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

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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' long-standing practice of outsourcing blue-collar workers' manufacturing jobs to other nations. As often is the case with a potential trend, however, few facts are available. No regularly collected series currently provides data on the number of workers who have lost jobs to offshoring.

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 to white-collar service sector jobs. Events also transpired during the intervening decade 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 are anxious about the permanency of their jobs. Although offshore outsourcing likely accounted for a very small share of the cutback in overall employment that continued after the November 2001 end of the latest recession, it appears to have had a greater adverse impact on certain areas (e.g., professional-technical employees in communications and in business services industries).

Some believe we have seen just the tip of the offshoring iceberg, with perhaps14 million jobs having characteristics that make them *susceptible* to overseas relocation. Perhaps the most often cited projection of job loss due to offshore outsourcing is 3.4 million service sector positions by 2015. If true, the cumulative figure might equal just 2% of U.S. employment in a single year (2015). Other observers expect that various reasons will lead companies to lose enthusiasm for the business practice (e.g., poor quality of work, less than anticipated cost savings, and customer dissatisfaction) and consequently, 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, 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 commonly 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 estimates of 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*.[1]

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 recent "jobless recovery," while others counter that the historical link between economic growth and job creation remains intact.[2] Unlike many earlier cycles, permanent rather than temporary layoffs dominated the 2001

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[1] For more information see CRS Report RL30799, *Unemployment Through Layoffs: What Are the Reasons?*, by Linda Levine; and U.S. Government Accountability Office, *International Trade: Current Government Data Provide Limited Insight into Offshoring of Services*, GAO-04-932, Sept. 2004.

[2] See for example Erika Kinetz, "Who Wins and Who Loses as Jobs Move Overseas?," *New York Times*, Dec. 7, 2003.

recession and initial recovery. This might be related to firms seeing the recession as an opportunity to cut payroll costs and improve efficiency through operational changes that include outsourcing jobs to other U.S. industries and to other countries. Some economists found that a larger than usual share of laidoff workers were *not* rehired by their former employers as a result of this perceived structural change. Many of these displaced workers thus had to undertake the time-consuming task of finding new jobs at other companies or in other industries.[3] Other economists estimated 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.[4] Their contention that the pace of job growth would accelerate as it eventually had following all past recessions has proved true. 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%.[5]

- 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.[6] 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.[7]
- 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

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[3] 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.

[4] Ellen R. Rissman, "Can Sectoral Labor Reallocation Explain the Jobless Recovery?," *Chicago Fed Letter*, Dec. 2003.

[5] 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.

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

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

question the adequacy of the government's safety net to meet the needs of already well educated and well paid workers who lose their jobs to offshore outsourcing (e.g., financial analysts, income tax preparers, and X-ray technicians).[8]

This report does not attempt to sort through all these issues, some of which are addressed in other CRS Reports.[9] 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 the service sector. 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 offer of job security).[10] U.S. demand for employment (including temporary help)

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[8] Christopher Koch, "Backlash," *CIO Magazine*, Sept. 1, 2003.

[9] CRS Report RL32484, *Foreign Outsourcing: Economic Implications and Policy Responses*, by Craig Elwell; CRS Report RS21883, *Outsourcing and Insourcing Jobs in the U.S. Economy: An Overview of Evidence Based on Foreign Investment Data*, by James Jackson; 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.

[10] For more information on alternative work arrangements see CRS Report RL30072, (continued...)

services continued to increase during the 1990s. It is projected to be one of the fastest growing industries in the current decade,[11] 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). *Service sector jobs at risk of being offshored thus are both those held by 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.[12] 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 exceeded the immediate needs of their local economies (e.g., China, Eastern Europe, India, and the Philippines).[13] 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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[10] (...continued)
Temporary Workers as Members of the Contingent Labor Force, by Linda Levine; and CRS Report RL32387, *Self-Employment as a Contributor to Job Growth and as an Alternative Work Arrangement*, by Linda Levine.

[11] Jay M. Berman, "Industry Output and Employment Projections to 2012," *Monthly Labor Review*, Feb. 2004.

[12] Jeffrey Marshall, "Outsourcing Overseas: Savings Road Leads to India," *Financial Executive*, Sept. 2002.

[13] 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 wave of offshore outsourcing has caused considerable anxiety among both employed and unemployed workers. The seemingly greater publicity generated by the extension of offshoring from manufacturing to service sector industries 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. In other words, many more people today believe their jobs are at risk of being exported. Compounding their fear is the prospect of having to find new positions in a sluggish labor market.

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. 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).[14] 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.[15]

The loss 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 jobs. The question is unanswerable. Candidates that have been put forth (e.g., nanotechnology and biotechnology) are unlikely, at present, to provide as many new jobs as appear to be moving abroad; further, life sciences jobs have themselves begun to be sent overseas.[16] Although U.S. workers have been encouraged to focus on upgrading their skills to be capable of performing the high-level, high-paying jobs

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[14] 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.

[15] 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.

[16] Andrew Pollack, "Medical Companies Joining Offshore Trend," *New York Times*, Feb. 24, 2005.

that are expected to be created by further U.S. technological innovation,[17] 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 have questioned 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 very different replies.

The tip of the iceberg. Offshoring of white-collar jobs initially involved "simple service work, like processing credit-card receipts, and mind-numbing digital toil, like writing software code."[18] 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.[19]

Some observers foresee substantial increases in offshoring because of U.S. employers' satisfaction with overseas service providers[20] and because of the 45%-55% cost savings it arguably generates.[21] 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.[22]

One study estimated that some 14 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

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[17] 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.

[18] Engardio et al., *The New Global Job Shift*, p. 50.

[19] Jeff Moad, "Offshore Job Competition to Increase," *eWeek*, Jan. 31, 2003; and Jaikumar Vijayan, "Companies Expected to Boost Offshore Outsourcing," *Computerworld*, Feb. 17, 2003.

[20] "New Study Finds Companies are Satisfied with Offshore Outsourcing of IT, Business Process and Contact Center Services," *Business Wire*, Feb. 4, 2004.

[21] 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?*)

[22] Saritha Rai, "Financial Firms Hasten Their Move to Outsourcing," *New York Times*, Aug. 18, 2004.

few language, institutional, and cultural barriers).[23] The researchers who developed this estimate note, however, that while these jobs are susceptible to offshoring it is an outer limit – that is, *not all jobs in the occupational groups are truly at risk of being offshored*. 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.

Forrester Research, Inc. is the source of perhaps the first and most commonly cited statistics on offshoring. According to a 2004 update of its original projection, a *total* of 3.4 million service sector jobs might move abroad by 2015.[24] This is a cumulative figure, and one that spans a much longer period than many feel comfortable making projections over. 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.[25]

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**, 830,000 white-collar service sector jobs might have relocated offshore between 2003 and 2005; with almost 400,000 more of these jobs expected to be sent abroad in the three following years, the total for the 2003-2008 period could reach 1.2 million. Computer occupations might represent one of every five white-collar service sector positions outsourced overseas through 2008.

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[23] Ashok Deo Bardhan and Cynthia A. Kroll, "The New Wave of Outsourcing," *Fisher Center Research Report*, Institute of Business and Economic Research, University of California-Berkeley, fall 2003. (Hereafter cited as Bardhan and Kroll, *The New Wave of Outsourcing*.)

[24] 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*.)

[25] 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.

Table 1. Cumulative Number of U.S. Service Sector Jobs Projected to Shift Offshore by Occupational Group
(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 in terms of the number relocated, the timing of the movements, and the presentation of data. For example, Gartner Inc. announced in mid-2003 that it expected 10% of IT jobs at IT companies in the United States and 5% of IT jobs at other U.S. companies to be sent overseas by the end of 2004. It further speculated that, by 2005, employers would have rehired less than 40% of the workers whose jobs they had offshored.[26] Subsequently, in early 2005, Gartner reported that less than 5% of IT jobs in the United States and in other developed countries already have been sent overseas. It believes the proportion could climb to 30% by 2015, but the firm does not expect offshoring to cause a net loss of IT jobs in the United States. While not disputing the 30% claim, some other organizations think it will take longer to reach the figure: 20 to 25 years rather than 10 years.[27] In a 2005 study sponsored by the Information Technology Association of America (ITAA), Global Insight estimated that actual and

[26] Diane Morello, *U.S. Offshore Outsourcing Leads to Structural Changes and Big Impact*, Gartner Inc., July 23, 2003.

[27] Paul McDougall, "Gartner Preducts Huge Increase in Offshore Outsourcing By 2015," *InformationWeek*, Mar. 31, 2005.

potential software and IT services jobs lost as a result of offshoring between 2000 and 2003 numbered fewer than 112,000. Although it projected a net gain in aggregate U.S. employment associated with sending more IT work overseas, one industry group is expected to suffer net job losses: publishing, software, and communications might have 34,044 fewer jobs in 2005, and 60,658 fewer jobs in 2010, due to this business practice.[28] Global Insight projected that offshoring also could prompt job losses in the professional, consulting, and business services group; unlike in publishing et al, however, it estimated that more software and IT services jobs would be created than lost in professional, consulting, and business services.

Overblown fears. Other observers assert that there are limits to the business 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.[29] 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.[30]

Both Dell and Lehman Brothers, for example, returned some inquiry help services and call center work to the United States due to customer dissatisfaction.[31] Other U.S. firms have had to employ IT service providers located in the United States to fix software produced abroad. Even when imported services are not flawed, some employers have overestimated the cost savings from outsourcing because a service's purchase price is affected by more than inter-country wage differentials (e.g., travel and managerial oversight costs).[32] META Group noted that firms often calculate labor cost savings by making a "person-to-person comparison (e.g., a full-time equivalent in India will cost 40% less)" and ignoring "hidden costs and differences in operating models" that bring down savings to perhaps 15%-20% in the first year

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[28] Global Insight, *Executive Summary: The Comprehensive Impact of Offshore Software and IT Services Outsourcing on the U.S. Economy and the IT Industry*, Oct. 2005.

[29] Sharon Gaudin, "Nearly 1 Million IT Jobs Moving Offshore," *Datamation*, Nov. 19, 2002.

[30] Deloitte Consulting, *Calling A Change in the Outsourcing Market: The Realities for the World's Largest Organizations*, Apr. 2005, p. 25.

[31] Khozem Merchant, "Tough Call for the US Cost-Cutters," *Financial Times*, Dec. 22, 2003.

[32] 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.

of offshoring.[33] Perhaps reflecting these shortcomings of offshoring, the share of IT employers that prematurely terminated contracts with overseas IT service providers rose from 21% in 2004 to 51% in 2005.[34]

At least two factors that could have put the brakes on the offshoring have failed to do so, however. 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.[35] Despite 9/11, U.S. airline carriers have continued their "increased outsourcing of maintenance jobs overseas — to places like Singapore, Brazil, the Dominican Republic — not only for international aircraft but even for planes on purely domestic routes."[36] 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.[37] 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.[38]

> In summary, most studies find the extent of job losses from services offshoring relatively small in the aggregate, but somewhat concentrated in a few industries and occupations. The job losses stem from both a direct impact of offshoring, which displaces some workers, plus an indirect impact through the productivity enhancements that it provides. However, there are still unanswered empirical questions, including the just-mentioned productivity effect. Indeed, offshoring could raise productivity directly or indirectly by displacing low-wage [low-skilled] jobs and creating high-wage ones, but it could also do just the opposite [i.e., result in displacement of high-skilled workers who accept jobs paying lower wages than they previously earned].[39]

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[33] "Offshore Outsourcing Cost-Savings Perceptions Differ from Realities," *Business Wire*, Jan. 13, 2004.

[34] "Study Points to Employer Dissatisfaction, Interest in China as Trends in IT Outsourcing," *Daily Labor Report*, June 14, 2005.

[35] Julie Gallagher, "Redefining the Business Case for Offshore Outsourcing," *Insurance & Technology*, Apr. 2002.

[36] Al Kamen, "In the Loop," *Washington Post*, Feb. 27, 2004, p. A21.

[37] "Gartner Dataquest Says IT Outsourcing Industry to Advance with Increased Demand in Offshore Outsourcing," *Business Wire*, Jan. 30, 2003.

[38] Ian Austen, "Canada, the Closer Country for Outsourcing Work," *New York Times*, Nov. 30, 2004.

[39] Robert W. Bednarzik, "Restructuring Information Technology: Is Offshoring a Concern?" *Monthly Labor Review*, Aug. 2005.

Job Insecurity Since the 1980s

The state of mind that now prevails is one that characterized the initial years of the 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.[40] 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).

Increased Displacement of White-Collar Workers Precedes Offshoring of Service Sector Jobs

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 continue to be at the greatest risk of layoff.[41] (See the box below for a description of the displaced worker population.)

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.

1980s. 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[42] 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 finance, insurance, and real estate quadrupled to 5.5%. While the displacement rate also climbed (but less steeply) in wholesale/retail trade,

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[40] For more information see CRS Report RL30799, *Unemployment Through Layoffs*, by Linda Levine.

[41] 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.

[42] 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.

construction, and in services, none of the service sector industries was close to manufacturing's risk of job loss.

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
INDUSTRY		
Mining	13.6	7.4
Construction	7.6	8.4
Manufacturing	8.2	7.1
Transportation and public utilities	4.1	4.4
Wholesale and retail trade	3.7	4.7
Finance, insurance, and real estate	1.4	5.5
Services	2.3	2.9
Government	1.2	1.1
Agriculture	5.4	3.8
OCCUPATION		
WHITE-COLLAR WORKERS	2.6	3.7
Managerial and professional specialty	2.1	3.6
— Executive, administrative, and managerial	2.5	4.8
— Professional specialty	1.7	2.4
Technical, sales, and administrative support	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
BLUE-COLLAR WORKERS	7.3	5.3
SERVICE WORKERS	2.0	2.1
FARMING, FORESTRY, AND FISHING	0.9	1.4

Source: Ryan T. Helwig, "Worker Displacement in 1999-2000," *Monthly Labor Review*, June 2004.

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**.)

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" and represents "a corporate vote of no confidence in any worker's job security.[43] Among those in administrative support jobs, the displacement rate rose by half to 3.8%. The likelihood of permanent layoffs increased somewhat, to 2.4%, 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 pre-dated any noticeable offshoring of service sector jobs*.

1990s. 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 among employees of the services industry group (e.g., telecommunications firms and providers of computer services to other businesses) rose to the point that it equaled the average displacement rate*.[44]

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.[45] 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 [2001-2003] have legitimately given rise to the question whether services outsourcing involves the transfer of US jobs and occupations to other countries.[46]

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[43] Perri Capell, "Endangered Middle Managers," *American Demographics*, Jan. 1992, p. 37.

[44] 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.

[45] 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.

[46] 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
All long-tenured workers age 20 and older	3.1	2.5
INDUSTRY		
Mining	10.0	7.5
Construction	5.9	3.3
Manufacturing	5.0	4.7
Transportation and public utilities	3.6	2.7
Wholesale and retail trade	3.9	3.1
Finance, insurance, and real estate	3.5	3.7
Services	2.1	2.5
Government	0.4	0.5
Agriculture	3.2	1.7
OCCUPATION		
WHITE-COLLAR WORKERS	2.7	2.4
Managerial and professional specialty	2.3	2.1
— Executive, administrative, and managerial	3.4	2.7
— Professional specialty	1.3	1.6
Technical, sales, and administrative support	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
BLUE-COLLAR WORKERS	4.5	3.3
SERVICE WORKERS	1.6	1.4
FARMING, FORESTRY, AND FISHING	1.5	0.5

Source: Ryan T. Helwig, "Worker Displacement in 1999-2000," *Monthly Labor Review*, June 2004.

2001 recession and "jobless recovery". Data covering the the initial years of the current decade not unexpectedly show an increase in the incidence of displacement compared to the booming 1990s. In 2001-2002, the displacement rate

was about 4% – which approximated the rate attained during the two earlier periods that included recessions (see **Table 2**).

The information industry recorded the highest rate of permanent job loss, at 9.6%. (This round of the DWS introduced a new industrial classification system. The information industry includes wired telecommunications carriers, radio and television broadcasting and cable, motion pictures and video, newspapers, and publishing.) Another industry with a well above-average displacement rate was professional and business services, at 7.1%. Some IT-intensive industries (e.g., computer systems design and related services as well as architectural and engineering services) lie within this industry group. Both information and professional/business services previously were classified within the services industry group which, as noted above, showed an increase in permanent layoffs 2 years earlier. The only industry outside the service sector with an above-average incidence of displacement in 2001-2002 was (very cyclically sensitive) manufacturing, at 8.7%.

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.

Table 4. Displaced Workers by Occupation of Job Lost in the 2001-2002 Period and Employment Status in January 2004

Occupation of job lost	Total (in 000s)	Employment status (percent distribution)			
		Total	Em-ployed	Unem-ployed	Not in the labor force
Total	3,223	100	74	10	15
White-collar workers	1,869	100	77	9	14
Management, professional, and related occupations	1,072	100	77	9	13
— Management, business, and financial operations	572	100	77	9	13
— Professional and related	501	100	77	10	13
Sales and office occupations	797	100	77	9	15
— Sales and related	351	100	84	6	10
— Office and administrative support	446	100	72	11	17
Blue-collar workers	1,126	100	69	13	17
Service workers	199	100	70	7	23

Source: Unpublished data from the DWS.

Note: The occupational classification system changed with this round of the DWS. Percentages may not add to 100 due to rounding.

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 above in **Table 4**, almost 3 out of 4 workers displaced in 2001-2002 again had jobs in January 2004. 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 77%, as against 69% 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*.

Wage Prospects

Job quality commonly is measured in terms of earnings levels. Of employees displaced from full-time jobs in 2001-2002, 40% who were reemployed full-time in January 2004 were earning at least as much as they had in their pre-displacement positions. (See **Table 5**.) This marks a departure from the usual 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.

Reemployed professionals typically have been among those who fared the best when pre- and post-displacement earnings are compared. The occupations in which displaced professionals become reemployed provides a partial explanation for this finding: as most of these workers typically had obtained new jobs within the same occupational group,[47] they tended to retain the reward for experience (tenure) in their field that they would have lost had they switched occupations. In January 2004, one-half of professionals reemployed full-time in wage and salary jobs earned at least as much as they had in their pre-displacement jobs.

Although trade-related job loss among IT and IT-enabled professionals is such a new phenomenon that its consequences have not been much 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."[48] 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. Additionally, studies typically estimate 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."[49]

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[47] "Displaced Professional Workers Most Likely to Return to the Same Occupation," *Monthly Labor Review*, Oct. 1999.

[48] Karoly and Panis, *The 21st Century at Work*, pp. 172-173.

[49] Ibid., p. 177.

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
Total	100	38	22	23	17
White-collar workers	100	36	24	23	17
Managerial, professional and related occupations	100	33	24	29	14
— Management, business, and financial operations	100	38	25	21	16
— Professional and related	100	28	23	39	11
Sales and office occupations	100	39	22	16	22
— Sales and related	100	41	24	12	22
— Office and administrative support	100	38	21	18	22
Blue-collar workers	100	44	20	21	15
Service workers	100	18	24	29	28

Source: Unpublished data from the DWS.

Note: The occupational classification system changed with this round of the DWS. Percentages may not add to 100 due to rounding.

While the latest available DWS data reveal that the wage prospects of professionals continue to exceed those of blue-collar workers, relatively fewer professional and related workers than service workers earned at least as much in their new compared to former positions (50% and 57%, respectively). Both the offshoring of IT as well as other professional jobs and the lack of susceptibility of service occupations (e.g., health aides, child care providers, and police officers) to offshore outsourcing might have contributed to this atypical pattern. It also might partly reflect changes to the occupational classification system in this round of the DWS (e.g., unlike in the past, technicians are now combined with professionals).

Those full-time employees displaced from management and related occupations as well as from blue-collar occupations continued to experience poor wage prospects. Fewer than two in five reemployed managers and blue-collar workers were able to obtain post-displacement jobs that paid at least as well as their pre-displacement positions. 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,"[50] 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 less able than others to command wages on their new jobs that are comparable to their past earnings levels.[51] An above-average share of displaced blue-collar workers find new jobs in service occupations (e.g., janitorial and maintenance positions as well as food preparation and serving jobs) — usually the lowest paying of all occupational groups.[52]

Federal Assistance for 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 have shown interest in utilizing to assist workers in the service sector who lose their jobs to offshoring.

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[50] Lori G. Kletzer, "White-Collar Job Displacement," *Proceedings of the 47th Annual Meeting, Industrial Relations Research Association*, 1995, p. 105.

[51] 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.

[52] Ryan Helwig, "Worker Displacement in a Strong Labor Market," *Monthly Labor Review*, June 2001.

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 proposed extending WARN to explicitly cover offshoring that results in job losses.[53]

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 WIA is not an entitlement.[54] Tax incentives also are in place to encourage people to utilize their own resources to expand and improve their skill sets.[55] 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.[56] 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

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[53] For more information, see CRS Report RL31250, *The Worker Adjustment and Retraining Notification Act* (WARN), by Linda Levine.

[54] For further information, see CRS Report 97-536, *Job Training Under the Workforce Investment Act (WIA): An Overview*, by Ann Lordeman.

[55] For more information, see CRS Report RL31129, *Higher Education Tax Credits and Deduction*, by Adam Stoll, James B. Stedman, and Linda Levine.

[56] Lori G. Kletzer and Robert E. Litan, *A Prescription to Relieve Worker Anxiety*, Institute for International Economics, Policy Brief 01-2, Feb. 2001.

2002 as model for serving a broader eligible population.[57] The existing demonstration program is available only to some older workers who lose their jobs due to international trade.[58]

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.[59] crsphpgw

[57] Fawn H. Johnson, "Expanded Wage Insurance Programs Would Calm Outsourcing Fears, Analysts Say," *Daily Labor Report*, Apr. 5, 2004.

[58] For more information see CRS Report RL33054, *Older Displaced Workers in the Context of an Aging and Slowly Growing Population*, by Linda Levine.

[59] McKinsey Global Institute, *Offshoring: Is It a Win-Win Game?*.