

Addressing Regional Economic Need: Labor Market Study

Board of Trustees Meeting, July 25, 2017

BACKGROUND

Rock Valley College (RVC) has identified KPI to inform the college community about institutional health and development. The College KPI are presented in five categories aligned to Illinois Board of Higher Education (IBHE) Public Agenda Goals. College KPI categories include *Educational Attainment, Access, and Success; Affordability; Educational Quality; Accountability; and Addressing Regional Economic Need.*

The KPI category of *Addressing Regional Economic Need* aligns to the IBHE goal of integrating assets to meet economic needs by supporting state and regional economic development. Several summary reports address this KPI category and are conducted on a rotating basis, including the Labor Market Study, Economic Impact Study, Community Survey, and Employer Survey. This summary report presents results of the Labor Market Study conducted using data from Economic Modeling Specialists Intl. (EMSI).

HLC Accreditation Criteria and Core Components

1.D.3. The institution engages with its identified external constituencies and communities of interest and responds to their needs as its mission and capacity allow.

5.C. The institution engages in systematic and integrated planning.

5.C.3. The planning process encompasses the institution as a whole and considers the perspectives of internal and external constituent groups.

5.C.5. Institutional planning anticipates emerging factors, such as technology, demographic shifts, and globalization.

5.D. The institution works systematically to improve its performance.

The Labor Market Study provides evidence of the Higher Learning Commission’s (HLC) Criteria by examining the extent to which programs and initiatives of the College address regional needs for workforce development.

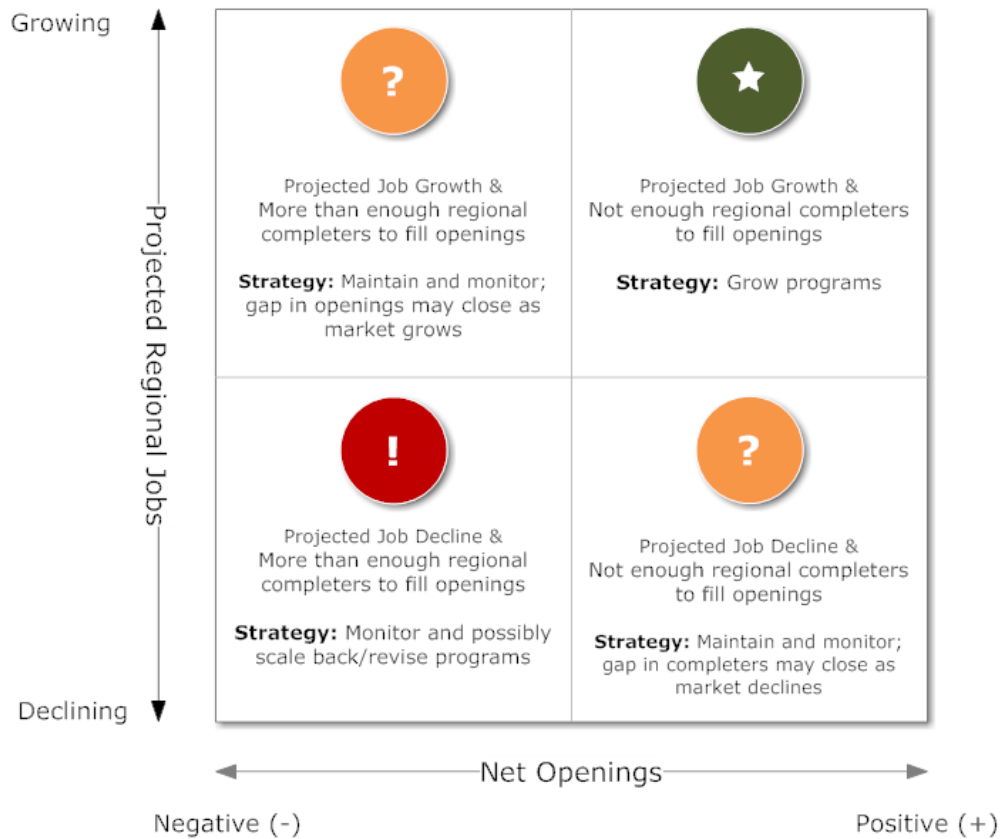
RESULTS

The following two dimensions are analyzed to determine whether existing programs of study meet regional labor market needs:

- Job Growth –compares the number of jobs in 2016 to those projected for 2020, and
- Net Job Openings – compares 2015 program completers, from RVC and other regional institutions of higher education, with regional job openings reported for 2016.

In order for the College to proactively serve the region in providing a trained workforce, a balance between regional job growth and net job openings is required. Figure 1 depicts the two-dimensional model used to analyze the regional labor market in conjunction with degree/certificate programs.

**Figure 1: Labor Market Model**



**Labor Market Data for Programs Currently Offered by Rock Valley College**

Table 1 identifies programs currently offered by Rock Valley College and other regional institutions that exemplify each quadrant of the Labor Market Model. Program names come from the National Center for Education Statistics’ (NCES) Classification of Instructional Programs (CIP) so that program completions can be combined across regional institutions. See Appendix A for a list of corresponding RVC programs.

Net job openings fluctuate over time depending on new job creation; attrition from promotions, retirements, and turnover; and new program completers entering the labor market. See Appendix B for a three year trend of net job openings.

Table 1: RVC Programs by Status within the Labor Market Model

Strategy	CIP Program	Regional Jobs (2016)	Job Growth (2016-2020)		Net Job Openings (2015-2016)	
?	Registered Nursing/Registered Nurse	3,741	193	↑	-95	-
?	Medical Insurance Coding Specialist/Coder	996	93	↑	-82	-
?	Liberal Arts and Sciences/Liberal Studies	583	68	↑	-575	-
?	Computer Systems Networking and Telecommunications	804	50	↑	-11	-
?	Emergency Medical Technology/Technician (EMT Paramedic)	262	30	↑	-5	-
?	Criminal Justice/Police Science	796	21	↑	-17	-
?	Dental Hygiene/Hygienist	250	10	↑	-8	-
?	Surgical Technology/Technologist	192	13	↑	-7	-
★	Selling Skills and Sales Operations <sup>1</sup>	11,350	137	↑	375	+
★	Entrepreneurship/Entrepreneurial Studies	4,848	86	↑	151	+
★	Business Administration and Management, General	7,606	84	↑	66	+
★	Child Care Provider/Assistant <sup>2</sup>	2,659	83	↑	86	+
?	Construction Trades, General	4,906	-251	↓	78	+
?	Administrative Assistant and Secretarial Science, General	3,520	-38	↓	37	+
?	Construction Engineering Technology/Technician	608	-36	↓	9	+
?	Sheet Metal Technology/Sheetworking	864	-36	↓	20	+
?	Construction Management	267	-32	↓	1	+
?	Electrician	1,233	-28	↓	27	+
!	Automobile/Automotive Mechanics Technology/Technician	1,014	-12	↓	-52	-
!	Accounting Technology/Technician and Bookkeeping	2,162	-27	↓	-6	-
!	Graphic and Printing Equipment Operator, General Production	421	-31	↓	-2	-
!	Tool and Die Technology/Technician	596	-46	↓	-9	-

Source: EMSI Program Table - RVC Completers & Jobs 2016-2020

Results in Table 1 indicate the following:



- Four (4) programs exhibit positive job growth (↑) of at least 75 jobs along with positive net job openings (+). The programs through which the College has potential for developing work force are primarily related to business (i.e., marketing, entrepreneurship, and business administration/management)

<sup>1</sup> This CIP category includes the Marketing Certificate.

<sup>2</sup> While this program shows projected job growth from 2016 to 2020 and positive net job openings, the median hourly wage is only \$7.15.

Since last year's Labor Market Study, three (3) programs are no longer included in this category because projected job growth, while still positive, fell below 75. These programs also continue to have positive net job openings.

- Business/Commerce, General (i.e., Business Fundamentals Certificate)
- Sport and Fitness Administration/Management (i.e., Fitness, Wellness, and Sport A.A.S. Degree)
- Small Business Administration/Management (i.e., Management Certificate)



- Eight (8) programs exhibit positive job growth (↑) of at least 10 jobs and negative net job openings (-) (i.e., the number of regional completers exceeds the number of regional openings). As long as the region does not substantially increase the number of completers in these programs, the current gap between completers and openings should close as the market grows. The size of these programs should be maintained and monitored as the market grows.

Monitoring is especially important for those programs where job growth and net job openings have similar absolute values (i.e., job growth could be consumed by people already in the labor market). These programs include:

- Medical Insurance Coding Specialist/Coder
- Dental Hygiene/Hygienist
- Surgical Technology/Technologist

- Six (6) programs exhibit negative job growth (↓) of at least 10 jobs and positive net job openings (+). For these programs, the data suggests a decline in work force need combined with more openings as compared to regional completers. Half of the programs in this group are already being phased out as part of the Building Construction Management Programs. The remaining programs should be monitored so that the market does not become saturated as the number of jobs declines. Saturation is less likely in skilled trades (e.g., Electrician and Sheet Metal), because students are already employed as part of apprenticeship programs.



- Four (4) programs exhibit negative net job openings (-) along with negative job growth (↓). Strategies for monitoring and improvement may vary depending on the program. One possible strategy is to determine whether the curricula are aligned with current industry trends.

Three of these programs moved from a yellow monitoring category since last year:

- Automobile/Automotive Mechanics Technology/Technician continues to generate more regional completers than job openings. Since last year, projected job growth has changed to a projected job decline of 1%, suggesting that the labor market is stabilizing.
- Graphic and Printing Equipment Operator, General Production and Tool and Die Technology/Technician continue to exhibit projected job decline. Since last year, net job openings has shifted from positive to negative but is still close to zero.

- Tool and Die Technology/Technician continues to exhibit projected job decline. Since last year, net job openings has shifted from positive to negative but is still close to zero. Students in this program are already employed as apprentices, and the union monitors enrollment in an attempt to avoid overproduction of workers.

The remaining program, Accounting Technology/Technician and Bookkeeping, exhibited positive net job openings in the two most recent labor market studies. The current state of negative net job openings should be monitored to determine if the change is an anomaly or becomes a part of a pattern.

The College should continue to monitor all four of these programs to ensure that the number of completers compared to openings does not saturate the market as the number of regional jobs decline.

**Labor Market Data for Programs Not Currently Offered by Rock Valley College**

Data in Table 1 does not capture data for those programs not currently offered by the College. Table 2 identifies regional programs offered outside of the College with the most potential based on high projected job growth (↑) in conjunction with positive net job openings (+) (i.e., those represented in the 🟢 quadrant of the Labor Market Model).

Table 2: Additional Regional Programs with High Projected Job Growth and Positive Net Openings

Program	Regional Jobs (2016)	Job Growth (2016-2020)	Net Job Openings (2015-2016)	Level of Regional Awards <sup>3</sup>
Cosmetology, Barber/Styling, and Nail Instructor	1,916	155	97	Award of less than 1 academic year (43%), Award of at least 1 but less than 2 academic years (57%)
Sociology and Anthropology	2,161	161	65	Bachelor’s degree
Musical Theatre	1,512	114	68	Bachelor’s degree
Medical Office Management/Administration	688	77	22	Associate’s degree
Medical Office Assistant/Specialist	1,242	125	42	Award of at least 1 but less than 2 academic years (94%), Associate’s degree (6%)

Source: EMSI Program Table - All Completers & Jobs 2016-2020

Information presented in Table 2 indicates that labor market demand for Medical Office Management/Administration and Medical Office Assistants/Specialists may present opportunities for the College to develop new programs or expand existing programs. In addition, the regional labor market demands completers with bachelor’s degrees in Sociology/Anthropology and Musical Theatre. Most of these completers are employed in business, education, or performing arts.

<sup>3</sup> Programs with the majority of awards occurring at the Master’s degree level were excluded, because RVC does not offer or directly prepare students for such programs.

### Labor Market Data for Occupations with No Current Regional Providers (Including RVC)

Another important component of this study is to look at those occupations that have no regional completers but for which positive job growth is projected. Table 3 illustrates all of those occupations in the RVC region that have projected job growth and no regional completers. Only occupations with some college, no degree or an associate's degree as the typical entry level education are included.

**Table 3: Occupations with Projected Job Growth and No Regional Completers**

Occupation Description	Regional Jobs (2016)	Job Growth (2016-2020)	Annual Openings
Teacher Assistants	2,023	42	60
Radiologic Technologists	237	42	8
Medical and Clinical Laboratory Technicians	167	14	8
Diagnostic Medical Sonographers	105	10	5
Cardiovascular Technologists and Technicians	83	7	4
Dietetic Technicians	81	1	Insf. Data
Magnetic Resonance Imaging Technologists	80	2	Insf. Data
Chemical Technicians	50	1	Insf. Data
Environmental Science and Protection Technicians, Including Health	45	1	Insf. Data
Life, Physical, and Social Science Technicians, All Other	37	1	Insf. Data
Radiation Therapists	30	2	Insf. Data
Nuclear Medicine Technologists	29	1	Insf. Data
Broadcast Technicians	28	1	Insf. Data
Aerospace Engineering and Operations Technicians <sup>4</sup>	15	1	Insf. Data

Source: EMSI Occupation Table - No Regional Completers  
Insf. Data = insufficient data available to calculate annual openings

Data in Table 3 indicate the following:

- Fourteen (14) occupations were identified as having projected job growth; however, overall, this projected job growth is relatively small with only three (3) of the 14 occupations having a projected growth of more than 10 jobs.
- A majority of the occupations identified are in allied health fields.

## FINDINGS AND CONCLUSIONS

*Addressing Regional Economic Need* is an institutional KPI category that examines the College's ability to support state and regional economic development. In this summary report, labor market data is specifically analyzed to determine the degree to which the College is meeting regional economic need through adequate and appropriate workforce development.

Labor market data for the RVC region generally suggests that the programs offered by the College fill an economic need within the community. Programs in the areas of Nursing,

<sup>4</sup> While the College offers several aviation programs, none of them directly prepare students for this occupation which focuses on the operation, installation, calibration, and maintenance of integrated systems used to launch, track, position, and evaluate aircraft.

Medical Coding, Liberal Arts and Sciences, Computer Systems Networking, Emergency Medical Technicians, Criminal Justice, Dental Hygiene, and Surgical Technology produced more than enough graduates in 2015 to fill job openings in 2016; however, these industries are projected to grow. Several business related fields also are projected to grow and had positive net job openings in 2015-2016, suggesting that RVC should continue to prepare students for further education and employment in these areas at least at a rate consistent with current levels.

Most College programs offered in areas of projected decline are not producing completers in large excess of available openings. This suggests that, in general, College programs are scaled to appropriately address labor market demand. However, these markets should be monitored so that the College does not produce an excessive amount of future graduates who will not be able to find regional employment. Furthermore, to ensure right-sizing of the College's programs, areas in which regional initiatives are being implemented to positively impact an industry (e.g., those related to manufacturing) require careful monitoring of actual job availability and growth potential even if a decline is currently projected.

APPENDIX A: CLASSIFICATION OF INSTRUCTIONAL PROGRAMS (CIP) WITH CORRESPONDING RVC PROGRAMS

CIP Program	RVC Program(s)
Registered Nursing/Registered Nurse	Associate Degree Nursing A.A.S.
Medical Insurance Coding Specialist/Coder	Medical Coding Certificate
Liberal Arts and Sciences/Liberal Studies	Associate of Arts
Computer Systems Networking and Telecommunications	Cisco Networking A.A.S. Degree Cisco Networking Certificate Cisco Advanced Networking Certificate Microsoft Server Administration Certificate
Emergency Medical Technology/Technician (EMT Paramedic)	Emergency Medical Technician Certificate
Criminal Justice/Police Science	Criminal Justice A.A.S. Degree
Dental Hygiene/Hygienist	Dental Hygiene A.A.S. Degree
Surgical Technology/Technologist	Surgical Technology Certificate
Selling Skills and Sales Operations	Marketing Certificate
Entrepreneurship/Entrepreneurial Studies	Entrepreneurship Certificate
Business Administration and Management, General	Business Administration A.A.S. Degree
Child Care Provider/Assistant	Early Childhood Education A.A.S. Degree Early Childhood Educator Certificate Early Childhood Educator Assistant Certificate
Construction Trades, General	Construction Methods and Materials Certificate Residential Construction Certificate Building Construction Certificate Basic Construction Certificate Sustainable Building Science A.A.S. Degree Sustainable Construction Certificate
Administrative Assistant and Secretarial Science, General	Office Professional A.A.S. Degree Administrative Assistant Certificate Construction Administrative Assistant Certificate
Construction Engineering Technology/Technician	Building Construction Management A.A.S. Degree
Sheet Metal Technology/Sheetworking	Sheet Metal Apprenticeship
Construction Management	Construction Management Certificate
Electrician	Electrician Apprenticeship A.A.S. Degree Electrician Apprenticeship Certificate
Automobile/Automotive Mechanics Technology/Technician	Automotive Service Technology A.A.S. Degree Automotive Technician Certificate Automotive Heating & Air Conditioning Certificate Automotive Suspension & Brakes Certificate Automotive Electrical Certificate Automotive Engine Certificate Automotive Engine Performance Certificate Automotive Transmission Certificate
Accounting Technology/Technician and Bookkeeping	Accounting A.A.S. Degree Accounting / Income Tax Fundamentals Certificate Professional Bookkeeper Certificate
Graphic and Printing Equipment Operator, General Production	Graphic Arts Technology A.A.S. Degree Prepress Certificate Graphic Design A.A.S. Degree Cross Media Production A.A.S. Degree
Tool and Die Technology/Technician	Tool and Die/Precision Machinist Certificate



APPENDIX B: THREE YEAR TREND FOR NET JOB OPENINGS

Program <sup>5</sup>	Net Job Openings			2013-2016 Overall Change	
	2013-2014	2014-2015	2015-2016		
Accounting Technology/Technician and Bookkeeping	26	32	-6	-32	-
Administrative Assistant and Secretarial Science, General	18	29	37	19	+
Automobile/Automotive Mechanics Technology/Technician	-34	-30	-52	-18	-
Business Administration and Management, General	111	90	66	-45	-
Business/Commerce, General	236	262	212	-24	-
Child Care Provider/Assistant	119	165	86	-33	-
Computer Systems Networking and Telecommunications	-19	10	-11	8	+
Construction Engineering Technology/Technician	25	11	9	-16	-
Construction Management	9	4	1	-8	-
Construction Trades, General	187	94	78	-109	-
Criminal Justice/Police Science	30	-50	-17	-47	-
Dental Hygiene/Hygienist	-17	-2	-8	9	+
Electrical, Electronic and Communications Engineering Technology/Technician	-10	-8	-6	4	+
Electrician	32	29	27	-5	-
Emergency Medical Technology/Technician (EMT Paramedic)	-10	1	-5	5	+
Entrepreneurship/Entrepreneurial Studies	160	181	151	-9	-
Graphic and Printing Equipment Operator, General Production	11	5	-2	-13	-
Liberal Arts and Sciences/Liberal Studies	-618	-578	-575	43	+
Licensed Practical/Vocational Nurse Training	5	5	11	6	+
Medical Insurance Coding Specialist/Coder	-21	-18	-82	-61	-
Nursing Assistant/Aide and Patient Care Assistant/Aide	-320	-374	-260	60	+
Registered Nursing/Registered Nurse	-78	-79	-95	-17	-
Selling Skills and Sales Operations	487	728	375	-112	-
Sheet Metal Technology/Sheetworking	14	21	20	6	+
Small Business Administration/Management	56	58	53	-3	-
Sport and Fitness Administration/Management	31	65	36	5	+
Substance Abuse/Addiction Counseling	4	0	6	2	+
Surgical Technology/Technologist	-11	-9	-7	4	+
Tool and Die Technology/Technician	-1	3	-9	-8	-

Source: EMSI Program Table – RVC Regional Net Job Openings 2013-2016

<sup>5</sup> Programs that appear in this appendix and not in Table 1 do so because they met thresholds for inclusion in previous years, but not for this year.