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## **Offshoring (a.k.a. Offshore Outsourcing) and Job Insecurity Among U.S. Workers**

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# Offshoring (a.k.a. Offshore Outsourcing) and Job Insecurity Among U.S. Workers

## Summary

Offshoring or offshore outsourcing is the term now being applied to describe the nascent practice among U.S. companies of contracting out the jobs of white-collar workers in service sector industries to firms located beyond our borders. The term is equally applicable to U.S. employers' outsourcing blue-collar workers' manufacturing jobs to other nations. As often is the case with a potential trend, however, few facts are available; instead, anecdotal accounts and varying estimates have been trumpeted in the media. No regularly collected series currently provides data on the number of workers who have lost their jobs to offshore outsourcing.

The outsourcing of service sector jobs to specialized U.S. firms began in response to the early 1980s recessions. Employers increased their focus on the company's core mission and contracted out peripheral activities to other U.S. businesses. The 2001 recession prompted employers to achieve further efficiencies by utilizing now widely disseminated technologies that permit low cost, good quality, and high speed transmission of voice and data communications to extend offshore outsourcing beyond blue-collar manufacturing jobs to white-collar service sector jobs. Events also transpired during the intervening decade of the 1990s that enhanced other countries' ability to export services.

Despite the labor market's turnaround, the state of mind that continues to prevail in the U.S. workforce is one that characterized an earlier "jobless recovery" when white-collar workers first became aware that their jobs had become more insecure. White-collar workers, who are the majority of all U.S. workers and of service sector employment, again have become anxious about their losing jobs. Although offshore outsourcing has been blamed for the employment cutbacks that followed the 2001 recession, it might have caused (at most) 10% of those job losses.

Some believe we have seen just the tip of the offshoring iceberg, with perhaps a total of 3.4 million service sector jobs moving overseas by 2015 in a range of fairly well paid white-collar occupations. If true, the number of jobs sent offshore over the long projection period might account for just 2% of U.S. employment in a single year. In contrast, others expect that for a variety of reasons many companies will lose their enthusiasm for the business practice and use it more strategically.

Congress has a longstanding interest in assisting workers who lose jobs through no fault of their own. In addition to unemployment benefits, policymakers traditionally have provided extra help through the Trade Adjustment Assistance (TAA) program to workers who lose jobs due to international trade. TAA generally does not apply to trade-induced layoffs in the service sector, however. Laws already exist to help workers undertake additional education and training (e.g., the Workforce Investment Act) should that be necessary for their reemployment. The most commonly suggested new proposal involves provision of wage insurance to displaced workers.

This report will be updated as warranted.

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# Offshoring (a.k.a. Offshore Outsourcing) and Job Insecurity Among U.S. Workers

Offshoring, also known as offshore outsourcing, is the term now being used to describe the nascent practice among companies located in the United States of contracting out the performance of service sector activities (e.g., call center operations) to businesses located beyond U.S. borders. The term is equally applicable to U.S. firms' outsourcing goods production (e.g., textiles) to other countries, which has been occurring for decades. *It is assumed that the work sent overseas was being or could have been performed by U.S. workers.*

As is often the case with an emerging trend, little concrete information is available about the offshoring of U.S. jobs. Instead, we have anecdotal accounts conveyed by the media and rough estimates by presumably knowledgeable persons that are similarly reported. *No regularly collected series currently provides data on the number of U.S. workers who have lost their jobs due to overseas outsourcing.*<sup>1</sup>

We are not even certain about what constitutes offshoring. Is it only contracting out work to non-U.S. companies located abroad? What about U.S. corporations moving jobs to their own subsidiaries in foreign countries? Is offshoring the purchase of services from U.S.-based outsourcing firms that, in turn, have access to labor overseas through partnerships with foreign companies or through their own facilities located abroad? Does it include foreign-owned businesses with U.S. offices from which services are provided to U.S. companies through a combination of employees living in the United States (e.g., U.S. citizens and legal permanent residents as well as persons with H-1B, professional specialty, visas) and workers living in the foreign firm's home country?

In addition to uncertainty about the size and definition of offshore outsourcing, uncertainty surrounds its short- and long-run labor market implications. For example:

- Some observers blame offshoring for the “jobless recovery,” while others counter that the historical link between economic growth and job creation remains intact.<sup>2</sup> Unlike many earlier cycles, permanent rather than temporary layoffs dominated the 2001 recession and initial recovery. This might be related to firms seeing the recession as an opportunity to cut payroll costs and improve efficiency through

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<sup>1</sup> CRS Report RL30799, *Unemployment Through Layoffs: What Are the Reasons?* by Linda Levine.

<sup>2</sup> See for example Erika Kinetz, “Who Wins and Who Loses as Jobs Move Overseas?,” *New York Times*, Dec. 7, 2003.

operational changes that include outsourcing jobs to other U.S. industries and to other countries. Some economists find that a larger than usual share of laidoff workers have *not* been rehired by their former employers as a result of this perceived structural change. Many of these displaced workers have thus had to undertake the time-consuming task of finding new jobs at other companies or in other industries.<sup>3</sup> Other economists estimate that the 2001 recession had about the same effect on all major industry groups, and therefore an unusually large number of workers should not have had to search for jobs in other industries. Consequently, they contend that the pace of job growth will ultimately accelerate as it eventually has following all past recessions.<sup>4</sup> Estimates of the net job loss (gross job gains minus gross job losses) in the past few years that might have been due to offshoring range from 3% to 10%.<sup>5</sup>

- Further, while acknowledging that offshoring and other forms of globalization (e.g., direct investment and other capital flows) can cause painful dislocations for workers, most economists agree that it benefits the nation as a whole by enabling U.S. companies that import goods and services to sell their products to consumers at lower prices, providing consumers with more choices, and by expanding markets for U.S. firms.<sup>6</sup> Others dispute the degree to which U.S. consumers actually benefit, suggesting that the shareholders of companies engaged in offshoring might instead gain through increased dividends. These individuals also believe that outsourcing jobs overseas has different implications for the United States than outsourcing to other industries within our borders that are regulated by U.S. laws.<sup>7</sup>
- Still others wonder whether offshoring will result in college graduates facing a dwindling supply of entry-level jobs that traditionally have served as stepping stones to secure, high-skilled positions. As to the overseas movement of more skilled jobs, they question the adequacy of the government's safety net to meet the needs of already well educated and well paid workers who lose their

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<sup>3</sup> Erica L. Groshen and Simon Potter, "Has Structural Change Contributed to a Jobless Recovery," *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, Aug. 2003.

<sup>4</sup> Ellen R. Rissman, "Can Sectoral Labor Reallocation Explain the Jobless Recovery?," *Chicago Fed Letter*, Dec. 2003.

<sup>5</sup> The 10% figure appears in Jyoti Thottam, "Is Your Job Going Abroad?," *Time*, Mar. 1, 2004 (Hereafter cited as Thottam, *Is Your Job Going Abroad?*). The 3% figure was developed by William Dickens, Senior Fellow, Economic Studies, The Brookings Institution, and presented during a Mar. 3, 2004 Brookings forum on offshoring.

<sup>6</sup> Lynn A. Karoly and Constantijn W.A. Panis, *The 21<sup>st</sup> Century at Work*, prepared by the RAND Corporation for the U.S. Department of Labor, 2004. (Hereafter cited as Karoly and Panis, *The 21<sup>st</sup> Century at Work*.)

<sup>7</sup> John Sullivan, "Forum Reveals Divisions Over Effects of Exporting U.S. Jobs to Other Countries," *Daily Labor Report*, Dec. 12, 2003.

jobs to offshore outsourcing (e.g., financial analysts, income tax preparers, and x-ray technicians).<sup>8</sup>

This report does not attempt to sort through all these issues, some of which are addressed in other CRS Reports.<sup>9</sup> Instead, it begins by examining the antecedents of offshoring service sector activities and then synthesizing the voluminous writings in recent years about the business practice. The reemployment and earnings experiences of displaced workers are then analyzed, focusing specifically on evidence of a rise in job insecurity among white-collar workers in service sector industries.<sup>10</sup> The report closes with discussion of existing federal legislation and proposals meant to ameliorate the impact of offshore outsourcing on U.S. workers.

## The Development of Offshore and Domestic Outsourcing

The overseas relocation of manufacturing work predates by decades the current wave of offshoring service sector jobs. Major U.S. companies, initially responding to heightened competition from Japanese and European multinational corporations, opened facilities abroad during the 1970s and 1980s that turned out goods formerly produced by comparatively well paid, often unionized U.S. factory workers (e.g., assembly-line workers in the automotive industry).

Additionally, U.S. companies reacted to the back-to-back recessions of the early 1980s by focusing on their core missions and contracting out activities that specialized domestic enterprises could perform more efficiently (e.g., janitorial services). Firms restructured their operations by outsourcing jobs to:

- temporary help supply agencies,
- professional and business services establishments (e.g., accounting firms), and
- independent contractors.

These kind of work arrangements are referred to as contingent or alternative, as in arrangements that differ from traditional jobs (i.e., those with an implicit or explicit

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<sup>8</sup> Christopher Koch, "Backlash," *CIO Magazine*, Sept. 1, 2003.

<sup>9</sup> CRS Report RL32047, *The "Jobless Recovery" from the 2001 Recession: A Comparison to Earlier Recoveries and Possible Explanations*, by Marc Labonte and Linda Levine; and CRS Report RL32194, *Job Loss: Causes and Policy Implications*, by Marc Labonte.

<sup>10</sup> *White-collar occupations* cover executive, administrative, and managerial workers; professionals; technicians; sales workers; and administrative support (including clerical workers). The *service-producing sector* is comprised of the following industry divisions: utilities; wholesale trade and retail trade; transportation and warehousing; information; financial services; professional and business services; education and health services; leisure and hospitality services; other services; and government.

offer of job security).<sup>11</sup> U.S. demand for employment (including temporary help) services continued to increase during the 1990s. It is projected to be one of the fastest growing industries in the current decade,<sup>12</sup> thus strongly indicating that domestic outsourcing of formerly in-house functions is a permanent reorganization of how work is performed.

The latest recession, which ended in November 2001, prompted employers to achieve further efficiencies by taking advantage of technological innovations that minimize the importance of physical distance between companies. The now widespread dissemination of technologies that enable relatively low cost, good quality, and high speed transmission of voice and data communications has enabled U.S. firms to extend offshoring beyond the factory jobs of blue-collar workers to the services jobs of white-collar workers (e.g., computer programmers and call center operators). “Offshore-able” service sector jobs thus include both information technology (IT) workers and technology-enabled workers.

Events that transpired during the intervening decade of the 1990s enhanced the ability of other countries to export services — particularly IT services — to the United States and other developed countries (e.g., the United Kingdom). One such event was the Y2K crisis: U.S. firms, in response to a tight supply of computer programmers in the late 1990s, turned to companies principally located in India to make the code fixes needed to avert problems with computer systems by the time 2000 arrived; the domestic firms that utilized these programmers reportedly were pleased with the quality of their work.<sup>13</sup> Another event was the educational systems of foreign nations graduating an abundant supply of well educated, sometimes English speaking individuals. In some cases, the number of persons with IT and accounting skills has exceeded the immediate needs of their local economies (e.g., China, Eastern Europe, India, and the Philippines).<sup>14</sup> And, because English is the language of the computer industry regardless of country, IT services can be provided by a wide array of non-English speaking, comparatively low wage nations (e.g., Argentina, Brazil, Bulgaria, China, the Czech Republic, Hungary, Jordan, Lithuania, Mexico, Slovenia, Russia, and Ukraine).

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<sup>11</sup> For more information on alternative work arrangements, see CRS Report RL30072, *Temporary Workers as Members of the Contingent Labor Force*, by Linda Levine.

<sup>12</sup> Jay M. Berman, “Industry Output and Employment Projections to 2012,” *Monthly Labor Review*, Feb. 2004.

<sup>13</sup> Jeffrey Marshall, “Outsourcing Overseas: Savings Road Leads to India,” *Financial Executive*, Sept. 2002.

<sup>14</sup> Pete Engardio, Aaron Bernstein, and Manjeef Kripalani, “The New Global Job Shift,” *Business Week*, Feb. 3, 2003 (Hereafter cited as Engardio, et al, *The New Global Job Shift*.); Larry Greenemeier, “Offshore Outsourcing Grows to Global Proportions — U.S. Companies Extend Their Search Beyond India for IT Help Overseas,” *InformationWeek*, Feb. 11, 2002; and Drew Robb, “Offshore Outsourcing Nears Critical Mass — The IT Talent Shortage in the United States is Driving More Companies to Use Overseas Developers,” *InformationWeek*, June 12, 2000.

## Current and Future Prospects for Offshoring Jobs

### Reasons for Worker Anxiety

The current, highly publicized wave of offshore outsourcing has caused considerable anxiety among both unemployed and employed workers. This is the case for the following reasons:

- White-collar workers comprise the majority of all U.S. workers and most white-collar workers are employed in the service sector, which accounts for the vast majority of total U.S. employment.<sup>15</sup> In other words, many more people today believe their jobs are susceptible to being exported *and* fear they may have to find new positions in an economy that recently has afforded little net job growth.
- Domestic outsourcing and offshore outsourcing result in job losses for those employees who no longer are required to produce the goods and services that their employers decided to purchase. Some displaced workers must seek jobs in other fields because the domestic firms that specialize in providing outsourced functions do so more efficiently than their former employers.<sup>16</sup> Others who lose their jobs to domestic outsourcing can continue to perform similar work — perhaps for lower wages and fewer benefits — by finding jobs in the industries now supplying goods and services to their ex-employers (e.g., as workers on the payrolls of temporary help agencies rather than manufacturers).<sup>17</sup> Thus, *a key difference between domestic and offshore outsourcing* is that none of the jobs that are contracted out remain available to U.S. workers when employers send the work to companies located overseas.<sup>18</sup>

The seemingly permanent loss of some types of service sector jobs to offshoring has led people to ask what field is going to be the next generator of jobs for U.S. workers, and more particularly, of good U.S. jobs. Candidates put forth include

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<sup>15</sup> According to data from the Current Population Survey, employment in white-collar occupations accounts for more than one-half of total U.S. employment. Some 9 out of 10 white-collar workers are employed in the service sector, which in turn represents about four-fifths of total U.S. employment.

<sup>16</sup> Michael W. Horrigan, “Employment Projections to 2012: Concepts and Context,” *Monthly Labor Review*, Feb. 2004.

<sup>17</sup> For information on the statistical exaggeration of the employment decline in manufacturing because workers still are engaged in goods production despite being categorized in the employment services industry see Council of Economic Advisors, *Economic Report of the President* (Washington, D.C.: GPO), Feb. 2004.

<sup>18</sup> However, offshoring likely creates other jobs for U.S. workers (e.g., those who develop the contracts for outsourced activities and those who oversee their performance). In addition, if the overseas firms and workers who perform these contracted activities subsequently purchase U.S. products and make investments in the United States, their actions will create jobs in the United States.



nanotechnology and biotechnology, but the question is truly unanswerable. And, at present, it appears that these industries are unlikely to provide as many new jobs as are being moved abroad. Further, there are indications that life sciences jobs have themselves begun to be sent overseas.<sup>19</sup> These things in combination have only created more anxiety, which some have attempted to assuage by pointing out that in similar situations in the past new growth areas always have emerged.

U.S. workers are being encouraged to focus on upgrading their skills in order to be capable of performing the high level, high paying jobs that are expected to be created by further U.S. technological innovation.<sup>20</sup> An oft-posed question in response to this advice is: in what occupations? The acquisition of IT skills had been the mantra for several years; however, these are among the jobs that appear newly at risk of being exported.

## How Many Jobs Are We Talking About?

People also are questioning whether we now are seeing the initial leakage of service sector jobs from the United States, with many more to follow in an expanding range of white-collar occupations. The query has elicited two somewhat different replies.

Offshoring of white-collar jobs initially involved “simple service work, like processing credit-card receipts, and mind-numbing digital toil, like writing software code.”<sup>21</sup> It more recently has expanded to such functions as providing help desk support to U.S. customers, processing home loans of U.S. mortgage applicants, interpreting CT scans of U.S. hospital patients, preparing corporate financial analyses for U.S. investors, and developing computer-generated blueprints for industrial plants and residential housing in the United States. Surveys of U.S. companies show they appear increasingly willing to send overseas a wide variety of more complex IT functions such as application design and development, IT infrastructure management, and packaged application implementation.<sup>22</sup>

Some observers foresee substantial increases in offshoring because of U.S. employers’ satisfaction with overseas service providers<sup>23</sup> and because of the 45%-

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<sup>19</sup> Andrew Pollack, “Medical Companies Joining Offshore Trend,” *New York Times*, Feb. 24, 2005.

<sup>20</sup> Clare Ansberry, “Why U.S. Manufacturing Won’t Die,” *Wall Street Journal*, July 3, 2003; and Steve Lohr, “Many New Causes for Old Problem of Jobs Lost Abroad,” *New York Times*, Feb. 15, 2004.

<sup>21</sup> Engardio et al, *The New Global Job Shift*, p. 50.

<sup>22</sup> Jeff Moad, “Offshore Job Competition to Increase,” *eWeek*, Jan. 31, 2003; and Jaikumar Vijayan, “Companies Expected to Boost Offshore Outsourcing,” *Computerworld*, Feb. 17, 2003.

<sup>23</sup> “New Study Finds Companies are Satisfied with Offshore Outsourcing of IT, Business Process and Contact Center Services,” *Business Wire*, Feb. 4, 2004.

55% cost savings it arguably generates.<sup>24</sup> For example, the average M.B.A. employed in India's financial services industry in 2003 reportedly earned 14% of the salary of comparably employed U.S. workers, while IT professionals earned 13% as much and call center staff earned 7% as much as their U.S. counterparts.<sup>25</sup>

Others assert that there are limits to the practice because U.S. companies will not want to lose close oversight of high skilled jobs dealing with activities that are essential to their core operations. It has been suggested that what might occur is overzealous pursuit of offshoring followed by retrenchment, during which time U.S. employers will learn the types of jobs best suited to the practice and how to manage a globally dispersed workforce.<sup>26</sup> Indeed, a study released by Deloitte Consulting in 2005 concluded that

outsourcing will lose "holy grail" status. In the future, companies will not outsource because it is the latest management fad, and "it is the thing to do. ...Organizations will carefully define core, strategic, and "thought-leadership" functions and will keep those inhouse to retain knowledge, confidentiality, and control over key functions. Some organizations will decide to outsource only short-term... Many organizations will also engage in large scale re-insourcing thereby further eroding the outsourcing market.<sup>27</sup>

Dell, for example, returned some inquiry help services that had met with customer dissatisfaction, while Lehman Brothers similarly brought back some call center work.<sup>28</sup> Other U.S. firms have had to employ IT service providers located in the United States to fix software produced abroad. It further is argued that even when imported services are not flawed in some way, the cost savings may be overstated because more than inter-country wage differentials affect a service's purchase price (e.g., travel and managerial oversight costs).<sup>29</sup>

Thus far, however, at least two factors that could have put the brakes on the business practice have failed to do so. Offshore providers of IT services, for example, were able to allay U.S. outsourcers' fears about security shortly after the terrorist attacks of September 11, 2001.<sup>30</sup> Despite 9/11, U.S. airline carriers reportedly have continued their "increased outsourcing of maintenance jobs overseas

<sup>24</sup> McKinsey Global Institute, *Offshoring: Is It a Win-Win Game?*, Aug. 2003. (Hereafter cited as McKinsey Global Institute, *Offshoring: Is It a Win-Win Game?*)

<sup>25</sup> Saritha Rai, "Financial Firms Hasten Their Move to Outsourcing," *New York Times*, Aug. 18, 2004.

<sup>26</sup> Sharon Gaudin, "Nearly 1 Million IT Jobs Moving Offshore," *Datamation*, Nov. 19, 2002.

<sup>27</sup> Deloitte Consulting, *Calling A Change in the Outsourcing Market: The Realities for the World's Largest Organizations*, Apr. 2005, p. 25.

<sup>28</sup> Khozem Merchant, "Tough Call for the US Cost-Cutters," *Financial Times*, Dec. 22, 2003.

<sup>29</sup> Olga Kharif, "The Hidden Costs of IT Outsourcing," *BusinessWeek online*, Oct. 27, 2003; and Ryan B. Patrick, "Signs of Offshore Backlash Growing," *Computerworld*, Jan. 8, 2004.

<sup>30</sup> Julie Gallagher, "Redefining the Business Case for Offshore Outsourcing," *Insurance & Technology*, Apr. 2002.

— to places like Singapore, Brazil, the Dominican Republic — not only for international aircraft but even for planes on purely domestic routes.”<sup>31</sup> In addition, concern periodically has arisen among U.S. outsourcers over unrest in some regions (e.g., disputes between India and Pakistan as well as in the Middle East). Global providers of software services have responded by placing more of their clients’ work in a variety of countries, including the “near-shore” markets of Canada and Mexico.<sup>32</sup> Some individual U.S. employers also believe that moving work to nearby Canada, which has fewer cultural differences with the United States than India or the Philippines for example, likely reduces its customers’ potential antipathy to offshoring.<sup>33</sup>

The jobs figure most commonly cited in connection with the current round of offshoring comes from Forrester Research, Inc. According to a 2004 update of its original projection, a *total* of 3.4 million service sector jobs might move abroad by 2015.<sup>34</sup> This is a cumulative figure, and one that spans a much longer period than many feel comfortable making projections over. And, *although 3.4 million sounds large in an absolute sense, it might represent only 2% of total U.S. employment in a single year — 2015, the last year of the projection period.*<sup>35</sup>

Forrester’s update reflects its assessment that the overseas movement of jobs will occur at a greater rate in the near term than initially anticipated. As shown in **Table 1**, some 315,000 service sector jobs might have been sent offshore by the end of 2003, with the number quadrupling to reach a total of 1.2 million in 2008. Of the almost five million service sector jobs that might be offshored through 2008, it is estimated that computer occupations represent about one of every five.

Another study estimated that some 4 million jobs, or 11% of total U.S. employment in 2001, have attributes that could allow them to be sent overseas (e.g., no in-person customer servicing required; IT-enabled work process that can be accomplished via telecommuting; fairly wide gap between job’s pay in the United States compared to similar job in destination country; and destination country has few language, institutional, and cultural barriers).<sup>36</sup> The researchers who developed

<sup>31</sup> Al Kamen, “In the Loop,” *Washington Post*, Feb. 27, 2004, p. A21.

<sup>32</sup> “Gartner Dataquest Says IT Outsourcing Industry to Advance with Increased Demand in Offshore Outsourcing,” *Business Wire*, Jan. 30, 2003.

<sup>33</sup> Ian Austen, “Canada, the Closer Country for Outsourcing Work,” *New York Times*, Nov. 30, 2004.

<sup>34</sup> John C. McCarthy, *Near-Term Growth of Offshoring Accelerating*, Forrester Research, Inc., May 14, 2004. (Hereafter cited as McCarthy, *Near-Term Growth of Offshoring Accelerating*.)

<sup>35</sup> Congressional Research Service estimate based upon extension to 2015 of the U.S. Bureau of Labor Statistics’ employment projection through 2012, producing an employment estimate of 171,710,000. Forrester’s figure of 3.4 million was then divided by this rough approximation of employment for the same year.

<sup>36</sup> Ashok Deo Bardhan and Cynthia A. Kroll, “The New Wave of Outsourcing,” *Fisher Center Research Report*, Institute of Business and Economic Research, University of (continued...)

this estimate note, however, that it is an outer limit and not all jobs in the occupational groups are at risk of being offshored. This accords with the finding that a majority of U.S. companies are not now and do not intend to move jobs overseas.<sup>37</sup> The occupational groups identified as being susceptible to offshoring include office support (e.g., data entry keyers), business and financial support, computer and math professionals, paralegals and legal assistants, and diagnostic support services. These are very similar to the wide range of occupations shown in **Table 1** for which Forrester developed estimates.

**Table 1. Number of U.S. Service Sector Jobs Projected to Shift Offshore by Occupational Group Through 2008**  
(numbers in thousands)

Occupational group	2003	2004	2005	2006	2007	2008
Administrative support	146	256	410	475	541	616
Computer	102	143	181	203	228	247
Business and financial operations	30	55	91	105	120	136
Management	3.5	15	34	42	48	64
Sales	11	22	38	47	55	67
Architecture	14	27	46	54	61	70
Legal	6	12	20	23	26	29
Life sciences	.3	2	4	5.5	6.5	9
Art, design and related	2.5	4.5	8	9	10	11
Total	315	540	830	960	1,100	1,200

**Source:** Adapted by CRS from John C. McCarthy, *Near-Term Growth of Offshoring Accelerating*, Forrester Research, Inc., May 14, 2004.

**Note:** Statistics are shown only through 2008, the period during which Forrester provides data in one-year intervals. By 2010, Forrester estimates a total of 1.7 million will have gone offshore for a two-year increase of one-half million. Over the next five years, Forrester estimates another 1.7 million jobs will be transferred to other countries for a grand total of 3.4 million by 2015.

Reports of the impact of offshore outsourcing on IT jobs vary, at least in part because of differences in the way data are presented. For example, Gartner Inc. anticipates that 10% of IT jobs at IT companies in the United States and 5% of IT jobs at other U.S. companies will have been sent overseas by the end of 2004. In

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<sup>36</sup> (...continued)

California-Berkeley, fall 2003. (Hereafter cited as Bardhan and Kroll, *The New Wave of Outsourcing*.)

<sup>37</sup> McCarthy, *Near-Term Growth of Offshoring Accelerating*.

addition, of workers whose jobs have been offshored, it reports that less than 40% will have been rehired by their former employers through 2005.<sup>38</sup> Alternatively, the president of the Information Technology Association of America (ITAA) roughly estimates that “less than 2 percent of IT jobs have gone offshore so far. And ... maybe at a maximum sometime early in the next decade, it may get up to close to double digits” but is unlikely to become more pervasive because “propinquity still does matter” and because “It’s a lot more expensive” than commonly believed.<sup>39</sup> Seconding that line of reasoning, META Group notes that

organizations often assume that labor arbitrage will yield savings similar to a person-to-person comparison (e.g., a full-time equivalent in India will cost 40% less) without regard for the hidden costs and differences in operating models. The reality is a general savings of 15%-20% during the first year.<sup>40</sup>

Even on this point, however, estimates differ as reflected by the substantially higher cost savings figure shown earlier in this report.

## **Job Insecurity Since the 1980s**

The state of mind that now prevails is one that characterized the early-to-mid 1990s, when another “jobless recovery” was taking place and stories of worker anxiety over job insecurity abounded in the media. A month hardly went by without at least one major U.S. company announcing a layoff that involved thousands of employees.<sup>41</sup> The leading explanation for the heightened feeling of worker anxiety in that period was “corporate downsizing” (i.e., a net decrease in a firm’s employment) that often involved internal company restructuring through flattening the organizational pyramid (i.e., eliminating layers of middle management jobs).

### **A Rise in Insecurity Among White-Collar Workers**

Data from the Displaced Worker Supplement (DWS) to the Current Population Survey supports the impression that the nature of permanent job loss has changed. Generally speaking, long-tenured white-collar workers in some service sector industries have become more susceptible to displacement. But, blue-collar workers

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<sup>38</sup> Diane Morello, *U.S. Offshore Outsourcing Leads to Structural Changes and Big Impact*, Gartner Inc., July 23, 2003.

<sup>39</sup> Transcript of panel discussion at The Brookings Institution, *Preparing America to Compete Globally: A Forum on Offshoring*, Mar. 3, 2004.

<sup>40</sup> “Offshore Outsourcing Cost-Savings Perceptions Differ from Realities,” *Business Wire*, Jan. 13, 2004.

<sup>41</sup> For more information see CRS Report RL30799, *Unemployment Through Layoffs*, by Linda Levine.

continue to be at the greatest risk of layoff.<sup>42</sup> (See the box below for a description of the displaced worker population.)

The risk of job loss among manufacturing industry workers improved from 1981-1982 to 1991-1992 (two comparable periods). As the economy recovered from the severe 1981-1982 recession, the chance of losing a manufacturing job decreased. During the milder 1990-1991 recession, the displacement rate<sup>43</sup> among manufacturing workers rose to 7.1% but did not reach its 1981-1982 level of 8.2%. (See top panel of **Table 2.**) In contrast, the job security of most other workers worsened or stayed about the same. The incidence of permanent layoffs in the finance, insurance, and real estate industry quadrupled to 5.5%.

While the displacement rate also climbed (but less steeply) in wholesale/retail trade, construction, and in services, none of the service sector industries was close to manufacturing's risk of job loss.

The shift in the industrial pattern of displacement translated into a change in its occupational distribution in light of the predominance of blue-collar workers at manufacturers and white-collar workers in the service sector. The probability of permanent layoffs fell among blue-collar workers to 5.3%. It rose to 3.7% among white-collar workers. (See bottom panel of **Table 2.**)

The U.S. Bureau of Labor Statistics (BLS) defines *displaced workers* as persons at least 20 years old who had worked for their employers at least three years before losing their jobs because of plant or company closings and moves, insufficient work for them to do, or abolishment of their positions and shifts. The definition is intended to identify workers who had some attachment to their employers, were terminated through no fault of their own, and who did not expect to be recalled to their former jobs.

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<sup>42</sup> Little attention typically is paid to the displacement of workers in *service occupations*, who include cooks and servers, cleaners and maintenance workers, hairdressers and child care workers, and police and firefighters. Workers in service occupations are less likely than blue-collar and white-collar workers to be affected by offshoring because many of their jobs require face-to-face interaction with customers.

<sup>43</sup> The displacement rate is the number of displaced workers in a particular group divided by the tenure-adjusted, two-year average estimate of employment for that same group.

**Table 2. Displacement Rates by Industry and Occupation of Lost Job, 1981-1982 and 1991-1992**

Characteristic	1981-1982	1991-1992
All long-tenured workers age 20 and older	3.9	3.9
<i>INDUSTRY</i>		
<b>Mining</b>	13.6	7.4
<b>Construction</b>	7.6	8.4
<b>Manufacturing</b>	8.2	7.1
<b>Transportation and public utilities</b>	4.1	4.4
<b>Wholesale and retail trade</b>	3.7	4.7
<b>Finance, insurance, and real estate</b>	1.4	5.5
<b>Services</b>	2.3	2.9
<b>Government</b>	1.2	1.1
<b>Agriculture</b>	5.4	3.8
<i>OCCUPATION</i>		
<b>WHITE-COLLAR WORKERS</b>	2.6	3.7
<b>Managerial and professional specialty</b>	2.1	3.6
— Executive, administrative, and managerial	2.5	4.8
— Professional specialty	1.7	2.4
<b>Technical, sales, and administrative support</b>	3.0	3.7
— Technicians and related support	3.3	3.7
— Sales occupations	3.7	3.6
— Administrative support, including clerical	2.5	3.8
<b>BLUE-COLLAR WORKERS</b>	7.3	5.3
<b>SERVICE WORKERS</b>	2.0	2.1
<b>FARMING, FORESTRY, AND FISHING</b>	0.9	1.4

**Source:** Ryan T. Helwig, "Worker Displacement in a Strong Labor Market," *Monthly Labor Review*, June 2001.

White-collar workers whose risk of displacement increased to the greatest extent were employed in managerial occupations and in administrative support (including clerical) occupations. The chance of job loss among executives, administrators, and managers almost doubled to 4.8%. The increased focus of displacement on those who themselves manage companies had a widespread psychological impact:

When people on higher rungs of the corporate ladder lose their jobs, it throws fear into the hearts of thousands of workers. A highly visible firing is a corporate vote of no confidence in any worker's job security.<sup>44</sup>

Among those in administrative support jobs, the displacement rate rose by half to 3.8%. The likelihood of permanent layoffs increased somewhat among professionals as well. *These data lend support to the widespread belief of white-collar workers that their jobs are less secure, but the change occurred before any noticeable offshoring of service sector jobs.*

Displacement rates improved virtually across-the-board during the long economic expansion of the 1990s. Even when examined against a fairly comparable period 10 years earlier, the probability of job loss was lower in 1999-2000. (See **Table 3**). However, for the first time since the DWS data were collected, *the risk of permanent layoffs for services industry employees rose to the point that it equaled the average displacement rate.*<sup>45</sup> The limited supply of workers available to U.S. employers in the late 1990s was responsible for the reduced likelihood of being laid off — with the possible exception of professionals.<sup>46</sup> It has been suggested that any offshoring of services that occurred during this time

can be seen as spinoffs from the US because of tight labor markets, rather than job transfers out of the US in search of lower labor costs. However, the recent downturn and...jobless recovery have legitimately given rise to the question whether services outsourcing involves the transfer of US jobs and occupations to other countries.<sup>47</sup>

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<sup>44</sup> Perri Capell, "Endangered Middle Managers," *American Demographics*, Jan. 1992, p. 37.

<sup>45</sup> Among the approximately 2 million workers displaced in 1999-2000, DWS data show there were some 69,000 long-tenured workers permanently let go from the computer and data processing services industry.

<sup>46</sup> About 33,000 long-tenured computer systems analysts and scientists as well as some 11,000 long-tenured computer programmers were displaced during the 1999-2000 period according to DWS data.

<sup>47</sup> Bardhan and Kroll, *The New Wave of Outsourcing*, p. 3.



**Table 3. Displacement Rates by Industry and Occupation of Lost Job, 1989-1990 and 1999-2000**

Characteristic	1989-1990	1999-2000
<b>All long-tenured workers age 20 and older</b>	3.1	2.5
<i>INDUSTRY</i>		
<b>Mining</b>	10.0	7.5
<b>Construction</b>	5.9	3.3
<b>Manufacturing</b>	5.0	4.7
<b>Transportation and public utilities</b>	3.6	2.7
<b>Wholesale and retail trade</b>	3.9	3.1
<b>Finance, insurance, and real estate</b>	3.5	3.7
<b>Services</b>	2.1	2.5
<b>Government</b>	0.4	0.5
<b>Agriculture</b>	3.2	1.7
<i>OCCUPATION</i>		
<b>WHITE-COLLAR WORKERS</b>	2.7	2.4
<b>Managerial and professional specialty</b>	2.3	2.1
— Executive, administrative, and managerial	3.4	2.7
— Professional specialty	1.3	1.6
<b>Technical, sales, and administrative support</b>	3.1	2.7
— Technicians and related support	3.2	2.7
— Sales occupations	2.9	2.9
— Administration support, including clerical	3.2	2.6
<b>BLUE-COLLAR WORKERS</b>	4.5	3.3
<b>SERVICE WORKERS</b>	1.6	1.4
<b>FARMING, FORESTRY, AND FISHING</b>	1.5	0.5

**Source:** Ryan T. Helwig, "Worker Displacement in a Strong Labor Market," *Monthly Labor Review*, June 2001; and unpublished data from the DWS.

Data for more recent years of the current decade, when offshoring likely became more prevalent, are not yet available from the DWS. When those figures are released, one should contrast two comparable periods in order to avoid confusing changes in displacement related to cyclical (short-run) as opposed to structural (long-run) factors. Some observers have pointed to the more than doubling of the unemployment rate among computer systems analysts, computer engineers, and computer scientists as well as the quadrupling of the rate among computer programmers vis-a-vis the much smaller increase across all professionals between 2000 and 2003 as evidence that something unusual had happened to these IT occupations.<sup>48</sup> It is argued, however, that those who use “the peak of the economy and technology boom as the base for their analysis” are “ignoring the business cycle, ... and technology bust.”<sup>49</sup> And prospectively, occupational employment projections of the U.S. Bureau of Labor Statistics through 2012 place computer software engineers (applications) and computer systems analysts among the fastest growing occupations *and* among those expected to experience the largest job growth — this, despite the Bureau’s acknowledgment of less rapid employment growth in computer and mathematical occupations “as the software industry begins to mature and as routine work is increasingly outsourced overseas.”<sup>50</sup>

## Reemployment Prospects

In addition to the shift in focus of permanent layoffs toward white-collar service sector workers, perceptions about “what happens afterwards” exacerbate concern over job insecurity. If people think there are other jobs available that will pay them as much as their current jobs, anxiety about displacement likely will be less intense than if they think their chance for reemployment in comparable jobs is slim.

Despite variance in the size of the majority depending upon the strength/weakness of the labor market, most displaced workers have been able to find new employment. As shown in **Table 4**, 3 out of 4 workers displaced in 1999-2000 again had jobs in January 2002 despite the continuation of a net decline in employment that followed the latest recession’s end. In addition, white-collar workers who lose their jobs have proved to be more successful than others in obtaining new positions. Their reemployment rate most recently was 78%, as against 70% for blue-collar workers. *The issue for most displaced workers, then, is not so much a lack of jobs per se as it is the quality of their new jobs vis-a-vis their former jobs.*

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<sup>48</sup> For more information on the labor market status of IT workers see CRS Report RL31973, *Education and Training Funded by the H-1B Visa Fee and the Demand for Information Technology and Other Professional Specialty Workers*, by Linda Levine.

<sup>49</sup> Catherine L. Mann, “Globalization of IT Services and White Collar Jobs: The Next Wave of Productivity Growth,” *International Economics Policy Briefs*, Dec. 2003, p. 6. See also Daniel W. Drezner, “The Outsourcing Bogeyman,” *Foreign Affairs*, May/June 2004.

<sup>50</sup> Daniel E. Hecker, “Occupational Employment Projections to 2012,” *Monthly Labor Review*, Feb. 2004, p. 98.

**Table 4. Displaced Workers by Occupation of Job Lost in the 1999-2000 Period and Employment Status in January 2002**

Occupation of job lost	Total (in thousands)	Employment status (percent distribution)			
		Total	Employed	Unem- ployed	Not in the labor force
<b>Total</b>	2,005	100	74	10	15
<b>White-collar workers</b>	1,194	100	78	7	15
Managerial and professional specialty	596	100	79	8	14
— Executive, administrative, and managerial	373	100	80	8	12
— Professional specialty	223	100	76	6	17
Technical, sales, and administrative support	598	100	77	7	16
— Technicians and related	72	100	74	1	25
— Sales occupations	249	100	79	5	16
— Administrative support	277	100	77	9	14
<b>Blue-collar workers</b>	646	100	70	15	15
<b>Service workers</b>	124	100	69	21	10
<b>Farming, forestry, and fishing</b>	11	100	55	0	45

Source: Unpublished data from the DWS.

## Wage Prospects

Job quality commonly is measured in terms of earnings levels. Of workers displaced from and reemployed in full-time wage and salary jobs, 51% were earning at least as much as in January 2002 as they had on the jobs they lost in the 1999-2000. (See **Table 5**.) This pattern of a small majority (52%-61%) of full-time job losers subsequently getting full-time jobs paying as much or more than they previously earned was true in most prior survey periods as well.<sup>51</sup>

Those reemployed full-time workers who typically fare the best when pre- and post-displacement earnings are compared include professionals. Most recently, 71% of displaced professionals earned at least as much in their new jobs. The occupations in which these displaced workers became reemployed provides a partial explanation for this finding. Most workers who lose professional positions typically obtain new jobs within the same occupational group.<sup>52</sup> Consequently, they tend to retain the reward for experience (tenure) in their field that they would have lost had they switched occupations.

<sup>51</sup> The percentage was less than one-half in three periods: 1984, 1994, and 1996, when it ranged narrowly between 47% and 49%.

<sup>52</sup> “Displaced Professional Workers Most Likely to Return to the Same Occupation,” *Monthly Labor Review*, Oct. 1999.

Although trade-related job loss among IT and IT-enabled professionals is too new a phenomenon for its consequences to have been researched, some surmise from earlier studies of worker displacement that offshoring may prove to be less “costly in terms of unemployment and permanent wage loss as earlier waves of blue-collar, trade-related, job displacement were.”<sup>53</sup> Their speculation is based upon the studies’ findings that more educated workers usually have an easier time finding new jobs and generally incur smaller wage declines.

Others argue, however, that offshoring will exert downward pressure on the wages of higher skilled workers. To date, studies typically estimated that trade has had a fairly small effect on the U.S. wage structure (e.g., by depressing the relative wages of low skilled workers), but “if trade in services that involve more highly skilled jobs continues to grow, trade will affect a larger share of the workforce, so the effect on the wage structure could become larger over time.”<sup>54</sup>

Administrative support workers experienced the widest gap in pre- and post-displacement earnings. Some 43% of individuals who had been in administrative support positions were again earning at least as much as they previously had. A below-average share of executive, administrative, and managerial workers as well as blue-collar workers also were in new full-time wage and salary jobs that paid more than their former jobs (47% and 45%, respectively). Differences in the degree of earnings loss by occupation may have to do with the nature of the skills — general or specific — that members of occupational groups typically possess. An analysis of white-collar displacement found evidence to “suggest that managers experience larger earnings losses than otherwise equivalent white-collar workers,”<sup>55</sup> which accords with the idea that a fairly large portion of the skills that managers and blue-collar workers possess are job- or industry-specific. Because skills of this nature are not readily transferable from one job to the next, managers and blue-collar workers appear to be less able than others to command wages on their new jobs that are comparable to their past earnings levels.<sup>56</sup> And, an above-average share of displaced blue-collar workers finds new jobs in service occupations (e.g., cleaning, food, health, and personal service positions) — usually the lowest paying of all occupational groups.<sup>57</sup>

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<sup>53</sup> Karoly and Panis, *The 21<sup>st</sup> Century at Work*, pp. 172-173.

<sup>54</sup> *Ibid.*, p. 177.

<sup>55</sup> Lori G. Kletzer, “White-Collar Job Displacement,” *Proceedings of the 47<sup>th</sup> Annual Meeting, Industrial Relations Research Association*, 1995, p. 105.

<sup>56</sup> According to Derek Neal, “Industry-Specific Human Capital: Evidence from Displaced Workers,” *Journal of Labor Economics*, vol. 13, no. 4, Oct. 1995, workers who switch industries upon reemployment (e.g., due to the long-term employment decline at manufacturers) incur larger wage costs than workers able to remain in their pre-displacement industries.

<sup>57</sup> Ryan Helwig, “Worker Displacement in a Strong Labor Market,” *Monthly Labor Review*, June 2001.

**Table 5. Workers Displaced From and Reemployed in Full-Time Wage and Salary Jobs, by Earnings on Pre- and Post-Displacement Jobs**

Occupation of job lost	Reemployed in full-time wage and salary job (percent distribution)				
	Total who reported earnings	Earnings compared to those on job lost (percent distribution)			
		At least 20% below	Below but within 20%	At least equal but within 20%	At least 20% above
<b>Total</b>	100	26	23	31	20
<b>White-collar workers</b>	100	27	20	30	23
Managerial and professional specialty	100	25	20	33	22
— Executive, administrative, and managerial	100	30	22	29	18
— Professional specialty	100	15	15	41	30
Technical, sales, and administrative support	100	30	20	26	24
— Technicians and related	100	35	15	21	29
— Sales occupations	100	22	18	44	17
— Administrative support	100	34	23	16	27
<b>Blue-collar workers</b>	100	26	29	29	16
<b>Service workers</b>	100	7	13	67	13

**Source:** Unpublished data from the DWS.

Another measure of how good a job is, other than earnings, is hours worked. A minority of workers displaced from full-time wage and salary jobs typically are reemployed in part-time positions. In 2002, this was true of less than 8% of reemployed workers who lost full-time jobs. (The DWS data do not indicate either the extent to which those who accepted part-time work might have wanted fewer hours of employment or the difference in their pre- and post-displacement earnings.)

Past media accounts of the aftermath of layoffs often described former employees of large corporations unhappily going into business for themselves or otherwise entering contingent employment arrangements (e.g., as temporary workers). Some regard these arrangements as inferior to full-time wage and salary jobs because they appear to be less secure. Relatively few workers who lose full-time jobs subsequently go into work for themselves, however. In 2002, the figure was

under 6%. (The DWS data do not indicate whether workers wanted to work for themselves and whether self-employed workers were better or worse off financially than they had been.)

## **Current Law and Proposals to Assist Workers Displaced by Offshoring**

Congress has demonstrated a longstanding interest in assisting workers who have lost jobs through no fault of their own (e.g., it has provided regular and, from time to time, extended unemployment insurance benefits). The following discussion is limited to proposals meant to mitigate the adverse impact of offshore outsourcing on U.S. workers.

### **Current Federal Law**

When displacement is expected to be caused by government action, such as enactment of international trade agreements, Congress has created special programs to help these individuals. The Trade Adjustment Assistance (TAA) program was initiated in 1962 and is now authorized by the Trade Act of 1974 (P.L. 93-618) as amended. Generally speaking, the program offers an additional period of income support once workers displaced by the importation of articles or shift in goods production outside the United States have exhausted their regular and extended unemployment benefits and have met a job training requirement. These workers also are eligible to receive search and relocation allowances, as well as tax credits to make obtaining health insurance more affordable. TAA is a vehicle that policymakers are showing interest in utilizing to assist workers in the service sector who lose their jobs to offshoring.

The Worker Adjustment and Retraining Notification Act (WARN) also was enacted to help workers laid off through no fault of their own to more quickly find new employment. P.L. 100-379, enacted in 1988, requires employers to provide written notice of mass layoffs and plant closings to workers or their representatives, state dislocated worker units, and the chief elected official of a unit of local government at least 60 days before the event. The advance notice requirement applies to employers, closings, and layoffs of a certain size. Some Members have proposed extending WARN to explicitly cover offshoring that results in job losses.<sup>58</sup>

Education and training frequently are mentioned as ways not only to enable displaced workers to obtain new jobs but also to empower individuals to take advantage of technology's effects on the world of work. At present, the Workforce Investment Act (WIA, P.L. 105-220) provides services targeted at "dislocated workers" who include job losers unlikely to be recalled to work in their former industries and occupations. Unlike TAA, training for dislocated workers through

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<sup>58</sup> For more information, see CRS Report RL31250, *The Worker Adjustment and Retraining Notification Act (WARN)*, by Linda Levine.

WIA is not an entitlement.<sup>59</sup> Tax incentives also are in place to encourage people to utilize their own resources to expand and improve their skill sets.<sup>60</sup> However, some individuals who lose their jobs to offshoring might not think they need to undertake retraining or skill upgrading because, for example, they expect hiring of experienced workers with IT qualifications to pick up once firms resume substantial computer-related spending. Others, while acknowledging their need to retrain, may be stymied by the widening range of work that appears susceptible to international trade competition.

## The Most Often Mentioned New Proposal

Offshore outsourcing generally was not being discussed when Kletzer and Litan suggested in early 2001 that “wage insurance” be provided to mitigate the adverse impact of involuntary worker displacement. They propose that for those long-time full-time employees who become unemployed through no fault of their own and who subsequently accept full-time jobs paying less than their pre-displacement wages, government provide a subsidy through the federal-state Unemployment Insurance system equal to a portion of the wage loss for up to two years following reemployment.<sup>61</sup> Such a program, they contend, would reduce worker anxiety over trade liberalization, among other factors that can result in job loss (e.g., technological innovation), and would help speed reemployment of dislocated workers.

At a 2004 briefing on offshore outsourcing, Catherine Mann of the Institute for International Economics pointed to the wage insurance program in the Trade Act of 2002 as model for serving a broader eligible population.<sup>62</sup> The existing demonstration program is available only to some older workers who lose their jobs due to international trade.<sup>63</sup>

The McKinsey Global Institute put forth a wage insurance proposal that has private sector rather than government funding. It recommends that, as part of a severance package, businesses purchase insurance for displaced workers to cover their lost wages during the median period of unemployment for their occupational group and provide them with a portion of any wage loss incurred upon reemployment in full-time jobs.<sup>64</sup>

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<sup>59</sup> For further information, see CRS Report 97-536, *Job Training Under the Workforce Investment Act (WIA): An Overview*, by Ann Lordeman.

<sup>60</sup> For more information, see CRS Report RL31129, *Higher Education Tax Credits and Deduction*, by Adam Stoll, James B. Stedman, and Linda Levine.

<sup>61</sup> Lori G. Kletzer and Robert E. Litan, *A Prescription to Relieve Worker Anxiety*, Institute for International Economics, Policy Brief 01-2, Feb. 2001.

<sup>62</sup> Fawn H. Johnson, “Expanded Wage Insurance Programs Would Calm Outsourcing Fears, Analysts Say,” *Daily Labor Report*, Apr. 5, 2004.

<sup>63</sup> For additional information, see CRS Report 94-478, *Trade Adjustment Assistance for Workers: A Fact Sheet*, by Paul J. Graney.

<sup>64</sup> McKinsey Global Institute, *Offshoring: Is It a Win-Win Game?*.