



INFORMATION AND COMMUNICATION TECHNOLOGIES

INDUSTRY OVERVIEW

Information and Communication Technologies (ICT) is the sector that develops products and services in telecommunications, video gaming, cybersecurity, data analytics and bioinformatics, with employers ranging from innovative startups to large global corporations. This sector includes a variety of jobs in computer programs, web interfacing, information processing and data storage.

Fields:

- Computer Programming
- Network and Support
- Multimedia and Design
- Analytics

FAST FACTS



13,375
Businesses



200,594
People employed



15,135
5-year job growth



13.7%
5-year job growth rate



\$80,563
Average annual salary

Source: NAICS 54: Professional, Scientific and Technical Services used because all jobs include ICT skills. EMSI. February 2017. Non-QCEW, QCEW, self-employed and extended proprietor employment data.

Top Five Occupations by Educational Attainment and Median Hourly Wages

HIGH SCHOOL DIPLOMA

- Office and Administrative Support Workers **\$12.38**
- Receptionists and information Clerks **\$14.88**
- Billing and Posting Clerks **\$17.60**
- Secretaries and Administrative Assistants **\$18.02**
- Executive Secretaries and Executive Administrative Assistants **\$27.34**

ASSOCIATE DEGREE

- Bookkeeping, Accounting and Auditing Clerks **\$19.84**
- Graphic Designers **\$20.64**
- Computer User Support Specialists **\$26.62**
- Web Developers **\$27.46**
- Computer Network Support Specialists **\$34.18**

BACHELOR'S DEGREE OR ABOVE

- Computer Systems Analysts **\$42.54**
- Information Security Analysts **\$46.32**
- Software Developers, Applications **\$48.53**
- Software Developers, Systems Software **\$54.98**
- Database Administrators **\$45.31**

KNOWLEDGE

- Computers and Electronics
- Telecommunications
- Administration and Management
- Education and Training

SKILLS

- Speaking
- Critical Thinking
- Reading Comprehension
- Active Listening
- Complex Problem-Solving

ABILITIES

- Problem Sensitivity
- Oral and Written Comprehension
- Deductive Reasoning
- Inductive Reasoning

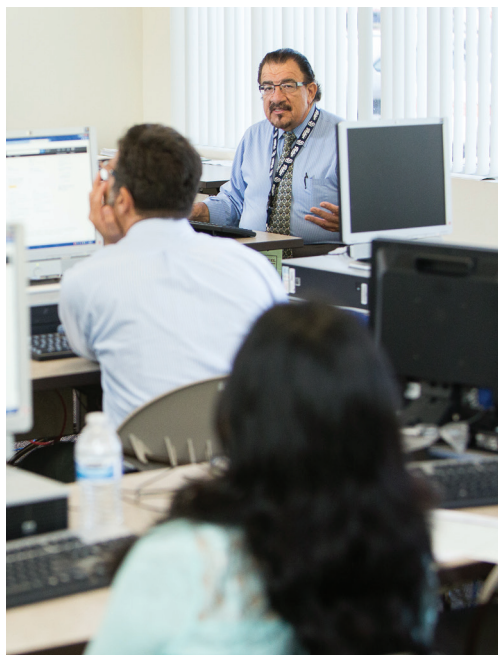
Learn more about Knowledge, Skills and Abilities at [ONETonline.org/search](https://www.onetonline.org/search)



Sample of Local Employers

COMPANY NAME	DESCRIPTION	NUMBER OF EMPLOYEES
Intuit Inc. Est. 1983	Develops software used for small business accounting (QuickBooks) and consumer tax preparation (TurboTax)	5,001 - 10,000
Viasat, Inc. Est. 1996	Provides internet service to customers by providing reliable communications ground systems and infrastructure	1,001 - 5,000
Teradata Operations, Inc. Est. 1979	Designs and delivers data storage systems that analyze information for businesses	10,000+
Cubic Corporation Est. 1951	Manufactures instrumentation systems for air and ground combat, global asset tracking and cyber security for defense markets	5,000 - 10,000
Qualcomm Inc. Est. 1985	Designs wireless communications equipment and semiconductor microchips	10,000+

Source: LinkedIn May 2017.



How do I start my career in Information and Communication Technology?

- **Learn to code** — Khan Academy (khanacademy.org) or W3Schools (w3schools.com/html)
- **Join a coding club** — Girls Who Code (sdfutures.org/girls-who-code-club-sdff), computer programming Meetup groups (meetup.com/topics/computer-programming/us/ca/san_diego)
- **Further your education and hands-on experience** — UCSD Extension courses or (extension.ucsd.edu/courses-and-programs/technology) bootcamp (codingbootcamp.extension.ucsd.edu)
- **Build your network** — Tech San Diego (techsandiego.org)
- **Connect with local community members** — San Diego Association of Information Technology Professionals (aitp.org/group/48), Technology Services Industry Association (tsia.com)

Learn more at workforce.org/mycareer