

# CTE Program Narrative

**NAME OF COLLEGE:** Modesto Junior College

**CONTACT:** Julie Haynes

**PHONE NUMBER:** 209-575-6872

**EMAIL ADDRESS:** haynesj@mjc.edu

**DATE:** 1/26/2016

**DIVISION:** Agriculture and Environmental Sciences

**FACULTY:** Julie Haynes

**PROGRAM NAME:** Veterinary Technology

**REASON FOR APPROVAL REQUEST (Check One):**

- New Program Proposal
- Program Revision Proposal (Substantial or TOP Code Changes)
- Locally Approved

**TYPE OF DEGREE:**

- Certificate of Achievement
- Associate of Arts
- Associate of Science
- Associate of Arts for Transfer
- Associate of Science for Transfer
- Other

**TRANSFER APPLICABILITY:** Yes  No

**ATTACHMENTS/INFORMATION REQUIRED:**

Labor/Job Market Data and Analysis  
Advisory Committee Meeting Minutes  
List of Advisory Committee Members  
Employer Survey, if applicable

## 1. Statement of Program Goals and Objectives

*Identify the goals and objectives of the program. For CTE programs, the statement must include the main competencies students will have achieved that are required for a specific occupation. The statement must, at a minimum, clearly indicate the specific occupations or fields the program will prepare students to enter and the basic occupational competencies students will acquire.*

*If the program is selective, describe relevant entry criteria and the selection process for admission to the program. Specify all mandatory fees that students will incur for the program aside from the ordinary course enrollment fee.*

The goal of the Veterinary Technology program is to increase the number, preparation and technical expertise of veterinary technicians and assistants who are prepared to improve veterinary patient management, clinical efficiency, and overall standards of care in the veterinary industry. Veterinary technicians will work closely with industry experts to identify technology and critical skills that are needed in the field. The Pet Industry is a 60 Billion dollar a year industry. The veterinary industry along contributes 20 Billion dollars to the GDP each year (source: Bureau of Labor Statistics 2014). Veterinary technicians and animal assistants make up 45% of the entire workforce in the industry and contribute significantly to the GDP stated above (source: Bureau of Labor Statistics 2014). The veterinary industry provides economic vitality to the Valley and is a critical component of domestic and commercial animal health and overall daily life. With the number of pets in our country at an estimated 60-75 million and the average pet owner spending between \$100.00 \$300.00 dollars per year on each animal, the need for qualified veterinary technicians and health care providers is rising (source: AVMA 2014). According to the Bureau of Labor Statistics (2012); "Employment of veterinary technologists and technicians is projected to grow 30 percent from 2012 to 2022, much faster than the average for all occupations". Graduates of the Veterinary Technician Program at MJC will be entering a work force that is eager to utilize the skills they will obtain through the program.

The veterinary industry is heavily reliant on technology and employee skills to increase efficiency and effectiveness. Over the last several years, evolving technology has changed the way industries that use diagnostic and therapeutic tools, thereby impacting skill requirements of technicians. They must be able to deliver effective patient care where and when it is needed. To address the education and skill needs of the industry, two specific objectives are developed to achieve the project goal of preparing technicians: 1) Develop and deliver standardized curriculum that advances the knowledge and skill level of our graduates. 2) Create a pipeline of skilled, certified technicians that meet current veterinary assistant requirements.

We have worked with veterinarians to develop a program that meets the technical and certification needs of the industry. Modesto Junior College (MJC) works with the Northern San Joaquin Veterinary Medical Association (an association with more than 200 veterinarians enrolled) to continually provide graduates that can assist in the fast paced veterinary industry by obtaining the knowledge and skills necessary to be effective and efficient in the workplace. The impact that this industry has on our local economy can be summarized in economic revenue as well as the labor statistics that

predict it to be one of the fastest growing job pools in the nation. New technology, state regulations and industry advances have created a skills gap for those that are looking into entering the veterinary workplace. Skill development and knowledge embedded in this new program enables graduates to become a valued and vital role in a veterinary practice, in addition to contributing to this multi-billion dollar industry.

## 2. Catalog Description

*Enter exactly as it will appear in the catalog, including program outcomes. The description must also*

- *Convey the certificate's goals(s) and objectives*
- *Provide an overview of the knowledge and skills that students who complete the requirements must demonstrate (student learning outcomes)*
- *List all prerequisite skills or enrollment limitations*
- *Mention any risks, such as occupations that are inherently competitive or low-salaried and/or occupational areas where inexperienced graduates are not generally hired.*
- *For CTE programs, the description must list the potential careers students may enter upon completion.*
- *Convey what the student may expect as an outcome*

*If applicable, reference accrediting and/or licensing standards. If there is a widely recognized certification provided by a professional association, specify whether the program will fully prepare completers for the recognized professional certification.*

This program will provide students with the quickly evolving technical skills of the veterinary industry. Training and skill development include; the study of anatomy and physiology, disease management and prevention, client communication, animal restraint and behavior recognition, equipment maintenance, pharmaceutical calculations and emergency procedures in animal medicine. After successful completion of the program, graduates will be able to enter the workforce as veterinary assistants, lab assistants, kennel assistants, diagnostic equipment assistants, office personal and Registered Veterinary Technician Exam applicants. Contact the division office in the Agriculture Building for advising assistance.

## 3. Program Requirements

*The program requirements must be consistent with the catalog description. The number of units, specific course requirements and the sequence of the courses must be coherent, complete and appropriate. Display the program requirements in a table format that includes all courses required for completion of the program (core requirements and required or restricted electives), subtotal of core units, and total program*

units. For each course, indicate the course department number, course title, and unit value.

### Display of Program Requirements

#### Agriculture Career Courses (Complete 4 units)

DEPT/NUMBER (CB01)	COURSE TITLE (CB02)	UNITS (CB06)	CSU-GE AREA	IGETC AREA	SEQUENCE
AG 115	Introduction to Agriculture Education and Careers	1			Yr 1 Fall
AG 249	Agriculture Internship	2			Anytime
AG 259A	Agriculture Work Experience	1			Anytime

#### Agriculture Science Breath Courses (Complete 9 units)

DEPT/NUMBER (CB01)	COURSE TITLE (CB02)	UNITS (CB06)	CSU-GE AREA	IGETC AREA	SEQUENCE
ANSC 200	Animal Science	3			Yr 1 Spring
PLSC 200	Introduction to Plant Science	3			Yr 1 Spring
NR 200	Soil Science	3			Yr 2 Fall
AGEC 210	Elements of Agriculture Economics	3			Yr 2 Spring
AGEC 225	Agriculture Computer Applications	3			Yr 1 Fall

#### Major Required Courses (Complete 8 Units)

DEPT/NUMBER (CB01)	COURSE TITLE (CB02)	UNITS (CB06)	CSU-GE AREA	IGETC AREA	SEQUENCE
ANSC 251	Veterinary Pharmacy Procedures	2			Yr 2 Fall
ANSC 252	Veterinary Equipment, Operation, Instrumentation & Safety	3			Yr 2 Spring
ANSC 253	Veterinary Laboratory Procedures	1			Yr 2 Fall
ANSC 254	Veterinary Office Procedures	2			Yr 1 Spring

In addition to the core courses, the student must take at least 9 units from the following courses:

#### Small Animal Science Option (Complete 9 Units)

DEPT/NUMBER (CB01)	COURSE TITLE (CB02)	UNITS (CB06)	CSU-GE AREA	IGETC AREA	SEQUENCE
ANSC 250	Veterinary Physiology, Anatomy & Terminology	3			Yr 1 Fall

ANSC 255	Veterinary Preparation for Surgical & Dental Assistance	3			Yr 2 Spring
ANSC 256	Veterinary Emergency Procedures	1			Yr 2 Fall
ANSC 257	Veterinary Animal Handling	2			Yr 2 Spring

### Large Animal Science Option (Complete 9 Units)

DEPT/NUMBER (CB01)	COURSE TITLE (CB02)	UNITS (CB06)	CSU-GE AREA	IGETC AREA	SEQUENCE
ANSC 270	Large Animal Physiology, Anatomy & Terminology	3			Yr 1 Fall
ANSC 271	Large Animal Veterinary Surgical and Dental Assistance	3			Yr 2 Spring
ANSC 272	Large Animal Emergency Procedures	1			Yr 2 Fall
ANSC 273	Veterinary Large Animal Handling	2			Yr 2 Spring
<b>TOTAL UNITS FOR MAJOR</b>		<b>30</b>			

### Display of Proposed Sequence

First Semester	Units
Ag 115	1
Ag 225	3
ANSC 250 or ANSC 270	3
Ag 259 A	1
<b>Total</b>	<b>8</b>

Second Semester	Units
ANSC 200	3
PLSC 200	3
ANSC 254	2
Ag 259 A	1
<b>Total</b>	<b>9</b>

Third Semester	Units
NR 200	3
ANSC 251	2
ANSC 253	1
ANSC 256 or ANSC 272	1
Ag 259 A	1
<b>Total</b>	<b>8</b>

Fourth Semester	Units
AGEC 210	3
ANSC 252	3
ANSC 255 or ANSC 271	3
ANSC 257 or ANSC 273	2
Ag 259 A	1
<b>Total</b>	<b>12</b>

## 4. Master Planning (Background and Rationale)

Given the stated goals and objectives, address the role the proposed program will fulfill in the college's mission and curriculum offerings. This discussion may include some history of the program proposal origins, a description of the program purpose, and/or the program's relevancy for the region and college.

The proposal must demonstrate a need for the program that meets the stated goals and objectives in the region the college proposes to serve with the certificate. A proposed new certificate must not cause undue competition with an existing program at another college.

If any expenditures for facilities, equipment or library and learning resources are planned, please explain the specific needs in this section.

If the program is to be offered in close cooperation with one or more specific employers, a discussion of the relationship must be provided.

The Modesto Junior College Agriculture Department has received several grants to assist in the development of the Veterinary Technician program. In collaboration with Valley Sierra Pathways Partnership, we have been able to maintain our classrooms, lab facilities and equipment to industry standards. Current grant funding is just under \$300,000. In addition to laboratory facilities and equipment, we have developed a Large Animal Pathway for the existing Certificate Program and incorporated those courses in this degree. Presently there are 247 declared veterinary technician students enrolled in the certificate program. We look for many of those students to continue on with their educational goals by completing the proposed degree. The goal is to graduate our first group of students in the spring of 2017 and continue to supply the industry with needed technicians for years to come.

## 5. Need for Program

### a. Enrollment and Completer Projections

The MJC Veterinary Technician Program presently projects 100 enrollees in its first year. Students enter the program to pursue various goals within the degree such as a program certificate that can be achieved during the educational degree process as well as individual skills based certificates for various topics. We anticipate the current program will achieve 15-20 completers range per year by its 2<sup>nd</sup> year and maintain this completion range rate through its fifth year of operation.

CB 01: COURSE DEPT/NO	CB 02: COURSE TITLE	Year 1		Year 2	
		SECTIONS OFFERED (ANNUAL)	ENROLLMENT TOTAL (ANNUAL)	SECTIONS OFFERED (ANNUAL)	ENROLLMENT TOTAL (ANNUAL)
ANSC 250/270	Anatomy & Physiology	3/0	90	3/1	90/30
ANSC 251	Pharmacy Procedures	2	80	3	120
ANSC 252	Equipment Operation Instrumentation & Safety	2	70	3	110

ANSC 253	Laboratory Procedures	2	70	3	110
ANSC 254	Medical Office Procedures	2	80	3	120
ANSC 255/271	Surgical & Dental Assistance	2/0	70	2/1	70/35
ANSC 256/272	Emergency Procedures	2/0	80	2/1	70/35
ANSC 257/273	Animal Handling	2/0	80	2/1	80/40

**b. Labor Market Information (LMI)**

*Summarize the Labor Market Information (LMI) and employment outlook (Including citation for the source of the data) for students exiting the program.*

*Enter table or chart as a separate attachment.*

See attached.

**c. Employer Survey (if applicable)**

*When strong LMI data is not available, an employer survey may be submitted. Provide a copy of the survey, including the number of those surveyed, number of responses, and a summary of the results. The survey must address the extent to which the proposed degree or certificate will be valued by employers.*

**6. Place of Program in Curriculum/Similar Programs**

*Review the college's existing program inventory, then address the following questions:*

- *Do any active inventory records need to be made inactive or changed in connection with the approval or the proposed program? If yes, please specify.*

- Does the program replace any existing program(s) on the college's inventory? Provide relevant details if this program is related to the termination or scaling down of another program(s).
- What related programs are offered by the college?

1. No. None of the existing inventory records within the college need to be changed or inactivated in connection with this program.
2. The program is supplemental to the existing certificate program but does not replace any existing AS programs at the college.
3. The Veterinary Technology program at MJC is closely associated with the Veterinary Technology Certificate Program. Building on the success of the curriculum and program as a whole over the last ten years, this degree will now allow students the option of continuing their studies in veterinary technology.

**7. Similar Programs at Other Colleges in Service Area**

List similar programs offered at other colleges within the Central/Mother Lode Region that may be adversely impacted. Enter 'none' if there are no similar programs.

College	Program
none	

**Supporting documentation required**

**Labor Market Information**

In a separate attachment, provide current Labor Market Information showing that jobs are available for program completers within the local service area. Statewide or national LMI may be included as supplementary support but evidence of need in the specific college service area or region is also necessary.





# Veterinary Technology Program Advisory Committee Meeting Minutes

*Nov. 20, 2015*

**Attending:** Dr. Pete Warner, Dr. Ryan Brenner, Dr. Suzanne Brenner, Dr. Sergio Iniguez, Dr. Jim Quinley, Dr. Frankie Bonafacio, Mrs. Monica Boehme, Mrs. Julie Haynes

- Discussed Spring 2015 Course Offerings
  - Expansion of sections and course offerings
  - Expansion of the student population (no decrease in course attendance)
  - Equipment needed to meet the demands of the expanding course load
    - Dr. Quinley mentioned the anesthesia machine needing to be updated, as well as the need for digital dental plates.
- California Career Pathways Grant discussion
  - Expansion of existing courses (ANSC 250, ANSC 255, ANSC 256, ANSC 257) to concentrate on the large animal aspects of those courses
  - Dr. Bonafacio spoke about the importance of those courses still meeting state RVT Exam qualifications.
    - Mrs. Monica Boehme moved to approve the course expansion process and implement the proposed courses (ANSC 270-273).
    - Dr. Pete Warner seconded the motion. The vote was unanimous.
  - Development of two Associates degrees related to Veterinary Technology
    - Mrs. Monica Boehme moved to approve the development of an Associate's Degree in Veterinary Technology as well as Veterinary Science.
    - Dr. Ryan Brenner seconded the motion. The vote was unanimous.
- California exam vs. National Exam
  - All committee members agreed to the importance of student knowledge and familiarity of the new regulations
  - Suggested to develop a "study guide" or a booklet with the regulations that are included in the California portion of the new exam requirements.
- Industry Needs
  - Dr. Bonafacio spoke to the need for more information from the program for the industry in order to keep people updated and keep interest in instruction high for the program.

- Dr. Iniguez spoke of the desire to have a building or area dedicated to veterinary technology. Maybe to tie into the upcoming grant with large animal facilities.
- Industry is interested in the program but does not feel informed
- Student Preparedness
  - Dr. Brenner – more time for lecture
  - Dr. Warner – more anatomy models – nephron, muscle function, plastic skeleton models
  - Dr. Quinley, Dr. Warner – projection quality in the classroom
  - Dr. Suzanne Brenner – Need x-ray grids
- Accreditation
  - All participants agreed it was worth looking into further but that the program was a good fit for the current local industry.

# Program Overview

Veterinary/Animal Health Technology/Technician and Veterinary Assistant in 16 Counties

EMSI Q3 2015 Data Set

November 2015

## Modesto Junior College



435 College Avenue  
Modesto, California 95350  
209.575.6550

# Parameters

## Programs

Code	Description
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant

## Regions

16 items selected. See Appendix A for details.

## Completions Year

2013

## Jobs Timeframe

2011 - 2015

## Datarun

2015.3 – QCEW Employees

# Program Summary for Veterinary/Animal Health Technology/Technician and Veterinary Assistant

11

Regional Institutions

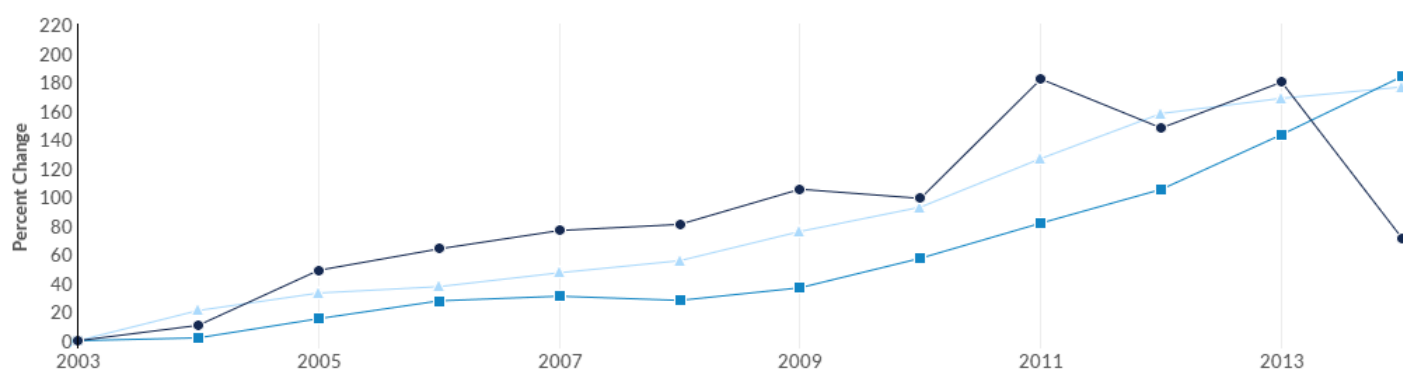
263

Regional Program Completions (2013)

291

Annual Openings (2013)

## Regional Trends



Region	2003 Completions	2013 Completions	% Change
● Region	94	263	179.8%
■ State	307	747	143.3%
▲ Nation	3,060	8,217	168.5%

## Regional Completions by Award Level



Award Level	Completions (2013)	Percent
● Award of less than 1 academic year	35	13.3%
● Award of at least 1 but less than 2 academic years	1	0.4%
● Associates degree	227	86.3%
Award of at least 2 but less than 4 academic years	0	0.0%
Bachelors degree	0	0.0%
Postbaccalaureate certificate	0	0.0%
Masters degree	0	0.0%
Post-masters certificate	0	0.0%
Doctors degree	0	0.0%

## Regional Completions by Institution

Institution	Certificates (2013)	Degrees (2013)	Total Completions (2013)
San Joaquin Valley College-Fresno	0	51	51
Carrington College-Stockton	0	49	49
Carrington College-Sacramento	0	47	47
Carrington College-Pleasant Hill	0	35	35
Santa Rosa Junior College	21	0	21
Carrington College-Citrus Heights	0	15	15
Cosumnes River College	1	14	15
Modesto Junior College	14	0	14
Yuba College	0	12	12
Shasta College	0	4	4
Mt. Diablo Adult Education-Mt. Diablo USD	0	0	0

## Similar Programs

**1**

Programs (2013)

**601**

Completions (2013)

CIP Code	Program	Completions (2013)
51.0000	Health Services/Allied Health/Health Sciences, General	601



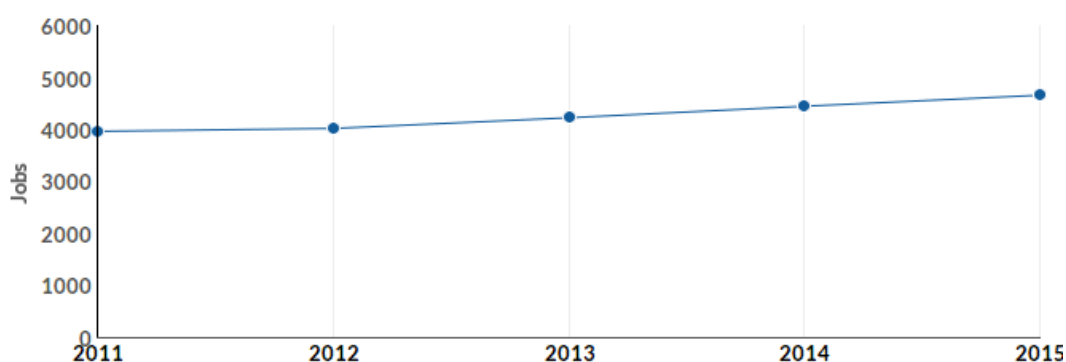
## Target Occupations

<b>4,665</b> Jobs (2015) 15% <b>above</b> National average	<b>+17.5%</b> % Change (2011-2015) Nation: <b>+14.1%</b>	<b>\$15.05/hr</b> Median Hourly Earnings Nation: \$13.43/hr
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Occupation	2011 Jobs	Annual Openings	Median Hourly Earnings	Growth (2011-2015)	Location Quotient (2011)
Veterinary Technologists and Technicians	2,045	152	\$16.74/hr	<b>+22.49%</b>	1.07
Veterinary Assistants and Laboratory Animal Caretakers	1,926	114	\$13.15/hr	<b>+12.15%</b>	1.25

## Growth

<b>3,971</b> 2011 Jobs	<b>4,665</b> 2015 Jobs	<b>694</b> Change (2011-2015)	<b>17.5%</b> % Change (2011-2015)
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Occupation	2011 Jobs	2015 Jobs	Change	% Change
Veterinary Technologists and Technicians (29-2056)	2,045	2,505	460	22%
Veterinary Assistants and Laboratory Animal Caretakers (31-9096)	1,926	2,160	234	12%

## Percentile Earnings

**\$12.26/hr**

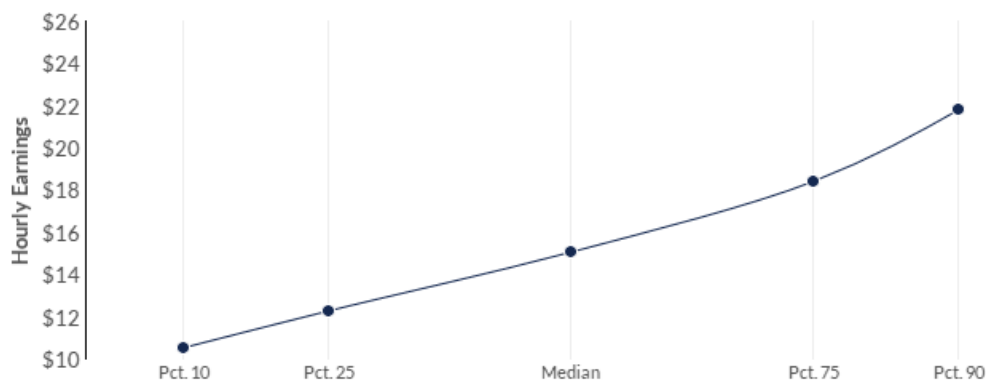
25th Percentile Earnings

**\$15.05/hr**

Median Earnings

**\$18.40/hr**

75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Veterinary Technologists and Technicians (29-2056)	\$13.40	\$16.74	\$20.68
Veterinary Assistants and Laboratory Animal Caretakers (31-9096)	\$10.98	\$13.15	\$15.83

# Appendix A - Regions

Code	Description
6009	Calaveras County, CA
6013	Contra Costa County, CA
6019	Fresno County, CA
6041	Marin County, CA
6067	Sacramento County, CA
6075	San Francisco County, CA
6077	San Joaquin County, CA
6089	Shasta County, CA
6095	Solano County, CA
6097	Sonoma County, CA
6099	Stanislaus County, CA
6103	Tehama County, CA
6105	Trinity County, CA
6109	Tuolumne County, CA
6111	Ventura County, CA
6115	Yuba County, CA

# Appendix B - Data Sources and Calculations

## Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

## Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

## Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

## Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

## State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department