
Computer Support Specialists

Significant Points

- Job growth is projected to be faster than the average for all occupations.
- A bachelor's degree is required for some jobs, while an associate degree or certification is adequate for others.
- Job prospects should be good, especially for college graduates with relevant skills and experience.

Nature of the Work

Computer support specialists provide technical assistance, support, and advice to individuals and organizations that depend on information technology. They work within organizations that use computer systems, for computer hardware or software vendors, or for third-party organizations that provide support services on a contract basis, such as help-desk service firms. Support specialists are usually differentiated between technical support specialists and help-desk technicians.

Technical support specialists respond to inquiries from their organizations' computer users and may run automatic diagnostics programs to resolve problems. In addition, they may write training manuals and train computer users in the use of new computer hardware and software. These workers also oversee the daily performance of their company's computer systems, resolving technical problems with Local Area Networks (LAN), Wide Area Networks (WAN), and other systems.

Help-desk technicians respond to telephone calls and e-mail messages from customers looking for help with computer problems. In responding to these inquiries, help-desk technicians must listen carefully to the customer, ask questions to diagnose the nature of the problem, and then patiently walk the customer through the problem-solving steps. They also install, modify, clean, and repair computer hardware and software. Many computer support specialists start out at the help desk.

Help-desk technicians deal directly with customer issues, and their employers value them as a source of feedback on their products and services. They are consulted for information about what gives customers the most trouble, as well as other customer concerns.

Work environment. Computer support specialists normally work in well-lighted, comfortable offices or computer laboratories. Most work about 40 hours a week. Those who work for third-party support firms often are away from their offices, spending considerable time working at a client's location. As computer networks expand, more computer support specialists may be able to provide technical support from remote locations. This capability would reduce or eliminate travel to the customer's workplace, and may allow some support specialists to work from home.

Injuries in this occupation are uncommon, but like other workers who type on a keyboard for long periods, computer support specialists are susceptible to eyestrain, back discomfort, and hand and wrist problems such as carpal tunnel syndrome.

Training, Other Qualifications, and Advancement

A college degree is required for some computer support specialist positions, but an associate degree or certification may be sufficient for others. Strong problem-solving and communication skills are essential.

Education and training. Due to the wide range of skills required, there are many paths of entry to a job as a computer support specialist. Training requirements for computer support specialist positions vary, but many employers prefer to hire applicants with some formal college education. A bachelor's degree in computer science, computer engineering, or information systems is a prerequisite for some jobs; other jobs, however, may require only a computer-related associate degree. Some employers will hire applicants with a college degree in any field, as long as the applicant has the necessary technical skills. For some jobs, relevant computer experience and certifications may substitute for formal education.

Most support specialists receive on-the-job training after being hired. This training can last anywhere from 1 week to 1 year, but a common length is about 3 months. Many computer support specialists, in order to keep up with changes in technology, continue to receive training throughout their careers by attending professional training programs offered by employers, hardware and software vendors, colleges and universities, and private training institutions.

Certification and other qualifications. For some jobs, professional certification may qualify an applicant for employment. Certification can demonstrate proficiency in a product or process, and help applicants obtain some entry-level positions. Some hardware and software vendors require their computer support specialists to be certified, and many of these will fund this training after an applicant is hired. Voluntary certification programs are offered by a wide variety of organizations, including product vendors and training institutions, and are available across the Nation.

People interested in becoming a computer support specialist must have strong problem-solving, analytical, and communication skills because troubleshooting and helping others are vital parts of the job. The constant interaction with other computer personnel, customers, and employees requires computer



Employment of computer support specialists is expected to increase faster than the average.

Projections data from the National Employment Matrix

| Occupational Title | SOC Code | Employment, 2008 | Projected Employment, 2018 | Change, 2008-2018 | |
|------------------------------------|----------|------------------|----------------------------|-------------------|---------|
| | | | | Number | Percent |
| Computer support specialists | 15-1041 | 565,700 | 643,700 | 78,000 | 14 |

(NOTE) Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on *Occupational Information Included in the Handbook*.

support specialists to communicate effectively via e-mail, over the phone, or in person. Strong writing skills are useful in writing e-mail responses and preparing manuals for employees and customers.

Advancement. Entry-level computer support specialists generally work directly with customers or in-house users. They may advance into positions that handle products or problems with higher levels of technical complexity. Some may advance into management roles. Some computer support specialists may find opportunities in other occupations, such as computer programmers or software engineers, designing products rather than assisting users. Promotions depend heavily on job performance, but formal education and professional certification can improve advancement opportunities. Advancement opportunities in hardware and software companies can occur quickly, sometimes within months.

Employment

Computer support specialists held about 565,700 jobs in 2008. Although they worked in a wide range of industries, about 18 percent were employed in the computer systems design and related services industry. Substantial numbers of these workers were also employed in administrative and support services companies, financial institutions, insurance companies, government agencies, educational institutions, software publishers, telecommunications organizations, and healthcare organizations.

Job Outlook

Employment is expected to increase faster than the average. Job prospects should be good, especially for those with a college degree and relevant skills.

Employment change. Employment of computer support specialists is expected to increase by 14 percent from 2008 to 2018, which is faster than the average for all occupations. Demand for these workers will result as organizations and individuals continue to adopt the newest forms of technology. As technology becomes more complex and widespread, support specialists will be needed in greater numbers to resolve the technical problems that arise. Businesses, especially, will demand greater levels of support, as information technology has become essential in the business environment.

Job growth will be fastest in several industries that rely heavily on technology. These include the computer systems design and related services industry; the data processing, hosting and related services industry; the software publishing industry; and the management, scientific, and technical consulting industry. These industries will employ a growing number of support specialists as they utilize and provide an increasing array of IT services. Healthcare and related establishments, in addition, may see substantial growth as these organizations look to improve

their efficiency and patient care through the use of information systems and other technology.

Overall growth may be dampened, to a certain extent, as some jobs are outsourced to offshore locations. Advances in technology increasingly allow computer support specialists to provide assistance remotely. Some employers may seek to reduce expenses by hiring workers in areas that have lower prevailing wages.

Job prospects. Job prospects are expected to be good; those who possess a bachelor's degree, relevant technical and communication skills, and previous work experience should have even better opportunities than applicants with an associate degree or professional certification.

Earnings

Median annual wages of wage-and-salary computer support specialists were \$43,450 in May 2008. The middle 50 percent earned between \$33,680 and \$55,990. The lowest 10 percent earned less than \$26,580, and the highest 10 percent earned more than \$70,750. Median annual wages in the industries employing the largest numbers of computer support specialists in May 2008 were as follows:

| | |
|---|--------|
| Professional and commercial equipment and supplies merchant wholesalers | 48,580 |
| Management of companies and enterprises | 45,200 |
| Colleges, universities, and professional schools | 43,130 |
| Computer systems design and related services | 43,080 |
| Elementary and secondary schools | 40,550 |

Related Occupations

Other occupations that deal with technology or respond to customer inquiries include:

- Broadcast and sound engineering technicians and radio operators
- Computer and information systems managers
- Computer network, systems, and database administrators
- Computer software engineers and computer programmers
- Customer service representatives

Sources of Additional Information

For additional information about a career as a computer support specialist, contact:

- ▶ Association of Support Professionals, 122 Barnard Ave., Watertown, MA 02472. Internet: <http://asponline.com>
- ▶ HDI, 102 South Tejon, Suite 1200, Colorado Springs, CO, 80903. Internet: <http://www.thinkhdi.com>

For additional information about computer careers, contact:

➤ Association for Computing Machinery, 2 Penn Plaza, Suite 701, New York, NY 10121-0701. Internet: <http://computingcareers.acm.org>

➤ Institute of Electrical and Electronics Engineers Computer Society, Headquarters Office, 2001 L St. NW., Suite 700 Washington, DC 20036-4910. Internet: <http://www.computer.org>

➤ National Workforce Center for Emerging Technologies, 3000 Landerholm Circle SE., Bellevue, WA 98007. Internet: <http://www.nwcet.org>

➤ University of Washington Computer Science and Engineering Department, AC101 Paul G. Allen Center, Box 352350, 185 Stevens Way, Seattle, WA 98195-2350. Internet: <http://www.cs.washington.edu/WhyCSE>

➤ National Center for Women and Information Technology, University of Colorado, Campus Box 322 UCB, Boulder, CO 80309-0322. Internet: <http://www.ncwit.org>

The Occupational Information Network (O*NET) provides information on a wide range of occupational characteristics. Links to O*NET appear at the end of the Internet version of this occupational statement, accessible at <http://www.bls.gov/ooh/ocos306.htm>