

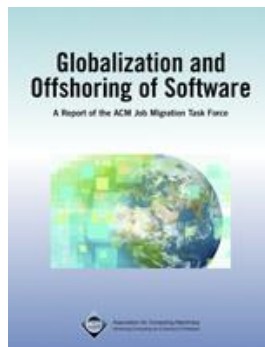
# Frequently Asked Questions

## 1. Didn't the opportunities in the field disappear when the dot-com bubble collapsed in 2000?

Not at all. Although there was a slight dip in Information Technology employment in 2001 and 2002, recent data show that this trend has reversed and that there are now more computing jobs than at any time in history. In addition, projections from the Bureau of Labor Statistics indicate strong growth over the next decade.

In fact, most analysts predict that the number of people trained for jobs in the computing industry will fall far short of the employment demand. An article in the July 24, 2006 issue of *Forbes* cites statistics indicating that "U.S. businesses will need 135,000 new computer professionals each year, but colleges and universities are graduating only about 49,000 computer science majors annually"—less than half then number needed. As a result of this shortfall, job prospects for graduates in the computing disciplines are expected to remain excellent throughout the next decade.

## 2. Aren't all high-tech jobs moving to India and China?

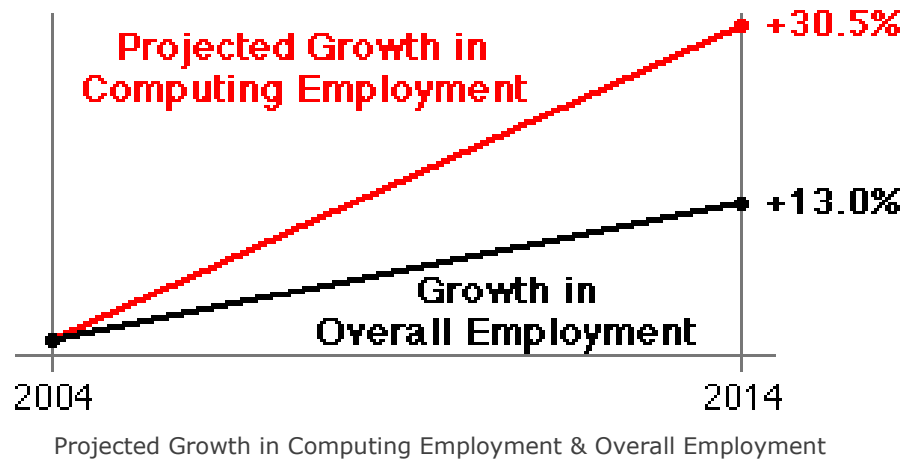


Globalization and Offshoring of Software  
A Report of the ACM Job Migration Task Force

This myth appears to be entirely without foundation. Because of the enormous demand for people with strong information technology and computing skills, the opportunities for software engineers and other information technology professionals are expanding in Asia, just as they are everywhere else. The available evidence shows that even though some jobs are being moved offshore, the number of new computing jobs created in the United States is substantially higher. A recent report by the Association for Computing Machinery offers extensive background data and analysis of the effect of offshoring in the software industry. In a March 1, 2006 editorial, the *New York Times* observed that the real threat to the U.S. computing industry is not offshoring but the fact that so few students are getting the necessary training in the field: "The industry isn't gone, but it will be if we don't start generating the necessary dynamic work force."

### 3. Won't salaries for computing professionals fall as companies turn to cheaper labor overseas?

According to a January 2006 article on CNN.com, salaries for computing professionals are rising extremely fast. Among the top-ten jobs with the fastest growing salaries, computing represents fully half the list:



Offshoring is unlikely to halt this growth for the simple reason that companies seek to maximize return rather than to minimize cost. Good software developers generate far more value for their companies than they cost, even at the high salaries that such positions command in the United States. The top software firms like Google and Microsoft will hire talented people wherever they can find them.

### 4. Aren't computing jobs solitary and boring?

<b>BEST JOBS IN AMERICA</b> MONEY Magazine and Salary.com rate careers on salary and job prospects.		<b>Money</b> salary.com™
<b>Software Engineer</b> Rank: 1 of 50		
<b>GRADES:</b>	<b>Stress: B / Flexibility: B / Creativity: A / Difficulty: C</b>	
<b>Average pay: \$80,427</b>		

Best Jobs In America  
Source: MONEY Magazine & Salary.com

Computing professionals hardly ever work alone. In today's world, building software requires the coordinated efforts of many people with a wide variety of skills. Designing a successful product requires effective communication not only among the members of the development team but also with the eventual users. Employers routinely cite good communication skills as an essential requirement for success in the field.

Software development is also a highly creative activity. There is very little that is mechanical about software development—if there were, those aspects of the discipline would have been automated years ago. Putting together a software system means thinking creatively about the design, finding clever solutions to problems, exploiting the best engineering practices, and maintaining a high-level vision of how all the parts fit together. Not everyone has the breadth of skills that lead to success in this field. If you are good at it, however, you will find it one of the most rewarding and challenging fields around.

According to the Bureau of Labor Statistics reports, despite a significant increase in offshoring over the past five years, more IT jobs are available today in the United States than at the height of the dot.com bubble and are expected to be among the fastest-growing occupations over the next decade. The United States creates and destroys millions of new jobs in response to changes in tastes, and, more importantly, in response to innovations and advances in technology.

While there is no way of ensuring lifetime IT employment, there are steps students and IT workers can take to improve their chances of long-term employment in IT occupations. These include obtaining a strong educational foundation, learning the technologies used in the global software industry, keeping skills up to date throughout one's career, developing good teamwork and communication skills, and becoming familiar with other cultures.

Globalization and offshoring in the software industry will continue; however, career opportunities in Information Technology are expected to remain strong in the United States as it participates in a more globally competitive market. For more information, visit <http://www.acm.org/globalizationreport> for a copy of the report of the ACM job migration task force.