

21st Century Digital Workforce Crisis - A Time for Action, The

The following is an executive summary of a paper issued by the National Policy Association's Digital Economic Opportunity Committee (DEOC) and is extracted from the Eric Digest web site.

America has a workforce crisis. It has a sufficient supply of workers, but they lack adequate 21st Century IT skills needed to fuel the information age economy. Importing foreign workers to address the IT worker shortage is a stopgap measure, made less desirable by the September 11, 2001 terrorist attacks and the economic slowdown, particularly in the IT sector. The U.S. must look to its own human capital to fill its IT worker needs. It must confront the fact that there is an IT skills gap for the current workforce, which includes older workers as well as teens and 20-year-olds. Unless the country acts now to fill this gap, its competitiveness may be threatened.

Not only is this a crisis now, but it also will remain one for the foreseeable future. The U.S. Department of Labor's Bureau of Labor Statistics (BLS) Employment Outlook, 2000-2010 reports that the seven fastestgrowing occupations are computer-related; moreover, through 2010, the demand for computer specialists is projected to grow 68.6 percent and for computer and information systems managers, 47.9 percent. During this time, BLS further projects that computer technology will reduce the demand for typists, tellers, loan interviewers and clerks, secretaries, and other office and administrative support occupations. Without IT training, workers in these increasingly obsolete jobs will be inadequately prepared for new careers and unable to help fill the projected need for new IT workers.

This crisis goes beyond the IT sector because virtually all jobs in the information age economy require some level of IT skills. One segment of the workforce needs general IT skills to perform basic computer functions, such as using the Internet, spreadsheets, and word processing. Another segment of the IT workforce performs technical and professional IT work. It designs, produces, and maintains the technology products and requires higher levels of IT skills.

If current and prospective workers lack the opportunity to gain needed IT skills, then the country as a whole stands to lose its competitive edge. By not addressing this IT skills crisis:

- * Businesses will be less able to hire sufficient numbers of skilled workers at the wage levels needed to be productive and competitive. Although companies can compensate for this IT skills gap in a growing economy through higher productivity, such a solution cannot be sustained in the long run.
- * Schools at all levels will be less able to hire enough instructors with the IT skills that are needed to train the workers of today and those of tomorrow.
- * Government will be less able to hire enough skilled IT workers to carry out the increasingly ITdependent functions of providing for the health, welfare, and protection of the country.
- * Workers will have fewer opportunities to obtain good jobs, better pay and benefits, and a better quality of life.

Taking action to close the IT skills gap in the current and future workforce is a critical challenge for business, labor, education, government, and the nonprofit sector that requires urgent attention by all stakeholders.

This summary sets out the DEOC's recommendations for increasing the number of U.S. workers with IT skills. The committee is recommending ways to: 1) improve and expand the training of current and prospective IT workers and help them gain experience in applying the technical skills they have acquired through training, and 2) enlarge the pool of skilled IT workers by reaching out to underserved populations not traditionally found in the IT workforce and helping them overcome barriers to IT jobs.

Summary of DEOC Findings and Recommendations

The DEOC's recommendations follow. They address the four most critical areas of IT workforce development needed to build a digital workforce that will fuel a more productive and efficient U.S. economy.

Create lifelong IT learning systems for workers.

America lacks adequate lifelong learning systems that meet the IT workforce development needs of today's workers. The overarching recommendation of the DEOC is that government and the private sector, in partnership, create permanent lifelong adult IT training and education systems. These systems need to meet the IT skills training requirements in all sectors of society so that workers have the opportunity to learn and enhance their skills throughout their careers. Such systems also need to address basic literacy and soft skills, such as team building, problem solving, and leadership, that virtually all workers require.

This is a long-term action program that will require federal and state government commitment comparable to the 1862 legislation to establish land grant colleges through the Morrill Act and the 1944 legislation to educate returning soldiers through the GI Bill. The Morrill Act provided a financial basis for today's vast state college system by dedicating revenue from the sale of federally owned land. So too could the revenue that the federal government expects from the sale of spectrum space (broadcast frequencies) be used to support institutions providing adult continuing education and worker training, with emphasis on IT skills. It is in the public interest to have a national technology education initiative. The existing system of community colleges should become a major delivery vehicle for lifelong IT learning systems.

Improve existing IT instruction

Clearly, there are significant problems with how, and to what extent, IT is taught. Government and educational institutions should fund and support programs and strategies to upgrade teacher skills in IT at all academic levels so that teachers are adept in using the new technologies. Educational institutions should also work to attract IT teachers and instructors at all academic levels, retain them, and maintain their skills.

Increase worker IT training resources

Employers and workers must recognize the need in today's world for workers to continually learn and update skills during their careers. Employers should support worker efforts to do so. Employers, public and private, in concert with unions, community groups, and government, should expand resources and opportunities for employee IT training. The federal government should continue the Training Grant Program to support IT training.

Enlarge the pool of IT workers

There are potential workers in many sectors of society who lack needed IT skills and who are underrepresented in the IT workforce but could enter the IT field with appropriate training. These include underrepresented populations of older workers, persons with disabilities, minorities, Native Americans, women, non-IT-degreed college graduates with basic IT skills, and persons living in low income inner city and rural communities. Many face barriers to acquiring the skills they need. Businesses, with help from other stakeholders, should tap into these nontraditional labor pools and help candidates overcome the barriers to IT job entry.

For the full text of the report, contact the National Policy Association at 1424 16th St., NW, Suite 700, Washington, DC 20036

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