

# Information Communication Technologies (ICT) Inland Empire / Desert Region

Centers of Excellence for Labor Market Research

March 1, 2019



CALIFORNIA COMMUNITY COLLEGES  
**Doing What MATTERS™**  
FOR JOBS AND ECONOMY



**C·O·E**

CENTERS OF EXCELLENCE  
Inform Connect Advance

# About the Centers of Excellence (COE)

California Community Colleges need to ensure that CTE curriculum produces workers with the skills relevant to the regional and statewide economies.

The COE provide **quality labor market data and information** to help colleges respond to workforce needs.

Colleges use the data for:



Investing in new and relevant programs



Assessing labor market needs



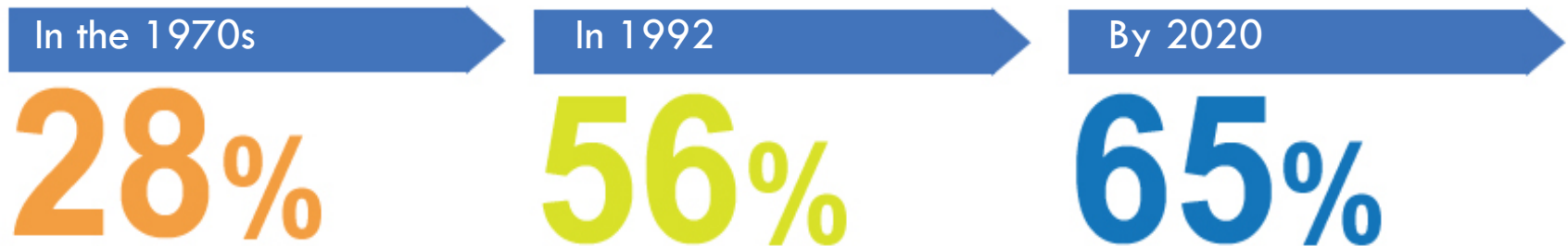
Reviewing existing programs



Pursuing grants

# Increasing Need for Postsecondary Education & Training

Percentage of Jobs Requiring More than a High School Diploma



California needs close to **one million more** associate degrees, certificates, or industry-valued credentials by 2025.

# Occupational Data

Current employment

Projected growth/decline

Annual openings

Entry-level wages

Occupational  
Demand

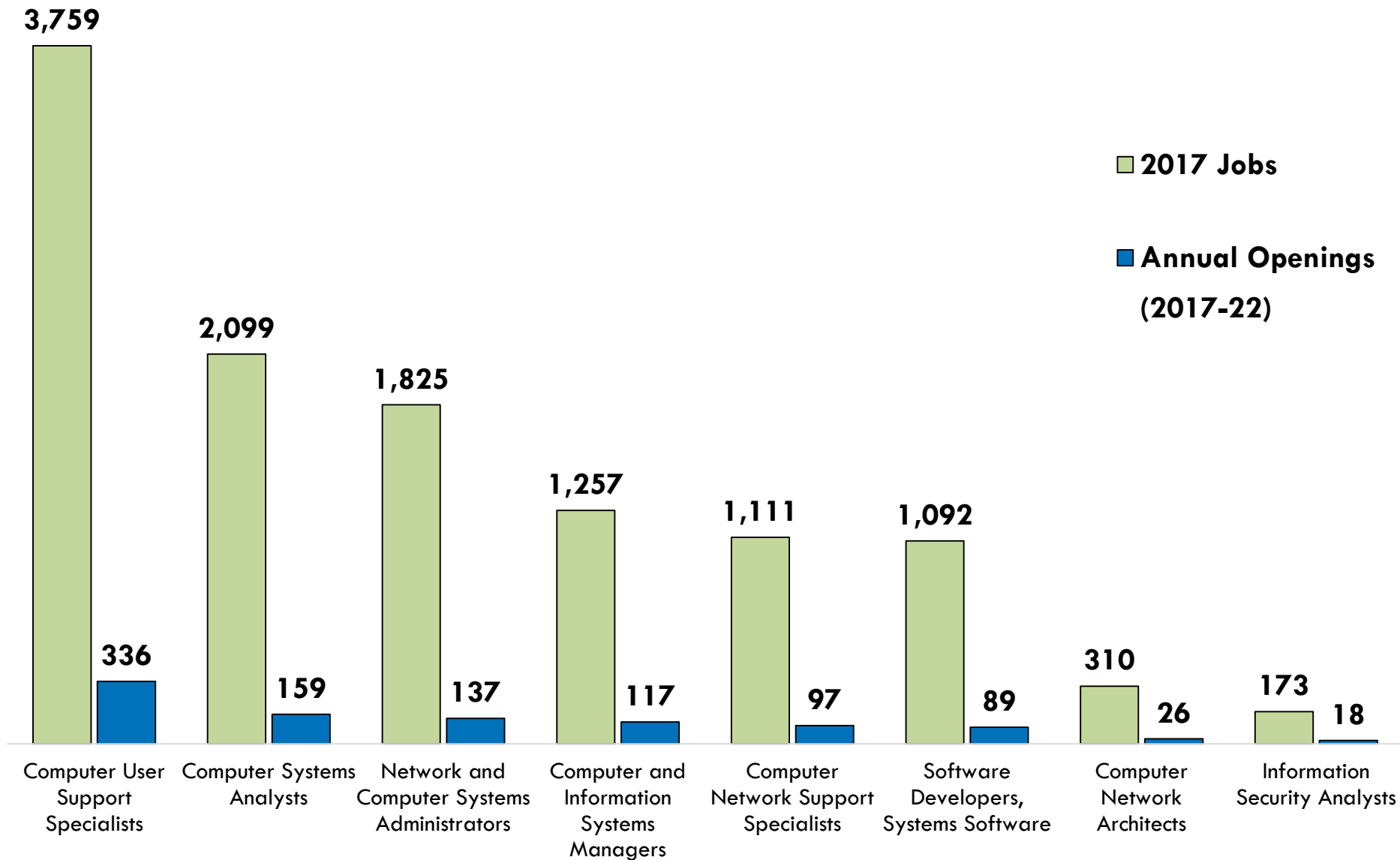
# ICT LMI: California, Inland Empire/Desert, LA

Region	2017 Jobs	% Change (2017-22)	Annual Openings (2017-22)*
California	388,512	32,937	33,414
Inland Empire/Desert	11,627	847	980
Los Angeles County	76,862	2,547	5,715

\*Annual openings = new jobs + replacements (retirements)



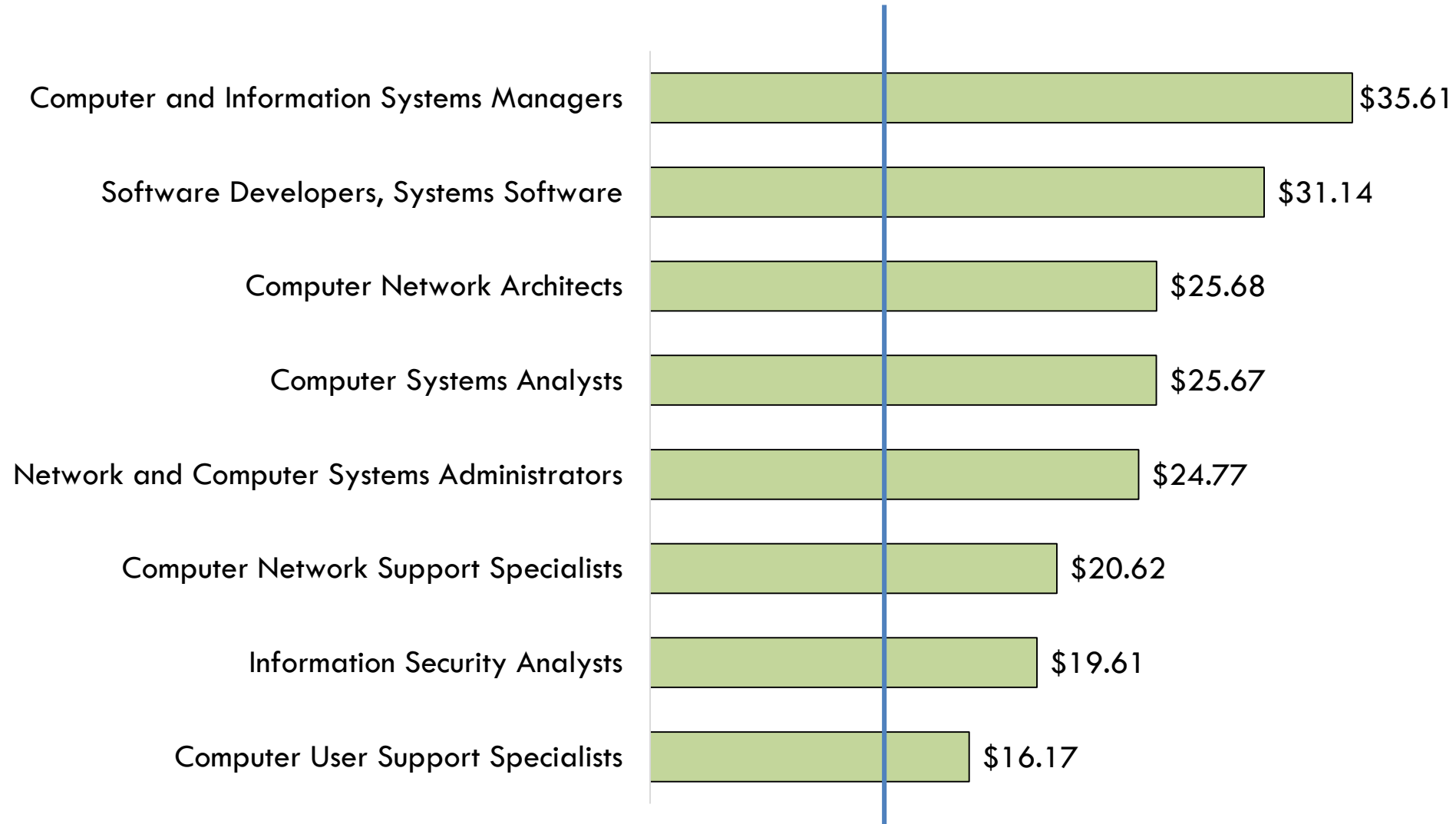
# Current Jobs and Future Need



# Entry-Level Earnings\*

\*Entry-level hourly earnings is 10<sup>th</sup> percentile wage

Living Wage: \$12.39



# Employer Job Postings (last 12 months)

Occupation	# of job postings (IE/Desert)	# of job postings (LA County)
Computer User Support Specialists	1,445	8,475
Computer Systems Analyst	794	5,132
Network and Computer Systems Admin.	518	3,557
Computer Network Architects	346	2,423
Information Security Analysts	311	3,399
Computer Network Support Specialists	94	530
Computer and Info. Systems Managers	79	871
Software Developers, Systems Software	29	365
<b>Total</b>	<b>3,616</b>	<b>24,752</b>



# Certifications and Skills

## Common Certifications:

- Cisco Certified Network Associate (CCNA)
- Certified A+ Technician
- Cisco Certified Network Professional (CCNP)
- IT Infrastructure Library (ITIL)
- CompTIA Security+
- CompTIA Network+
- Microsoft Certified Solutions Associate (MCSA)

## Required Skills:

- Microsoft Office
- SQL
- Systems Analysis
- Linux
- VMware
- Technical Support
- Customer Service
- Repair
- Information Systems
- Project Management
- Cisco

# Top Employers

Employer	# of Job Postings
Best Buy	150
Esri	61
Niagara Bottling LLC	38
Anthem Blue Cross	35

Employer	# of Job Postings
Kaiser Permanente	28
San Bernardino County	27
Riverside County	24
San Manuel Casino	23

## LA Employers

- Northrop Grumman
- Raytheon
- SMCI
- Deloitte
- IBM
- ManTech International
- Accenture
- City National Bank
- Boeing
- Aerospace Corp.

# CC Training Programs

Computer Information Systems

Information Technology, General

Computer Networking

Software Applications

Computer Programming

World Wide Web Administration

Computer Systems Analysis

Barstow | Chaffey | Cooper Mountain | Crafton Hills  
College of the Desert | Moreno Valley | Mt. San Jacinto | Norco  
Palo Verde | Riverside City | San Bernardino Valley | Victor Valley

# CYBERSECURITY: LABOR MARKET ANALYSIS AND STATEWIDE SURVEY RESULTS FROM CALIFORNIA EMPLOYERS AND POSTSECONDARY INSTITUTIONS



**June 2018**

Prepared by:  
The California Community Colleges  
Centers of Excellence for Labor Market Research



# EMPLOYER STUDY

The California Community Colleges Centers of Excellence for Labor Market Research (COE) conducted a workforce demand study of 385 cybersecurity employers in 2018. The following summary highlights the findings for the nine cybersecurity jobs included in the study.

## IT/IS Jobs Requiring Cybersecurity Skills

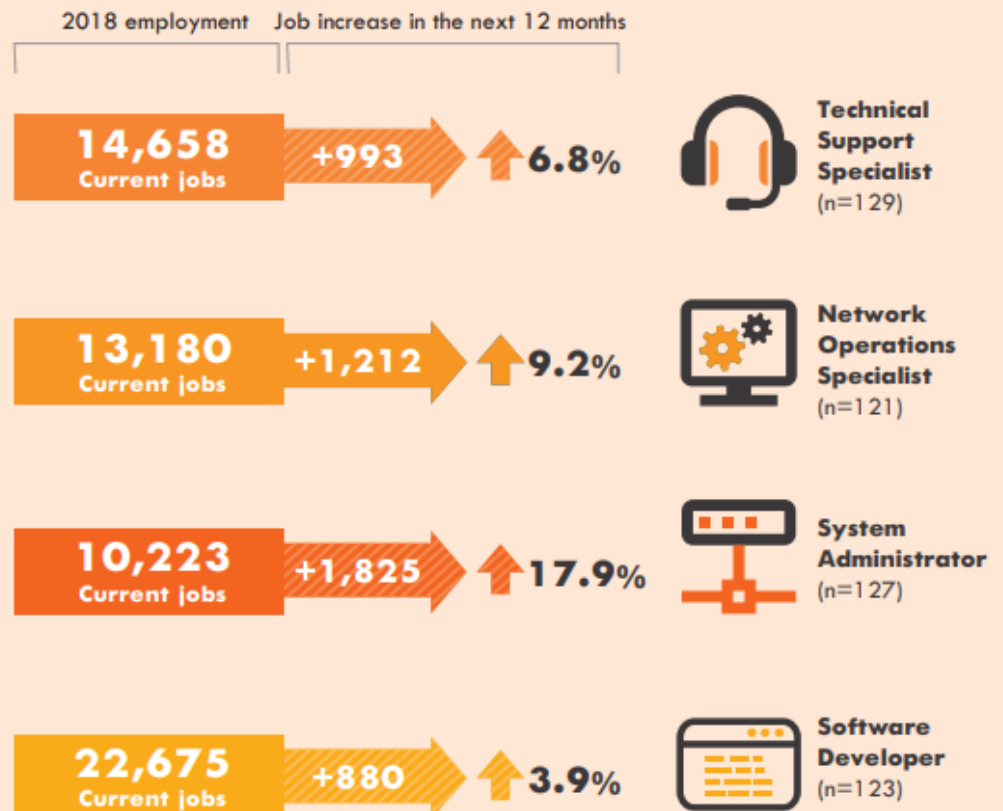
Employers plan to add more than

# 4,900

information technology/information systems (IT/IS) jobs requiring cybersecurity skills over the next 12 months

For each of the IT/IS work roles, the majority of employers said that employees spend **more than a quarter of their time** on security/cybersecurity issues.

**48%** of employers said there is a lack of qualified **software developer** candidates in general.



# EDUCATION STUDY

The COE analyzed cybersecurity-related educational programs in California to assess the state's capacity to meet employers' workforce demand. The study identifies three different levels of cybersecurity programs and responses from 61 educators.



**242**

**Accredited Postsecondary Institutions** offer cybersecurity programs in California



**1,177**

**Programs** related to cybersecurity at postsecondary institutions in California



## Cybersecurity Focused:

If both the classified instructional program (CIP) title and the description addressed cybersecurity, then a program was coded as "Cybersecurity Focused."

**3**

CIP titles met these criteria

In California there are:

**61**

programs

**813**

awards



## Includes Aspects of Cybersecurity:

If the CIP title was related to cybersecurity and the description included aspects of cybersecurity, such as "information security."

**11**

CIP titles met these criteria

In California there are:

**258**

programs

**2,410**

awards



## Likely Includes Cybersecurity:

If the CIP title is in a field known to include cybersecurity as an important topic, such as computer and information science, and computer engineering and technology, and the CIP description included knowledge that is impacted by cybersecurity, such as "database administration."

**20**

CIP titles met these criteria

In California there are:

**858**

programs

**12,507**

awards

The number of cybersecurity-related awards conferred increased **29%** between 2012 and 2016



# Thank You!

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