Institutional Effectiveness, Research & Planning

NEEDS ASSESSMENTS FOR EMT, PARAMEDIC, RESPIRATORY CARE, & CIS PROGRAMS

Fall 2014

NEEDS ASSESSMENTS FOR EMT, PARAMEDIC, RESPIRATORY CARE, & CIS PROGRAMS

Fall 2014

Introduction

Governor Jerry Brown signed the 2014-15 budget which appropriated funds "on a one-time basis to create greater incentive for California Community Colleges to develop, enhance, retool, and expand quality career technical education offerings that build upon existing community college regional capacity to respond to regional labor market needs." For ease of reference, this money is being called the "$50M CTE Enhancement Fund."

Funds are intended to further economic development with CTE programming that meet all the following criteria:

- Be for occupations and sectors that are demonstrated to be in-demand in the regional labor market;
- Be for occupations for which regional production of employees is insufficient to meet labor market demand; and
- Demonstrate regional alignment of program and curricula.

Table of Contents

Methodology

The TOP-CIP-SOC Crosswalk from the California Employment Development Department was used in this report to map TOP codes to CIP and SOC codes. This crosswalk allows the user to estimate labor market demand for California Community College program completers using SOC-based projections from the California Labor Market Information Division. The Taxonomy of Programs (TOP) is a standardized system used at the state level to classify programs and courses at California Community Colleges that are intended to achieve the same outcome. The Classification of Instructional Programs (CIP) is a standardized coding system used at the federal level to facilitate accurate tracking, assessment, and reporting of fields of study and program completion at educational institutions throughout the country. The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories. The TOP-CIP-SOC crosswalk from the Employment Development Department was used in this report to map TOP codes to CIP and SOC codes. This crosswalk allows the user to estimate labor market demand for California Community College program

completers using SOC-based projections from the California Labor Market Information Division. Employment estimations and projections provided by the California Employment Development Department for the Riverside-San Bernardino-Ontario metropolitan statistical area (the region served by Crafton Hills College) were combined with 2014 wage estimations. Using the California Community College Chancellor's Office Data Mart and National Center for Education Statistics College Navigator, average annual completion numbers were calculated and used to calculate and identify potential supply-demand gaps.

Needs Assessments

Emergency Medical Technology/Paramedic

Table 1. TOP Code Educational Program Data

TOP Code	Program of Study
1250.00	Emergency Medical Services
1251.00	Paramedic

Table 1a. CIP Code Educational Program Data

CIP Code	Program of Study
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)

Table 2. Occupational Data

SOC Code	Occupational Title
25.1071	Health Specialties Teachers, Postsecondary
29.2041	Emergency Medical Technicians and Paramedics

Table 3. Projections of Employment by Occupation

SOC Code	Occupational Title	2010 Employment	Estimated Annual Job Openings	Estimated 2013 Employment	Projected 2016 Employment
25.1071	Health Specialties Teachers, Postsecondary	580	20	640	700
29.2041	Emergency Medical Technicians and Paramedics	1,820	114	2,162	2,504
Total		**2,400**	**134**	**2,802**	**3,204**

Table 4. Wages by Occupation

SOC Code	Occupational Title	Starting Hourly Wage	Median Hourly Wage
25.1071	Health Specialties Teachers, Postsecondary	-	-
29.2041	Emergency Medical Technicians and Paramedics	10.03	11.46

Table 5. Average Annual Completers (3-year)

TOP Code	College/University	Average Annual Completers
1251.00	Crafton Hills	35
1251.00	Moreno Valley	5
1251.00	Victor Valley	15
Total Community College Average Annual Completers		**55**
	Loma Linda Medical University	11
Total Average Annual Completers		**66**

CTE Enhancement Funds Responses

DEMAND

1. **How many people are employed in the job titles and the region you specified in 2013?** An estimated 2,802 people were employed as emergency medical technicians, paramedics, and postsecondary health specialties teachers in 2013.
2. **How many are projected for 2016?** Projections estimate 3,204 will be employed as emergency medical technicians, paramedics, and postsecondary health specialties teachers in 2016.
3. **Projected average annual openings over the 2013-2016 time period for the region you specified (includes job growth and openings due to retirement and other separations):** Projections estimate 134 average annual openings for emergency medical technicians, paramedics, and postsecondary health specialties teachers between 2013 and 2016 in the San Bernardino-Riverside-Ontario metropolitan statistical area.
4. **Starting hourly wage (10th percentile hourly wage see COE-LMI table):** The starting hourly wage for emergency medical technicians and paramedics is $10.03. Due to the non-hourly nature of work for postsecondary health specialties teachers, a starting hourly wage is not available.
5. **Median hourly wage:** The median hourly wage for emergency medical technicians and paramedics is $11.46. Due to the non-hourly nature of work for postsecondary health specialties teachers, a median hourly wage is not available.

SUPPLY

6. **Average annual supply from community colleges for the region and occupations you specified (based on review of last 3 years):** Community colleges in the region supply on average 55 completers for emergency medical technician, paramedic, and postsecondary health specialties teacher positions.
7. **Average annual total supply from all sources (average annual based on review of last 3 years):** All colleges and universities in the region supply on average 66 completers for emergency medical technician, paramedic, and postsecondary health specialties teacher positions.

SUPPLY-DEMAND GAP

8. **Annual Net (Estimated Annual Job Openings – Total Average Annual Completers):** The annual net supply-demand gap is 68 for the region.
9. **Please list sources of above labor market information (i.e. California Employment Development Department, US Department of Labor, Centers of Excellence):** California Employment Development Department, California Community College Chancellor's Office, National Center for Education Statistics
10. **Other labor market information that informed this investment:** N/A

Respiratory Care

Table 6. TOP Code Educational Program Data

TOP Code	Program of Study
1210.00	Respiratory Care/Therapy

Table 6a. CIP Code Educational Program Data

CIP Code	Program of Study
51.0908	Respiratory Care Therapy/Therapist

Occupational Data

SOC Code	Occupational Title
25.1071	Health Specialties Teachers, Postsecondary
29.1126	Respiratory Therapists

Table 7. Projections of Employment by Occupation

SOC Code	Occupational Title	2010 Employment	Annual Job Openings	Estimated 2013 Employment	Projected 2016 Employment
25.1071	Health Specialties Teachers, Postsecondary	580	20	640	700
29.1126	Respiratory Therapists	1,500	70	1,710	1,920
Total		**2,080**	**90**	**2,350**	**2,620**

Table 8. Wages by Occupation

SOC Code	Occupational Title	Starting Hourly Wage	Median Hourly Wage
25.1071	Health Specialties Teachers, Postsecondary	-	-
29.1126	Respiratory Therapists	28.05	32.75

Table 9. Average Annual Completers (3-year)

TOP Code	College/University	Average Annual Completers
1210.00	Crafton Hills	64
1210.00	Victor Valley	33
Total Community College Average Annual Completers		**97**
	Loma Linda Medical University	21
	Concorde Career College	78
	Platt College – Ontario	40
Total Average Annual Completers		**236**

CTE Enhancement Funds Responses

DEMAND

1. **How many people are employed in the job titles and the region you specified in 2013?** An estimated 2,350 people were employed as respiratory therapists and postsecondary health specialties teachers in 2013.

2. **How many are projected for 2016?** Projections estimate 2,620 will be employed as respiratory therapists and postsecondary health specialties teachers in 2016.

3. **Projected average annual openings over the 2013-2016 time period for the region you specified (includes job growth and openings due to retirement and other separations):** Projections estimate 90 average annual openings for respiratory therapists and postsecondary health specialties teachers between 2013 and 2016 in the San Bernardino-Riverside-Ontario metropolitan statistical area.

4. **Starting hourly wage (10th percentile hourly wage see COE-LMI table):** The starting hourly wage for respiratory therapists is $28.05. Due to the non-hourly nature of work for postsecondary health specialties teachers, a starting hourly wage is not available.

5. **Median hourly wage:** The median hourly wage for respiratory therapists is $32.75. Due to the non-hourly nature of work for postsecondary health specialties teachers, a median hourly wage is not available.

SUPPLY

6. **Average annual supply from community colleges for the region and occupations you specified (based on review of last 3 years):** Community colleges in the region supply on average 97 completers for respiratory therapists and postsecondary health specialties teacher positions.

7. **Average annual total supply from all sources (average annual based on review of last 3 years):** All colleges and universities in the region supply on average 236 completers for respiratory therapists and postsecondary health specialties teacher positions.

SUPPLY-DEMAND GAP

8. **Annual Net (Estimated Annual Job Openings – Total Average Annual Completers):** The annual net supply-demand gap is an oversupply of 146 for the region.

9. **Please list sources of above labor market information (i.e. California Employment Development Department, US Department of Labor, Centers of Excellence):** California Employment Development Department, California Community College Chancellor's Office, National Center for Education Statistics

10. **Other labor market information that informed this investment:** N/A

Computer Information Systems

Table 10. TOP Code Educational Program Data

TOP Code	Program of Study
0701.00	Information Technology, General
0702.10	Software Applications
0707.10	Computer Programming
0799.00	Other Information Technology

Table 10a. CIP Code Educational Program Data

CIP Code	Program of Study
11.0101	Computer and Information Sciences, General
11.0601	Data Entry/Microcomputer Applications, General
11.0201	Computer Programming/Programmer, General
11.9999	Computer and Information Sciences and Support Services, Other

Table 11. Occupational Data

SOC Code	Occupational Title
11.3021	Computer and Information Systems Managers
15.1011	Computer and Information Scientists, Research
15.1021	Computer Programmers
15.1051	Computer Systems Analysts
15.1061	Database Administrators
15.1071	Network and Computer Systems Administrators
25.1021	Computer Science Teachers, Postsecondary
43.9021	Data Entry Keyers
51.4012	Numerical Tool and Process Control Programmers

Table 12. Projections of Employment by Occupation

SOC Code	Occupational Title	2010 Employment	Annual Job Openings	Estimated 2013 Employment	Projected 2016 Employment
11.3021	Computer and Information Systems Managers	1,300	45	1,435	1,570
15.1011	Computer and Information Scientists, Research	130	3	139	148
15.1021	Computer Programmers	1,280	50	1,430	1,580
15.1051	Computer Systems Analysts	1,870	71	2,083	2,296
15.1061	Database Administrators	590	31	683	776
15.1071	Network and Computer Systems Administrators	1,540	71	1,753	1,966
25.1021	Computer Science Teachers, Postsecondary	220	6	238	256
43.9021	Data Entry Keyers	1,780	31	1,873	1,966
51.4012	Numerical Tool and Process Control Programmers	110	4	122	134
Total		**10,070**	**353**	**11,129**	**12,188**

Table 13. Wages by Occupation

SOC Code	Occupational Title	Starting Hourly Wage	Median Hourly Wage
11.3021	Computer and Information Systems Managers	44.05	53.28
15.1011	Computer and Information Scientists, Research	24.41	40.80
15.1021	Computer Programmers	30.70	38.88
15.1051	Computer Systems Analysts	31.67	37.55
15.1061	Database Administrators	26.78	39.03
15.1071	Network and Computer Systems Administrators	27.94	36.64
25.1021	Computer Science Teachers, Postsecondary	-	-
43.9021	Data Entry Keyers	10.74	12.82
51.4012	Numerical Tool and Process Control Programmers	18.38	25.85

Table 14. Average Annual Completers (3-year)

TOP Code	College/University	Average Annual Completers
0702.00	Chaffey	24
0702.00	Copper Mountain	9
0702.00	Crafton Hills	4
0702.00	Desert	6
0702.00	Mt. San Jacinto	35
0702.00	San Bernardino	3
0702.00	Victor Valley	13
0702.10	Copper Mountain	0
0702.10	Moreno Valley	4
0702.10	Norco	4
0702.10	Riverside	9
0707.10	Copper Mountain	1
0707.10	Moreno Valley	6
0707.10	Mt. San Jacinto	6
0707.10	Norco	4
0707.10	Riverside	10
0708.10	Chaffey	101
0708.10	Mt. San Jacinto	1
Total Community College Average Annual Completers		**240**
	University of Redlands	0
	ITT Technical Institute, San Bernardino	94
	ITT Technical Institute, Corona	88
Total Average Annual Completers		**422**

DEMAND

1. **How many people are employed in the job titles and the region you specified in 2013?** An estimated 11,129 people were employed in identified computer and information systems positions in 2013.
2. **How many are projected for 2016?** Projections estimate 12,188 will be employed in identified computer and information systems positions in 2016.
3. **Projected average annual openings over the 2013-2016 time period for the region you specified (includes job growth and openings due to retirement and other separations):** Projections estimate 353 average annual openings for identified computer and information systems positions between 2013 and 2016 in the San Bernardino-Riverside-Ontario metropolitan statistical area.
4. **Starting hourly wage (10th percentile hourly wage see COE-LMI table):** The starting hourly wage for identified computer and information systems positions, excluding managers and postsecondary computer science teachers, ranges between $10.74 and $31.67. The starting hourly wage for computer and information systems managers is $44.05. Due to the non-hourly nature of work for postsecondary computer science teachers, a starting hourly wage is not available.
5. **Median hourly wage:** The median hourly wage for identified computer and information systems positions, excluding managers and postsecondary computer science teachers, ranges between $12.82 and $40.80. The median hourly wage for computer and information systems managers is $53.28. Due to the non-hourly nature of work for postsecondary computer science teachers, a median hourly wage is not available.

SUPPLY

6. **Average annual supply from community colleges for the region and occupations you specified (based on review of last 3 years):** Community colleges in the region supply on average 240 completers for identified computer and information systems positions.
7. **Average annual total supply from all sources (average annual based on review of last 3 years):** All colleges and universities in the region supply on average 422 completers for identified computer and information systems positions.

SUPPLY-DEMAND GAP

8. **Annual Net (Estimated Annual Job Openings – Total Average Annual Completers):** The annual net supply-demand gap is an oversupply of 69 for the region.
9. **Please list sources of above labor market information (i.e. California Employment Development Department, US Department of Labor, Centers of Excellence):** California Employment Development Department, California Community College Chancellor's Office, National Center for Education Statistics
10. **Other labor market information that informed this investment:** N/A

Any questions regarding this report can be directed to the Office of Institutional Effectiveness, Research, and Planning at (909) 389-3390 or you may send an email to bgamboa@craftonhills.edu.