

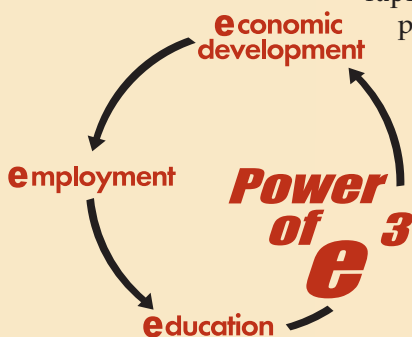


High Growth INDUSTRY PROFILE

I ndustry Snapshot

Growth Pattern

- Information Technology (IT) is the fastest growing sector in the economy with a 68% increase in output growth rate projected between 2002 and 2012. (U.S. Bureau of Labor Statistics)
- There were 10.3 million IT workers at the beginning of 2003, up 4.2% from the start of 2002. Comparing quarter to quarter, the economy added 86,406 IT workers in the first 3 months of 2003. (Information Technology Association of America)
- The IT industry is predicted to add 632,000 new jobs between 2002 and 2012, an increase of 18%. (U.S. Bureau of Labor Statistics)
- Seven of the 30 fastest growing occupations are expected to be IT-related, with a projected average employment growth rate of 43%. (U.S. Bureau of Labor Statistics)
- Employment opportunities are expected to be good in the IT industry as demand for computer-related occupations increases due to rapid advances in computer technology, continuing development of new computer applications, and the growing significance of information security. (U.S. Bureau of Labor Statistics)



Occupational Outlook

According to the Information Technology Association of America, 92% of all IT workers are in non-IT companies, 80% of which are in small companies. The following table shows projected growth in various IT occupations:

IT-Related Occupations	Number Employed 2002 (000's)	Number Employed 2012 (000's)	Numeric Change (000's)	Change %	2002 Median Annual Earnings	Postsecondary Education & Training
Network systems and data communications analysts	186	292	106	57.0%	\$58,420	Bachelor's degree
Computer software engineers, applications	394	573	179	45.5%	\$70,900	Bachelor's degree
Computer software engineers, systems software	281	409	128	45.5%	\$74,040	Bachelor's degree
Database administrators	110	159	49	44.2%	\$55,480	Bachelor's degree
Computer systems analysts	468	653	185	39.4%	\$62,890	Bachelor's degree
Network and computer systems administrators	251	345	94	37.4%	\$54,810	Bachelor's degree
Computer and information systems managers	284	387	103	36.1%	\$85,240	Degree plus work experience
Computer programmers	499	571	72	14.6%	\$60,290	Bachelor's degree
Computer support specialists	507	660	153	30.3%	\$39,100	Bachelor's degree

This is not a comprehensive list of occupations. Please refer to the U.S. Bureau of Labor Statistics Occupational Outlook Handbook at www.bls.gov/oco/oco1002.htm for more IT occupational data.

T types of Jobs Created

Part-time vs. Full-time:

- Of the 3,535,000 total workers employed in the information industry (a classification under which most IT workers can be categorized), 3,089,000 work full-time (87%), while 446,000 work part-time (13%). (*U.S. Bureau of Labor Statistics, 2003 Current Population Survey*)

Skill Sets:

(Source: U.S. Bureau of Labor Statistics)

- For all IT-related occupations, technical and professional certifications are growing more popular and increasingly important. As of August 2002, there were almost 100 vendors and organizations offering 670 separate IT certifications.
- IT workers must continually update and acquire new skills to remain qualified in this dynamic field. Completion of vocational training also is an asset. According to a May 2000 report by the Urban Institute, community colleges play a critical role in training new workers and in retraining both veteran workers and workers from other fields.
- Computer operators usually receive on-the-job training in order to become acquainted with their employer's equipment and routines but may need some postsecondary education. Some computer operator positions may require an Associate degree or even a Bachelor's degree. More commonly, however, a high school diploma, previous experience with an operating system, and familiarity with the latest technologies are the minimum requirements.
- People interested in becoming computer support specialists generally need only an Associate degree in a computer-related field, as well as significant hands-on experience with computers. They also must possess strong problem-solving and analytical skills as well as excellent communication skills because troubleshooting and helping others are such vital aspects of the job. And because there is constant interaction on the job with other computer personnel, customers, and employees, computer support specialists must be able to communicate effectively on paper, using e-mail, and in person. They also must possess strong writing skills when preparing manuals for employees and customers.

W workforce Issues

The overarching workforce issues are retention, recruitment, education, and training. The following workforce issues have been gathered by the United States Technology Administration:

- Because more than 90% of IT workers are performing jobs outside the IT industry, it is necessary for them to have both IT training and complementary training in their respective business sector such as health care, manufacturing, financial services, etc. The industry is also looking for well-developed soft skills and an "umbrella skill set" of basic, transferable IT skills. The IT industry relies on a group of training centers for IT skills, including private IT schools, vendor-authorized training providers, corporate universities, community colleges, and 4-year institutions.
- Because IT skill sets are so closely linked to constantly changing software and hardware technologies, the highly specialized and fragmented nature of IT labor demand makes it difficult to link IT education and training programs to employer needs. Specific technical skills often lose value over time, sometimes in as little as 2 to 3 years, so IT workers must acquire new skills frequently in order to maintain their labor market viability and upward mobility.

What is the High Growth Job Training Initiative?

The President's High Growth Job Training Initiative, as implemented by the U.S. Department of Labor's Employment and Training Administration, is designed to provide national leadership for a demand-driven workforce system that ensures no worker is left behind. It is a strategic effort to prepare workers to take advantage of new and increasing job opportunities in high growth/high demand and economically vital industries and sectors of the American economy. The initiative is designed to ensure that worker training and career development resources in the public workforce system are targeted to helping workers gain the skills and competencies they need to obtain jobs and build successful careers in these industries.

The foundation of this initiative is partnerships that include the public workforce system, business and industry, education and training providers, and economic development working together to develop solutions to the workforce challenges facing these industries and to develop maximum access for American workers to gain the competencies they need to get good jobs in these industries.

H

igh Growth Job Training Initiative

In its efforts to meet the workforce demands of the 21st century economy, the U.S. Department of Labor's Employment and Training Administration (ETA) is conducting forums with various targeted high growth industries.

The Executive Forums are opportunities for senior industry executives to communicate the critical workforce issues facing their industry.

Information Technology Industry Executive Forum

ETA convened an Information Technology Industry Executive Forum at CompTIA's headquarters in Oakbrook Terrace, Illinois, on February 26, 2004. The individuals attending the forum represented 18 organizations from sectors such as IT hardware, software, cross-industry end users, and service providers, including:

- Advizor Solutions, Inc.
- Arrow Electronics, Inc.
- Cisco Systems
- CMP Media Group
- CompTIA
- CompuCom Systems
- DHL Americas
- Discover Financial Services
- FastRoot, LLC
- Hewlett Packard Corporation
- IBM Corporation
- Illinois CIO Exchange (ICE)
- Lakeview Technology
- Microsoft Learning
- Motorola
- New Horizons Computer Learning Centers
- Tech Data Corporation
- Xerox Corporation

Background & Next Steps

ETA is addressing the workforce issues of the IT industry from a national perspective by conducting Executive Forums with different sectors of the IT industry to gather relevant information from informed groups in a disciplined manner.

These forums will provide ETA and the public workforce system with the opportunity to gain further under-

standing of the overall critical workforce needs of the industry. After meeting with industry leaders, ETA will develop and solidify strategic alliances with business, education, and workforce leaders who are proactively focused on the workforce issues confronting the IT industry and engage them in developing innovative approaches to address their needs.

ETA is partnering with employers and education providers to develop and model skills training solutions nationally that can be replicated and sustained throughout the state and local public workforce system. These approaches will help ensure that workers have the right skills for the right jobs at the right time.

The ETA In Action

Computing Technology Industry Association (CompTIA) National Information Technology Apprenticeship System (NITAS)

Challenge

IT remains a critical aspect of work in all industries and sectors, as well as an industry in its own right. However, America continues to suffer from a shortage of qualified IT workers with flexible and portable skills who can readily adapt and respond to ever-changing IT demands and processes.

Addressing the Challenge

ETA's \$2,818,795 grant to CompTIA is matched by \$3,795,072 in cash and in-kind support from CompTIA and its industry partners. CompTIA is using this funding to support the development and implementation of NITAS, a competency-based apprenticeship methodology that supports consistent and flexible credentialing for the career development and advancement of IT workers. The seven-track NITAS career matrix allows workers to progress through all or part of the apprenticeship program using a combination of classroom instruction and on-the-job training. Standardized, industry-recognized certifications are earned as each apprenticeship tier is completed, and the certifications, which assure worker quality and achievement, are transferable from employer to employer.

Sustainable Impact

NITAS provides the public workforce system with a demand-driven, comprehensive, flexible, and sustainable IT skills development model. This innovative apprenticeship model enables the public workforce system to build its capacity and better leverage its resources to meet the current and anticipated needs of IT employers, ensure a continuing pipeline of skilled IT workers, and contribute to community economic growth. NITAS' consistent focus on increasing the available pool of skilled IT workers and its simultaneous attention to retention and advancement of current IT workers demonstrates a continuous workforce planning strategy that ensures sustainability.

For the most up-to-date information on ETA investments in workforce solutions for the IT industry, go to www.doleta.gov.



Additional Resources

Online Tools

CareerOneStop
(www.CareerOneStop.org)

The CareerOneStop is a resource for businesses and job seekers. It contains links to America's Job Bank, America's Service Locator, and America's Career InfoNet.

www.careervoyages.gov
www.doleta.gov
www.doleta.gov/atels_bat
jobcorps.doleta.gov
www.onetcenter.org

Other Tools

Toll-Free Help Line
1-877-US2-JOBS (1-877-872-5627)
1-877-889-5627 (TTY)

The Toll-Free Help Line provides up-to-date information about the full range of workforce services for workers and businesses as well as answers to employment and training questions.

National Programs

Apprenticeship

There are currently 163 apprentices in 5 IT programs across the country, including Office Systems Technology, IT Generalist, and IT Technical Support Specialist.

Job Corps

Job Corps offers various IT-related programs, including Computer Support Specialist, Computer Service Technician, Computer Operator, Telecommunications, Network Cable Installer, and Information Technology Specialist, at 48 of its 118 centers. In Program Year 2002, Job Corps graduated 1,928 students from IT vocations.

Contact the BRG

For more information on the activities and services of the ETA's Business Relations Group (BRG), please contact:

U.S. Department of Labor
Employment and Training Administration
Business Relations Group
200 Constitution Avenue, NW
Room N-4643
Washington, DC 20210
(202) 693-3949
businessrelations@dol.gov