
MEMORANDUM

TO: Prof. Steve Maurer
FROM: Hong Qu, Gianna Segretti, Ian Carpe, Sandy Tesch
DATE: December 14, 2004
RE: **The Impact of Outsourcing on IT Workers and the Role of Public Policy**

Executive Summary¹

Outsourcing is a hot topic in the United States today. It is debatable how responsible outsourcing is for American job loss; however, the fact remains that unemployment rate among IT workers has been rising. Due to a confluence of factors, sending work offshore has become easier and more cost effective than ever before. Among the contributing factors are a common language (English), inexpensive data transportation over global networks, and the 24-hour cycle that allows work to be done overseas beyond the American business day.

Besides outsourcing, it is also important to consider other causes of job loss, including productivity gains, the recession, and a lack of retraining for IT workers. Ultimately outsourcing can strengthen the IT industry by allowing the U.S. to focus on our core competencies in education and research and development, growing overseas markets, and using low costs to develop new applications. Economically, outsourcing decreases cost and allows the U.S. to focus on its competitive advantage. In the short-term, some Americans will lose jobs. Public officials must therefore recognize the long-

¹ Written by Sandy Tesch

term value of outsourcing and create policy that that is politically feasible, helpful to displaced IT workers, fiscally feasible, and strengthens the IT industry.

Policy alternatives include

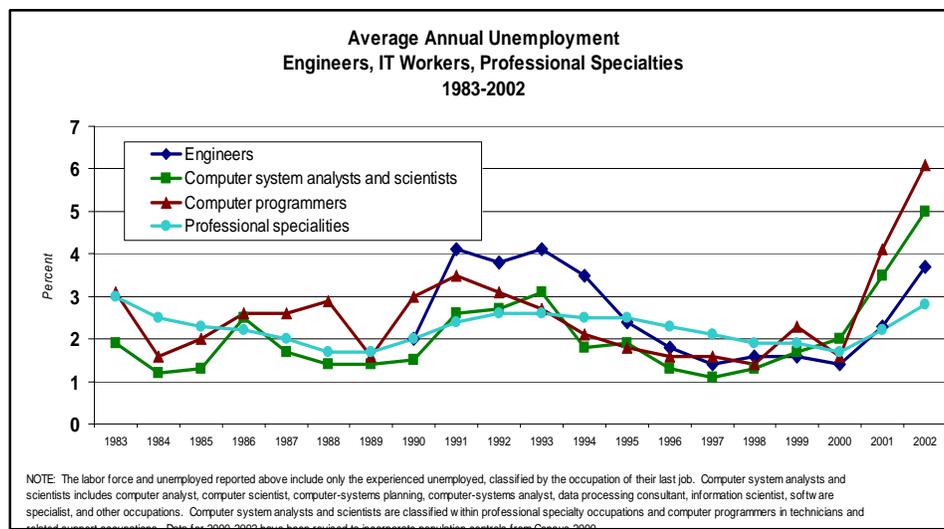
- **Conducting government studies and reports on outsourcing** in order to strengthen our knowledge surrounding IT job loss;
- **Providing a safety net for displaced workers** to provide social welfare for those who are victims of IT jobs moving offshore;
- **Creating incentives for lifelong learning** to encourage businesses, trade groups, education institutions and workers to build up skills for the future;
- **Taxing outsourcing contracts** to provide money for government research and welfare programs for displaced workers; and
- **Negotiating for labor rights in trade agreements** to promote human and labor rights and ultimately remove the disparities between rich and poor countries.

Based on analysis of our criteria, we found two policies are most feasible and practical.

The remaining three policy alternatives have prohibitive externalities. We recommend a main policy of creating incentives for lifelong learning and a secondary policy of encouraging the government to conduct studies and reports on outsourcing.

I. Overview of the Outsourcing Debate²

Outsourcing has come to the forefront of society in recent years as Americans become more concerned about the loss of domestic jobs overseas, especially in the Information Technology (IT) industry. This job loss now includes skilled functions including computer programming, support, integration, and other white-collar jobs,³ as illustrated by this graph:



Source: Lazowska, Ed. Lecture, 2 Dec 2004.

The unemployment rate of IT workers has clearly risen over the last two years and this has changed the way we think about the constantly changing technology industry. In order to study this phenomenon we must take a closer look at outsourcing.

We begin by defining the key terms used in this paper, guided by Peter Freeman and William Aspray in their report “The Supply of Information Technology Workers in the United States.”

² Written by Sandy Tesch and Ian Carpe

³ Praveen Madan et al., “The Future of Bay Area Jobs: The Impact of Offshoring and Other Key Trends,” A.T. Kearney, <http://www.atkearney.com/main.taf?p=5,4,1,99>

- “**Information Technology** (IT) refers only to computer-based systems,” including computer hardware, software, and peripherals.⁴
- The definition of an **IT worker** can vary greatly; for our purposes, an IT worker is defined in two ways:⁵
 - as someone for whom “more than half the value provided by [him or her] involves his or her IT knowledge.” If less than half of his or her value involves IT knowledge, he or she is considered an IT-enabled worker.
 - IT workers are then split into four categories: conceptualizers, developers, modifiers/explorers, and supporters/tenders, beginning at the top of an occupational chart with idea creation and ending with support.

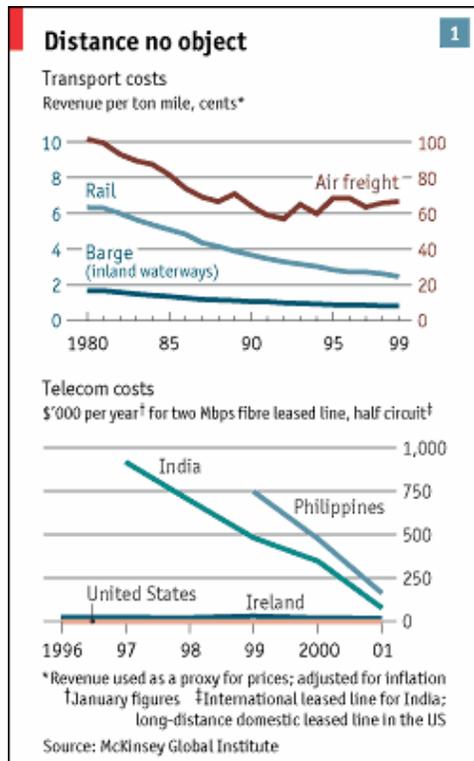
How, then, does outsourcing relate to the IT industry and to IT workers? By virtue of these definitions outsourcing in the IT sector is a perfect match for the strengths and weaknesses of the industry.

⁴ Peter Freeman and William Aspray, “The Supply of Information Technology Workers in the United States,” http://www.cra.org/reports/wits/it_worker_shortage_book.pdf

⁵ Freeman and Aspray

A. Outsourcing is easier in the IT industry

Outsourcing has been made easier because of the widespread acceptance of English



(especially in the former British colonies, including India), a common legal accounting system for many countries, the common law structure of the United States and the United Kingdom, general institutional compatibility and adaptability, a steady supply of technologically savvy graduates, and a time difference that allows for response 24 hours a day with a short, overnight turnaround time, required in this just-in-time production era.⁶ Previously existing barriers to outsourcing (such as with

Source: *The Economist*, 11 Nov 2004.

manufacturing) are no longer in place because of the nature of information and the Internet; information technology does not require the physical movement of goods. In this way the IT industry in America has led to its own demise: “massive amounts of information can now be transmitted across the world at low cost, making geographic distances less important.”⁷ The declining costs of transportation and telecom, as shown by *The Economist* (graph, upper left), make offshoring relatively easy and profitable.

⁶ Ashok Deo Bardhan and Cynthia A. Kroll, “The New Wave of Outsourcing,” *Research Report* (Fall 2003): 1-12; http://www.haas.berkeley.edu/news/Research_Report_Fall_2003.pdf

⁷ “A World of Work,” *The Economist*, Nov 11, 2004, http://www.economist.com/printerfriendly.cfm?Story_ID=3351416.

Thus 14 million jobs, or 11 percent of the total domestic workforce, are now vulnerable to outsourcing.⁸

B. Outsourcing is not to blame for job loss and weak economy

Recent data shows that outsourcing is not to blame for America's job loss and weak economy. Outsourcing and the use of non-U.S. labor, whether through immigration into the United States or through the movement of jobs overseas, is a convenient reason for America's weakening competitive advantage. What actually causes job loss?

- **Increased productivity:** Increased productivity also explains 98 to 99 percent (98-99%) of job loss over the last few years according to Robert Parry, former president of the Federal Reserve Bank of San Francisco.⁹
- **Lack of quality education:** Many experts, including Alan Greenspan, Chair of the Federal Reserve Board, cite the lack of education and training as the reason for our lowered competitive advantage.¹⁰ IBM has recognized this difficulty and has started retraining programs for employees to improve relevant skills. A.T. Kearney confirms that we are, in fact, losing our educational advantage. Every year China has 200,000 bachelor graduates in engineering and India has 82,000 graduates, compared to 61,000 graduates in the United States.¹¹

⁸ Sarah Anderson and John Cavanaugh, "Outsourcing: A Policy Agenda," *Foreign Policy in Focus* 9, no. 2, 2004, http://www.fpip.org/briefs/vol9/v9n02outsourc_body.html.

⁹ A.T. Kearney

¹⁰ The Drum Major Institute for Public Policy, Talking Points on Outsourcing, Aug 2, 2004, accessed Nov 16, 2004, <http://themiddleclass.org/main.cfm?actionId=globalShowStaticContent&screenKey=talking>.

¹¹ A.T. Kearney

Not only is the majority of job loss not due to outsourcing, it is actually strengthening the IT industry. For more detailed background on the economics, please see Section II in which the economics behind outsourcing is explained

C. Outsourcing strengthens IT industry

It is important, then, that United States policymakers join corporations in recognizing the value of outsourcing. Outsourcing can be seen as a strategy that improves competition of businesses for a number of reasons:

- **Core competencies:** America still retains core competencies in education and research and development while lower skilled jobs like software development and manufacturing are moved overseas.
- **Growing overseas markets:** Also, the size of the global market is growing and U.S. companies need to be where these new markets are emerging. This offshoring actually grows markets, both in the United States and overseas. For example, an IT call center in India contributes to the growth of the middle class both in the U.S. and in India and therefore the growth of the U.S. economy.¹²
- **Lower costs means expansion of technology:** This advantage also lowers the cost of services for U.S. consumers and enhances competition.¹³ In fact, U.S. companies have been able to reduce the cost of computers and equipment by 10-30 percent (10-30%) and this has resulted in the
 - Increase of the gross domestic product (GDP), and

¹² A.T. Kearney

¹³ Outsourcing: A Policy Agenda

- expansion of technology into non-tech and low-tech markets.¹⁴

Digital Economy 2002 reports “wages of workers who use computers on the job average 20 percent higher than those of workers who do similar jobs without computers” and “more than half (53 percent) of workers who use technology on the job earn more than \$40,000.”¹⁵ This is a significant advantage for non-IT industries.

- **Increased productivity:** From a global perspective, the estimated wage of software developers in India is \$6 per hour, compared to \$60 per hour in the U.S.¹⁶ These global pay gaps also contribute to savings for U.S. companies, resulting in cost saving of at least 45-55 percent (45-55%). As a result, every job lost due to outsourcing will therefore generate two non-IT jobs.¹⁷ Other reports confirm this, stating that the reduction in hardware prices boosted the diffusion of information technology and therefore raised productivity significantly, by 0.3 percent (0.3%) each year. The McKinsey Global Institute finds that the U.S. receives \$1.12-\$1.14 for every dollar outsourced to India.
- **Increase in services:** On a broader level it should be noted that what the United States loses in trade deficit in goods is made up in trade surplus in services. The U.S. provides high value-added services to those abroad including financial, legal, engineering, architectural, and software development services.¹⁸

¹⁴ A.T. Kearney

¹⁵ Digital Economy 2002, via Computer Systems Policy Project, *Choose to Compete*, 2004, via 12/2 lecture from Lazowska.

¹⁶ Ben S. Bernanke, Remarks, Mar 30, 2004

¹⁷ A.T. Kearney

¹⁸ Bernanke

- **Insourcing:** Finally, we must also consider that foreign companies are insourcing, moving jobs to the U.S., as well. Between 1997 and 2001 the number of jobs provided by foreign employers in the U.S. increased by about 1.2 million and these companies accounted for nearly \$500 billion in gross output and \$161 billion in exports.¹⁹

The IT industry in the United States is unlike any other. The U.S. boasts more entrepreneurship and new business creation than any other region in the world, research in advanced technologies with research institutions, cross disciplinary research like Center for Information Technology Research in the Interest of Society (CITRIS), concept and market development, and global integrated management.²⁰ On the other hand, the U.S. has a few key disadvantages including mass production, back office operations, and product and process enhancing to increase efficiency.²¹ These advantages and disadvantages combine to create a perfect climate for outsourcing. The unique openness and flexibility of the U.S. economy and labor market have helped U.S. companies realize these strengths and weaknesses and take advantage of outsourcing to increase productivity. Policy must therefore maintain this openness to allow the economy to thrive.²²

Outsourcing policy currently focuses on increasing government regulation in order to discourage companies from sending jobs overseas. For example, Senator John Kerry drafted policy that

¹⁹ Bernanke

²⁰ A.T. Kearney

²¹ A.T. Kearney

²² Lenny Mendonca, Address, Dec 5, 2003, NGA Policy Forum

- placed conditions on government contracts so the work would have to be performed in the U.S.
- eliminated tax breaks that allow U.S. companies to defer tax payments on income earned abroad
- offered incentives to encourage corporations to keep earnings in the U.S. and use this money as an employer tax credit for new hires, and
- included stronger labor and environmental protections in future trade agreements and the review of existing agreements.²³

Unfortunately this regulation is not healthy for an economy that is benefiting considerably from outsourcing. Policymakers need to focus on the strengths and weaknesses of the job market and on helping U.S. businesses compete in the global market. For example, policy can help maintain strong investment in research, keep doors open to foreign scholars, and strengthen investment in colleges, including increasing capacity for advanced research and continuous job training to guarantee industry needs are met. Public policy can help business leaders contribute by encouraging them to

- invest in their workforce
- make an effort to create more jobs, and
- support policies that aid the transition of displaced workers.²⁴

Subsidies that encourage business to not outsource are ultimately a cost to government, creating a “race to the bottom” that does not benefit government in the end, thus making this an expensive way to create new jobs. A better investment for government is education and infrastructure by helping develop re-skilling programs to

²³ Outsourcing: A Policy Agenda

²⁴ A.T. Kearney

help employees attain higher level jobs. A government mandate could also help companies provide severance packages that encourage the purchase of creative insurance covering displaced workers until they find new jobs.²⁵

A long-term solution to the global outsourcing problem is to decrease the wage gap between developed and developing countries and increase labor rights. This is an important opportunity to use increasing globalization to benefit all parties involved.

²⁵ Lenny Mendonca

II. Economics Behind Outsourcing²⁶

A. Outsourcing decreases cost in competitive global market.

It costs less to employ workers in India and other developing nations than workers in America since they have cheap labor and lower or no minimum wages. As mentioned previously, an IT worker in India earns about \$6 per hour as compared to an American IT worker who can make about \$60 per hour¹⁶.

B. Theory of comparative advantage.

According to the theory of comparative advantage, if every nation does what it does best, then the global economy benefits. For example, Country A (United States) can produce Item 1 (computers), three times as cheaply as Country B (China), and Item 2 (peripherals), five times as cheaply as China. Although the U.S. can produce both items more cheaply than China, the U.S. has a comparative advantage with producing peripherals. Therefore, it is best for the U.S. to focus its resources on producing peripherals and trading with China for computers. As a result, both countries benefit: the U.S. is able to profit by selling cheap peripherals to China. China benefits by getting cheap peripherals, which lowers the consumer price and raises the standard of living in China. The U.S. can now afford to buy the slightly more expensive computers from China, with all the money that the U.S. made from selling peripherals to China. In addition, China can now possibly lower the price of computers, since it saved so much money by importing cheap peripherals from the U.S.

²⁶ Written by Gianna Segretti

C. How does this relate to our outsourcing jobs to developing countries like India?

The model of comparative advantage above deals with actual production of physical items, but present-day media concern over outsourcing to India and other developing nations has focused on service industry type jobs like computer technology. The comparative advantage theory can still be applied, however. In the long term and on the larger economic scale, it is still beneficial for the global economy for these service-based technology jobs to be outsourced to countries with cheap labor and wages. The U.S. economy still benefits because it gets cheaper service and products that more American consumers can now afford. This raises the standard of living for American consumers and encourages spending within the U.S. economy. The economies of the developing nations (i.e., India) where these jobs have now been outsourced also benefit. The unemployment rate in these countries is lowered and the newly employed workers can now spend money on American products. Both of these phenomena increase the standard of living in these developing nations, and this again benefits the U.S. economy because more trade can now occur with these nations.

However, in the short term and on the micro-economic scale outsourcing does appear to be negative for American workers. Once an American IT worker loses his job to outsourcing it is difficult for him to find another job. He and his family suffer financial hardship and their standard of living may be lowered. It may take money and more education for the displaced worker to obtain a new job. The short-term problem is that so many American technology jobs have been outsourced in a short period of time. It takes time to find new jobs and industries for the displaced workers. The media has hyped this and labeled outsourcing as negative because it is very easy to put a specific

name and face of a displaced worker in a story about IT workers having lost their jobs due to outsourcing.

What the media fails to note is that the economy functions in cycles and jobs are lost for a variety of reasons:

1. **Structural changes in economy:** Jobs can be lost to business cycles and technology improvements in addition to outsourcing. For example, a lot of American technology jobs were lost during the dot com burst. This is an example of a fast-growing industry that simply expanded too quickly and flooded the market.
2. **Business cycles:** Seasonal jobs are another example of job loss due to business cycles (i.e., Santa Clauses at Christmas time or beach life guards during the summer). It's possible that due to certain business cycles there could be more or less demand for certain technology jobs during certain periods.
3. **Technology improvements:** Jobs can also be lost to technology improvements. For example, computers have made typewriters nearly obsolete. As a result there is less demand for typewriter manufacturers and repairmen, but a much greater demand for computer manufacturers and repairmen. Again this example ties into comparative advantage. In the short term such a dramatic shift could have been negative because of the displaced workers. In a perfect model, the displaced typewriter workers would simply shift directly into jobs in the computer industry. However, this cannot happen without re-educating the workers to learn the new technology. On the long-

term though, computers are much more efficient and therefore increase productivity and improve the standard of living.

III. Criteria for Evaluating Policy Response²⁷

The changes in the economy related to the IT industry are significant, whether due to outsourcing or other factors. Public policy has a unique opportunity to deal with public fear of outsourcing and to help displaced workers who suffer from the resulting job loss. The value of these policy options must be judged based on sound criteria so that we may effectively evaluate our options. We value four factors in a policy alternative:

- **Political feasibility:** A policy that does not make it through the political process to be implemented is not worth supporting. An appropriate policy solution will be politically possible considering bureaucratic constraints and political party affiliations and the biases that may accompany them.
- **Helpful to displaced IT workers:** Our goal is to help those who are directly affected, IT workers. Though we may not know the exact cause of IT job loss, it is a significant trend and in order to promote a healthy economy we must ensure the stability of the workforce.
- **Strengthens IT industry:** Ultimately our policy solution should be beneficial for the industry on the whole. It should promote a strong IT industry that is flexible and able to take advantage of new markets while making certain we retain our core competencies in the IT field.
- **Fiscal feasibility:** Money is also an important consideration. Some policies, though equitable and desirable, are unfeasible due to high cost. We must understand this limitation and choose a fiscally reasonable policy alternative.

²⁷ Written by Sandy Tesch

IV. The Role of Public Policy in Outsourcing²⁸

Government policy can play a crucial role in helping American workers compete against low-waged workers in the developing world. Congress and state legislatures are considering protectionist measures that would forbid government contract work from being done offshore.²⁹ However, as demonstrated in the previous sections, economic theory and labor data show that protectionism is shortsighted and will result in more harm than good. In the long term, arbitrage in the global labor market will inevitably accelerate. The question then becomes: How can government policy mitigate against the negative impact that will arise out of outsourcing?

In an article about jobs in America, *The Economist* captures the essence of the problem: “Yes, individuals will be hurt in the process, and the focus of public policy should be directed towards providing a safety net for them, as well as ensuring that Americans have education to match the new jobs being created.”³⁰ Hence we approach policy analysis with the overarching goal of providing assistance those American workers whose jobs are at risk.

The five policy recommendations described below fall into two broad themes: to calm the panic over the fear of job loss and to institute substantive relief programs for displaced workers. First, the federal government needs to demonstrate that it is tracking labor and trade statistics and will keep everyone informed of the impact of outsourcing. Second, policy makers should draft laws at the local, state, national, and international

²⁸ Written by Hong Qu

²⁹ BBC, “Senate votes to stop outsourcing,” March 5, 2004, http://www.economist.com/agenda/displayStory.cfm?story_id=2454530

³⁰ *The Economist*, “The great hollowing-out myth,” Feb 19th 2004, http://www.economist.com/agenda/displayStory.cfm?story_id=2454530

levels to help those individuals whose livelihood are adversely affected by competition from abroad.

These two approaches work together to sooth the fear that haunts IT workers who worry that outsourcing will make their professional skills superfluous. These policies aim to calm the public outcry against outsourcing, as well as to proactively formulate programs that will assist displaced workers.

A. Conduct Government Studies and Reports on Outsourcing³¹

While we frequently hear anecdotal stories of how outsourcing threatens American jobs, there is a lack of authoritative evidence based on hard statistics. The government should fund research studies in order to demystify the impact of outsourcing. We need to understand which types of jobs are going offshore at what speed and at what magnitude. Although numerous academics, private companies, and think tanks have analyzed outsourcing from various angles, none of them can measure the phenomenon as thoroughly and impartially as the federal government.

Proposals for how government can play a role in tracking outsourcing trends are presented in bills introduced by Representative Maxine Waters (CA) and Representative David Camp (MI). The Commission on American Jobs Act, introduced by Representative Waters states: “Directs the Secretary of Commerce to establish a Commission on American Jobs. Requires the Commission to: (1) collect data on the outsourcing of jobs by specified types of companies of interest; (2) study such

³¹ Written by Hong Qu

outsourcing's causes; (3) propose prevention measures; and (4) report to specified congressional committees.”³²

Representative Camp’s Trade Adjustment Assistance Equity for Service Workers Act of 2004:

“Requires the Secretary of Labor shall implement a system to collect data on adversely affected service workers that includes the number of workers by State, industry, and cause of dislocation of each worker.

The Secretary of Commerce shall conduct a study and report to the Congress on ways to improve the timeliness and coverage of data on trade in services, including methods to identify increased imports due to the relocation of United States firms to foreign countries, and increased imports due to United States firms obtaining services from firms in foreign countries.”³³

The government plays an instrumental role in collecting and reporting on outsourcing data. Compared to headline hungry reporters, profit motivated consultants, and under-funded researchers, federal government agencies are the most credible source of information. The public relies on agencies such as the Department of Labor, Department of Commerce, and the General Accounting Office (GAO) to track outsourcing statistics and reporting their findings to the public.³⁴

Analysis based on criteria³⁵

A program that aims to study IT outsourcing has limited impact based on our criteria. First, the program is not likely to help current displaced workers at all because it

³² **H.R.3878** To establish the Commission on American Jobs.

<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:HR03878:@@L&summ2=m&>

³³ **H.R.4090** To amend the Trade Act of 1974 to extend the trade adjustment assistance program to the services sector, and for other purposes.

<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:HR04090:@@L&summ2=m&>

³⁴ A good example is the GAO’s report: Current Government DATA Provide Insight into Outsourcing <http://www.gao.gov/new.items/d04932.pdf>

³⁵ Written by Ian Carpe

is merely a program to increase government resources in studying the effects of the IT outsourcing phenomenon. However, one of the benefits of a program that is strictly to complete further research is that it will more likely receive bipartisan support in the congress. This means that the political feasibility of this proposal is very high. In addition, we can assume that the costs of completing studies on this problem are a “drop in the bucket” compared to creating a social welfare program for displaced workers, for example.

The fiscal feasibility of this alternative is also very high. The projected costs are in the range of a few million for professional studies rather than hundreds of millions or even billions to implement a whole new plethora of social programs to deal with the effects of outsourcing. Yet, the benefit this policy will bring to displaced IT workers will be minimal because it does not help them directly.

B. Provide a Safety Net for Displaced Workers³⁶

There already exist laws that helps manufacturing workers displaced by foreign trade. The Trade Adjustment Assistance Act (TAA) helps workers who loss their job due to increased imports from, or shifts in production to, foreign countries. These workers qualify for income support, relocation allowance and health coverage tax credit. In addition, an innovative clause doles out a wage supplement to enable “older workers, for whom retraining may not be suitable, to accept reemployment at a lower wage.”³⁷ While

³⁶ Written by Hong Qu

³⁷ Department of Labor website: Trade Act Programs: TAA for Workers
<http://www.doleta.gov/tradeact/>

these programs directly address the problem of outsourcing, they are not well publicized and cannot help IT workers as they only apply to workers only in manufacturing.

To extend the TAA's benefits to IT workers, Representative Adam Smith (WA) proposed a bill that would make workers in a service firm eligible for benefits. His Trade Adjustment Assistance Equity for Service Workers Act (TAAESWA) of 2004 modifies the trade monitoring system to include imports of services.³⁸ IT workers need these type programs to reassure them that the government has programs in place to help them. The fear of unemployment can be overwhelming; but IT workers can at least rest assured that the government is drafting policy to address their needs.

A more creative approach to help displaced workers has been proposed by Robert Litan and Lori Kletzer of the Institute for International Economics. They came up with a wage insurance policy for displaced workers that pays up to \$10,000 to equalize their salary to their pre-layoff levels. The counter-intuitive element is that the payment cannot be collected until workers find new jobs. They believe that this prerequisite encourages workers to accept lower paying jobs where they can get on-the-job training. They estimate that this program would cost the government up to \$3 billion.³⁹

Aside from income support, retraining, and health coverage, displaced workers need assistance with other aspects of their lives. Services such as childcare, retirement plans and career counseling play a crucial role in helping workers get back on their feet. The impact of losing one's job to outsourcing hurts financially, yet the psychological trauma

³⁸ Trade Adjustment Assistance Equity for Service Workers Act of 2004
<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:HR03881:@@L&summ2=m&>

³⁹ Lori G. Kletzer and Robert E. Litan, "A Prescription to Relieve Worker Anxiety", The Brookings Institute, Policy Brief #73, March 2001.

cannot be underestimated. Therefore, government policy should account for workers' fear and allay the mental as well as the financial burden of becoming unemployed.

An interesting buffer for the shock of being outsourced is suggested by Senator Tom Daschle (SD) in his Jobs for America Act of 2004: "Require companies that offshore 15 or more jobs to provide at least three months notice of their intentions to offshore. It also requires notification to the Department of Labor, which compiles similar notices and information in order to transmit a report to Congress and the President on the offshoring of jobs."⁴⁰

Lastly, we note that certain regions of the country such as Silicon Valley have a high concentration of IT workers. If outsourcing does wipe out jobs within those communities, the government should fund regional development programs in industrial clusters where companies and jobs are moving offshore. The Economist Brad DeLong explains that:

There were no regional adjustment funds provided to the cities of Lowell and Fall River Massachusetts in the 1940s and 1950s as their textile manufacturing base pulled up stakes and headed for the lower-cost Carolinas. There was little money spent on Flint and Detroit in particular and Michigan in general in the late 1970s and 1980s to cushion the economic impact of the coming of Toyotas and Hondas to America's shores. Consumers in Boston and San Francisco drove their Accords and Corollas and pocketed the gains rather than having them diverted to rebuilding the Midwest.⁴¹

DeLong points out that while outsourcing enables Americans as a whole to enjoy lower prices and greater productivity, the benefits accrue to people living in regions where IT jobs do not make up the bulk of the employment. Areas where the IT industry

⁴⁰ Jobs for America Act of 2004
<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:s.02090>:

⁴¹ Thinking About Outsourcing
http://www.j-bradford-delong.net/movable_type/2004_archives/000556.html

predominates will suffer disproportionately unless the government plays an active role in revitalizing those communities.

Analysis based on criteria⁴²

This alternative provides for an effective short-term solution to a long-term problem. Outsourcing is here to stay, and will likely to continue. Creating social programs do help individuals, but are only the proverbial “finger plugging the hole in the dam”. The issue that is not dealt with is the comparative advantage of the U.S., which must be approached in order to deal with the long-term nature of the outsourcing problem. Therefore, this solution has limited benefits (unless of course you are the IT worker that will receive benefits from such a program).

The political feasibility of creating a social welfare program such as this is slim. The current Bush administration appears to be very anti-labor. Welfare programs have historically been more likely to be implemented under the auspices of Democratic regimes. The current political climate in bicameral Washington (a Republican House of Representatives and Republican Senate), also is not particularly conducive to such a solution. In addition, the fiscal feasibility of a proposal such as this makes the solution quite unlikely. The current enormous level of deficit spending has made the legislature fearful of large and inherently wasteful bureaucracy that such a program would create. It would take a significant level of insider lobbying in order for this solution to be implemented.

⁴² Written by Ian Carpe

C. Create Incentives for Lifelong Learning⁴³

The government can only do so much to directly help American workers to prepare for competition from low cost labor from abroad. To effectively train IT workers for the future, America needs to work together with corporations, trade associations, and colleges to build up American capacity for lifelong learning. While it cannot and should not mandate any specific training programs, it can provide incentives to all the stakeholders to pitch in.

1. **Tax breaks:** First, it can offer tax breaks to American tech companies for offering continuing education programs to its employees. For instance, IBM started a Human Capital Alliance fund to “help workers in positions likely to be affected by the outsourcing trend to retrain for new jobs, ideally with IBM or one of its business partners.”⁴⁴
2. **Career path curricula:** Second, trade associations can develop curricula for transiting workers into promising career paths. The Communications Workers of America is proactively joining forces with employers and colleges to provide career development training to tens of thousands of workers to help them be more successful in their job.⁴⁵
3. **Increase tax credits:** Finally, the limits on lifelong learning tax credits should be increased. The current limits on the Hope and Lifetime Learning Tax credits needs to be raised in order to keep up with the quickly rising cost of education.

⁴³ Written by Hong Qu

⁴⁴ Cowley, Stacy, “IBM starts fund to aid displaced workers”, *ComputerWorld*, March 2, 2004, <http://www.computerworld.com/careertopics/careers/story/0%2C10801%2C90690%2C00.html?SKC=careers-90690>

⁴⁵ http://www.cwa-union.org/jobs/joint_training.asp

Most important of all is to pinpoint high value skills through dialogue with business and trade association leaders. American IT workers should be able to differentiate themselves from their counterparts in other countries by building up their business, communications, creative, and analytical skills. A study by A.T. Kearney at the behest of the Bay Area Economic Forum insightfully gauged the in-demand skills by measuring the complexity of the job function against the maturity of the offshore supply market.⁴⁶ It concluded that for job in which the complexity is low and the offshore capabilities are well developed, the possibility of outsourcing is very high.

Another study by two Berkeley researchers found that jobs with these attributes are likely to be outsourced:

- No Face-to-Face Customer Servicing Requirement
- High Information Content
- Work Process is Telecommutable and Internet
- High Wage Differential with Similar Occupation
- Low Setup Barriers
- Low Social Networking Requirement⁴⁷

These attributes indicate that workers and educators should emphasize on building communications, interpersonal and business analysis skills.

Finally, lifelong learning also empowers older IT workers to create their own jobs by becoming self-employed consultants. If they keep up with industry trends, they can carve out a niche for themselves and generate income from publishing, making speeches, freelance projects, and even pursue entrepreneurial ventures. Policy maker should be aware of this trend and help these solo practitioners whose flexible status makes them more “employable” in the labor market.

⁴⁶ A.T. Kearney study, “The Future of Bay Area Jobs”
<http://www.atkearney.com/main.taf?p=5,4,1,99>

⁴⁷ Ashok Deo Bardhan and Cynthia A. Kroll, “The New Wave of Outsourcing”,
http://www.haas.berkeley.edu/news/Research_Report_Fall_2003.pdf

Analysis based on criteria⁴⁸

This solution may be one of the most effective. Some American companies have already implemented programs for their workers for lifelong learning. But, sending a 50 year old computer programmer to community college to learn biotechnology is somewhat unlikely to be effective. On some level, these workers may just be sore out of luck. But, lifelong learning is one of our best current solutions to the outsourcing problem because it provides America with a way to target industries for future workers and to find new areas for economic comparative advantage. The political feasibility of a program like this is very high. One of America's current comparative advantages is in education so it makes sense that this would be one effective alternative. Fiscally, we believe that these programs are money well spent. However, current nation-wide under-funding of educational institutions makes it more difficult to implement programs like these. If we can put some political clout behind this effort, it seems very likely that the money to run such programs can be identified and spent. Politicians try to refrain from voting against education funding because of the negative image that that would convey to their constituents.

D. Tax Outsourcing Contracts⁴⁹

The government will need funds to implement research studies and workers' assistance programs. The most equitable way to come up with that money would be to tax the beneficiaries of outsourcing, namely companies. A tax of 5% on outsourced work (goods

⁴⁸ Written by Ian Carpe

⁴⁹ Written by Hong Qu

and services imported into the U.S.) would not deter firms from sending work abroad because the cost savings they derive is so great. On the other hand, displaced workers would would feel more secure that there is a fund earmarked for their needs.

Ask any economist and he will tell you that trade tariffs will always have a negative effect on both the national and the global economies. They point out that tariffs often provoke retaliatory protectionist measures and quickly devolve into a race to the bottom. If the U.S. taxes outsourced work, then other countries might tax American imports. An even worse scenario would be if companies leave the U.S. altogether and move their operations to a country that does not tax the practice of outsourcing. Some economists have gone as far as advocating for provisions in the Global Agreement in Trade in Services (GATS) that would prevent member countries from enacting protectionist laws.⁵⁰

While most economists consider tariff an anathema to free trade that inevitably hurts the economy as a whole, policy makers can appease everyone by clearly stating the intention of the tax. Its purpose is not to discourage outsourcing—that would require a much higher tax rate. Instead the goal is to redistribute benefits from companies to workers whose jobs are wiped out due to competition from the globalization of labor. In this sense, the government intervenes in how business bargains with labor. It soothes the pains experienced by displaced workers by taxing the very cause that brought about their displacement. Thus, the motivation of this tax policy is to relieve the displaced workers' fear and anguish by penalizing the companies, which will be required to pay taxes to fund worker assistance programs.

⁵⁰ Aaditya Mattoo and Sacha Wunsch, "Preempting Protectionism in Services: The GATS and Outsourcing", January 2004.

Analysis based on criteria⁵¹

Taxes in general are not welcomed by the Republican administration and Congress. Therefore the political feasibility is very low. Fiscal feasible is high because it brings in money to be used for helping displaced workers who are suffering financially. In terms of the IT industry, a new tax would definitely hurt the competitiveness of U.S. companies which will have to pay the additional cost. Also, retaliatory trade wars may severely damage trade in IT goods and service globally and could end up hurting everyone. Thus, while the tax appears to help displaced IT workers, it could actually lead to negative consequences for the economy, the industry, and the workers themselves.

E. Negotiate for Labor Rights in Trade Agreements⁵²

One important aspect to strengthening the world economy and free trade is to promote human rights and labor rights throughout the world especially in developing countries. The International Monetary Fund includes poverty reduction as one of its purpose policies.⁵³ The IMF therefore, lends money and financial assistance to developing countries in order to reduce poverty and increase the international standard of living. This helps to strengthen the world economy. Labor rights and human rights stipulations within trade agreements can be a powerful way to reduce poverty and strengthen the whole world economy. Human and labor rights can include safe working conditions, cost-of-living wages, and an end to child labor. It is important to for the U.S. government to insist that developing nations abide by global standards for labor

⁵¹ Written by Ian Carpe and Hong Qu

⁵² Written by Hong Qu and Gianna Segretti

⁵³ IMF, <http://www.imf.org/external/pubs/ft/exrp/what.htm#glance>

conditions and practices. Increasing the standard of living in developing nations by these means may help the U.S. economy because workers in foreign nations now earning better wages may now be able to afford American imports.

Analysis based on criteria⁵⁴

Advocating for labor rights in trade negotiations is well-meaning and almost a given under any administration. Its fiscal impact on the government is minimal. For displaced workers, knowing that other countries are competing fairly and treating their IT workers properly is comforting but not reassuring enough to make them stop worrying about where their next paycheck will come from. Creating world-wide policies for many nations to abide by is an incredibly difficult goal to make happen. However, raising the standard of living in foreign nations helps the U.S. economy by strengthening trade and increasing the U.S. export industry.

⁵⁴ Written by Hong Qu

V. Tradeoffs⁵⁵

The five policy alternatives described in the preceding section all have their strengths and weaknesses. Some policies benefit IT workers at the expense of government and industry. Other policies, such as encouraging research studies and advocating labor rights, have only a tangential effect on American workers. Nonetheless, the goal of these policies is to address the inequities between the winners and the losers of outsourcing.

“But while the benefits of outsourcing are subtle, long-term and broadly dispersed across the entire population, the negative impacts on discrete groups of U.S. workers are acute and severe. These affected workers form a powerful political voice.”⁵⁶

Policy makers have to proactively tackle the negative effects of outsourcing. They need to understand that in the long run, trade in goods, services, and labor fosters economic growth and raises the standard of living all around the world. But the disaffected segments of the American workforce might over-react from their fear of jobs moving overseas. Hence, the government needs to make available resources and programs that speak directly to their fears.

In order to help displaced workers, we need to understand what kind of assistance they will need as offshoring becomes more common practice. First, they will need information about trends in the labor market to see if their job is at risk. If it is, they should begin preparing to transition to new jobs that are less likely to be outsourced. In short, IT workers need concrete guidance and support from policy makers.

⁵⁵ Written by Hong Qu

⁵⁶ Committee of 100 Statement on Outsourcing and Globalization of Trade, April 25, 2004. http://www.committee100.org/About/issues_outsourcing.htm

VI. Conclusion⁵⁷

An overview of outsourcing in the IT industry shows that American IT workers are at risk of losing their jobs to low cost engineers in developing countries. Politicians and the media have blamed the jobless recovery on outsourcing; the American public is feeling threatened by the imminent possibility of jobs being outsourced en mass. Yet, trade and labor statistics show the main causes of the rise in unemployment are productivity gains and the recession. Outsourcing is merely a convenient scapegoat.

But we expect the pace outsourcing to accelerate, depressing the standard of living for millions of Americans. These displaced workers desperately need assurance and support from government. Policy makers should anticipate their needs. Five policy alternatives are proposed.

First, government analysts should study and produce reports on outsourcing trends. Second, programs should be in place to provide a social safety net for displaced workers while they transition to new jobs. Third, lifelong learning activities should be formulated and encouraged in conjunction with all the stakeholders. Forth, a tax on companies that outsource can raise funds to pay for displaced workers' programs. Finally, U.S. trade negotiators should require trading partners to abide by human rights and fair labor practices.

After weighing the pros and cons of each of the alternatives, we recommend the first and third policies because they are the most tenable. The government should take the lead in tracking and analyzing the disruptive impact that outsourcing will cause in trade

⁵⁷ Written by Hong Qu

and labor markets. While these reports benefit displaced workers only indirectly, they place a crucial role in reconfiguring the outsourcing debate on more grounded reality.

The more pivotal policy recommendation is to create incentives for lifelong learning. Lifelong learning and education enables America's workforce to develop skills that can be applied in new industries and markets. Beyond relying on companies to give them a job, they can embark on their own freelance business as flextime consultants, or even relocate to countries where the jobs have gone. In essence, they control their own destiny because they are creating job descriptions that fit their talent and experience.

Public policy will play a critical role in how outsourcing benefits and harms Americans. Protectionism is risky because it forces American companies to compete with a higher cost structure. Instead, policy makers should aim to strengthen America's competitive advantage in education, research, and innovation. At the same time, policy makers need to formulate programs which will spread the gains from outsourcing to those in the workforce who face tough, sometimes unfair, competition from low wage workers in the global labor market.

Bibliography

- Anderson, Sarah and John Cavanaugh, "Outsourcing: A Policy Agenda," *Foreign Policy in Focus* 9, no. 2, 2004,
http://www.fpif.org/briefs/vol9/v9n02outsource_body.html.
- "A World of Work," *The Economist*, Nov 11, 2004,
http://www.economist.com/printerfriendly.cfm?Story_ID=3351416.
- Bardhan, Ashok Deo and Cynthia A. Kroll, "The New Wave of Outsourcing," *Research Report* (Fall 2003): 1-12;
http://www.haas.berkeley.edu/news/Research_Report_Fall_2003.pdf.
- BBC, "Senate votes to stop outsourcing," March 5, 2004,
http://www.economist.com/agenda/displayStory.cfm?story_id=2454530.
- Bernanke, Ben S., Remarks, Mar 30, 2004,
<http://www.federalreserve.gov/boarddocs/speeches/2004/20040330/default.htm>.
- The Communications Workers of America, http://www.cwa-union.org/jobs/joint_training.asp.
- Cowley, Stacy, "IBM starts fund to aid displaced workers", *ComputerWorld*, March 2, 2004,
<http://www.computerworld.com/careertopics/careers/story/0%2C10801%2C90690%2C00.html?SKC=careers-90690>.
- DeLong, Bradford J. "Thinking About Outsourcing,"
http://www.j-bradford-delong.net/movable_type/2004_archives/000556.html.
- Department of Labor, Trade Act Programs: TAA for Workers,
<http://www.doleta.gov/tradeact/>.
- Digital Economy 2002, via Computer Systems Policy Project, *Choose to Compete*, 2004, via 12/2 lecture from Lazowska.
- The Drum Major Institute for Public Policy, Talking Points on Outsourcing, Aug 2, 2004, accessed Nov 16, 2004,
<http://themiddleclass.org/main.cfm?actionId=globalShowStaticContent&screenKey=talking>.
- The Economist*, "The great hollowing-out myth," Feb 19th 2004,
http://www.economist.com/agenda/displayStory.cfm?story_id=2454530.

Freeman, Peter and William Aspray, "The Supply of Information Technology Workers in the United States," http://www.cra.org/reports/wits/it_worker_shortage_book.pdf.

International Monetary Fund, <http://www.imf.org/external/pubs/ft/exrp/what.htm#glance>.

Kletzer, Lori G. and Robert E. Litan, "A Prescription to Relieve Worker Anxiety," The Brookings Institute, Policy Brief #73, March 2001.

Madan, Praveen et al., "The Future of Bay Area Jobs: The Impact of Offshoring and Other Key Trends," A.T. Kearney;
<http://www.atkearney.com/main.taf?p=5,4,1,99>.

Mattoo, Aaditya and Sacha Wunsch, "Preempting Protectionism in Services: The GATS and Outsourcing," January 2004.

Mendonca, Lenny, Address, Dec 5, 2003, NGA Policy Forum;
<http://www.nga.org/cda/files/wf03mendonca.pdf>.

Trade Adjustment Assistance Equity for Service Workers Act of 2004
<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:HR03881:@@L&summ2=m&>.

United States. Cong. House of Representatives. 108th Congress, 2nd session. *H.R. 3878, A bill to establish the Commission on American Jobs* [introduced in the U.S. House of Representatives; 3 Mar 2004].
<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:HR03878:@@L&summ2=m&>.

United States. Cong. House of Representatives. 108th Congress, 2nd session. *H.R. 4090, A bill to amend the Trade Act of 1974 to extend the trade adjustment assistance program to the services sector* [introduced in the U.S. House of Representatives; 31 Mar 2004].
<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:HR04090:@@L&summ2=m&>.

United States. Cong. Senate. 108th Congress, 2nd session. *S. 2090, Jobs for America Act, A bill to amend the Worker Adjustment and Retraining Notification Act of 2004* [introduced in the U.S. Senate; 12 Feb 2004].
<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:s.02090:>.