INTRODUCTION

The purpose of this article is to analyze “after the shift,” which occurred in the second half of the 20th century, from a goods-producing society to an information or knowledge society, as information technology (IT) began to be seen as a most important asset of contemporary nations. Bell argued in 1973 that in the new social order, knowledge and information would replace industrial production, and would become the “axial principle” of social organization (Bell, 1973). By the end of the 20th century, IT has also become a truly global phenomenon, involved with the reconfiguration of the labor market and human and material resources from all over the world. Gary Becker, the 1992 Nobel laureate in economics, pointed out that the United States’ (U.S.) Silicon Valley currently employs 1 million people, of whom 40% have at least a bachelor’s degree and more than one-third are foreign-born.

In the new information economy, special importance is assigned to IT researchers and developers, who belong to the global group of “knowledge workers.” In the post-industrial era, IT workers have skills that allow them to compete in the global labor market, as IT jobs, by their very nature, are not tied to any particular culture and “can work” anywhere. At the same time, IT production is labor-intensive, and many first-world nations (Britain, Germany, France, Ireland, the U.S.), which have undergone a reduction in birthrates, feel that their own human resources are not sufficient for its development. In 2000, the American Institute for Electric and Electronic Engineers (IEEE) recognized that “With declining numbers from national engineering graduate programs, the U.S. has no option but to satisfy the growing need for the engineering professionals from abroad” (Institute, 1999). To bring professionals into the country, the U.S., the biggest IT developer, introduced an employer-based H1-B visa program for specialty occupations (e.g., computer professionals, programmers or engineers).

BACKGROUND

In the U.S., visa petitions by IT specialists are approved for up to 3 years and may be extended to 6 years. During this period, the employee cannot change the employer, but (potentially) may get a permanent residence permit (i.e., a Green Card). The 1990 ceiling for admissions was set at 65,000 a year, and in 1997, “for the first time, the maximum limit was reached by the end of the year; in 1998 the ceiling was reached in May” (Immigration, 2003, p. 45), and employers complained of shortages. The 1999 limit of 115,000 was exceeded by 20,000, and in October 2000, the U.S. Congress passed the American Competitiveness in the 21 Century Act, increasing the annual limit to 195,000 for 2001, 2002 and 2003 (Immigration, 2003). Following that year, H1-B “cap” was set to return to 65,000 in fiscal year 2004, and U.S. Citizenship and Immigration Services received enough H1-B petitions, issued by U.S. employers, to meet the congressionally mandated number on February 17, 2004 (USCIS, 2004).

According to various sources, India provides 33% to 47% of U.S. high-tech employees with H1-B visas. The next-biggest supplier of IT developers is China, with about 9%, with Japan, Taiwan, Great Britain, Canada and South Korea providing 2% to 3% each. In recent years, specialists from Eastern Europe, mainly from Belarus, Russia and Ukraine, have also become a visible group. These nations are now becoming aware of the “brain drain” to the West (International, 2002; Ferro, 2004).

American society is experiencing profound effects from and is concerned with this type of migration. There is controversy over whether the system brings more benefits than losses (Saxenian, 2002) and how it may affect the most vulnerable, mainly older, U.S. IT workers, who may not be retrained but “substituted” by younger, educated foreign nationals (O’Lawrence, 2001). Responses to Senator Phil Gramm’s introduction of a bill to raise the number of temporary high-tech guest workers were published.
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