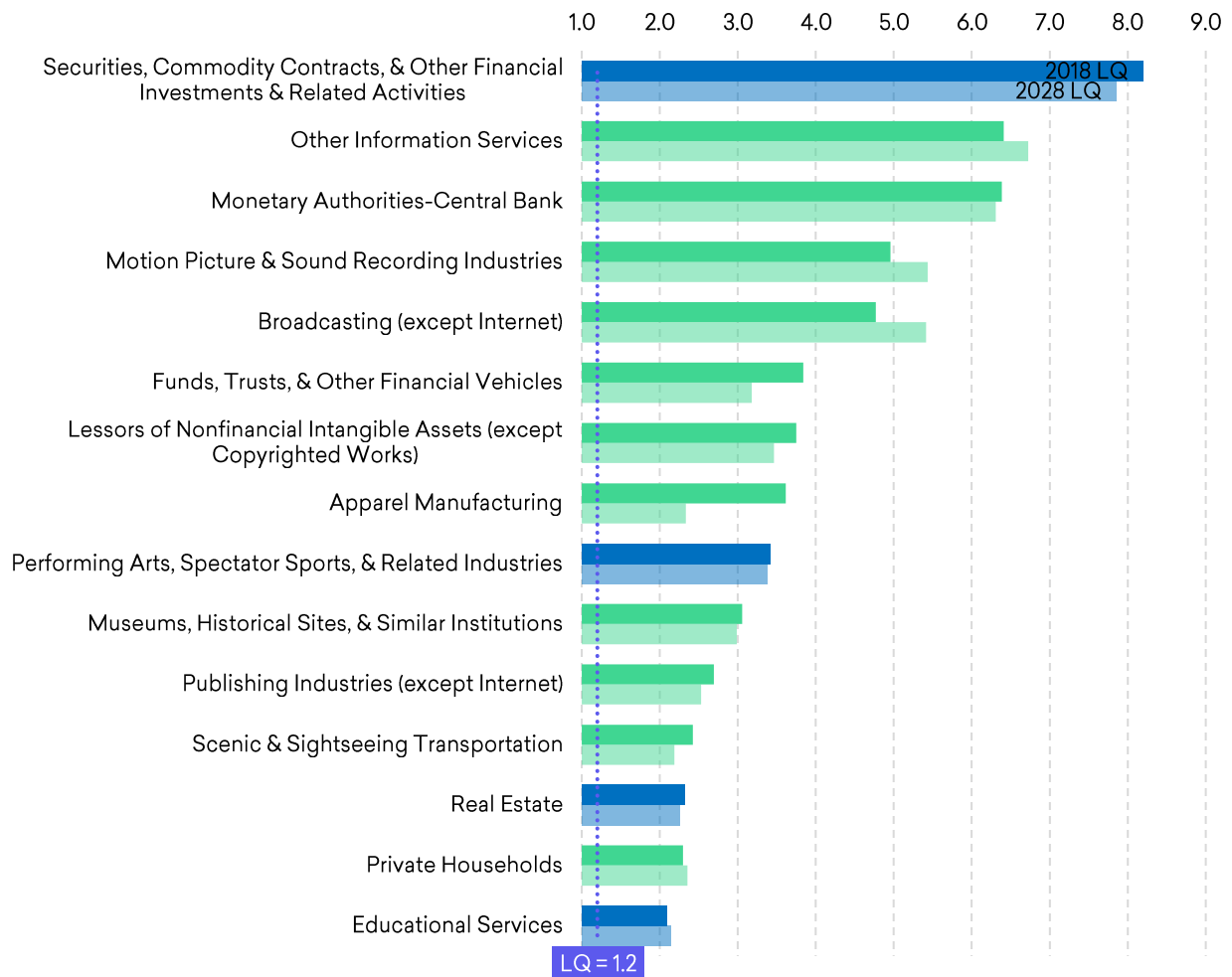
Figure 2: Top Industry Subsectors in the Kingsborough Service Region by Jobs

Source: Employees & Self-Employed 2019.4.

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

Note the dark blue colored bars in the figures. Across all of the Kingsborough Service Region's industry subsectors, four 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 college insight into potential employment opportunities for its students. These industry subsectors, ranked by 2018 jobs, are:

- Educational Services
- Securities, Commodity Contracts, & Other Financial Investments & Related Activities
- Real Estate
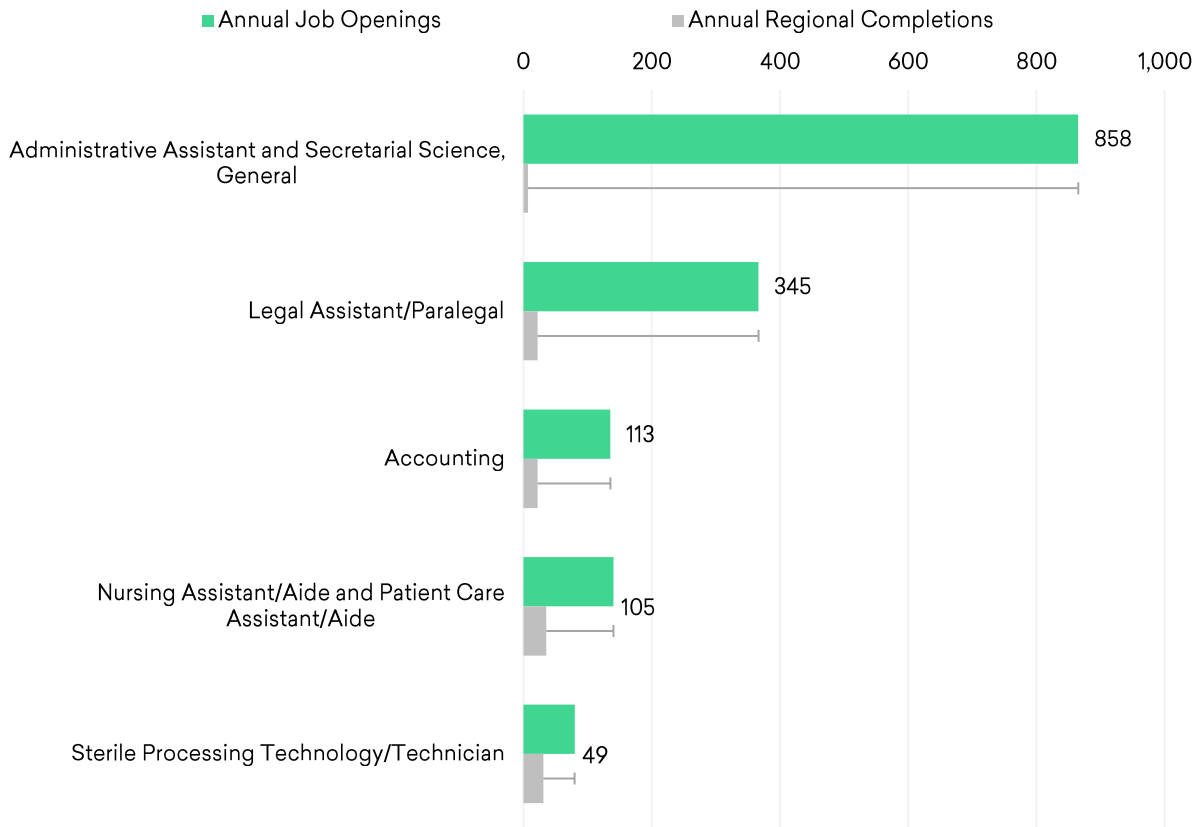- Performing Arts, Spectator Sports, & Related Industries

PROGRAM DEMAND GAP ANALYSIS

The program demand gap analysis provides results across all of KCC's non-credit, certificate, and degree level programs, which have been classified by their formal CIP code.[1] The analysis connects the college's program completers with the availability of regional job openings. For KCC's non-credit programs, the analysis is similar in that it connects the college's completers with the availability of regional job openings but without the additional reference to non-credit program completions from other postsecondary educational institutions in the Kingsborough Service Region. Furthermore, the analysis focuses on the gaps and surpluses in the programs by award level. A gap or surplus larger than 100 is considered beyond normal labor market fluctuations and therefore an area of consideration for program development.

KCC offers 13 non-credit programs, when grouped by their six-digit CIP codes. The non-credit programs can be designed for self-enrichment; however, KCC offers them with workforce skills in mind. Using a customized non-credit program-to-occupation map, the programs are analyzed using similar methods to the program demand gap analysis. Four non-credit programs have a significant gap (Figure 4). However, the Kingsborough Service Region is quite large, and completion of any one of the non-credit programs could lead to successful regional employment. The non-credit program analysis provides KCC administrators with opportunities for local student recruiting and curriculum re-alignment.

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[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: Top 5 Gaps for Non-Credit Programs

■ Annual Job Openings   ■ Annual Regional Completions

- Administrative Assistant and Secretarial Science, General: 858
- Legal Assistant/Paralegal: 345
- Accounting: 113
- Nursing Assistant/Aide and Patient Care Assistant/Aide: 105
- Sterile Processing Technology/Technician: 49

Non-credit programs are grouped by their six-digit CIP code.
Source: Emsi program demand gap model.

KCC offers three certificate level programs, all of which have a significant gap above the 100-openings level of significance, as shown in Figure 5. All should be considered for expansion at the certificate level, considering the industries and occupations of the Kingsborough Service Region. No programs at this award level have a significant surplus.
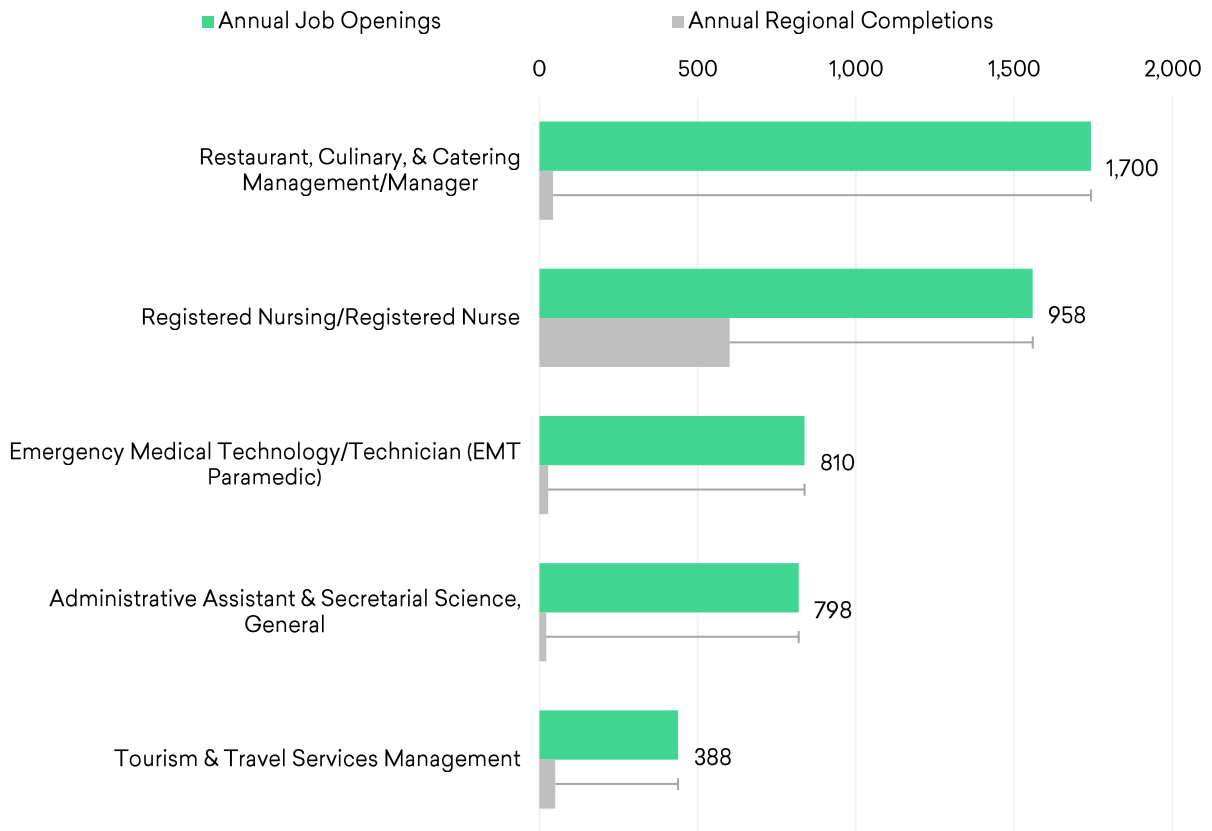
Figure 5: Certificate Level Programs
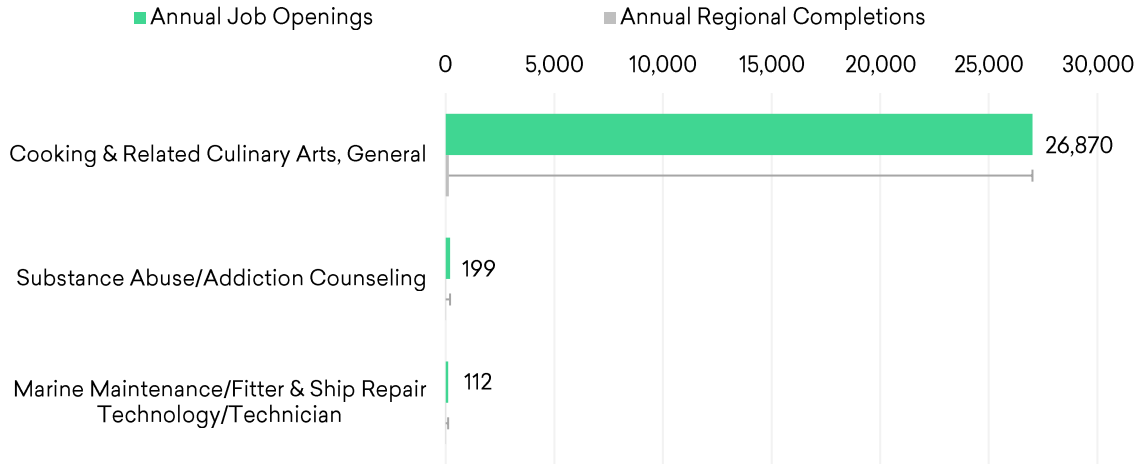
Source: Emsi program demand gap model.

At the associate degree level, six programs have a significant gap (Figure 6). Several should be considered for a college-wide expansion, many of which are related to other associate degree level programs without a significant 100-openings gap. 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.

Figure 6: Top 5 Associate Degree Level Gaps

■ Annual Job Openings   ■ Annual Regional Completions

Program	Annual Job Openings
Restaurant, Culinary, & Catering Management/Manager	1,700
Registered Nursing/Registered Nurse	958
Emergency Medical Technology/Technician (EMT Paramedic)	810
Administrative Assistant & Secretarial Science, General	798
Tourism & Travel Services Management	388

Source: Emsi program demand gap model.

KCC offers 26 transfer-track degree programs. In other words, a program completer could readily transfer into a similar bachelor's degree level program at another postsecondary educational institution in the state. Of these programs, 11 have a significant gap above the 100-openings level of significance, as shown in Figure 7. These programs should be considered for expansion. A program expansion should consider the process by which KCC's students transfer into regional bachelor's degree level programs. Administrative and academic support measures at KCC would enable student success. No programs at this award level have a significant surplus.

Figure 7: Top 10 Transfer-Track Degree Level Gaps
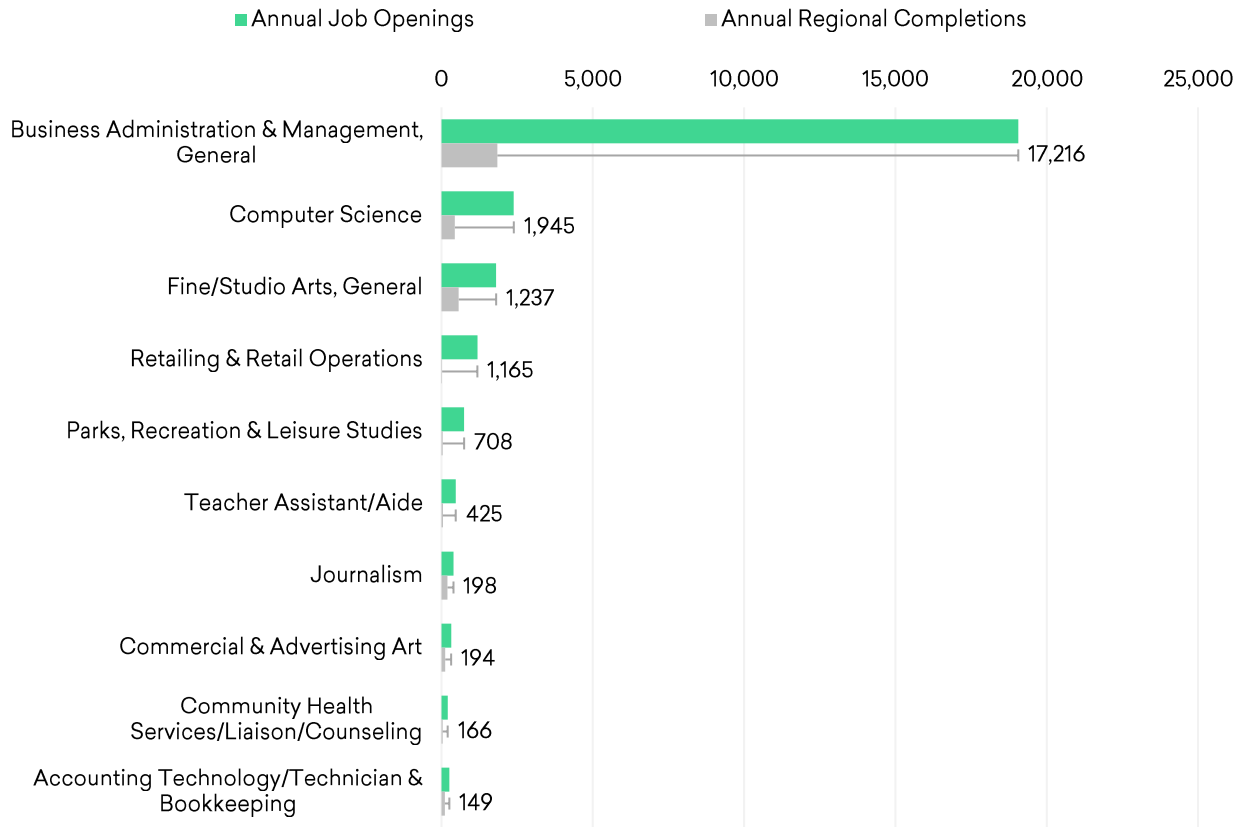
Source: Emsi program demand gap model.

A liberal arts program expansion is not recommended at this time, but KCC 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 Kingsborough Service Region. The college's liberal arts program, therefore, serves as a starting point to students' career goals beyond an associate degree level of education.

PROGRAM ADDITIONS

Twenty certificate level programmatic areas of opportunity have been identified in the program demand gap analysis, many of which are related to personal care & service occupations. At the associate degree level, there are fewer opportunities for new programs, considering the college's current offerings. Nonetheless, KCC should consider new programs related to architecture & engineering occupations, whether focus is on job openings in the Kingsborough Service Region or New York. Another 20 programmatic areas of opportunity were identified at the transfer-track degree level, many of which are related to business & financial operations occupations, a demand which KCC could establish or adjust existing transfer-track degrees to meet. Many program additions are related to the college'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 1.

Table 1: Program Additions by Education Level

SOC TITLE	2018 JOBS	ANNUAL OPENINGS	ANNUAL COMPLETIONS	GAP	MEDIAN HOURLY WAGE	ED. LEVEL
Home Health Aides	93,169	12,591	255	12,336	$12.25	CERT
Personal Care Aides	79,542	11,534	195	11,338	$12.84	CERT
Security Guards	58,445	6,302	0	6,302	$16.74	CERT
Childcare Workers	33,999	3,451	46	3,405	$13.24	CERT
Licensed Practical & Licensed Vocational Nurses	10,720	1,079	15	1,065	$26.35	CERT
Billing & Posting Clerks	12,152	870	11	859	$22.71	CERT
Preschool Teachers, Except Special Education	11,035	629	30	598	$20.24	CERT
Manicurists & Pedicurists	9,658	792	262	530	$12.86	CERT
Substitute Teachers	6,478	492	0	492	$19.03	CERT
Legal Secretaries	8,167	450	1	450	$30.21	CERT
Architectural & Civil Drafters	2,842	172	75	97	$32.16	ASSOC
Respiratory Therapists	1,672	94	0	94	$39.47	ASSOC
Occupational Therapy Assistants	633	106	12	94	$32.44	ASSOC
Securities, Commodities, & Financial Services Sales Agents	53,988	3,537	218	3,318	$72.46	TRANS TRACK
Postsecondary Teachers, General	53,386	2,123	0	2,123	$45.91	TRANS TRACK
Financial Analysts	37,643	2,300	341	1,959	$57.72	TRANS TRACK

SOC TITLE	2018 JOBS	ANNUAL OPENINGS	ANNUAL COMPLETIONS	GAP	MEDIAN HOURLY WAGE	ED. LEVEL
Personal Financial Advisors	23,839	1,477	61	1,416	$69.09	TRANS TRACK
Production, Planning, & Expediting Clerks	13,973	701	0	701	$26.28	TRANS TRACK

SOC refers to the Standard Occupational Classification system used to classify occupations. Average annual job openings represent regional data from 2018 to 2028. Numbers may not sum due to rounding.

Source: Emsi program demand gap model.