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Services Offshoring: Background and Implications for California

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PPIC's research agenda focuses on three program areas: population, economy, and governance and public finance. Studies within these programs are examining the underlying forces shaping California's future, cutting across a wide range of public policy concerns, including education, health care, immigration, income distribution, welfare, urban growth, and state and local finance.

PPIC was created because three concerned citizens – William R. Hewlett, Roger W. Heyns, and Arjay Miller – recognized the need for linking objective research to the realities of California public policy. Their goal was to help the state's leaders better understand the intricacies and implications of contemporary issues and make informed public policy decisions when confronted with challenges in the future.

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Summary

Despite its apparent novelty, the use of foreign labor by American companies is not a new phenomenon. Manufacturing firms have long used foreign labor, either by importing inputs made by unrelated companies, or by setting up their own companies overseas to produce these inputs. Such use of foreign labor has come to be known as offshoring. Recently, U.S. and California businesses have started offshoring the production of business services, including technology services such as software production. The offshoring of business services is a new twist to an old trend, and policymakers are struggling to understand both its implications for the economy and whether they should undertake any policy actions.

The biggest concerns center on job opportunities. Is offshoring reducing opportunities for high-skilled U.S. workers? Will it decrease employment? Could there be benefits to the economy that will improve opportunities for American workers? Policymakers face these issues in their rawest form when they meet constituents who have lost jobs because their companies have decided to shift jobs overseas.

Research can provide little solace to these workers, but it can help policymakers and others understand the background and implications of offshoring for the economy as a whole. Insofar as policymakers consider the effects of their actions on the well-being of all Californians, research can help them better respond to this new challenge.

Business services offshoring is made possible by policy reforms and economic advances abroad and by worldwide advances in information and communications technology. Although these make offshoring possible, a large set of factors determine whether offshoring will be profitable, and therefore whether a firm will use foreign labor. These factors, such as direct costs, indirect costs, productivity effects, and risk, also determine suitable locations for offshoring. That location might be India, the focus of much discussion about the phenomenon, but it also might be Canada or the United Kingdom. For example, in 2002, U.S. multinationals employed 24,000 workers in the information industries and in business, professional, and technical services in India, but 206,000 workers in those industries in the United Kingdom.

Because offshoring is a form of international trade, its likely effects on the economy will be the same as those of trade in general. These include transitional costs over the short term as some domestic jobs are ended, and productivity gains and new job creation over the long term, leading to increases in the U.S. average standard of living. Because of the dynamics of the U.S. economy and offshoring's expected effect on productivity, the overall, longer-run effect of offshoring may be to increase living standards at home.

Offshoring also may affect the income distribution, but in what way is uncertain. The offshoring of general manufacturing production grew rapidly in the 1980s and likely contributed to an increase in income inequality. The offshoring of technology products became commonplace in the 1990s, had a measurable positive effect on U.S. economic activity, and took place at a time of reduced income inequality. Although trade surely has implications for the relative wages of skilled and unskilled workers, the direction of its effect is uncertain. At the same time, the size of its influence is almost certainly less than that of other developments, such as technological change.

Offshoring brings with it the immediate problem of job loss for specific people. The frequency with which jobs disappear as a result of the offshoring of business services has not yet been reliably measured, and the figures frequently cited are highly speculative. Recent official U.S. data report that in cases of mass layoffs, between only 2.5 and 3.3 percent of the job losses were due to the movement of jobs overseas.

This figure suggests that at this point, offshoring is a small phenomenon, and other evidence supports that suggestion. The consulting company Forrester Research has estimated that as of 2003, fewer than 400,000 U.S. jobs had been offshored, amounting to less than 0.3 percent of all civilian employees in the United States and less than 2.9 percent of all workers in occupations that could be offshored. In the dynamic U.S. labor market, it is not unusual for 1 million workers to quit or be fired in a single week, and these workers generally are reabsorbed into the economy. Over the longer term, it is difficult to find a relationship between the different episodes of offshoring and the number of jobs in the United States. Between 1960 and 2002, in comparison to other advanced countries, the United States moved from below average in the share of its working-age population holding jobs to having the highest proportion of its working-age population with jobs.

The evidence also suggests that opportunities for workers in business services occupations are not disappearing in the United States or California. Although offshoring of business services has removed some job opportunities, it came to public attention at the same time as a global slowdown in technology markets generally. Many of the occupations at risk of offshoring have started to show job gains more recently in the United States, in particular business and financial operations occupations, computer and mathematical occupations, and science occupations. Likewise, in California, many industries in which offshoring takes place show employment declines from their peak in 2000 or 2001, but longer-term gains, even since just 1999.

Services trade patterns, which capture the effects of offshoring business services, do not show particular weakness in U.S. business services production. The United States has a surplus in services trade. This has fallen in recent years, but the decline is entirely due to an erosion of travel, passenger fares, and other transportation receipts, which are defined as services exports. In contrast, the country has maintained a strong surplus in those areas of services trade that reflect offshoring.

Despite these observations, job loss from offshoring is occurring, and the development of policies to provide assistance to workers displaced by business services offshoring has started to receive significant support. The current wave of offshoring, however, generates job losses that are not covered by current forms of trade adjustment assistance; this is so because the current federal legislation does not cover workers displaced from service sector positions. There is no compelling reason why adjustment assistance should neglect these workers.

Policies for these displaced service sector workers, however, need to be carefully contemplated, much as policies for similarly displaced manufacturing workers have been through the last 40 years. In particular, these policies must recognize the tradeoffs inherent in the use of government resources for any particular goal as well as the effects that these policies will ultimately generate in the wider economy.

As one response, policymakers in California and other states are now considering legislation that will restrict offshoring by companies that hold state contracts. Such measures are likely to have a variety of potential effects and encompass a number of tradeoffs. These effects and tradeoffs include:

- *The implicit cost of the policy*. Although there is no budget line associated with a restriction on government contracting, such restrictions are likely to be more costly than other policy options that achieve the same goals. Restrictions are likely to build in recurring costs, whereas other policy options can involve one-time transition costs.

- *The inclusiveness of the policy*. Restrictions on state contracting ultimately assist a very small number of workers potentially affected by offshoring.

- *The beneficiaries of government resources*. Workers at risk of being displaced by offshoring tend to be relatively skilled and have a history of relatively high wages. Other government programs serve people with relatively low wages. Because restrictions on contracting mean the government will pay more for certain services than it otherwise would have, it will have less money for other purposes. Part of the policy calculation should consider whether, in an era of tight state budgets, workers at risk of being displaced by offshoring have a more important claim on state resources than other state residents.

- *Implications for the state's economy*. Restricting state contracting will not necessarily aid workers in the state. It is possible that contracts will be awarded to out-of-state bidders when they would have otherwise stayed in state.

- *Unintended consequences*. State-level responses to offshoring could have unexpected effects; for instance, measures could bring California out of compliance with international trade agreements and invite challenges, or foreign countries could retaliate by restricting purchases of California-produced services.

Other than limiting offshoring, what can government do in response to this new economic challenge? Nearly all costs from economic growth and transition stem from adjustment – moving workers and capital from old occupations to new occupations. Using money it might otherwise have spent on more expensive contracts, the state can aim to make the transition easier.

Possible policies – at either the state or federal level – include subsidizing worker retraining, subsidizing health care for workers who are displaced but who are retraining or looking for work, providing relocation benefits for displaced workers who find jobs in new locations, or maintaining extended unemployment benefits for displaced workers who are actively retraining or seeking new work. Policies designed to cushion the blow of losing a job include enhanced portability of health care benefits and of retirement accounts. Policies more directly designed to speed the return to work, including re-employment wage insurance and transition assistance, also merit consideration.

As of now, available labor-market data do not provide a comprehensive understanding of the new offshoring of business services. What data are available suggest that the number of jobs being offshored is small relative to both the overall labor market and to the number of people working in occupations that might be offshored. In addition, offshoring is only one piece of the recent weak labor market, and the phenomenon is too new – and foreign economic developments and future technological innovations are too uncertain – to make solid long-term projections.

Nonetheless, policymakers will continue to face questions about how to deal with this phenomenon. It holds the potential to raise overall standards of living, but it also holds the potential to displace specific workers. Because of these two effects, policies that ease the job transition of displaced workers rather than those that attempt to stop offshoring completely are more likely to help the economy – and thus the majority of the state's workers and consumers – to adjust and prosper.

Implementing a policy response to an issue such as offshoring is fraught with risk. The newness of the offshoring of services as a significant economic and policy issue makes responding especially difficult. Shortcomings in the current state of knowledge regarding, in particular, the number of workers that are affected, the characteristics of the workers affected, and the importance of offshoring in the decisions made by industry and their subsequent response to any policy, are sufficient to generate questions regarding the efficacy of most policy responses. They also suggest the need to proceed cautiously in policy development.

Introduction

The issue of offshore outsourcing, or offshoring, evokes strong emotional views based on what appear to be obvious economic implications and equally apparent policy responses. A particularly compelling source of anxiety over offshoring in its recent form is that it appears to be depriving not only unskilled workers, but also those with significant skills, of jobs in the United States. However, neither the implications nor the policy solutions are obvious.

Although offshoring has been a part of the U.S. economic landscape for some time, it has only recently come to include the movement of technology and business services to other countries. The offshoring of these services, which are often provided by skilled workers, is seen by many as eroding the employment opportunities that many trade proponents asserted would exist when lower-skilled manufacturing was moving overseas. Specifically, the assertion was that expanded global trade and investment would create better-paying, more desirable jobs in place of the lost jobs. The growing incidence of offshoring skilled services suggests to some that this may not be the case.

This paper describes the concept of offshoring, explains its appeal, and puts the phenomenon in both its historical and current context. In so doing, it explains how technology and business services offshoring fits into the growing globalization of the U.S. and world economies. The paper also discusses the economic implications of offshoring for the California and U.S. economies.

The primary motivation of this paper is the plethora of state-level policies being contemplated around the United States. These are policies directed almost exclusively toward discouraging the desire of domestic companies to offshore services. In the final section of the paper, we briefly discuss these policies and analyze a common response: restricting the eligibility of vendors for state contracts to those employing only domestic labor. Given the reactions of those opposed to and in favor of offshoring, some policy response is inevitable. This report provides evidence and analysis to aid in the development of an effective and efficient policy response – one that both helps workers who might be harmed by offshoring and accomplishes this goal at a low cost to the government and the economy as a whole.

Understanding Offshoring

Conceptually, it is useful to consider a firm's production strategy as having three tiers: onsite, offsite, and offshore. Moving business functions offsite – outsourcing – has been a common practice among firms for many years.[1] Offshoring, the movement of business functions overseas, started in the electronics industry in the 1960s and has spread since then. More specifically, "offshoring" refers to the decision made by a U.S.-based company to:

- Outsource work to a foreign company based abroad,
- Outsource work to another U.S.-based company that sends the work to a foreign company based abroad, or
- Relocate part of its business unit abroad, employing locally based staff.[2]

Although moving some parts of the manufacturing process offshore has a long history, moving business services overseas has become possible only with recent improvements in communications technology. Through the availability of the Internet and low-priced international telecommunications, business enterprises can now more conduct these services activities offsite, including overseas, more easily. These and other recent technological developments, coupled with the availability of skilled, lower-wage, English-speaking workers abroad, make offshoring a possibility for many companies.

In this section, we put the current wave of offshoring in historical context, explain why individual firms might decide to offshore business activities, and discuss the various ways offshoring can affect the broader economy. The next section compares offshoring with other labor-market phenomena to assess how important its effects might be.

Historical Context

Offshoring has been an important part of the evolution of the U.S. economy for the last 30 years, but in recent years, the types of business functions moved overseas have expanded into new areas. First, they are services, and second, they are often services provided by skilled workers. Services offshored include those provided by call-center personnel, software programmers, medical diagnosticians, and others. The revolutionary force of the Internet has provided a significant push, as perhaps the introduction of the shipping container in the early 1960s encouraged a rapid expansion in world trade.

The current controversy over offshoring reflects a long pattern of concern regarding the movement of U.S. jobs overseas. Historically, formal barriers to international trade have tended to be largest on processed goods – both manufactured and agricultural products – rather than

[1] For example, in the early years of the automobile industry, vertically integrated companies produced all parts. More recently, automobile companies have evolved into entities that design and assemble automobiles, with parts specifically ordered to particular specifications from independent parts manufacturers.

[2] U.S. Department of Commerce (2003).

on natural resources. These barriers are motivated by the desire to protect jobs in the United States.

We are now at the beginning of what might be considered the third wave of offshoring, and all three waves have sparked debate in the United States about the effects of globalization on jobs and the economy.[3] In the late 1970s and 1980s, discussion increased dramatically as trade barriers to products fell, foreign countries increased their production capabilities, and the trade position of the United States turned from surplus to deficit. In this first wave of offshoring – the increased reliance on imports – the surplus of goods imports over goods exports was seen by some to indicate that the U.S. economy was hemorrhaging jobs and that the wages of U.S. workers were being eroded by foreign competition.[4]

In the late 1980s and 1990s, the second wave of offshoring – rapid growth of outward foreign direct investment and increased U.S. ownership of productive capacity abroad – exacerbated concern about the global economy and U.S. jobs. Much of this investment was destined for developing countries, such as Brazil, Hong Kong, Mexico, and Singapore, leading to cries that the low-skilled and most vulnerable workers in our society were being disproportionately affected by the growing globalization of the U.S. economy.

This brings us to the early 21st century, and a third wave of offshoring. Two fundamental developments lie behind the third wave:

- Policy reforms and economic advances abroad. These were promoted by the U.S. government and endorsed by many concerned with worldwide standards of living and the eradication of poverty.

- The invention, commercial development, and rapid spread of information and communications technologies. The U.S. and California state governments directly and indirectly subsidized this technology revolution

[3] The term "wave" in this case originates with Bardhan and Kroll (2003). In contrast to their categorization, this paper considers offshoring as a third rather than second wave.

[4] In national income accounting, the trade balance is the value of a country's goods and services exports minus the country's goods and services imports. A trade surplus results when exports are greater than imports, and a trade deficit results when exports are less than imports. The trade balance is only one measure of a country's international position; a broader, more useful definition, is the current account. The current account balance includes the trade balance plus net factor income earned abroad – profits, interest, and salaries – and net unilateral transfers, such as foreign aid and remittances. Americans earn profits or interest by investing or lending abroad and salaries by working abroad. Often, the profits result from foreign direct investment – foreign investment with the purpose of running a business, such as a computer chip fabrication plant or a software services business. A nation can easily sustain a trade deficit indefinitely if its net factor income earned abroad is positive. Three points are important for policymakers to consider when thinking about the current account. First, the trade balance, on its own, may not be meaningful when thinking about a country's relations with the rest of the world. The overall current account balance is more important. Second, the current account's relationship to the size of the entire economy is more important than its absolute level. Third, the current account balance is identical to a nation's saving minus investment. This means that if a nation has a current account deficit, either it is saving too little, or investing a great deal relative to its savings.

through support for technology research and development in higher education and through tax benefits that helped high-technology industries.

Many developing countries – India, the Philippines, and China, in particular – have succeeded at educating, training, and attracting large numbers of skilled workers in the area of information technology and opening their economies to international trade and investment. Some countries, including India and the Philippines, also have populations with strong English-language ability. English is an official language of India and the principal language for higher education, and the Philippines is a former American colony with widespread English use. The combination of generally low wages, inexpensive and rapid international communications, and a common language has led many companies in the United States to conclude that the most cost-effective suppliers of certain services are overseas. As offshoring has grown, the concern for U.S. workers has as well.[5]

Firm-Level Motivations

The chief motivation for offshoring is the improvement of financial performance. By improving this, companies can maintain or improve their competitiveness in global markets in the face of pressure from global competitors.[6] In practice, the decision to offshore is complex. The developments mentioned above that make offshoring *possible* constitute one aspect of the complexity. Four broad sets of factors that make it *profitable* constitute another. These include:

- Direct costs,
- Indirect costs,
- Productivity implications, and
- Risk.

Direct costs pertain specifically to such costs as the wages and salaries of employees. Indirect costs result from communications needs, management of labor, travel, and available infrastructure. Productivity implications arise from the skills available in foreign countries and time zone differences. Risk factors include geopolitical concerns in foreign countries, the privacy of personal information, and the security of that information, be it medical records or patented formulas. Each of the four broad sets contains other factors as well. The individual factors, may work in favor of offshoring or against it, and will interact with the other factors, either in favor of offshoring or against it.

The myriad factors involved help explain why offshoring is not limited to India, the Philippines, or China. A significant amount of offshoring has gone to closer and more important trading partners, such as Canada and Mexico.[7] Mexico has the advantage of

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[5] See Schumer and Roberts (2004). Scores of articles and editorials in U.S. newspapers and news magazines have questioned the effect of this new wave of offshoring on U.S. workers. The issue also played a prominent role in the Democratic presidential nominating process.
[6] See Dossani and Kenney (2004, p. 1), and Booz Allen Hamilton (2004).
[7] Some call this "near shoring."

providing relatively cheap labor, whereas the advantages provided by Canada may at first appear less obvious.

Considering the four sets of factors above, Canada provides a comparable environment to that in the United States on risk and productivity, and has a well-developed legal system, adequate intellectual property protection, and a skilled labor force. When it comes to business taxation and labor costs, Canada has a distinct advantage over the United States. In particular, universal health care in Canada removes that cost from the corporate bottom line. Corporate tax rates are also comparable to those in the United States but are scheduled to decline significantly. It is also the case that the federal and local governments have increased the attractiveness of Canada as a host for offshoring activity through significant financial incentives. These incentives violate no international agreements because they are available to companies on a nondiscriminatory basis and because they are not linked to trade; rather, they are subsidies for research and development.

Like Canada, a number of other advanced countries are important sites for services offshoring. In 2002, U.S. multinationals employed 24,000 workers in information industries and business, professional, and technical services in India, but they employed 48,000 in Germany and 206,000 in the United Kingdom. Likewise, many foreign companies employ a large number of workers in these industries in the United States – 510,000 in 2001. Compared to concerns about India, there has been little outcry about offshoring to the United Kingdom or Canada, just as there was little outcry about very large U.K. investment in the United States compared to smaller Japanese investment in the United States in the 1980s.

Aside from the factors mentioned above, cross-country differences in corporate tax rates have also driven the trend toward offshoring business services. Companies generally pay taxes in the location where income is earned, and over the last decade, many foreign countries have reduced their corporate tax rates to levels significantly below those in the United States. Much of Asia, excluding India, has corporate tax rates that are 10 to 20 percentage points below those in the United States. Parts of Europe – notably, France, the United Kingdom, and the Netherlands –impose less burdensome corporate taxes, as do nearly all of the major economies in the western hemisphere.

Lower foreign taxes are not as large a benefit to U.S.-based firms as might first appear. U.S. tax law still taxes foreign-source income, but with a twist. U.S. companies must pay the U.S. tax rate on foreign-source income but can take a credit for the foreign taxes paid.[8] Furthermore, they can defer the amount they owe the United States until they bring the income back to the United States. This deferral permits the use of these profits abroad in their pre-tax quantities. This provision further increases the return from foreign investment relative to that from domestic investment. In part, these provisions attempt to put U.S. companies on equal

[8] The U.S. corporate tax rate is 35 percent. If a company were to earn money overseas in a country that had a 15 percent rate, the company would pay the foreign tax, receive a U.S. tax credit for that, and then pay the U.S. treasury the remaining 20 percent.

footing with foreign companies, many of which do not have to pay taxes on their foreign-source income to their home countries.[9]

Although U.S. corporate tax law can alter the decision to invest in productive capacity at home versus abroad, it is only one of the numerous factors in the decision to offshore the production of business services. Other factors, such as the relative wages of the relevant workers or intellectual property protection in the relevant country are more significant. As evidence, India is an important provider of offshore business services. Although they have been declining recently, average effective corporate tax rates in 2000 were higher in India than they were in the United States.[10]

No clear line divides tasks that can and cannot be sent offshore. Currently, mostly routine and standardized services appear to be the main targets. Given current levels of technology and foreign capabilities, what likely will be outsourced to such places as India, Canada, or the Philippines as offshoring continues is the production of technology that can be delivered reliably at low cost. What will remain in the United States will be the uses and customization of that technology and the invention of new business processes and technologies.

The pace of technology innovation continues to be very rapid, necessitating a close proximity with the client for those innovations. Despite advanced in communications technology, personal meetings and face-to-face interaction are still advantageous in solving problems and carrying out numerous tasks. Software engineers in India cannot currently communicate with U.S. consumers the way that similarly trained engineers in the United States can and thus, they may not have the same feel or context for innovation. Simple programming projects, credit card processing, and many phone-based services can easily exploit wage differences, whereas more complex projects, such as computer systems design, customization, and integration, are less able to do so. That said, there is evidence that high-level jobs are being sent offshore as well.[11]

For the more distant future, the pattern of what can and cannot be sent offshore is extremely uncertain. This is because this pattern depends mostly on foreign economic developments and on technological change, neither of which can be predicted with much accuracy over the long term. Even as late as 1992, people would have stared in wonderment and perhaps fear at anyone announcing a career goal of working as a webmaster. And certainly, few would have predicted that Bangalore, India, would be touted as a center of IT service provision.

Economy-Wide Implications

Offshoring, whether for goods or services, is generally considered by economists to be a simple extension of international trade. As such, it is thought of in the same terms as international trade and is governed by the same principle: Products should be produced where they can be produced the most efficiently, leading to an overall expansion of the world

[9] If the United States were to allow such an exemption, then the company investing in a country with a 15 percent rate would pay the foreign 15 percent profits tax but would pay nothing to the U.S. treasury.
[10] See Hufbauer and Grieco (2004) for more on the corporate taxation issue.
[11] See Hira (2004a and 2004b).

economy. Accordingly, trade in services brings with it the same short-run and long-run effects for society as those associated with trade in goods. In the short run, the movement of certain business activities offshore can be costly, and workers performing tasks that are sent offshore may suffer unemployment and reduced wages that they otherwise would have avoided. In the long run, the efficiency gains bring improvements in economy-wide living standards. However, the changed economy resulting from trade can also bring distributional effects, and some workers may endure a lasting burden.

This burden has provided one rationale for erecting trade barriers.[12] The underlying notion is that jobs associated with producing imported processed goods or various services are going to be located overseas and not replaced at home, and that U.S. workers will find themselves unemployed. Despite this widespread thinking, trade generally has little effect on the *quantity* of jobs, but instead can have strong effects on the overall size of the economy, the industrial distribution of jobs, and the distribution of income.

The changes in the economy and the rise in average living standards in the long run derive from a more productive use of its resources. International trade brings new producers into a market and expands the size of the market, making some activities higher value and others lower value than they were before the new trade opportunities. The necessity of performing back-office, perhaps lower-skilled, tasks in a developed economy, such as that of the United States, when they could be performed more cheaply elsewhere absorbs labor and capital that could otherwise produce higher-value products that are in demand around the world. By encouraging companies and workers to produce the goods and services at which they are efficient in the new environment and by discouraging them from producing the goods and services at which they are inefficient in the new environment, trade alters the occupational and industrial mix of the economy – the source of the productivity gains.

These changes in the occupational and industrial mix are also the source of both short-term employment disruptions and longer-term distributional effects.[13] The U.S. experience with income distribution and trade during the late 1970s and 1980s suggests that a widening income distribution accompanies increased trade, but this is not necessarily the case. Throughout much of the 1980s, the U.S. income distribution widened, and analysts linked this to significant trade growth with lower-income countries. However, the extent of trade's contribution to widening income inequality is contested, and a broad consensus emerged that other causes, in particular technological change that favored the employment of skilled workers, were as or more important. In the second half of the 1990s, increased trade flows were accompanied by rising wages among the less skilled, indicating that more trade need not be accompanied by lower living standards among less skilled workers. Again, the causal connection between rising trade and narrowing income inequality is not well established. The rising wages of the 1990s were likely due to the strong economy, and this strong economy may have been fueled by technological innovation, rising trade, good government fiscal or monetary policy, or other causes.

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[12] Another motivation historically has been an effort to protect producers, at the expense of consumers.
[13] The most widely used trade theories and empirical evaluations suggest that trade expands the size of the economy, but that in some circumstances, trade by a high-wage country, such as the United States, with low-wage countries can widen the income distribution in the high-wage country. In other circumstances, it will not have this effect.

Longer-term changes resulting from trade are very similar to the effects of technological change. In principle, a computer could perform much of the work that is being moved offshore. It is not far-fetched to imagine a computer reading an MRI and producing a report. Nor is it implausible that a computer could fix bugs in the coding of live programmers, or even produce a first draft of a piece of software. These hypothetical computer programs would put computer programmers out of work and increase the efficiency with which the remaining workers perform their tasks. By lowering the cost of software, this technological innovation could make it easier for businesses to purchase new information technology systems and expand. Furthermore, the labor and capital that would have been put into the first draft of software would be reallocated to other tasks in the economy. Given the increase in productivity, the overall wage would rise – but not for all workers. The effects of technological improvement, in this case, are indistinguishable from the effects of offshoring: namely, the writing of a first draft in India, Canada, or Germany.

Ultimately, offshoring will affect the productivity of the U.S. economy and may affect the distribution of income, although whether it will widen or narrow it is unknown as yet. What offshoring specifically and trade in general will not do is lower the long-term employment level of the economy. Since 1982, the year in which the trade balance of the United States turned to nearly chronic deficit, the U.S. economy has generated more than 38 million net new jobs, and the proportion of the working-age U.S. population that is employed rose from 57.8 percent to 62.7 percent (having reached a high, in 2000, of 64.4 percent).

Just as offshoring does not necessarily reduce the number of jobs in the U.S. economy, it may, but need not, reduce the number of jobs offered by the offshoring firm. Its effects on the individual firm can work two ways. First, companies in the United States face increasing foreign competition. Firms unable to remain competitive will go out of business. In response, the firm might lay off domestic workers and hire foreign workers to carry out certain tasks. Because this offshoring lowers costs, it enhances the competitiveness of the individual firm. By sacrificing a small proportion of the jobs offered by the company, the other jobs remain.

Second, investments by existing companies in new or expanded product lines are determined by the rate of return offered by those investments. The ability to offshore some portion of an expansion rather than carrying it out domestically raises the expected return on the project and hence increases the likelihood that it will be undertaken, expanding employment opportunities domestically. This assertion is corroborated by evidence from U.S. multinational companies. A recent study found that between 1991 and 2001, U.S. firms that expanded their employment abroad also increased their domestic employment by 5.5 million workers. Their share of overall U.S. employment also increased during this period. Despite its intuitive appeal, the assertion that U.S. investment abroad exports jobs is not correct.[14]

In these cases, offshoring can lead to job retention or job creation. These various pathways represent possibilities and the direction of economic change. The size of the effects will depend on the magnitude of offshoring and myriad other factors. The next section examines the magnitude of the phenomenon more completely.

[14] Slaughter (2004).

Putting Offshoring in Perspective

Despite the volume and fervor of the debate, the offshoring of technology service workers remains a relatively minor phenomenon. In 2003, the U.S. labor force consisted of more than 146.5 million workers, 137.7 of who were employed.[15] Given current trends and technological capabilities – and without speculating on the timeframe during which offshoring could occur – it has been estimated that 5.8 million workers are employed in at-risk *industries*, 800,000 of whom are in California. At the same time, more than 14 million workers are categorized as being in at-risk *occupations*.[16] These occupations account for 4.2 percent of the U.S. workforce and 5 percent of California workers.

The United States has only this year started collecting data on offshoring.[17] This effort began in earnest in the first quarter of 2004, when the Mass Layoff Statistics collected by the U.S. Department of Labor began identifying layoffs resulting from the relocation of business activity overseas. For the first three months of 2004, mass layoffs hit almost 240,000 workers, of which almost 57,000 involved seasonal layoffs or industry vacation periods. Of the rest, only 16,021 – less than 7 percent of all mass-laid-off workers – were laid off because their employers moved the location of their work. The destination of relocation was not known in all cases. In the cases where it was known, 32 percent of layoffs due to relocation, or 2.5 percent of all mass layoffs, involved overseas relocation.[18] The vast majority involved job shifts within the United States.

These data suggest that the number of jobs affected by offshoring is relatively small, but better data are still needed. Although an important start, these data deal only with mass layoffs – events where at least 50 workers from a company that employs 50 or more people have filed for unemployment benefits during a five-week period in a layoff lasting more than 30 days. The data likely fail to capture jobs that have been slowly phased out as smaller-scale offshoring experiments grow into full-scale activities.

Aside from the official data, there are independent estimates on offshoring. Among these estimates, perhaps the most often cited are those produced by Forrester Research.[19] They estimate that the number of U.S. jobs that could be eliminated because of offshoring could reach 3.3 million by 2015 (Table 1). They also estimate that as of 2003, fewer than 400,000 jobs had been outsourced. This amounts to less than 0.3 percent of all civilian employees in the United States and 2.9 percent of all workers in at-risk occupations.

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[15] Council of Economic Advisers (2004).
[16] Bardhan and Kroll (2003).
[17] U.S. Department of Labor, Bureau of Labor Statistics (2004c).
[18] Taking account of events in which the destination was unknown results in an estimation range of 2.5-3.3 percent.
[19] McCarthy, et al. (2002).

Table 1
Projected Offshoring of U.S. Jobs

Year	Cumulative Jobs Outsourced
2000	100,000
2005	600,000
2010	1,600,000
2015	3,300,000

SOURCE: McCarthy et al. (2002).

It is difficult to know exactly what to make of this figure. Some will consider 3 percent a large number, whereas others will consider it a small one. Accordingly, it needs a broader context, and several facts need to be incorporated in its assessment. First, the U.S. economy is extremely dynamic. Second, since 2000, there has been a general decline in the demand for technology services, leading to job loss that likely dwarfs the employment decline resulting from offshoring. Third, trade in services goes both ways, and the United States remains a major exporter of technology services, despite offshoring.

Related to the issue of companies sending services jobs abroad is the phenomenon of foreign companies sending services jobs to the United States, a prime location for receiving offshored jobs. In 2001, foreign companies employed 307,000 U.S. workers in the information industries (down from 410,000 in the information industries in 2000), and 202,000 U.S. workers in professional, scientific, and technical services (up from 154,000 in these industries in 2000). In 2003, foreign investors or their already-established U.S. affiliates spent $48 million establishing new businesses in the information industries in the United States, an additional $10 billion acquiring already-existing U.S. firms in information, and $1.4 billion either acquiring or starting professional services businesses. The start-ups bring new employment that might otherwise have been performed in the home country and the acquisitions will allow these foreign companies to shift jobs from their home countries to the United States should they desire.[20]

The Dynamic Labor Market

Even in the best of times, the U.S. economy is busy destroying and creating jobs. In 1999, more than 33 million jobs in the United States were eliminated. At the same time, almost 36 million jobs were created. More recently, between May 2003 and April 2004, 4.1 million people each month were either newly hired or rehired, and 3.9 million people each month quit, were laid off or fired, or retired.[21] Federal Reserve Board Chairman Alan Greenspan has noted that it is not unusual for 1 million workers to quit or be fired in a single week. If there were a similar churning among workers in occupations at risk of offshoring, nearly 70,000 jobs in these occupations would turn over each week. At the 1999 rate of job creation and destruction, the U.S. economy could absorb, in approximately six to seven weeks, the 400,000 workers thus far

[20] U.S. Department of Commerce, Bureau of Economic Analysis (2004c), Table 5.6.
[21] U.S. Department of Labor, Bureau of Labor Statistics (2004b).

estimated to be displaced by offshoring. At the 2003-2004 pace, it would take eight to nine weeks. Of course, some of these workers will find work quickly, and others will suffer a significant spell of unemployment. Some will find higher-paying jobs, and many will accept lower-paying jobs. Some may leave the labor market entirely, perhaps through early retirement.

Over the long term, it is difficult to find a simple relationship between the successive waves of offshoring and the U.S. labor market. In fact, despite all the changes in the international economy, the U.S. labor market has been one of the most impressive job-generating machines in the world (Table 2).

Table 2
Long-term Employment Growth in the Advanced Economies

Year	United States	Canada	Japan	France	Germany	Italy	United Kingdom	Average
Employment (millions)								
1960	65.8	6.0	43.4	18.3	25.7	20.1	23.6	--
2002	136.5	15.3	62.7	24.3	36.0	21.6	27.8	--
Employment share of working-age population (%)								
1960	56.1	52.6	66.7	58.6	59.2	54.0	60.6	58.3
2002	62.7	62.4	57.5	52.0	52.2	44.1	59.6	55.8

SOURCE: U.S. Department of Commerce, Bureau of Labor Statistics, 2004a, and authors' computations.

Between 1960 and 2000, the number of workers in the United States more than doubled. One could object that the strong job growth is related simply to population growth. The important figure is the number of workers relative to the working age population, shown at the bottom of the table. Of the G-7 (the countries that constitute the seven largest advanced economies in the world), the United States in 1960 was below average in terms of jobs held by people of working age. In 2002, even after two waves of outsourcing and the start of the third wave, the recession of the early 1980s, the entry of women into the labor market in record numbers, and the technology bust of 2001-2002, the United States had the highest share of jobs for its working-age population.[22]

Recent Trends in Technology-Related Markets

Despite the massive job generation of the past few decades, there is always a chance that future U.S. job generation could react differently to offshoring than to previous global economic developments. Two facts argue against this. First, the economy has generated jobs despite past offshoring episodes. Second, the rise of offshoring is occurring at a time when job prospects for skilled technology workers are, for other reasons, increasingly scarce. The United States has

[22] The rise of the employment share of the working-age population in the United States came from the entry of women into the labor force in large numbers. In 1960, less than 38 percent of all working-age women in the United States participated in the labor force. By 1999, this figure had risen to 60 percent, and the U.S. economy was able to provide jobs for most of them.

gone through a brief recession and is working through massive overinvestment in the telecommunications and technology sectors; in such conditions, there are bound to be layoffs and job shifts. The real test of the strength of the technology-worker labor market will come as the industries that hire these professionals expand, and that has only begun. In fact, longer-term projections for employment in the occupations at risk of offshoring indicate robust expected growth.[23]

Among all at-risk occupations, employment fell 2.1 percent between 2000 and 2003, the key years of the technology recession (Table 3). In other occupations, employment also fell, but by only 1.3 percent. Over the longer term, however, the picture is strikingly different. Between 1990 and 2003, the number of jobs in the at-risk occupations rose by almost 12 percent, whereas the number of all other jobs rose by 7.7 percent. Even over the shorter-term, the picture is somewhat different. Most of the losses between 2000 and 2003 occurred by 2002. Although jobs in at-risk categories continued to shrink between 2002 and 2003, most categories experienced significant increases during that time. The biggest proportional losses in 2002-2003, the years when the offshoring debate heated up, occurred in management occupations – not the focus of the offshoring debate. Excluding management occupations, the at-risk occupations actually grew 0.8 percent between 2002 and 2003, faster than the occupations not at risk of offshoring.

Table 3
Percent Change in Employment in At-Risk Occupations

Occupation Type	1990-2000	1990-2003	2000-2003	2002-2003
At-risk occupations				
Management	32.2	13.0	-14.5	-6.2
Business and financial operations	20.6	28.6	6.6	3.2
Computer and mathematical	103.4	96.1	-3.6	2.0
Architecture and engineering	-3.6	-11.0	-7.7	-1.4
Life, physical, and social science	-4.0	2.8	7.2	3.2
Legal	29.1	37.9	6.8	1.8
Arts, design, entertainment, sports, and media	11.7	13.6	1.6	2.3
Sales and related	13.9	14.1	0.2	1.5
Office and administrative support	1.1	0.0	-1.1	-0.3
All at-risk occupations	14.2	11.8	-2.1	-0.1
All other occupations	9.1	7.7	-1.3	0.2
All occupations	11.5	9.6	-1.7	0.0

SOURCE: U.S. Census Bureau (2003) and U.S. Department of Labor, Bureau of Labor Statistics, n.d.a.

NOTES: Change from 1990 to 2000 is from the decennial census of population. Change from 2000 to 2003 is from the Occupations Employment Survey and is for May of each year. Coverage may vary across samples.

Another way to separate the shorter-term from the longer-term trends is to consider changes in employment in the industries in which offshoring is likely to take place. Most of

[23] U.S. Department of Labor, Bureau of Labor Statistics (2004d).

these industries hit their peak levels of employment between September 2000 and March 2001. All but two have recently seen increases in employment.

These industries went through an extraordinary hiring binge in 1999 and 2000, and looking at changes in employment since then could distort important longer-term trends (Table 4). First, looking at changes since January 1999 through April 2004, the at-risk non-manufacturing industries as a group have seen job increases of 2.1 percent in California (but losses of 8.1 percent since January 2000). Second, the hardest-hit industry since January 2000 has been "ISPs, search portals, and data processing," one of the industries that turned much of the San Francisco Bay Area into a hotbed of the Internet revolution and that fueled the NASDAQ technology bubble. Employment in this sector is actually up by double digits since January 1999. The only industries to show consistent losses are the one manufacturing sector in which offshoring takes place a great deal – computer and electronic products – and the telecommunications sector, also a recipient of vast amounts of capital, overexpansion, and subsequent mergers or bankruptcies.[24] The entire manufacturing sector has had double-digit employment losses since both January 1999 and January 2000, although the losses in the computer and electronic products sector have been much deeper.

Table 4
Percent Change in Employment in At-risk Industries in California

Industry	January 1999 - April 2004	January 2000 - April 2004	1990-2003
Manufacturing Sectors			
Computer and electronic products	-23.5	-22.8	-27.1
Nonmanufacturing Sectors			
Software publishers	10.9	-2.1	147.0
Telecommunications	-10.6	-16.4	-2.5
ISPs, search portals, and data processing	12.1	-27.2	66.4
Accounting and bookkeeping services	0.6	4.0	-2.4
Computer systems design and related service	6.7	-9.4	151.4
Business support services	7.3	12.5	24.1
Totals			
All nonmanufacturing at-risk industries	2.1	-8.1	38.8
All at-risk industries	-9.2	-14.2	3.7
All industries	6.6	3.2	15.3

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, n.d.b.

Studying the investment behavior of U.S. multinationals also calls into question the possibility that there is a large and expanding effort to open new facilities overseas to employ

[24] The Worldcom and Global Crossing bankruptcies in 2002 are examples of the rise and fall of this industry. In terms of pre-bankruptcy assets, these were the largest and sixth-largest bankruptcies, respectively, in the United States since 1980 (BankruptcyData.com, 2000-2004).

foreign services workers rather than U.S. services workers. In 1999 and 2000, the peak of the technology boom, U.S. multinationals in computer products, information industries, and professional and technical services invested $70 billion overseas. In 2002 to 2003, the years when offshoring started coming to public attention, U.S. companies in those same industries invested only $17 billion in overseas facilities.

Despite those recent events, the domestic industries at risk of offshoring look extremely healthy over the longer term. Since 1990, employment in the non-manufacturing at-risk industries – the source of the greatest concern today about offshoring – has risen by almost 40 percent, compared to only 15 percent for the economy as a whole. Only in manufacturing is long-term growth well below average, and that is due in part to global events, cyclical events, and technological change.[25]

Offshoring and Two-Way Trade in Services

One of the key aspects of offshoring is that it not only shifts jobs overseas, but it also increases the level of services imports into the United States. If offshoring were currently a widespread phenomenon, one consequence could be a fall in the U.S. services trade balance in the industries subject to offshoring. Despite the recent offshoring activity, the United States has actually seen an increase in its exports of information technology services relative to its imports.

Services trade falls into several categories. Trade in travel- or transportation-related services makes up the bulk of U.S. trade in services. Also important is the collection and payment of royalties and license fees. The business, professional, and technical (BPT) services sector is another major category.[26] Trade in BPT services includes a significant proportion of the offshoring phenomenon and accounts for approximately 10 percent of all U.S. services exports and about 5 percent of all U.S. services imports.

In 2002, American citizens or companies purchased $205 billion worth of private services from foreign companies. That same year, foreigners purchased $279 billion in services from U.S. companies. This resulted in a surplus of $74 billion (Table 5). Although this represents a drop in the U.S. services trade surplus from 2000, when it was almost $79 billion, this decline is driven almost entirely by travel-related services exports, or a decline in foreign travel in the United States.

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[25] Looking at events in cross-national perspective can highlight the role of technological change versus increased trade in changing industry employment. Between 1995 and 2002, China lost 15 million manufacturing jobs, at a time when developing countries were offshoring manufacturing jobs to China. A new report, prepared jointly by The Conference Board in the United States and The National Bureau of Statistics of China, finds that the manufacturing employment decline stems mostly from productivity gains – the ability to make more with the same or fewer inputs – spurred by improved technologies and the movement of labor and capital to higher-value from lower-value tasks (The Conference Board, 2004).

[26] Royalties and license fees that count as service exports for the United States include payments to U.S. companies or people for the use of patented or unpatented techniques, processes, and formulas; for the use of trademarks or other intellectual property; and for the use of general-use computer software. Exports of business, professional, and technical services occur when foreigners use U.S. companies and people to carry out accounting, advertising, engineering, data processing, research and development, training, and many other services (Borga and Mann, 2003).

Table 5
U.S. Services Trade, 2000 and 2002

Category	U.S. Surplus ($ Billions)		
	2000	2002	Change (%)
Total private services	78.8	74.3	-5.8
Travel	17.7	8.5	-51.9
Passenger fares	-3.6	-2.9	-18.5
Other transportation	-11.6	-9.4	-19.5
Royalties and license fees	26.8	24.9	-7.0
Other private services	49.6	53.2	7.2
Business, professional, and technical services	*16.5*	*18.1*	*9.2*

SOURCE: Borga and Mann (2003).

Imports of BPT services, which increase because of offshoring, amounted to $10.7 billion in 2002. This was an increase from $8.8 billion in 2000. However, exports also increased – from $25.3 billion in 2000 to $28.8 billion in 2002. This put the BPT sector in surplus both years and that surplus grew wider by $1.5 billion between 2000 and 2002. Despite the growing popularity of moving this work offshore, the United States has continued to export more of these services than it imports, by $18.1 billion in 2002.

Offshoring not accounted for by trade in the BPT sector takes place between affiliates of the same multinational company. For instance, IBM has opened its own establishment in India to handle much of its customer service commitments. This trade is registered in the affiliated services category. The data are not available to delineate clearly between technology services and other services, but in the aggregate, exports of services between U.S. parents and their affiliates abroad substantially exceeds imports, and this surplus grew between 2000 and 2002 by 57 percent.[27]

Summing Up Offshoring in Perspective

Offshoring is clearly displacing some American workers. Some whose jobs are offshored will face unsettling times. They may have a period of unemployment and find new jobs at lower wages, or they may end up moving to a new city or state against their wishes. Some may leave the labor market entirely, for example through early retirement. In contrast, others may find themselves with a better job afterwards, unhappy that they were thrown into a period of transition but pleased with the outcome.

[27] More recent data indicate continued U.S. strength in services trade (U.S. Census Bureau, 2004). Unfortunately, data for trade in BPT services are not available for 2003. However, in 2003, the trade surplus in royalties and license fees increased to $28.2 billion, up from $24.9 billion in 2002. The surplus in all non-travel and transportation private services, excluding royalties and license fees, registered $48.0 billion, down from $53.2 billion. The 2003 surplus included $133.8 billion of exports and $85.8 billion of imports. Data on BPT trade specifically will not be released until later this year.

However, the fervor over offshoring's occurrence appears out of proportion to its incidence. This is so on four counts: First, the extent of it is very small relative to the overall size of the U.S. labor force. Second, an economy as large and dynamic as that of the United States readily absorbs the associated job losses. Third, job losses are occurring for many other, possibly more important, reasons, such as a cyclical slowdown of the technology sector following overinvestment. In fact, the occupations at risk of offshoring have shown job gains in the most recent period. Finally, the United States has in recent years exhibited a distinct and growing international advantage in the provision of technology services. Despite the growth in offshoring, U.S. exports of these services continue to strongly outpace imports.

Implications of Offshoring for California

Unfortunately, there are not enough good data to exactly assess whether offshoring will be particularly significant in California. However, it is possible to make inferences based on what we know about offshoring. First, if past patterns hold, there is a high likelihood that California businesses will be active in offshoring. A recent study by A.T. Kearney (2004) indicates that 96 percent of technology firms in the San Francisco Bay Area are engaged in offshoring, and another 3 percent are actively contemplating offshoring. Although most of these activities are related to manufacturing, offshoring of services may not be far behind.

Second, the sheer number of workers identified as vulnerable in California is large, ranging from 1.6 million to more than 6 million, depending on the source of the data.[28] However, the state's share of vulnerable workers is roughly proportional to its share of overall U.S. employment. This is not to say that the effect in California will not be worse than elsewhere, merely that there is little to suggest that it will be worse. Specifically, forecasts suggest that fewer than 30,000 jobs will be eliminated each year by offshoring in California.

For two reasons, prospects for California workers may actually be better than average. First, there is evidence that some California jobs eliminated by offshoring are similar to those likely to be created in the state by offshoring. Offshoring can allow the economy to reallocate labor and capital from one set of tasks to another set of higher-level tasks, and California has a strong supply of highly skilled workers who can take on these higher-level tasks. A second mitigating factor for the U.S. economy, and especially for California, is that there is growing world demand for the U.S. provision of services that are similar to those being sent offshore. This is a source of job creation for workers dislocated because of offshoring. California is a significant producer and exporter of these services, and this fact should ease the transition for affected workers in the state.

These two points suggest that jobs are being created in industries and occupations that are relatively similar to those being eliminated. For example, computer programming is one occupation that is projected to be negatively affected by offshoring, and evidence suggests that this is in fact the case. Between 1999 and 2002, 71,000 computer programmer jobs were eliminated, 23,000 of which were in California. Note, however, that offshoring is only responsible for a small fraction of these lost jobs; the technology bust explains most of them.

At the same time that opportunities for computer programmers were declining, more than 115,000 software engineering jobs were created, a disproportionately large share of which – 24,000 – were in California. The transition between these occupation categories – programmers and software engineers – may be unsettling but also may be easier than the transition between many other jobs, and the software engineering jobs pay over $10,000 more per year on average. It is certainly true that not all the workers who held computer programmer jobs became software engineers, and tracing how any such transition might have taken place is difficult. However, the decline of programmers and the rise of software engineers illustrates the fact that as old opportunities disappear – through economic cycles, technological

[28] The occupational definitions of Bardhan and Kroll (2003) imply the smaller figure, whereas the definition used by McCarthy et al. (2002) to forecast job loss suggests the larger figure.

change, and offshoring – the U.S. economy has the capacity to create better opportunities, and in this case, the skill sets required are similar.

As a result, the economy's adjustment to this new phenomenon need not be as difficult as it was to the shift from manufacturing to service sectors in the 1980s and 1990s. Many of the workers displaced by offshoring have significant skills, and this bodes well for their future employment prospects. This observation is consistent with the evidence suggesting that workers with more skills have less difficult transitions to new jobs; the transitions are faster and involve less wage erosion. This is not to minimize the effect on workers who lose their jobs, especially less-skilled workers, but merely to put it in perspective.

Although we have perceptions of the importance of offshoring for California, its extent and the size of its effects are not at all clear. This is so for two reasons. First, the phenomenon of offshoring is not yet well understood. Even to those attempting offshoring, it is not clear just what work they can profitably move offshore, and stories of offshoring ventures that have failed are reported.[29] Second, as previously discussed, offshoring is growing at a time of great upheaval in the U.S. economy.

Despite the uncertainty surrounding offshoring, there have been efforts to discern the overall employment effect of the phenomenon. In a recent report, Global Insight predicts that by 2008, California will have a net gain of more than 34,000 jobs because of the effects of outsourcing.[30] This counter-intuitive result is achieved by considering the more complex industry dynamics that result from the lower costs resulting from outsourcing. Although jobs will be lost as a result of the relocation of the production of technology products and services, jobs will be gained in industries that use those products and services. Indeed, these job gains are almost entirely due to expansions in industries that are not identified as vulnerable to offshoring and result from the lower prices of technology services.

This finding is reinforced by experiences in the 1990s. Between 1995 and 2000, the prices of technology products were 10 to 30 percent lower than they otherwise would have been as a result of their production outside of the United States. This price reduction translated into more than a 10 to 30 percent increase in the diffusion of technology products throughout the U.S. economy. This diffusion alone accounted for one half of the accelerated productivity growth during this period. And this increased productivity growth, in turn, increased GDP in 2000 by $230 billion.[31] There is no obvious reason why the offshoring of technology services will not result in a similar enhancement to productivity in the United States and to California.

An additional item is worthy of note. It is likely that "outstating" – outsourcing to another state – is a much more important phenomenon than is offshoring for California. The recent mass layoffs report of the Bureau of Labor Statistics noted that of the job relocations where the destination was known, more than 68 percent took place within the United States, rather than overseas. California companies have actively engaged in outstating back-office processes for years. These are the very same processes that are the most vulnerable to offshoring. It is possible that many jobs being moved offshore by California companies would

[29] Stone (2004).
[30] Global Insight (2003).
[31] Mann (2003).

have left the state anyway. Newspaper accounts in places such as Phoenix express the fear that back-office jobs that have only recently arrived from California are headed abroad.

The effects of offshoring on California's labor market are harder to predict than the effects on the U.S. labor market as a whole. Global economic developments can have disproportionate effects on regions compared to the countries of which those regions are a part. One way to approach the issue is to define California's assets and liabilities for handling offshoring. On the one hand, many of its firms are familiar with moving tasks – and jobs – overseas. On the other hand, its economy can produce the types of services that foreign buyers want and can absorb the workers that might be displaced by offshoring. Finally, the risk presented to the California economy by offshoring may be much smaller than a risk closer to home, that of outstating.

State Offshoring Policies

The offshoring of technology services has brought with it a pair of concerns – jobs and privacy – that are being addressed in more than 30 state legislatures across the country.[32] In particular, technology services workers in the United States, and with potentially high concentrations in the San Francisco Bay area, are being displaced because their employer is moving one or more business processing or development functions offshore. Another element of the current offshoring wave is the contracting with foreign workers or firms to perform medical transcription services and to work with other personal documents. With the transfer of medical records abroad, there is thought to be a significant hole in the protections governing the privacy of these records.

In response to these concerns, legislation of many forms has surfaced. In California, this includes restrictions on offshoring government contracts and call center operations, and on transmitting private medical information overseas. These restrictions seek to provide companies with incentives to keep work in the United States and to provide people with control over their private records.

To date, only three states -- Alabama, Indiana, and Tennessee – have implemented legislation pertaining to offshoring. In each case, the legislation encourages, but does not mandate, the awarding of contracts to vendors intending to use domestic labor to provide the services. In all, 32 states have proposed legislation restricting state contracting, 19 have legislation regarding call centers, and 11 have legislation restricting data transfers, with some states proposing more than one type of measure.

Of these three types of legislation – contracting, call centers, and data transfers – the emphasis in this section is on state contracting. Protecting the privacy of medical records is an issue of the law rather than economics, whereas efforts to keep jobs local are an issue of economic policy.

Although this section addresses possible state action, it is important to note that federal policymakers are also studying the issue. Members of the U.S. Senate and House of Representatives have filed more than 10 bills that would limit the use of overseas labor with government contracts, require companies to report offshoring, require call center workers to identify their physical location, or restrict the use of visas that allow for intracompany transfers of workers.[33]

Many of the bills aim at restrictions, but others aim at helping workers whose jobs have been offshored. In particular, Senator Max Baucus has introduced a bill that would extend trade adjustment assistance to workers in the services sector.[34] Although the federal government does not appear to be ready to change the income tax deferral given to foreign-source income, there also have been long-term discussions about the corporate tax code and its

[32] See Appendix A for details on state initiatives.
[33] National Foundation for American Policy (2004a).
[34] S. 2157, Trade Adjustment Assistance Equity for Service Workers Act of 2004, introduced March 2, 2004.

effect on U.S. jobs. In particular, faced with European sanctions against America because of a World Trade Organization ruling against certain export-subsidy provisions of the U.S. tax code, Congress is now working on changes to the tax code to both comply with the WTO ruling and create a more favorable jobs environment in the United States.[35]

In the remainder of this section, we address four fundamental questions about state offshoring policy that should be asked of almost any policy: Will it achieve the stated goals? How much will it cost? Is it a sensible expenditure choice? And what are some possible unintended consequences?

The Efficacy of Anti-Offshoring Legislation

With any proposed legislation, it is important first to determine whether it will achieve the stated goals. Although the stated goals of contracting policies are not the same in each state, the essence of the legislation is to reduce the incidence of offshoring, thereby forestalling job loss or creating new jobs domestically rather than overseas.

The strongest form of offshoring legislation prevents state entities from contracting for services with any firm that either performs a portion of the service overseas or that subcontracts with any firm that performs any portion of the service overseas. If this legislation is to prevent job loss, it is not sufficient that states merely contract with firms that employ only domestic labor and otherwise have not engaged or do not engage in offshoring. For the policy to be effective, one of two conditions must be fulfilled. Either states must end up awarding contracts to firms that do not offshore, despite other firms that offshore giving lower-priced bids. Or states must pay a price that is high enough to cause the successful bidder to maintain or add domestic workers to fulfill the contract when it otherwise would have hired foreign workers.

Evidence on the likelihood of either outcome is extremely difficult to come by. However, we can identify the possible configurations of bidders to indicate how often the policy can achieve its stated goal of preventing job loss or adding domestic jobs. The following possibilities present themselves with each contract:

1) There are no bidders that offshore.

2) A low bidder does **not** propose to do the work offshore.

3) There are potential bidders that offshore and bidders that do not, and the low bidder will perform the work offshore.

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[35] In mid-July 2004, two bills about this issue moved to a conference committee so that Senate and House members could produce one final version. The committee will consider H.R. 4520, "To amend the Internal Revenue Code of 1986 to remove impediments in such Code and make our manufacturing, service, and high-technology businesses and workers more competitive and productive both at home and abroad" (sponsored by Rep. William M. Thomas of California) and S. 1637, "A bill to amend the Internal Revenue Code of 1986 to comply with the World Trade Organization rulings on the FSC/ETI benefit in a manner that preserves jobs and production activities in the United States, to reform and simplify the international taxation rules of the United States, and for other purposes" (sponsored by Sen. Charles Grassley of Iowa).

4) There are no bidders that are willing to perform the work onshore.

In the first two cases, the policy will have no effect, as the work will be performed domestically in any event. In case (3), the contract will be awarded to the lowest cost bidder that will perform the work domestically, whereas in case (4), the contract will not be awarded as there are no eligible bidders. In general, (4) is unlikely to occur because there is generally a price at which a domestic firm will perform the service. It might simply cost significantly more than having the service provided offshore, as in case (3).[36]

Only in case (3) will the contracting restrictions result in job opportunities for U.S. workers. In this case, the state will not pay the least cost, but will pay a price higher than the low bid to hire a firm that will use U.S. workers rather than foreign workers. At this time, there is no evidence on the distribution of contracts for which the bids fall into any of these three categories. However, it is almost certainly true that case (3) will occur and hence that the policy will likely expand job opportunities for domestic workers or reduce domestic dislocation.

How Much Will It Cost?

The result of the contracting situation illustrated in case (3) is that the contract will cost the state more than it otherwise would have with offshoring. This extra cost represents an implicit decision to spend state resources to ameliorate the effects of offshoring, and further to spend more money on contracts than the state otherwise would have spent. By implementing the proposed policies, this decision to spend extra is hidden. There will be no budget line item for this program, but there will be expenditures nonetheless. An analysis of state contracts that involve offshoring is currently underway by the California Joint Legislative Audit Committee. Unfortunately, the results of this analysis will not be available for some time. To aid in understanding the potential costs of restricting California state contracts to domestic providers, we turn to evidence from other states.

As detailed in Appendix B, evidence from several states indicates that restricting state contracts can be very costly. In particular, both Indiana and New Jersey have cancelled contracts with firms that send the work overseas. In the case of Indiana, the contract was for upgrading the state's computers for processing unemployment contracts. The bid that avoided offshoring was more than $8 million higher than the original contract. An estimate posits that fulfilling this contract would create 50 jobs. The cost of the policy in this instance was therefore almost $170,000 per job created. In New Jersey, the state contracted for the provision of call center services. In this case, the bid that avoided offshoring was $1.2 million higher than the low bid and created 12 jobs domestically at a cost of $100,000 each.

It is important to note that these figures are examples of the costs that can result from a no-offshoring rule on government contracts. However the average cost per job is likely to be lower, although how much lower is impossible to tell. Newspaper accounts likely present only the most remarkable occasions of extra costs, so that although these examples are real, they may be significant outliers.

[36] Although rare, there could be instances when no domestic suppliers can perform the contract.

Is This Policy A Sensible Expenditure Choice?

The question naturally arises as to whether it is a more efficient use of scarce government resources to keep a particular job active than it is to assist the worker in the transition to a different job. It is inevitable that the cost of keeping a person employed in a job, as this policy does, is greater than the cost of assisting that person in finding a new job.[37] Maintaining a job involves annual recurring costs, whereas aiding in the adjustment to a new job does not. In the case of policies restricting state contracts, the cost is especially high because the state is not receiving anything of specific value for its money. In this regard, it is important to ask whether there are alternative policies that might bring about the same ends. It is also worth asking whether, given limited state resources, these funds are being devoted to those with greatest need.

The policy question of how best to aid workers dislocated because of international forces is an old one. The federal government currently has programs in place specifically for this purpose. The Trade Adjustment Assistance (TAA) program, last renewed in the Trade Act of 2002, is one such program. This program provides aid in maintaining health insurance, job search, and training for workers displaced as a result of import competition. Trade adjustment assistance is not currently available to workers in services industries and hence is not an option for many of those recently displaced by offshoring. Such a program specifically for trade-displaced services industry workers could be implemented at the state level.

The average cost of aiding displaced workers under the TAA is $11,600 per worker.[38] Such a program appears to have the benefit of being cheaper than restricting state contracts, on a per worker basis, and of more comprehensively aiding workers that have been injured because of offshoring. At the same time, however, TAA as currently implemented falls short of ideal. It is generally underfunded and has a low take-up rate by workers displaced by trade, in part because they might not know that trade has caused their displacement. In addition, reemployment rates and reemployment earnings differ only a little from those of workers who do not use the program, calling into question its effectiveness. The cost comparison noted here is therefore between a program that could substantially benefit a small number of workers at potentially high cost per worker – a ban on offshoring in state contracting – and a program that could give small benefits to a large number of workers at a much lower cost per worker – expanded TAA.

An additional caveat to the cost of TAA for workers displaced by offshoring is in order: It is not clear whether their transition to new jobs will be easier or more difficult than that for workers traditionally displaced by imports. Workers displaced by current trends in offshoring tend to possess greater skills than the traditional worker displaced by imports. Evidence suggests that workers with more skills generally have an easier job transition following displacement. Additionally, skilled workers may face a different set of barriers to reemployment than do their less-skilled counterparts. Thus, other policies may be in order to facilitate reemployment. These policies must combat at least two problems: first, the reluctance

[37] For example, estimates from the U.S. Federal Trade Commission indicate a cost per job saved through automobile quotas in the early 1980s at almost $300,000 per year (Tarr and Morkre, 1984).
[38] U.S. Office of Management and Budget (2003). The Workforce Investment Act provides a set of similar services to workers displaced for other reasons, but at considerably lower cost per worker.

of skilled workers to accept a job that pays less than did the previous job, and second, the reluctance on the part of potential employers to retrain these workers.

Policies are available to address these problems. First, reemployment wage insurance, which replaces some portion of the difference between the new wage and the old wage for some period of time, can reduce the employee's reluctance to accept a lower wage. Such a policy has been a part of trade adjustment assistance since the 2002 Trade Act, but eligibility is currently restricted to trade-displaced workers age 50 and older. A second policy of transition assistance, which might offset some portion of the wage costs for the new employer, could increase the flow of job offers to the displaced worker. Although both policies are fraught with implementation difficulties, they have the virtue of facilitating the economy's adjustment, which contracting restrictions do not.

Another part of the sensibility test derives from the fact that government resources are scarce. Helping one group of people comes at the expense of others. It is therefore important to ask whom restrictions on offshoring will help and whether recipients of other government programs might be in greater need of assistance. At a time when California is considering decreases in help to the poorest Californians and making other difficult spending choices, limits on offshoring will aid above-average wage earners (Table 6). Workers in at-risk occupations earned an average of almost $49,000 in wages in 2003. All other workers in California earned an average of almost $38,000, a difference of about $11,000. This difference was far wider in California than in the United States as a whole, where workers in at-risk occupations earned less than $4,000 more than other workers. This difference in wages suggests that policymakers should carefully consider whether policies other than contracting restrictions might provide needed assistance at less cost.

Table 7
Annual Wages of At-risk and Other Occupations, May 2003

	California	United States
At-risk occupations	$48,846	$42,540
Without sales occupations	$52,665	$46,089
Without sales and administrative support occupations	$74,808	$65,924
All other occupations	$37,852	$39,077

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, n.d.a.

In the end, the policy of restricting government contractors to vendors employing only domestic labor falls short of the optimal choice in several respects. First, on a per worker basis, it is likely to be more expensive than other options. Second, it is likely to assist a very small subset of workers displaced by offshoring. Third, policies banning offshoring are most likely to assist relatively skilled workers with high earnings capacity. In this time of tight budgets, more cost-effective means of assistance are available and should be investigated.

Unintended Consequences

Legislation aimed at limiting state contracts also may have negative unintended consequences for California. These consequences relate not only to California's economy, but also to the functioning of the state government. First, it may exclude some California companies entirely from the bidding process. With a progressive, technologically inclined business environment, California is less likely than other states to have a sizeable pool of firms that do not offshore, leading the state to contract with companies from out of state.[39] It is possible that circumstances will arise in which a California firm is the low bidder but intends to perform some portion of the work overseas, whereas the next low bid is submitted from a firm located in another state. The question then is whether it is better to enter into a contract using domestic, but out-of-state, labor or to contract with a California firm that offshores.

Second, such legislation in many instances encourages production by less efficient producers, directing California state spending toward inefficient uses. As discussed earlier, the availability of offshoring services has several positive implications for an economy. It not only makes information technology services cheaper, but also liberates resources domestically for more productive purposes.

Third, these and similar policies may run afoul of U.S. trade agreements, in particular, the Government Procurement Agreement (GPA) under the World Trade Organization (WTO), and a similar provision in the North American Free Trade Agreement (NAFTA). From the text of these agreements, it appears that subnational governments do not have an explicit obligation to adhere to the treaties. However, there are provisions for subnational governments to explicitly join the agreement, and the California governor's office has formally committed to procure in accordance with the provisions of the WTO's GPA, arguably obligating all state offices to do likewise.[40]

In the event that the WTO Dispute Settlement Mechanism finds that these policies violate the GPA, or a NAFTA Tribunal does likewise, countries that have been discriminated against are entitled to retaliation against the United States, putting U.S. companies at a competitive disadvantage abroad and costing U.S. jobs. Retaliation could be direct and reciprocal, limiting the purchases by a foreign government of U.S. business service exports, or it could be indirect, limiting purchases of key manufactured or agricultural products.

Regardless of trade agreements, the possibility of foreign retaliation resulting from these policies is quite real and could take a number of different forms. In particular, countries can hamper their own companies from hiring of U.S. or California workers to provide services, a phenomenon known as inshoring. One way to do this is by implementing similar bans on foreign hiring in their government contracting, potentially reducing U.S. exports of business services and putting at risk the inshoring of jobs in California. Another is by making it more difficult for their multinational enterprises to invest in the United States. The implications of

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[39] As noted previously, nearly all technology firms in the San Francisco Bay Area are engaged in offshoring, mostly in relation to manufacturing (A.T. Kearney, 2004).

[40] It is worth mentioning that only countries that have signed the GPA have standing to file a complaint. India, Pakistan, and many other developing countries have not signed the GPA, but Canada, a potentially important offshoring host country, has.

such a measure would be significant for California. In 2001, foreign firms employed almost 714,000 workers in the state, of which 482,000 were in services industries and 135,000 were employed in industries that are identified as at-risk to offshoring. California's share of jobs in at-risk occupations employed in foreign companies totaled almost 18 percent of all such jobs in the United States.[41]

Although countries are not likely to retaliate if only California limits offshoring, California is part of a broader state-level movement, and a large proportion of the California workforce either depends on foreign trade or works for foreign-owned companies. In considering policy responses to offshoring, policymakers will be faced with balancing the gains from keeping certain jobs in California but possibly losing export markets or inshoring opportunities against the gains from maintaining export markets and inshoring opportunities but losing certain jobs in California.

Finally, there is legal precedent suggesting that a policy expressly forbidding the use of foreign labor in carrying out a state contract violates the U.S. Constitution.[42] Both the Constitution's foreign commerce clause and the provisions regarding the conduct of foreign affairs result from the need for the United States to speak with one voice in its relations with foreign nations. In pursuing this goal, it is necessary to prevent states from pursuing independent foreign policy agendas. As legal precedent, the U.S. Supreme Court recently struck down California's Holocaust Victim Insurance Relief Act as impermissibly interfering with the President's conduct of foreign affairs. Additionally, a California court invalidated California's Buy American Act as an unconstitutional encroachment upon the federal government's exclusive power over foreign affairs.

[41] U.S. Department of Commerce, Bureau of Economic Analysis (2004a and b).

[42] This discussion is derived from testimony by Shannon Thyme Klinger before the Assembly Office of Policy Planning and Research on May 18, 2004, and from Klinger and Sykes (2004).

Conclusion

Although U.S. businesses have offshored tasks for decades, the offshoring of services, particularly high-skilled services, is new. Policymakers are now faced with the problem of trying to understand its implications for California workers and for the economy as a whole as well as its probable future trajectory. This paper attempts to shed light on these issues by marshalling economic analysis and data.

Certainly, such information can provide little comfort to a person who has lost a job because his company moved it to India, Canada, or Switzerland. However, the information can help policymakers gain a greater understanding of offshoring and therefore their policy options. This paper suggests these findings and policy implications:

- The data are insufficient to provide a comprehensive understanding of the issue.
- What data are available suggest that the number of jobs being offshored is small relative both to the overall labor market and to the number of people working in the relevant, at-risk occupations. The bigger challenge for California is the outstating of jobs – movement of jobs from California to elsewhere in the United States.
- Offshoring is only one piece of the recent weak labor market. Productivity gains and cyclical industry events likely play a more important role.
- Despite the pain caused to those who lose their jobs, offshoring has the potential to provide net benefits to the economy, including employment expansion.
- Because the pace of offshoring depends on foreign economic capabilities and technological innovation, long-term projections are suspect.
- A variety of policy alternatives exist, some of which may be costly and help few people. In particular, bans on offshoring are unlikely to stop the activity or benefit the state. Rather, additional and innovative assistance to displaced workers likely will be more cost-effective and help more people.

In our efforts to provide background on offshoring, we have found gaps in the knowledge required to evaluate policy alternatives. In particular, knowledge is lacking in three broad categories: data, understanding of the relevant incentives, and the implications of alternative policy responses.

As discussed in the text, data on the incidence of offshoring are very difficult to come by. There is currently only one source of government-provided data on the extent of job loss due to the movement of production overseas, whether for manufacturing or services industries. This data source, although important, falls short on two counts. First, these data have only been collected since the start of 2004. Accordingly, they do not provide a long-term perspective on the issue. Second, the survey collects only information regarding significant job loss events, those affecting 50 or more workers. Much of the job loss resulting from offshoring is likely to be in increments smaller than 50 and will not show up in this data source. As a consequence, the official statistics almost surely understate the job loss due to offshoring. The best way to collect complete data on offshoring is unclear. At the same time, in their absence, the formulation of effective and responsive policy is extremely difficult.

Another important consequence of this lack of data is that it impedes understanding of the implications of offshoring for the economy. Although similar to trade in manufactured products in its potential to expand living standards at home, the more subtle influences of services trade, and offshoring in particular, on the economy cannot yet be addressed. In particular, it is likely that offshoring has an impact on the distribution of income. What this influence is, whether to widen or to narrow it, is highly dependent on the services that are imported. Through anecdotal evidence, it is possible to form a list of services that might be increasingly imported through offshoring, but their relative quantities are as yet uncertain. Any suggestion that offshoring will influence the distribution of income, in one way or another, is thus premature.

The formulation of effective policy also depends on understanding the incentives that are generated by that policy. With regard to offshoring, there are several sets of incentives that need to be understood before the phenomenon of offshoring and its likely effects on the economy can be addressed. Particularly important is the response of current service providers to legislation pertaining to offshoring. A ban on offshoring in the fulfillment of government contracts, for instance, could lead to unpredictable changes in the way that many vendors do business. If participating in such contracts is important to domestic vendors, U.S. jobs could be retained. If it is not important to participate in the provision of such services to the government, then the legislation will not have much effect on job loss. The current state of knowledge regarding the response of industry to policy is inadequate to suggest an answer.

Another important element of incentives is the extent to which existing California or federal legislation currently encourages firms to move offshore. Indeed, there are federal policies that encourage the movement of business activity abroad. One such policy discussed in the text is the U.S. taxation of foreign-source income. Although the delay in taxing this income seems likely to encourage the relocation of economic activity abroad, some analysts do not believe that the elimination of this provision would lead to significant job growth at home. The effects of this, and other policies that appear to encourage offshoring, need to be better understood.

Finally, although we have discussed a variety of policy alternatives for dealing with job loss due to offshoring, the relative merits of each need a more thorough investigation. Although many years of debate have resulted in trade adjustment assistance for manufacturing workers, this does not mean that a simple extension to service sector workers is the most appropriate action. It may in the end turn out to be the best solution; but until the nature of job loss from offshoring is better understood, we will not know for sure. Service sector workers may differ from their manufacturing counterparts and may have different needs.

Crucial to the question of the appropriate policy is the cost of alternatives. Whether it is wage insurance, transition assistance, training subsidization, or restricting state services contracts, there is currently an absence of a calculation of the cost of these programs. This absence stems from the lack of data and the newness of the issue. The newness of the issue alone urges caution in the search for an appropriate policy response to the challenge presented by services offshoring.

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Appendix A. State Policies Regarding Offshoring

This appendix reproduces, with minor changes, National Foundation for American Policy (2004), "Summary List of States with New Laws and Proposed Legislation Restricting Outsourcing."

New Laws Passed on Outsourcing – 2004

Alabama - Senate Joint Resolution 63 (public law 2004-234; introduced April 8, 2004). This is a resolution that encourages state and local entities to use Alabama-based professional services. It does not restrict or place mandates on procurement decisions.

Indiana - House Bill No. 1080 (signed by governor March 17, 2004). This provides price preferences of 1-5 percent for Indiana companies in the awarding of state contracts.

Tennessee - Senate Bill No. 2344 (signed by governor May 10, 2004). This requires the commissioner of finance and administration to authorize, through regulation, "a preference in the evaluation of proposals for state contracts requiring the performance of data entry and/or call center services for vendors for whom such services will be solely provided by citizens of the United States who reside within the United States."

States with Proposed Legislation

States are listed in alphabetical order, followed by the types of legislation proposed.

Alabama – state contract ban on overseas work, call center restrictions.

Arizona – ban on state contracts with foreign call centers, call center and data transfer restrictions, ban on state contracts for foreign call centers.

California – state contract ban, call center, personal data and health care information restrictions, outsourcing notification requirement.

Colorado – state contract ban, data transfer restrictions, ineligibility for state contracts and development assistance if outsourcing job loss.

Connecticut – state contract ban, call center, personal data and health care information restrictions, development assistance restriction for outsourcing companies, ban on state contracts for call centers, in-state preference.

Delaware – disclosure if state contract work done offshore and 15 percent preference for U.S.-based work.

Florida – in-state resident requirement for state contracts.

Georgia – state contract ban and call center restriction, including state contract ban on foreign call centers.

Hawaii – ban on state contracts with foreign call centers, call center and data restrictions.

Idaho – employment preference for state residents.

Illinois – state contract ban, in-state preference, call center restrictions.

Indiana – state contract ban, in-state contract preference signed into law by governor.

Iowa – state contract ban.

Kansas – state contract ban, call center and data transfer restrictions.

Kentucky – state contract ban.

Louisiana – state contract ban, in-state contract preference, right to reject non-U.S. bidder.

Maryland – state contract ban, bill passed legislature to require agencies "consider" whether contract work will be done overseas.

Michigan – state contract ban.

Minnesota – state contract ban, call center restrictions, including state contract ban on foreign call centers, 90-day notice of outsourcing jobs overseas.

Mississippi – state contract ban, call center restrictions.

Missouri – state contract ban, data transfer and call center restrictions, including state contract ban on foreign call centers, in-state preference.

Nebraska – state contract ban.

New Jersey – state contract ban, data transfer and call center restrictions.

New Mexico – state contract ban.

New York – state contract ban, call center restrictions, development assistance restricted for companies that outsource overseas.

North Carolina – call center restrictions, including state contract ban on foreign call centers.

Ohio – state contract ban, call center and data restrictions, ineligibility for state contracts and development assistance if outsourcing job loss.

Pennsylvania – legislative investigation of offshore outsourcing from state.

Rhode Island – state contract ban.

South Carolina – call center restrictions, including state contract ban on foreign call centers.

South Dakota – state contract ban.

Tennessee – state contract ban, call center restrictions, bill passed legislature to give preference to U.S.-based contractors.

Vermont – state contract ban and ban on state contracts for foreign call centers.

Virginia – state contract ban, in-state preference.

Washington – state contract ban, call center and data restrictions.

West Virginia – call center restrictions, seven-year ban on state contracts and assistance to companies that outsource overseas and have 100-person job loss.

Wisconsin – state contract ban, call center restrictions.

Notes: A state contract ban refers to a bill that would prohibit work on state contracts to be performed overseas or by individuals not authorized to work in the United States. Call center restrictions refer to bills that mandate operators identify their location in some manner. A table tracking the bills and the legislative texts of state and federal bills are available at the NFAP web site at http://www.nfap.net/researchactivities/globalsourcing.

Appendix B. Evidence on the Financial Implications of Banning Offshoring for State Contracts

The following vignettes illustrate cases where states have reversed offshoring contracts in an effort to protect U.S. jobs. Many – but not all – of the offshoring contracts stemmed from the recent nationwide switch from paper food stamps to electronic benefits. States hired someone to manage the new system.[43] Other tasks have been outsourced as well.

Two cautions in reading these accounts are in order. First events that become publicly known are often unusual. It may be that on average, the cost per job protected by anti-offshoring legislation will be lower. The true figure is as yet unknown, arguing for a more complete study of the costs. Second these vignettes are drawn from the press and from an organization monitoring the nationwide trend in offshoring legislation, and the details rely on accurate reporting by these groups.

Indiana

In September 2003, then-Governor Frank O'Bannon signed a contract with Tata America International Corp. – a subsidiary of Tata Consultancy Services of India – to upgrade Indiana's computers for processing unemployment claims. Tata America's $15.2 million bid for the project was $8.1 million lower than the next best, a bid by a U.S.-based competitor. Tata would have employed 65 contract workers. Assuming the project would have created 50 jobs either out of state or overseas, the higher bid would into an additional $162,000 per job if those jobs were to be brought into the state. If fewer jobs would have been created overseas or out-of-state, the cost per job of bringing the jobs into Indiana would have been higher.[44]

On November 20, new Governor Joe Kernan canceled the contract and State Senator Jeff Drozda introduced a bill that required contracts for services entered into by a state agency to specify that only American citizens could be employed on the project, with a few exceptions. The bill would allow green-card holders who have worked in the United States for 10 years to take 15 percent of the contract jobs.

New Jersey

New Jersey's Department of Human Services contracted with eFunds Corp. of Arizona to handle calls from the state's welfare and food stamps recipients. To reduce costs, eFunds decided to move its customer-service operations from Wisconsin to Bombay, India. This caused a public uproar in New Jersey. In response, state legislator Shirley Turner proposed a bill requiring that workers hired under state contracts be American citizens or legal aliens or fill a specialty niche Americans could not.

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[43] Hopkins (2003).

[44] The National Foundation for American Policy (2003b). According to the Foundation, Tata would have employed a number of Indiana residents through an Indiana subsidiary, but would also have employed a number of Indian residents in both India and the United States.

In this case, the state did not cancel the contract. Instead, New Jersey and eFunds reached an agreement to move the work to the state. As a result, 12 new jobs were created at an additional cost to the state of between $900,000 and $1.2 million.[45]

Kansas

In March 2004, when Kansas officials learned that questions from food stamp recipients were being answered by workers in India under a contract with eFunds, state senators added language to the budget requiring that the work be done in the United States. However, the language was deleted when negotiators learned it would boost the state's costs by $640,000.[46]

On May 8, 2004, however, the state legislature passed a ban on outsourcing the food stamp program and ordered the Department of Social and Rehabilitation Services to renegotiate its $1.7 million-per-year contract with eFunds.[47]

Wisconsin

Wisconsin decided to renegotiate its food stamps program after finding out its contractor, Citicorp Electronic Financial Services, had subcontracted the customer service portion of the program to call centers in India and Mexico. While the state legislature debated anti-outsourcing legislation, Gov. Jim Doyle stepped in to renegotiate the contract with Citicorp Electronic Financial Services.

North Carolina

North Carolina has renegotiated the remainder of its five-year, $25 million contract with eFunds to bring some of the jobs to the state. Before renegotiation, the cost per call was $1.65, about 66 cents lower than before eFunds took over. However, the renegotiation, which covers the remaining year and a half of the contract, raises the cost per call to $2.05. The new call center positions in North Carolina will pay about $30,000 annually, and will include benefits. The state expected to have them filled by July 2004.[48]

Other States

At least 40 states have – indirectly – outsourced some of their customer service for food stamp programs to India.[49] Utah is one such state. The Utah Department of Workforce Services' electronic Horizons welfare benefits cards are managed by eFunds with workers in

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[45] The $1.2 million figure is from Waldman (2003). The National Foundation for American Policy (2003a) reports a figure of $900,000, as does Hopkins (2003).
[46] Breed (2004).
[47] McCormick (2004).
[48] Breed, with Hopkins (2004).
[49] Hopkins (2003). The states are Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, and Wisconsin. Washington, D.C. has also outsourced this work.

India as part of an $8 million contract. Utah policymakers have considered requiring the jobs to be done in the United States. Estimates for moving the call-center work – which involves the equivalent of eight full-time jobs – back to the United States range from $63,000 per year to more than $1 million.[50]

[50] Wallace (2004).

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