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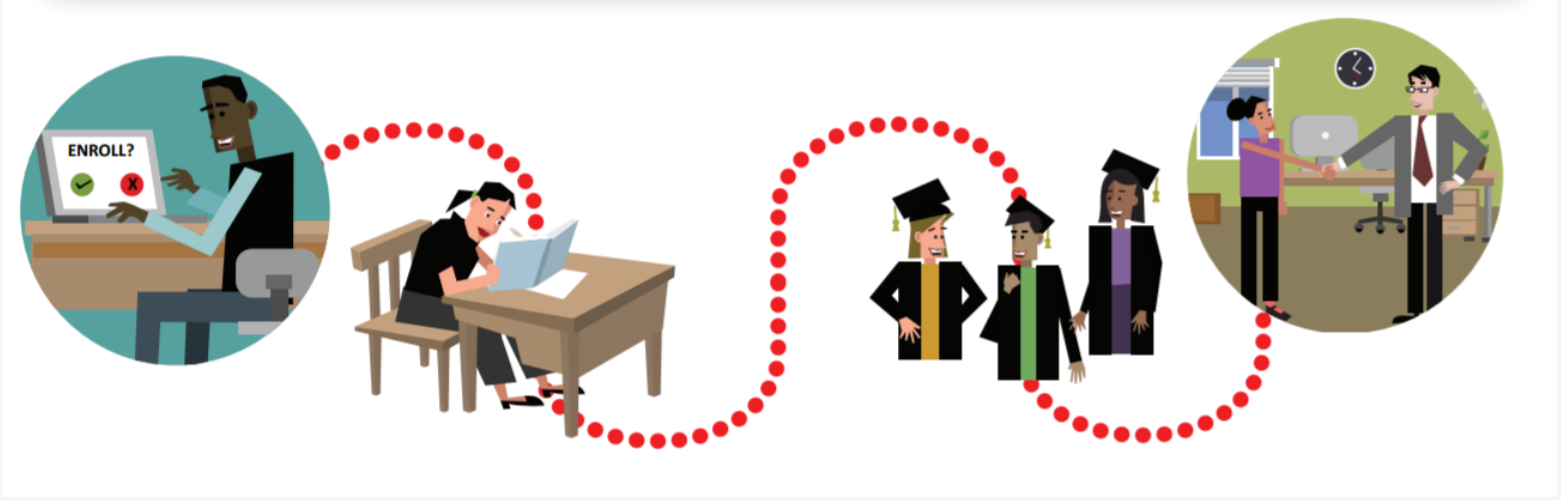
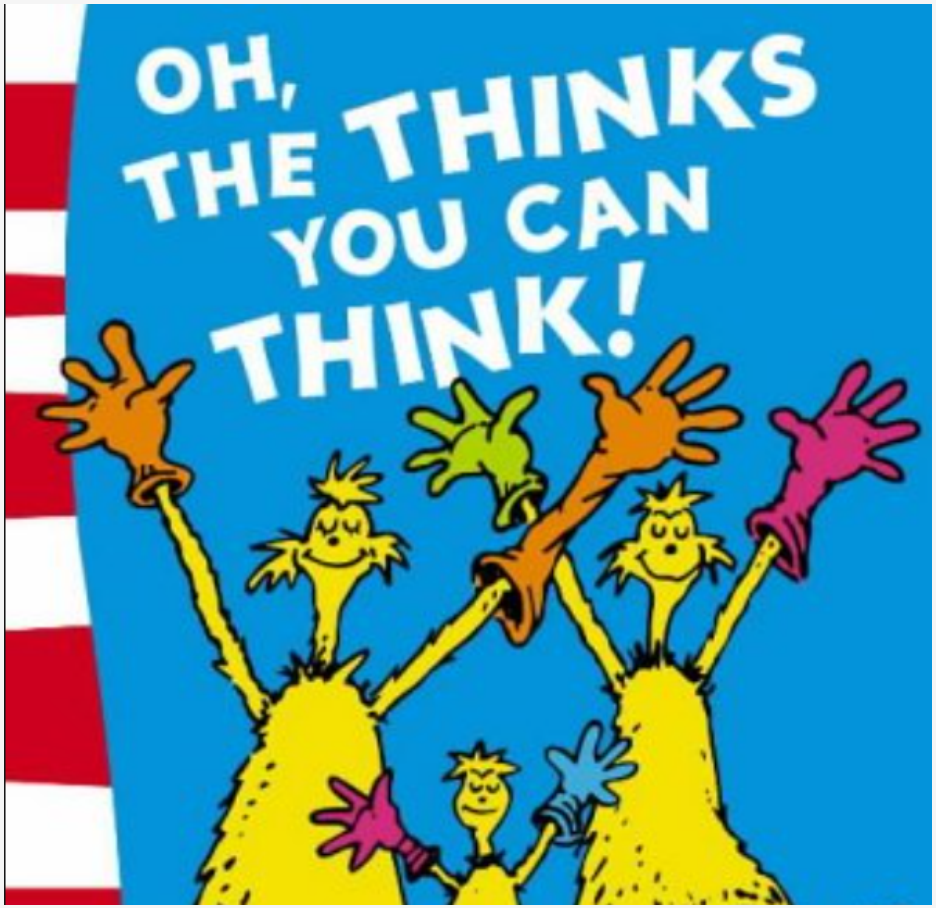
# P20W Data:
# Wage Outcomes in California


## Patrick Perry
## CIO, CalState System

# When you have a P20W data system…..



# California P-20W Data

- 4 siloed segmental education data sources: CDE (K-12), CCC, CSU, UC
- EDD wage data
- Coordinating board eliminated; no SLDS
- We still share data
- All segments have ed code access to EDD wage data

# Showing Workforce Outcomes for Higher Education

- CCC, CSU, UC have mandate to show basic median wage outcomes for graduates by program
- CCC is most advanced in its reporting/usage of this data, especially as used for CTE programs

# EDD Wage Match: Mechanics/ Methodology

- Match ALL students in system historically (SSN-based)
- Receive back quarterly wage records for time periods before-during-after college
- Aggregate to annual wages, index to CPI
- Show wages at various points before/after graduation for completers/non-transfers
- Must have enough n= to be valid!!

# EDD Wage Match: Mechanics/ Methodology

- CCC Salary Surfer: Median wages @ -2, +2, +5 yrs for programs at all campuses statewide
- CCC College Wage Tracker: Median wages @ +3 years for individual programs at campuses
- CSU: Labor Market Outcomes of CSU Grads, Analytic Studies, 2-12 yrs
- UC: UCOP Information Center, 10+ yrs
- CTE: LaunchBoard, 5 yr trend

## Salary Surfer

As students and their families make important decisions about inve
college education, the California Community Colleges Chancellor's
comparative information about the earnings of recent graduates w
area at California community colleges.

The Salary Surfer uses the aggregated earnings of graduates from
the potential wages to be earned two years and five years after re
disciplines. This tool also provides information on which colleges o
Salary Surfer does not contain information about wages earned by
four-year institution.

While it is useful to know the potential earnings after receiving a c
considerations, such as personal interest and skill, should be used

Information about the data and the methodology used to develop
documentation. Please contact us at salarysurfer@cccco.edu if you

Select a Program of Study
Agriculture and Natural Resources
Architecture and Related Technologies
Environmental Sciences and Technologies
Biological Science
Business and Management
Communications
Computer and Information Science
Education
Engineering and Industrial Technology
Fine and Applied Arts
Foreign Language
Health
Consumer Education and Home Economics
Law
Humanities (Letters)
Library Science
Mathematics
Military Studies
Physical Sciences
Psychology
Public Affairs and Services
Social Sciences
Commercial Services
Interdisciplinary Studies

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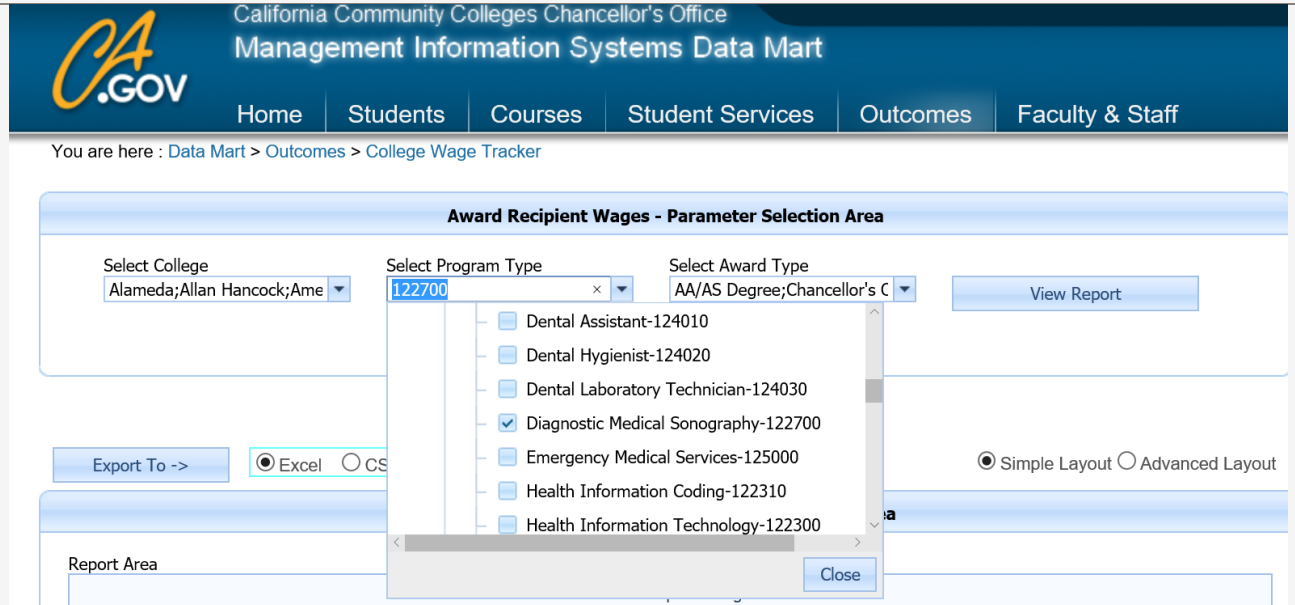
# Health

Instructional programs that study the theories and techniques for the restoration or preservation of mental and physical health through the use of drugs, surgical procedures, manipulations, or other curative or remedial methods.

| Curriculum | Award Type | Median Annual Salary | | |
|---|---|---|---|---|
| | | 2 Years Before | 2 Years After | 5 Years After |
| ⊞ Administrative Medical Assisting | Degree | N/A | $27,193 | N/A |
| ⊞ Administrative Medical Assisting | Certificate | $20,140 | $28,386 | $31,211 |
| ⊟ Cardiovascular Technician | Degree | $20,134 | $61,491 | $73,479 |

| College | Program Title | Program Type |
|---|---|---|
| Grossmont College | Cardiovascular Technology: Invasive | Degree |
| Grossmont College | Vascular Technology | Degree |
| Orange Coast College | Cardiovascular Tech: Echocardiography & Vascular Ultrasound | Degree |
| Orange Coast College | Cardiovascular Technology: Echocardiography & Vascular Ultrasound | Degree |

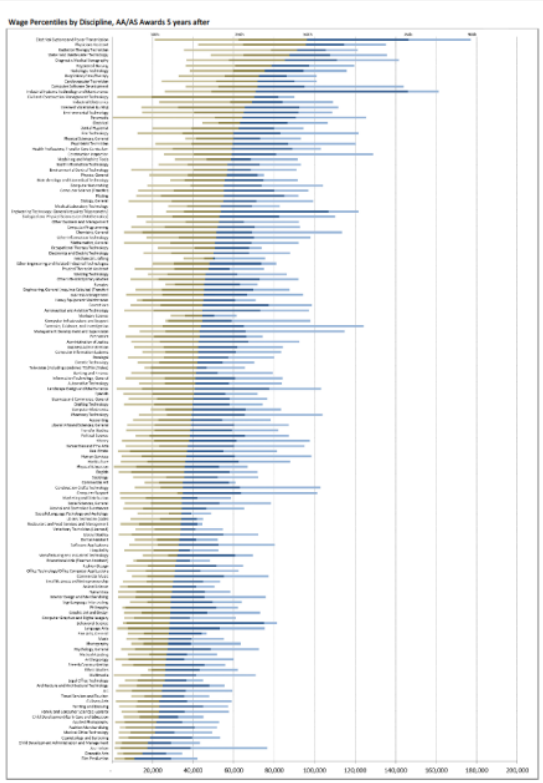
| | | | | |
|---|---|---|---|---|
| ⊞ Cardiovascular Technician | Certificate | $20,535 | $63,780 | $71,284 |
| ⊞ Clinical Medical Assisting | Degree | $8,126 | $26,667 | $23,506 |
| ⊞ Clinical Medical Assisting | Certificate | $13,485 | $27,717 | $32,992 |
| ⊞ Dental Assistant | Degree | $15,432 | $29,845 | $32,394 |
| ⊞ Dental Assistant | Certificate | $13,912 | $28,253 | $30,552 |
| ⊞ Dental Hygienist | Degree | $20,171 | $69,118 | $64,030 |
| ⊞ Dental Laboratory Technician | Certificate | $20,548 | $21,348 | $25,461 |
| ⊞ Diagnostic Medical Sonography | Degree | $28,366 | $78,218 | $82,611 |
| ⊞ Diagnostic Medical Sonography | Certificate | $35,009 | $69,418 | $80,791 |

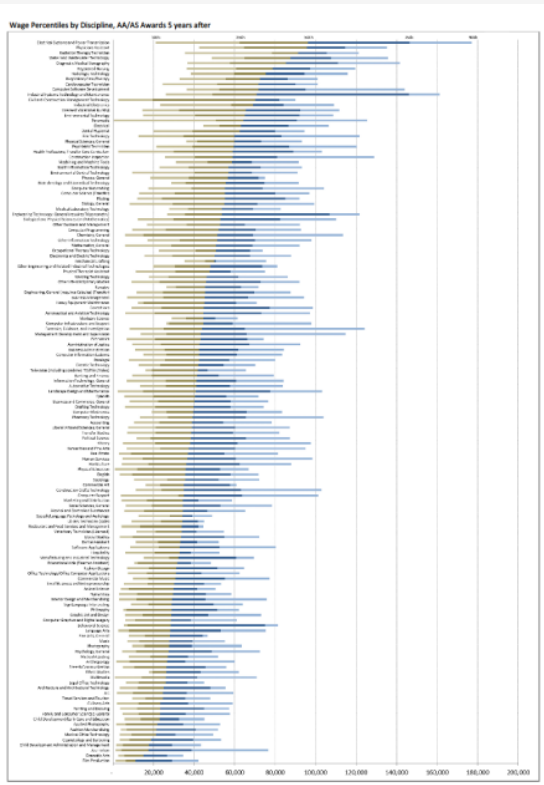



| | Award Year 2002-2003 - 2009-2010 | | |
|---|---|---|---|
| | Median Wage 3 Years After Award | Total Awards | Award to Wage Match Rate |
| Cypress | | | |
| Diagnostic Medical Sonography-122700 | | | |
| Chancellor's Office Approved Certificates Recipient | $75,872 | 69 | 87 % |
| Foothill | | | |
| Diagnostic Medical Sonography-122700 | | | |
| AA/AS Degree Recipient | $103,138 | 78 | 91 % |
| Chancellor's Office Approved Certificates Recipient | $89,729 | 40 | 98 % |
| Merced | | | |
| Diagnostic Medical Sonography-122700 | | | |
| Chancellor's Office Approved Certificates Recipient | $80,808 | 43 | 93 % |
| Orange Coast | | | |
| Diagnostic Medical Sonography-122700 | | | |
| AA/AS Degree Recipient | $66,624 | 60 | 93 % |
| Santa Barbara | | | |
| Diagnostic Medical Sonography-122700 | | | |

# Wage Profiles by Discipline: Quartiles vs. Median

- See “Wage Profiles by Discipline” AA/AS, Certificate



Dashboard Home

**Labor Market Outcomes**

- Labor Market Outcomes Home
- Bachelor's Degree Graduates
- CA Wage Earners
- Industry Concentration
- Earnings Over Time
- Earnings by Discipline

**Resources**

- Pre-Graduation Earnings
- About the Data
- List of Majors by Discipline
- Contact Us

# Labor Market Outcomes for Recent CSU Graduates

**Count of Bachelor's Degree Graduates**

View CSU bachelor's degree recipients across 20 different academic disciplines since 2000.

**Count and Proportion of Graduates Earning Wages in California**

Track CSU graduates who earned wages in California by academic discipline and years since graduation.

**Employment Concentration of Graduates by Industry**

View the percentage of graduates employed across major industries in California by discipline and years since graduation.

**Earnings by Years Since Graduation**

Compare 2014 mean and median earnings by years since graduation and academic discipline.

**Earnings by Academic Discipline**

Compare 2014 mean and median earnings across academic disciplines at each year since graduation

Reports on employment and earnings in 2014 are available for those earning CSU bachelor's degrees between July 2000 and June 2014. They illustrate the trajectory of earnings during the initial years after graduation from CSU and highlight variations by academic discipline. Their purpose is to provide students, parents, policymakers, and researchers with some basic facts to inform discussions on topics ranging from career choices to the potential return on investment for completing a college education.

Of course, choosing an academic major involves more than just evaluating job opportunities or starting salaries. Everyone involved in this decision process should be mindful of students' skills, talents, and interests, and personal values regarding meaningful work. Before committing to a major, students should consult with academic advisors, professors, fellow students, alumni, and family and friends.

## Key Findings

- Bachelor's degree graduates increased by 50% between the 2000-01 and 2013-14 degree years (from about 57,000 to 85,000), with the largest growth coming in STEM-related fields such as biological sciences, physical sciences, health, engineering, and mathematics.
- As expected, there is a strong, positive relationship between years since graduation and higher annual earnings across all academic majors.
- Another year removed from graduation is associated with about a 10% percent average increase in annual earnings.
- In 2014, median earnings 2 years following graduation was about $34,100; $64,200 was the median for graduates who attained their degrees 10 years earlier.

## IMPORTANT!

Due to the nature of the data source, labor market data **do not cover:**

- Those employed outside of California
- Self-employed workers
- Independent contractors
- Workers employed in informal settings
- Most federal government workers

More information on data and methods can be found on our About the Data page.

Nearly **one million** students graduated with bachelor's degrees between 2000 and 2014.

**74%** of recent CSU graduates were found to be earning wages in California in 2014.

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Labor Market Outcomes

## Earnings Over Time

Labor Market Outcomes Home

### *Earnings by Years Since Graduation*

Download Data

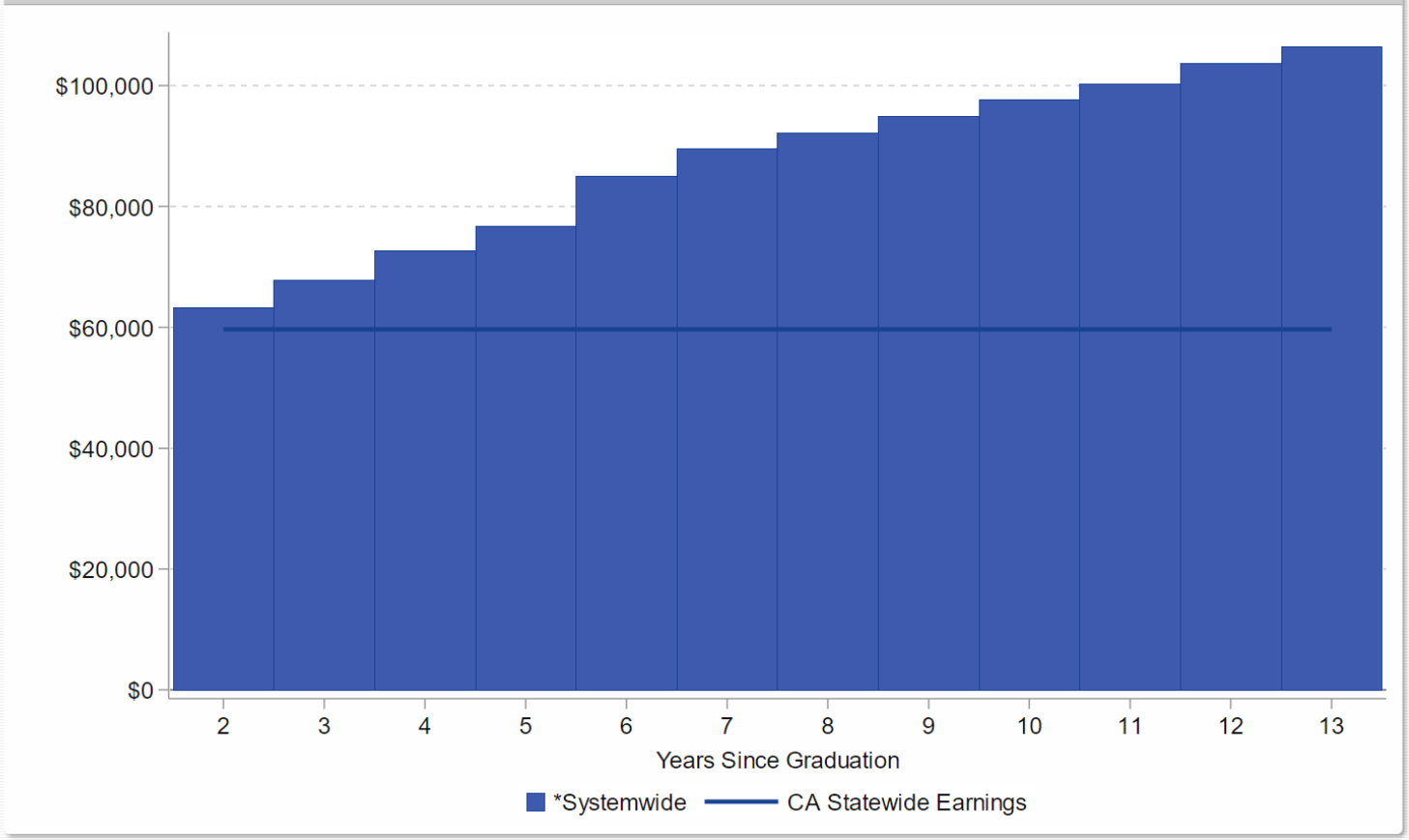
**Select a Discipline:**

Engineering

**Select Metric:**

Median (Current Dollars)

*2014 Annual Earnings of CSU Bachelor's Degree Graduates vs All California Wage Earners*

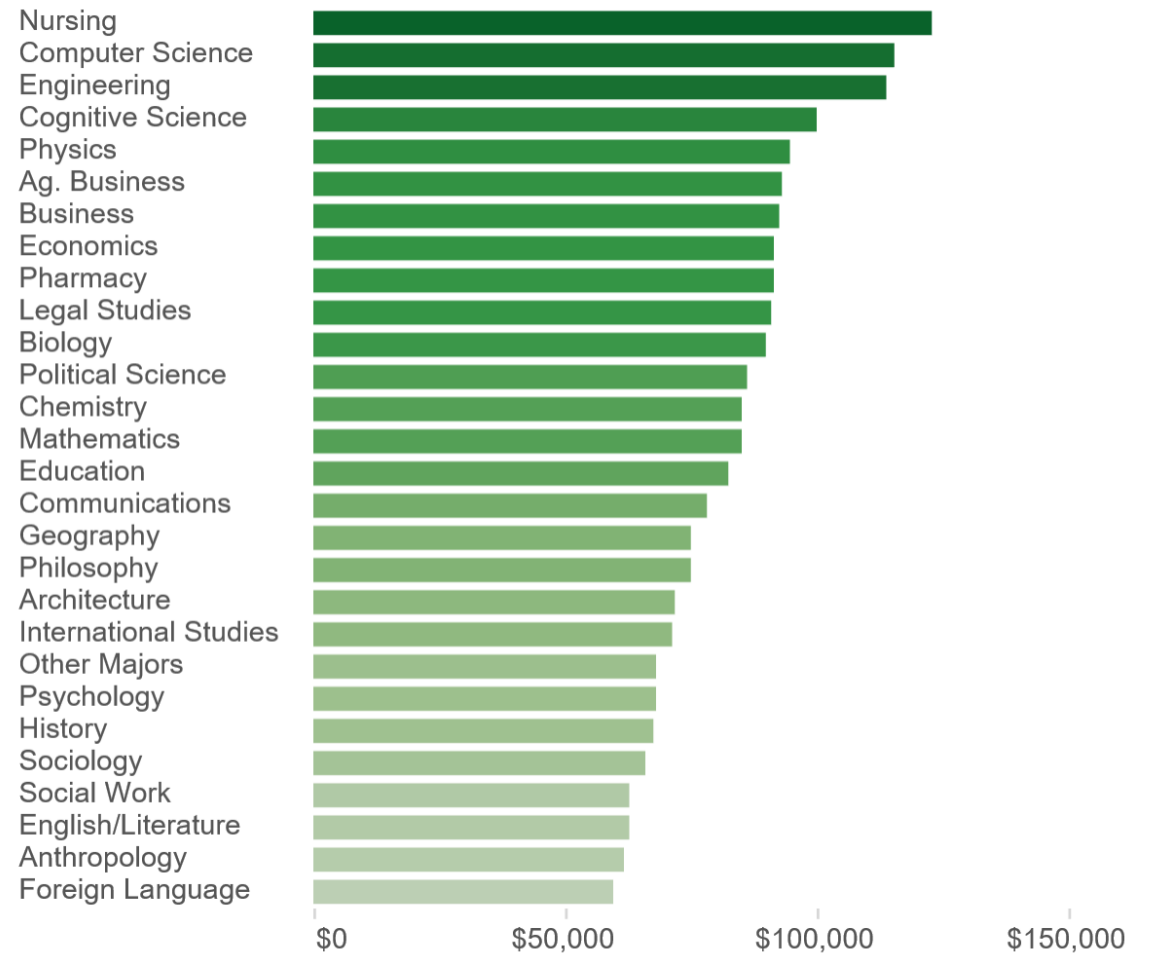


Years after graduation
2
Median (50th percentile) earnings 2 years after graduation. Click on a major to filter.
Nursing
Computer Science
Engineering
Ag. Business
Business
Economics
Physics
Mathematics
Cognitive Science
Architecture
Legal Studies
Chemistry
Communications
Political Science
Education
Geography
Public Health
International Studies
Biology
Pharmacy
Sociology
Other Majors
Psychology
English/Literature
History
Philosophy
Social Work
Foreign Language
Anthropology
$0
$50,000
$100,000
$150,000

Years after graduation

12

**Median (50th percentile) earnings 12 years after graduation. Click on a major to filter.**



# Value of the NAICS Code

- NAICS Code is in EDD wage record
- Shows the industry of the employer
  - But not the specific job of the employee

# 2012 NAICS Definition

T = Canadian, Mexican, and United States industries are comparable.

## Search results for: 62

Number of records found: 92

**62 Health Care and Social Assistance[T]**

**621 Ambulatory Health Care Services[T]**

**6211 Offices of Physicians[T]**

62111 Offices of Physicians[T]

621111 Offices of Physicians (except Mental Health Specialists)

621112 Offices of Physicians, Mental Health Specialists

**6212 Offices of Dentists[T]**

62121 Offices of Dentists[T]

621210 Offices of Dentists

**6213 Offices of Other Health Practitioners[T]**

62131 Offices of Chiropractors[T]

621310 Offices of Chiropractors

62132 Offices of Optometrists[T]

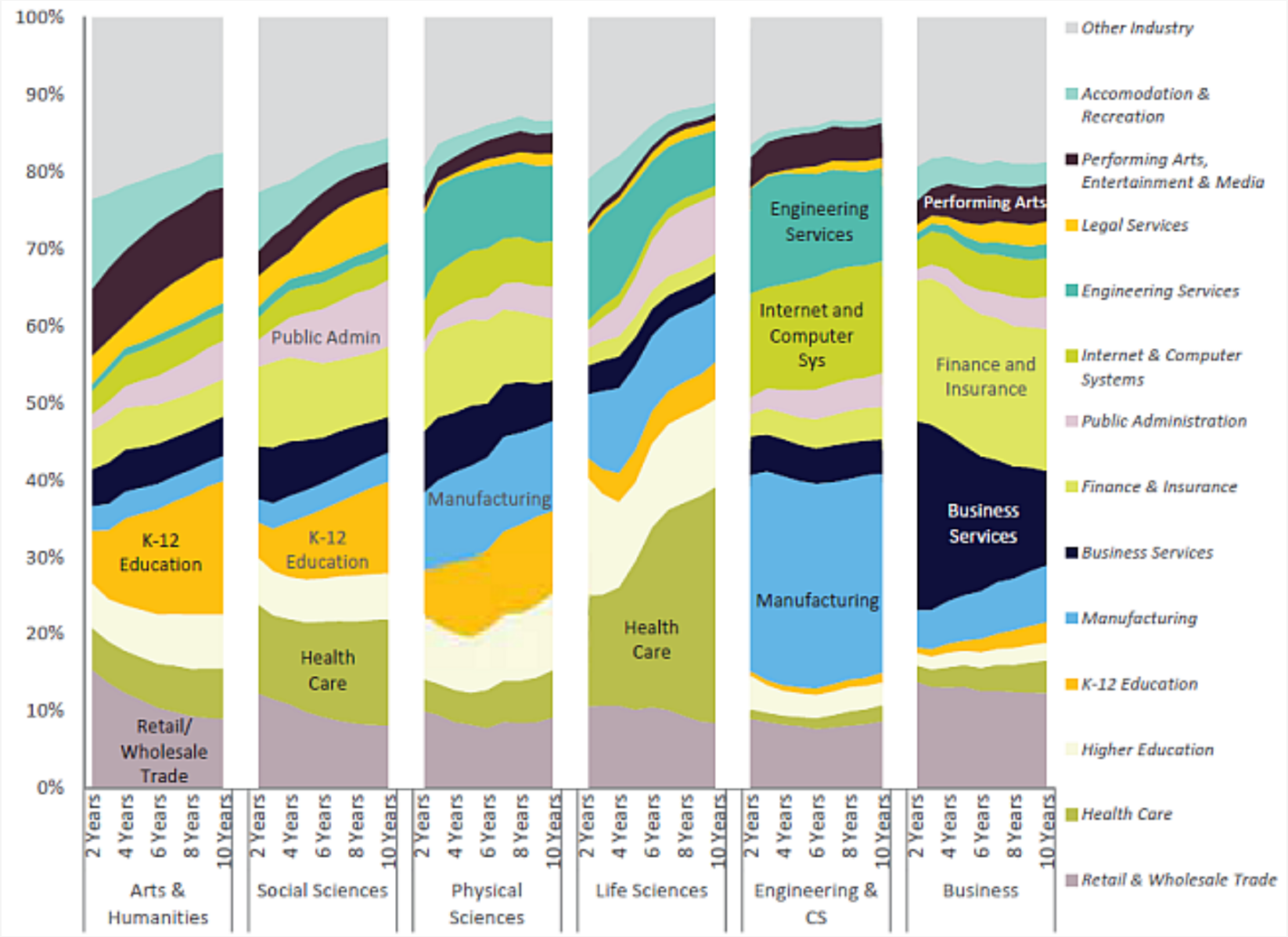
621320 Offices of Optometrists

# Associate Nursing Degrees: NAICS @ -2

| 2 Years Before | |
|---|---|
| Title | % Industry |
| General Medical and Surgical Hospitals | 23.8 |
| Offices of Physicians | 9.4 |
| Full-Service Restaurants | 5.8 |
| Employment Services | 4.8 |
| Nursing Care Facilities (Skilled Nursing Facilities) | 4.1 |
| Executive, Legislative, and Other General Government Support | 3.6 |
| Elementary and Secondary Schools | 2.7 |
| Limited-Service Eating Places | 2.0 |
| Clothing Stores | 2.0 |
| Colleges, Universities, and Professional Schools | 1.9 |
| Home Health Care Services | 1.7 |

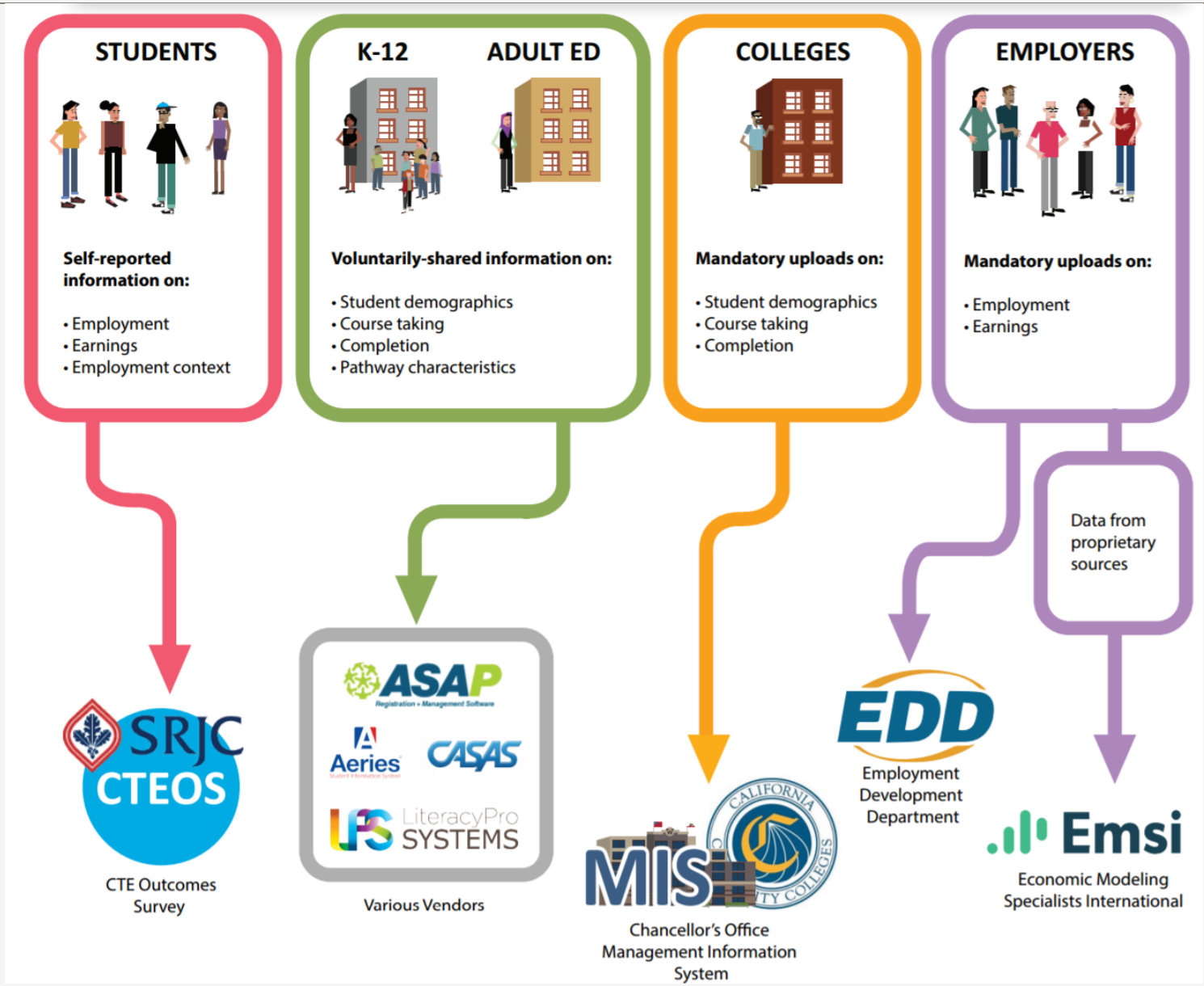
# Associate Nursing Degrees: NAICS @ +5

| 5 Years After | |
|---|---|
| Title | % Industry |
| General Medical and Surgical Hospitals | 55.8 |
| Offices of Physicians | 8.8 |
| Executive, Legislative, and Other General Government Support | 6.3 |
| Employment Services | 4.9 |
| Colleges, Universities, and Professional Schools | 4.4 |
| Home Health Care Services | 3.0 |
| Outpatient Care Centers | 2.5 |
| Psychiatric and Substance Abuse Hospitals | 2.3 |
| Nursing Care Facilities (Skilled Nursing Facilities) | 1.7 |
| Elementary and Secondary Schools | 1.2 |
| Other Investment Pools and Funds | 0.9 |


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2 Years
4 Years
6 Years
8 Years
10 Years
Arts & Humanities
Social Sciences
Physical Sciences
Life Sciences
Engineering & CS
Business
K-12 Education
Retail/ Wholesale Trade
Public Admin
Health Care
Manufacturing
Engineering Services
Internet and Computer Sys
Performing Arts
Finance and Insurance
Business Services
Other Industry
Accomodation & Recreation
Performing Arts, Entertainment & Media
Legal Services
Engineering Services
Internet & Computer Systems
Public Administration
Finance & Insurance
Business Services
Manufacturing
K-12 Education
Higher Education
Health Care
Retail & Wholesale Trade

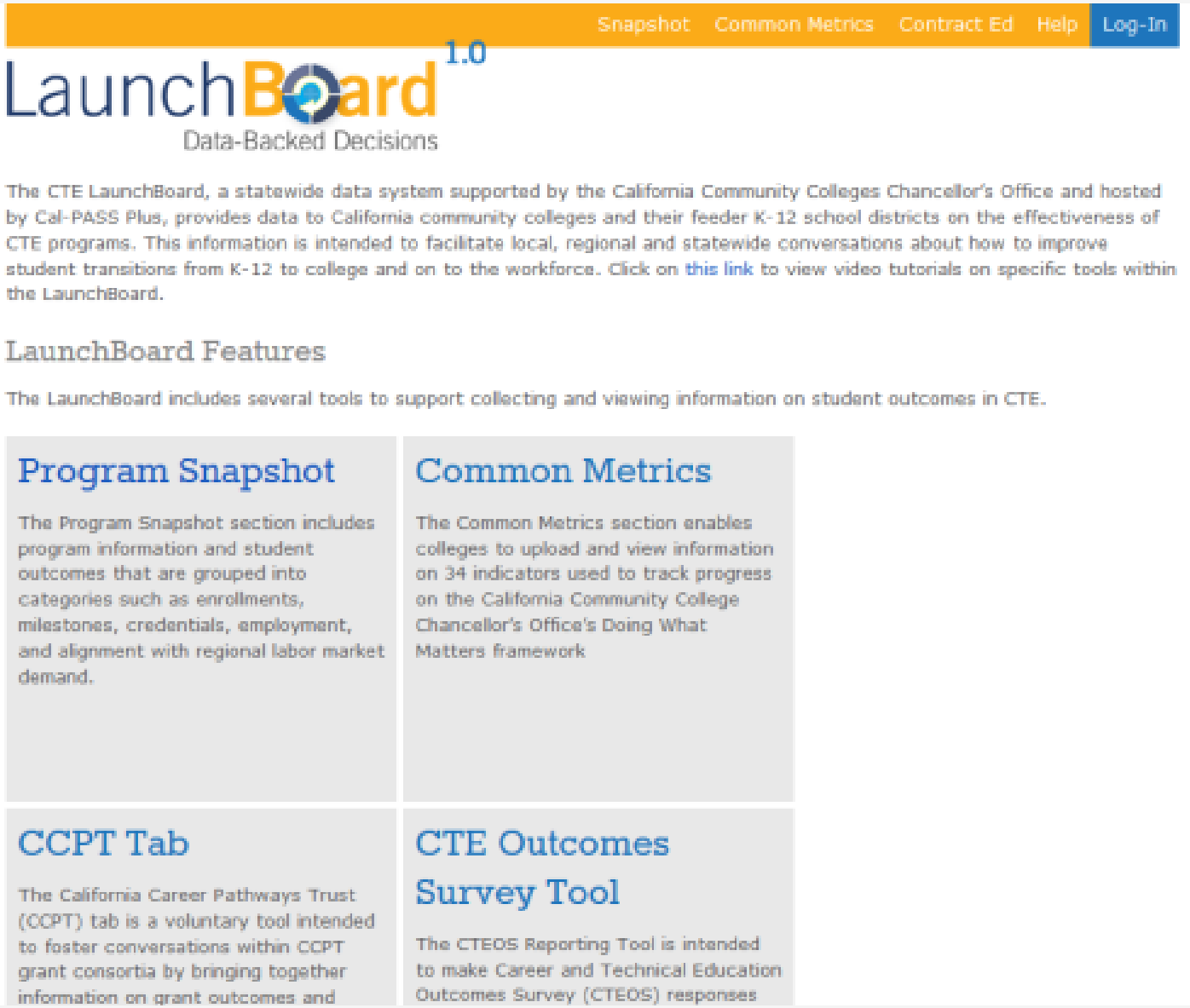
# CTE “Launch Board”

- The LaunchBoard is a tool that will help CTE practitioners in all 113 colleges make data-backed decisions
- The LaunchBoard can help colleges with tasks like accreditation, planning, and program review
- The LaunchBoard can support regional and statewide planning activities
- Views: Program, sector, college, region


STUDENTS
Self-reported information on:
• Employment
• Earnings
• Employment context
K-12
ADULT ED
Voluntarily-shared information on:
• Student demographics
• Course taking
• Completion
• Pathway characteristics
COLLEGES
Mandatory uploads on:
• Student demographics
• Course taking
• Completion
EMPLOYERS
Mandatory uploads on:
• Employment
• Earnings
Data from proprietary sources
SRJC CTEOS
CTE Outcomes Survey
ASAP
Aeries
CASAS
LPS LiteracyPro SYSTEMS
Various Vendors
MIS
Chancellor's Office Management Information System
EDD
Employment Development Department
Emsi
Economic Modeling Specialists International

# New Data: Third Party Credentials

- http://doingwhatmatters.cccco.edu/LaunchBoard/IndustryCredentialsSearch.aspx
- Industry certifications/credentials housed at National Student Clearinghouse, State Dep't of Consumer Affairs, Private Industry


Snapshot
Common Metrics
Contract Ed
Help
Log-In
LaunchBoard 1.0
Data-Backed Decisions
The CTE LaunchBoard, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data to California community colleges and their feeder K-12 school districts on the effectiveness of CTE programs. This information is intended to facilitate local, regional and statewide conversations about how to improve student transitions from K-12 to college and on to the workforce. Click on this link to view video tutorials on specific tools within the LaunchBoard.
LaunchBoard Features
The LaunchBoard includes several tools to support collecting and viewing information on student outcomes in CTE.
Program Snapshot
The Program Snapshot section includes program information and student outcomes that are grouped into categories such as enrollments, milestones, credentials, employment, and alignment with regional labor market demand.
Common Metrics
The Common Metrics section enables colleges to upload and view information on 34 indicators used to track progress on the California Community College Chancellor's Office's Doing What Matters framework
CCPT Tab
The California Career Pathways Trust (CCPT) tab is a voluntary tool intended to foster conversations within CCPT grant consortia by bringing together information on grant outcomes and
CTE Outcomes Survey Tool
The CTEOS Reporting Tool is intended to make Career and Technical Education Outcomes Survey (CTEOS) responses

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# Program Snapshot Reports

**Which programs would you like to view?**

College or Region: REGION - Orange County

Program or Sector: Biotechnology and Biomedical Technolo

Which academic year should be included in the report? 2014-2015

View

+*Find out more about the data in the LaunchBoard*

Give us your feedback

REGION - Orange County || Biotechnology and Biomedical Technology (043000) || 2014-2015 (Change Filter?)

- Where are students taking courses?
- Are we training the right number of students for available jobs?
- What kinds of students are taking courses?
- Are students progressing in the pathway?
- Are there equity gaps in student success?
- What types of awards are programs issuing?
- Are students getting jobs?
- How much money are students making?
- Are students making reasonable wages?
- Which colleges have the most effective programs?

College or Region: REGION - Orange County | Program or Sector: SECTOR - Life Sciences / Biotechnology | Comparison: Historic | Academic Year: 2014-2015 | View

Print/Export Report

Program Size | Student Characteristics | Milestones | Success | Employment | Regional Labor Market Information

***Total People Employed in the Region***

| | Current Year (2014) | 5 Years Ago (2009) | 5 Year Change (2009-2014) | 5 Year Trend |
|---|---|---|---|---|
| **2. Requires an Associate Degree** | | | | |
| Chemical Technicians (194031) | 538 | 528 | 11 | ↑ |
| Life, Physical, and Social Science Technicians, All Other (194099) | 878 | 758 | 121 | ↑ |
| Medical and Clinical Laboratory Technicians (292012) | 1,739 | 1,685 | 53 | ↑ |
| Medical Equipment Repairers (499062) | 466 | 432 | 34 | ↑ |
| **5. On-The-Job Training, No College Required** | | | | |
| Automotive Service Technicians and Mechanics (493023) | 6,467 | 6,078 | 389 | ↑ |
| Inspectors, Testers, Sorters, Samplers, and Weighers (519061) | 7,336 | 6,817 | 519 | ↑ |

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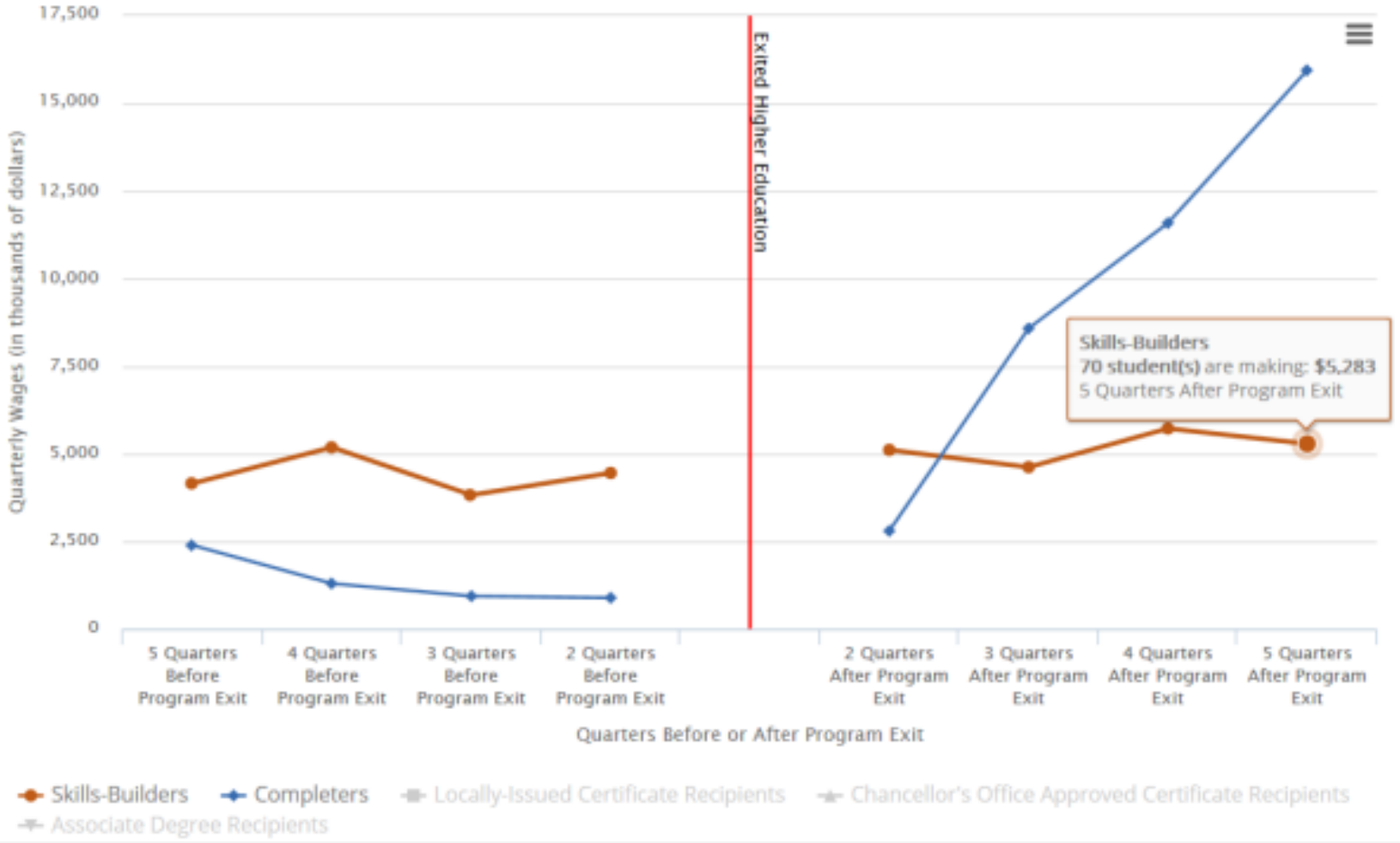
## How much money are students making?



# Community College "Skills Builders" (CTE noncompleters)

- The median percentage change in wages for students who completed higher level CTE coursework in 2012-2013 and left the system without receiving any type of traditional outcome such as transfer to a four year college or completion of a degree or certificate.

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# Median Earnings Change

+13.4%

N=83,002

| Disciplines with the highest enrollment | Median % Change | Total N |
|---|---|---|
| Administration of Justice | 7.7% | 9,299 |
| Child Development/Early Care and Education | 15.7% | 7,027 |
| Accounting | 20.8% | 6,788 |
| Police Academy | 7.8% | 6,258 |
| Office Technology/Office Computer Applications | 16.6% | 3,399 |
| Fire Technology | 12.5% | 3,307 |
| Business and Commerce, General | 25.4% | 2,951 |
| Emergency Medical Services | 30.0% | 2,871 |
| Business Management | 17.6% | 2,812 |
| Information Technology, General | 18.4% | 2,264 |

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# Median Earnings Change

+13.4%

N=83,002

| Gender | Median % Change | Total N |
|---|---|---|
| FEMALE | 13.4% | 36,578 |
| MALE | 13.5% | 45,560 |

| Age | Median % Change | Total N |
|---|---|---|
| Under 20 | 151.1% | 4,297 |
| 20-24 | 53.6% | 20,889 |
| 25-39 | 12.0% | 35,961 |
| 40 OR OVER | 2.6% | 21,833 |

| Ethnicity/Race | Median % Change | Total N |
|---|---|---|
| AFRICAN AMERICAN | 10.2% | 5,183 |
| AMERICAN INDIAN/ALASKA NATIVE | 10.9% | 495 |
| ASIAN | 19.5% | 7,613 |
| FILIPINO | 14.1% | 2,433 |
| HISPANIC | 16.2% | 26,794 |
| PACIFIC ISLANDER | 9.2% | 403 |
| WHITE | 11.5% | 33,401 |

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# Adult Education Tables

Which would you like to view?

| Institutions | Program Area | Comparison | Academic Year | | |
|---|---|---|---|---|---|
| North Orange Adult | All Programs | Historic | 2012-2013 | View | Export |

Program Size | Student Characteristics | Milestones | Transitions | Basic Skills | Awards | Employment

| | Selected Year | |
|---|---|---|
| Median Change in Earnings (All Exiters) | $1,997 | Trend |
| Median Change in Earnings (Attended Adult School Only) | $2,028 | Trend |
| Median Change in Earnings (Post-Secondary Credit Coursework) | $5,645 | Trend |
| Median Annual Earnings (All Exiters) | $20,248 | Trend |
| Median Annual Earnings (Attended Adult School Only) | $21,102 | Trend |
| Median Annual Earnings (Post-Secondary Credit Coursework) | $14,311 | Trend |

In order to protect the identity of individual students, asterisks are displayed when fewer than ten students are in the data set.

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