

Revision: October 2004



**Brookings Data Workshop:
Services Offshoring: What Do the Data Tell Us?
Held on June 22, 2004**

Summary

Overview

“Offshoring” has entered the lexicon of mainstream America, raising anxieties that whole categories of what were once thought to be safe jobs will be exported abroad. Stories abound of American companies outsourcing all types of services jobs against the current backdrop of the U.S. economic recovery and weak job growth. But as the digitization of information and expanded bandwidth abroad bring international wage competition to service sectors, how much do we really know about this phenomenon? Most of the heated debate is predicated on surprisingly few actual statistics. Although what little data there are suggest that the number of Americans directly affected so far is small, many millions more may be affected in the years ahead.

To address the inadequacies of existing data, Senior Fellows Barry Bosworth, Lael Brainard, and Susan Collins at the Brookings Poverty and Global Economy Initiative convened the one-day Data Workshop.¹ The event offered a forum for discussion on the measurement of trade in services and its link to domestic jobs. Indeed, research questions as well as data and associated measurement issues were the explicit focus of all sessions at the workshop, which was not intended to promote a particular agenda or to stake out a policy position on what has clearly become a hotly charged issue.

The workshop centered on presentations, followed by comments from discussants and then general discussion open to all participants. More than 120 people attended the workshop, bringing together statisticians from government agencies that collect the key data series with empirical researchers, policymakers, and representatives of business and labor groups that use the data. Attendees addressed the data that currently exist, how data have been used in offshoring research, and how the data could be improved.

Participants concluded that offshoring has attracted high levels of public attention because the trend has been concurrent with a large, but unrelated, shortfall in job growth. Reported mass layoffs from import competition and overseas relocation were minor in recent quarters, and there was little evidence of substantial offshoring activity in aggregate trade data, although imports in the category of other private services (OPS) had strong growth in recent years. Given current surveying methods, however, the potential magnitude in underestimating import levels and overseas job displacement is significant. Government agency surveys include little information on low-value transactions, overlook services embedded in goods trade, and do not track small-scale job separations due to trade that can be common. In addition, major

¹ Primary funding for the event was provided by the Alfred P. Sloan Foundation with additional funding from Richard C. Blum.

inconsistencies exist among U.S., Indian, and other country data on services due to the lack of an international classification system.

The workshop also identified gaps in the current research and the types of additional data that might be most informative. Discussants noted that further disaggregation and detail of data by country and industry would allow us to determine, for example, whether activities within multinational corporations are migrating to low-wage countries and what professions are actually being affected by offshoring. Furthermore, integration of existing data sets, such as occupation data from the BLS and MNC as well as FDI data from the BEA, would provide additional insights.

Session 1: **Outline of Key Questions and Puzzles**

The workshop began with presentations by Gene Grossman of Princeton University and Charles Schultze of the Brookings Institution, who were asked to outline their perspectives on the types of data that are needed to address the research on the economic dimensions of offshoring.

Gene Grossman focused on some of the major theoretical issues. He defined offshoring as the migration of portions of the production chain to foreign locations. It differed from simple importing because it was part of a fragmentation of the production process where only a portion of the activity was moved to a foreign location. In that sense, he believed that it was closely related to the notion of outsourcing within the domestic economy.

Outsourcing refers to the provision of services by a third-party vendor, outside the boundaries of the firm, and could take place either domestically or abroad. Some individuals refer to the provision of services by a foreign affiliate as outsourcing; but Grossman preferred to reserve this term for transactions that take place outside the boundaries of the firm.

Thus, the management of production can be viewed from the perspective of a two-by-two matrix. First, there is the organizational question of why do firms decide to produce in-house versus contracting with a third party. Second, there is the locational question of whether to perform various activities domestically or internationally. Firms that appear similar in the products they produce often answer these questions differently.

Outsourcing is distinctive in that it requires the production of customized product, often with a formal contract. The purchase of standardized inputs is not referred to as outsourcing; and contracts are required because the supplier will need to make customer-specific investments. From the perspective of data collection, these characteristics differentiate outsourcing from the simple purchase of intermediate goods and services.

Outsourcing raises several cost issues relative to in-house activity. The first involves problems with the relationship-specific investments and ambiguities of contracts as firms maneuver to influence their bargaining position with their partners. This issue could be expected to arise as well in the offshoring decision since firms should be influenced by the contracting environment in different countries.

Second, outsourcing involves significant search costs as firms seek out appropriate partners. There are likely to be search economies associated with the size of a market for a specific service. Thus, it may make sense for the offshoring of call centers or computer services to be concentrated in one location such as India.

Third, there are costs of monitoring the performance of the service provider that would normally suggest that close is better than far; but that may be changing with the introduction of the internet and drastically lower communication costs. Finally, firms may be concerned with the loss of control, particularly for so-called core competencies. Thus, there is the potential for loss of intellectual property.

The benefits of outsourcing also fall into several categories. First, it promotes greater specialization. Thus, the supplying firm can lower costs by providing the same service to multiple firms. In the same way, Indian call centers will have contracts for the same staff to serve several American firms. Second, the contractual nature of outsourcing sometimes enables firms to establish stronger performance incentives than would be possible with their own employees. Third, outsourcing often provides greater flexibility if there is an ebb and flow to the firms demand for the service. The supplying firm can absorb these fluctuations if it has contracts for similar services with other firms.

The theoretical literature has also sought to deal with the observed heterogeneity of firms. One dimension of this phenomenon is the integration strategies followed by multinational firms. How do firms choose the appropriate degree of vertical and horizontal integration? While the theory tends to imply quite clear-cut answers, the actual data implies much more complicated choices, where firms undertake some activities in many locations and others in only one.

In summary, the theoretical literature seeks to link the ratio of outsourcing to in-house production to observable aspects of the firm, the industry and the country. The choice of offshoring versus home production depends on many of the same considerations. Thus, the data requirements involve the ability to link offshoring activities to organizational characteristics of the firm and location.

Grossman went on to describe some of the dimensions of the data he would find useful. These included the need to distinguish between intra and inter-firm trade, further distinguished by intermediate and final products, and all that by source and destination country. At the firm level the requirements are similar: a distinction between trade between parent and subsidiary versus trade with third parties, and the nature of the products being traded.

The unique aspect of outsourcing involved the need to know something about the contractual nature of the trade. Are the products off-the-shelf or custom-produced? Are they spot market transactions or governed by long-term contracts, licensing arrangement or joint ventures?

Charles Schultze placed the issue of offshoring within the context of the macroeconomic environment. Over the past three years, the United States has experienced strong growth in output, but hours of work and total employment have both declined. This notion of a 'jobless recovery' has provided the context for much of the discussion of offshoring – the outsourcing of jobs overseas --as the culprit behind the lack of job growth.

Schultze noted the similarity of outsourcing to the prior discussion of import substitution and its impact on jobs. It is reflective of a long-term decline in the cost of transportation leading to the globalization of trade in goods, and now with the sharp drop in communications costs, the globalization of services. It may also be distinctive in the high share of the trade that involves intermediate rather than final products.

The immediate effect of outsourcing is a decline in jobs, either from layoffs or fewer new hires. He commented that the limited job growth of recent years was a lack of new hires more

than abnormally high rates of job layoff. In addition, gross flows of new hires and job separations are many times larger than the net job change. In 2003, there were 48 million new hires and 47 million job separations, including 19 million permanent terminations layoffs and discharges. Thus, the job changes initiated by outsourcing are occurring against a backdrop of very high rates of job turnover.

He also argued that any impact of outsourcing was likely to have been overwhelmed by the change in domestic productivity growth. Labor productivity rose at a 4 percent rate between the 4th quarter of 2000 and the 4th quarter of 2003. If it had grown instead at the 2.5 percent rate of the prior three years, he estimated the growth in employment would have been about 2.5 million persons and the unemployment rate would have been near 5 percent. Had that been the pattern of overall job growth, he doubted that offshoring would have attracted much public interest. He also argued that the offshoring was not an element of the productivity growth since it would have reduced both domestic production (through increased imports) and employment, leaving labor productivity largely unchanged.

Schultze examined the potential impact of offshoring on layoff by use of the BLS publication of information on 'extended mass layoffs' (over 50 persons), which reports on the reasons for the layoffs. These actions have averaged about 900,000 persons in recent years, but only about 4 percent are attributed to "import competition" or "relocation overseas."

He also could find little evidence of expanded offshoring activity in the aggregate trade data. The import data show no abnormal surge in recent years consistent with an expanded role for outsourcing activities. The share of imports due to the imports of multinational corporations from their foreign affiliates has also remained relatively constant. There has been some growth in 'business, professional and technical services,' which would include the purchase of services from foreign providers, but the magnitude has been very small in the context of the overall economy. Furthermore, the balance of U.S. trade in these products actually improved because of a larger growth in exports. He agreed that it was possible that the data on services trade somehow underestimated the volume of imports, but even in that case the impact would have to be a small portion of the overall economy.

In the general discussion, several commentators agreed with Schultze that offshoring attracted public attention, because it was concurrent with a large shortfall in job growth. However, it was still interesting that it was less of an issue in other industrial countries. Perhaps, the United States differed because of the existence of a large overall trade deficit that led to a focus on trade issues. The overall trade deficit reflected many issues beyond offshoring. In part, it could be traced to the lack of growth in major U.S. trading partners, and to the high value of the dollar that led to many U.S. products being overpriced in other markets.

Others emphasized the large changes in information technology and communications, and the growing role of the Asian economies. To some extent, they believed that offshoring was simply a general term used to frame a discussion of the significance of those two developments and their implications for the United States. Current forms of offshoring were simply the tip of the iceberg for a future in which geographical proximity would be of reduced importance for white-collar work that could be performed with digital input and output. Some of the effect was to increase employers' and workers' perception of the potential for substitution, thus affecting the competitive environment in which wage rates are determined.

The comment was made that there was a greatly expanded interest in the role of trade in intermediate goods and services as stressed by Gene Grossman, and this was an obvious area in

which efforts should be made to improve the data. The customization of products and the role of contracts, however, would be challenging to the statistical agencies. The point was made that the statistical agencies deal mainly with the corporate accounting records, not operating divisions; and if the information were not in the accounting records, it would require some other type of survey. The issue of responder burden was already a major concern.

There was some discussion of the discrepancy between Indian and U.S. trade data for computer software. One explanation is that work done within the U.S. by Indian firms' employees would not be reported as imports by the United States, but would be exports by India.

Gene Grossman's reference to custom products as part of the distinction between general purchased inputs and outsourcing also generated discussion. Several participants thought it would be hard to draw a line along the continuum for reporting purposes. Also, when analysts thought of the products that were vulnerable to offshoring, they often talked in terms of modularized production, standardization, and codification—terms that created a different picture than the emphasis on custom products.

Session 2: Offshoring and Services in the U.S. Balance of Payments

The second session concentrated on how offshoring activities are reflected in the U.S. Balance of Payments. **Ralph Kozlow** and **Maria Borga** reported on the growth in the importance of overall imports to the U.S. economy and the relative role of services versus goods trade. They pointed out that overall imports grew substantially over the period of 1977 to 2003 from 9 to about 13 percent of GDP but that most of that increase was in goods. Services imports still only account for about 2 percent of GDP. Overall, growth in services has averaged about 7 percent annually since 1992, but the most rapid growth has been in royalties and license fees and the category of other private services (OPS) that include a lot of the offshoring activities. OPS imports have grown to account for about one third of service imports.

Since 2001, service import growth has actually slowed, but much of that reflected a decline in travel. OPS trade has continued to expand. It was noted that these services are also very important on the export side and the United States has a surplus in its OPS trade despite an overall trade deficit.

Affiliated (within firm) trade in services is becoming increasingly important as evidenced by the rapid growth in affiliated imports of business, professional, and technical services. Affiliated imports of these services exceed the unaffiliated imports.

In making comparisons to private-sector sources of data, it is important to note that similar products may be reported in different categories. Pre-packaged computer software, for example is classified as a good, not a service; and if it is already on the new computer, it is included with the sale of the computer. It can also be sold abroad through licensing arrangements, which would shift the category in which the trade receipts are reported.

Comparisons with other countries are plagued by differences in methodology and classifications. There is an attempt to develop international standards, but not all countries are able to follow them at the current time. One example is provided by the data on service exports from India, where the import information of the leading industrial countries show a much lower volume of trade with India than is recorded in the Indian export statistics.

Kozlow and Borga also reported on an experiment that illustrated the potential effects of underreporting. They showed that if the true growth in service imports was 50 percent higher than reported over the period of 1992-2003, then GDP growth would be revised lower by only 0.1 percent per year. Furthermore, it is important to note that claims of underreporting could be made for exports.

Most of the data on trade in services are obtained from surveys conducted by the Bureau of Economic Analysis, in contrast to the reliance on data from the Census Bureau for trade in goods. Some information was obtained from other public and private sources.

They suggested that there might be problems in the estimates of service trade to the extent that they had very limited information on the importance of low-value transactions. Their surveys were focused on the larger participants. They also pointed to the difficulties of identifying the universe of service-importing firms, as opposed to exporters. Thus, there was some uncertainty as to the list of firms that they should be surveying. Third, they were concerned about their ability to identify new service activities, and the lags that are introduced by the need to obtain clearance for changes in the survey forms. In order to address these concerns, BEA is hoping to obtain funding to support a program to survey categories of large and volatile services on a quarterly basis. In addition, BEA is performing research into the possible causes and remedies for measurement error in the private services data as well as the goods trade data.

In her comments, **Catherine Mann** focused on the linkages among the different perspectives of cross-border trade, the role of multinational firms, and the occupation distribution of the jobs. Her first point was that the bulk of the growth in cross-border trade in services involves affiliate sales. One issue is the extent to which those affiliate sales are linked to foreign direct investment in the destination country. Furthermore, it would be useful to know if the affiliates are selling services to third countries or back to the United States.

Mann also pointed to the problems for researchers raised by differences in classifications systems used within the domestic economy and for cross-border trade. It is difficult to trace out the impact of global trade on the domestic economy. The problems are particularly severe with services that are bundled with other sales, as with the inclusion of computer software in the sale of the computer. By ignoring those services that are embedded in the goods, statistical reports underestimate the importance of services.

Her third concern was the absence of price data on many of the substitution margins that are relevant to business choices between internal production and outsourcing and domestic versus offshoring. Unfortunately, that would require much more disaggregation of the data compared to how they are currently collected.

In terms of research agenda, she emphasized the need to focus more attention on the role of taxes as a determinant of the location of production, and the location where intellectual property is held.

Shaila Nijhowne, a consultant with Statistics Canada, pointed to the difficulties of developing an international classification system for services. Not only are services often bundled with good, but they are often combined with other services. The United Nations is promoting a system, the Central Product Classification, but it is not as detailed as that for goods.

In addition, there is a rapid growth in the service trade with foreign affiliates, which creates enormous problems of defining the transfer prices. Part of the reason for the large

discrepancy in the statistics for service trade with countries such as India may be that Indian service firms are reporting those services that they perform for exporters, but the exporters bundle those services with the export of a good. The affiliate trade is normally reported at the enterprise level, whereas much of the domestic production and employment data are obtained from the individual establishments. The establishments may not know if their purchased inputs are imported. She pointed out that Canada did have the advantage of a common business registry that linked all establishments with the appropriate enterprise, but such a coordinated registry did not exist in the United States.

Lee Price argued that the Balance of Payments was likely to under-report by a large margin the magnitude of trade in services. He pointed out that the U.S. data on trade in services with India differed not only in level but in trend with the statistics from India. He was also concerned about difficulties of measuring the prices of the service imports and thus their real value. He argued that the use of internal company transfer prices made it difficult to assess the import content of corporate sales. He also had questions about the accuracy of the reports from a single office of a corporation doing business in a large number of locations around the globe. He doubted that the individual office had accurate data on the range of those operations. The companies were also likely to be less forthcoming as offshoring becomes an increasingly visible political issue.

In the general discussion, several commentators referred to the discrepancy between the U.S. and Indian data, and the importance of trying to understand better the source of such differences. For some, the more focused nature of the activities in India would suggest more complete reporting, whereas much of the service imports into the U.S. were likely to be bundled with the imports of goods. Others called for more collaboration among national statistical agencies.

Session 3: Offshoring and Multinational Corporations

This session began with a presentation by **J. Steven Landefeld** and **Raymond Mataloni** on what BEA's data on multinational corporations (MNCs) can tell us about offshore outsourcing. Their PowerPoint presentation is available on this website. For additional details and discussion, see the articles on operations of MNCs in the March 2004 and July 2004 issues of the *Survey of Current Business*.

The BEA data come from two annual surveys: (1) a survey of U.S. MNCs, including parents and their foreign affiliates and (2) a survey of the operations of U.S. affiliates of foreign MNCs. The annual data effectively constitute a universal sample, with a complete census done every five years. Landefeld described the types of information available from these surveys and emphasized that they do not provide information about net job gains or losses. His summary highlighted a number of points. Roughly three-quarters of U.S. MNCs production, employment and investment remain in the U.S. This share has remained roughly constant for a long time. These firms account for 1/4 of U.S. GDP and 1/5 of employment. Their global operations account for 1/2 of U.S. profits.

Although the domestic employment of U.S. MNCs has recently grown more slowly than their foreign employment, its growth has been similar to U.S. aggregates. Because of differences in levels, U.S. MNCs created more jobs domestically (4.7 million) than in their foreign affiliates (3.5 million) during 1988-2002. Foreign owned companies in the United States increased

employment by 3.1 million. Landefeld noted that, adjusted for double counting, the total U.S. job gain from MNC activity was about 7.2 million over this period. He stressed that changes in the U.S. share of MNC employment could reflect a number of factors other than the availability of less expensive labor abroad. These include differential growth rates in the U.S. and abroad, as well as outsourcing to domestic firms that are not U.S. parents. The BEA data do show increasing MNC purchases of intermediate goods and services, suggesting some increase in outsourcing. But U.S. parent imports of goods have fallen since 1998 providing no evidence of increased *foreign* outsourcing. Unfortunately, data on MNC parent imports of services are not available.

The data can be disaggregated to provide a richer picture. For example, industry breakdowns show particularly rapid foreign employment growth in computer and data processing. Breakdowns by host country show that roughly 60% of U.S. MNC production abroad remains in relatively high wage countries. Those foreign affiliates with the fastest employment growth are often in countries which are growing rapidly. On average two-thirds of the sales of foreign affiliates go to local markets with only 11% sold to the U.S. market. Strikingly, these figures are 92% and 4% for India. Unfortunately, the data do not contain occupational detail, which would be extremely useful for examining issues related to offshoring. He noted that inability to control for occupation make it hard to interpret data showing that U.S. MNCs pay lower wages abroad. Linking with BLS could provide occupational data for U.S. firms but obtaining data for foreign affiliates is more difficult.

Finally, Landefeld discussed recent BEA efforts to publicize, better analyze and speed up the release of these data. However, resource limitations may constrain BEA's ability to improve the data on multinationals and trade in services.

Lael Brainard was the first of the three discussants. She stressed that BEA's data on MNCs is the best data available for examining how firms choose to operate within and across borders. Despite its limitations, it contains a wealth of information about differences across industry, countries and time. Brainard highlighted a number of pieces of the BEA presentation that she saw as suggestive of a new chapter in MNC operations. Parent share of MNC employment has trended down since 1987. In three quarters of the industries examined, employment grew more slowly in the U.S. parent than its foreign affiliates. Faster offshore employment growth is particularly pronounced in service industries that are at the center of the offshoring debate. But she noted that it is also important to look at manufacturing firms, which can relocate the services part of their business systems. Starting in 1991, there has been a clear trend towards faster employment growth in affiliates located in low wage countries, consistent with the anecdotal evidence on offshoring. However, the data is sharply at odds with the offshoring discussion where it suggests a very high concentration of foreign affiliate sales are made in local markets. The share of affiliate sales sold locally is a stunning 92% for India, which seems particularly puzzling in light of recent offshoring trends. These findings suggest the need for further analysis and – if accurate – have interesting implications for foregone U.S. exports.

She then discussed a number of ways in which these data could be exploited to improve our understanding of MNC offshoring activities. First, much more can be done to disaggregate the data by country as well as industry to determine for instance whether service activities within multinationals are migrating to low wage countries. If so this would be a new development. Second, it would be helpful to link these data with BEA trade data. As discussed in Session II of this Data Workshop, trade in business, professional and technical services grew twice as rapidly between affiliated companies as between nonaffiliates. Third, these data could provide insights

into what firms do in-house versus at arms length – the outsourcing question Gene Grossman highlighted earlier. It would be particularly interesting to contrast the findings of such aggregate data work with the case study research. However, integrating the MNC data with intermediate purchases is difficult, particularly for services. Finally, these data could be used to study how quickly firms relocate services activities. Given that these require less capital investment than manufacturing, the concern is that relocations could accelerate quickly.

Finally, Brainard underscored that its lack of occupational detail is an important weakness of the existing data. In important contrast to the earlier debates on manufacturing, the services offshoring debate focuses directly on the substitution of specific occupational categories offshore (all of which would be subsumed in the very broad BEA category of “nonproduction” workers), rather than on the sourcing of particular products abroad. Linking the BEA data with BLS data would be extremely valuable.

The second discussant was **Ashok Bardhan**. He commended BEA on providing extremely useful data sets and analyses. In commenting on their presentation, he agreed with Brainard that the increasing employment in foreign affiliates located in low wage countries suggests some new developments in MNC global activities. However, he cautioned that data on the share of intermediates purchased directly as imports may be misleading since domestic purchases of goods and services may have imported content. He stressed that there is no data set which combines information on intra-firm trade between the U.S. and its trading partners with data on the inputs used in production. His work has used existing information to construct estimates for manufacturing. But even less information is available for services which he sees as severely limiting research into services offshoring. Bardhan reiterated the need to reconcile data discrepancies between the U.S. and India – perhaps through collaborative efforts of U.S. and foreign statistical agencies.

Bardhan discussed his joint work with Dwight Jaffee which examines the share of intermediate imports (offshoring) that is arms-length (outsourced) versus produced in house by a foreign affiliate. (Their paper, “On Intra-Firm Trade and Multinationals: Foreign Outsourcing and Offshoring in Manufacturing” is available on this website.) For 1992, they conclude that intra-firm imports were relatively unimportant. However, this changed significantly over time, and by industry. In particular, imports from affiliates of U.S. MNCs accounted for more than 2/3 of all U.S. imports of high tech intermediate inputs. Unfortunately, data do not exist to undertake a similar exercise for services. Bardhan wondered whether there might be creative ways to estimate services exports and imports, such as using telecommunications indicators. Since services activity impacts along occupational lines, he stressed the usefulness of an occupation based approach used by him in assessing how labor markets may get affected by services offshoring.

Thomas Mesenbourg, the final discussant, focused his remarks on five major challenges for data collection and measurement of offshoring. First, we must determine what information to collect. He used the Census Bureau to illustrate the inherent difficulties. Census has outsourced many service activities for a long time, including guards, payroll, and legal services as well as the entire data capture for the 2000 census. Total outsourcing costs and employment would not be very informative. But identifying the various business processes so as to request associated cost and employment data is problematic. The second challenge is to translate the data needs into clear definitions and instructions to respondents about what we want reported. The 2002 economic census tried to collect employment and payroll data on outsourced employees. But the key question was not well understood and the instructions about what to include and what to

exclude were often not followed. Such instructions would be even more problematic related to offshoring.

The third challenge is to identify where in the company to collect the data. The inquiry will require knowledge about business processes, providers and their location, which may be especially problematic for large companies. For the Census example, we would ideally need information from the finance division, procurement officer and individual program directorates, not just the accounting department which is the normal contact point for a Census or BEA survey. Data availability and the reporting burden represents a fourth major data collection challenge. Most corporate record keeping systems will contain information on major expense categories, not on business processes. They will not contain readily accessible information about the location of the provider. Getting employment information from various contractors may be even more problematic. The final challenge is getting businesses to cooperate. Mesenbourg stressed that he expected many to have significant reservations about participating in an offshoring survey that collects financial and employment information. To the extent that these are considered proprietary, strategically sensitive and potentially politically damaging, one should expect a low response rate. He noted that a very low response rate in a recent pilot survey on computer security convinced Census not to go forward.

Given his view that it would be extremely difficult to collect direct data on offshoring and its employment effects, he encouraged researchers to focus on information available from mining and linking existing data sets. These include the 2002 business and expenses survey, the 2002 economic census and the statistics on related party trade.

Much of the discussion that followed the presentations focused on difficulties in interpreting the employment data for MNCs. A number of participants focused on problems associated with mergers and acquisitions here and abroad. A foreign MNC that acquires a U.S. company will show an increase in employment even if no new jobs have been created. Similarly, a U.S. MNC purchase of a foreign company may not reflect new jobs created abroad. The MNC data should not be treated as a matched panel. Others emphasized that employment behavior in U.S. parents may reflect outsourcing domestically. Another concern raised was that low corporate taxes in some countries could severely distort reported measures of value added. A brief description was also given of a joint NSF/BEA/Census project to link firm level data related to research and development activities.

In responding to the comments and discussion, Mataloni and Landefeld made the following points. First, in their view the statistics in their presentation do not suggest that offshoring is the primary explanation for declines in the U.S. parent share of employment. They emphasized the significant liberalization and rapid growth in key low-wage countries which increased their attractiveness for market oriented direct investment. Second, they agreed that mergers and acquisitions make it difficult to interpret the MNC employment data. Addressing this would require analysis of their micro-data. The aggregate statistics do not show net job gains or losses. They also agreed that transfer pricing could distort estimates of value added by MNCs abroad.

Session 4: Offshoring and the U.S. Labor Market

This session included two data presentations followed by commentary from three discussants. In the first presentation, **Sharon Brown** reported on the Mass Labor Statistics

(MLS) collected by the Bureau of Labor Statistics (BLS). (Her PowerPoint presentation is available on this website.) These data, available since 1995, provide information about plant closing and mass layoff for establishments with at least 50 workers where at least 50 unemployment claims were filed in a 5-week period. The information is obtained from telephone interviews with the employers which include questions about the numbers of worker separations as well as the reasons for separation. Establishments are coded by industry (NAICs) and location.

Brown's remarks focused on January 2004 revisions to the questionnaire that are designed to improve information about both outsourcing and offshoring of work. Initially, both "domestic relocation" and overseas relocation" were included among the possible "economic reasons for separation" in the employer questionnaire. However, the revised BLS view is that such relocations should be seen as employer reactions due to an underlying economic reason. Thus, domestic and overseas relocations have been removed from the list of "reasons" and the BLS has added two new "movement of work" questions. The first asks whether the layoff involved moving work to a different location within the company. The second asks whether the layoff includes the movement of work that had been done in-house to a different company through a contractual agreement. Both ask about the state or country to which work was moved. By identifying work that has been moved abroad (whether within company or to a different company), the MLS data now provide better information about a piece of the offshoring picture. And by identifying work moved to a different company (whether domestically or offshore) these data now provide better information about a piece of the outsourcing picture. However, MLS data only covers work relocations associated with large layoffs in large establishments. Further, the data on relocations for 1995-2003 are not comparable to the new series.

Brown summarized key aspects of the data for the first quarter of 2004. In particular, she reported that overseas relocations accounted for separations of 4633 workers, or 2.5% of all separations with reasons other than "seasonal" or "vacation". (The movement of work data will be included in the quarterly extended mass layoff releases available on the BLS website. Links to recent releases are provided here.) Finally, Brown discussed efforts undertaken at BLS to assess data reliability.

In the second data presentation, **Julia Lane** and **John Haltiwanger** focused on the Longitudinal Employer-Household Dynamics Program (LEHD). (Their PowerPoint presentation is available on this website.) This new data set, being built by the Census Bureau in conjunction with the BLS, is unique in that it integrates data on households/individuals with data on employers. The core data, from state Unemployment Insurance (UI) wage records filed quarterly by employers, could be enhanced by additional individual and firm characteristics. The resulting data base is enormous, currently containing about 80 million individual and 5 million business records. Using these data, it is possible to follow each employer/employee match quarterly for all participating states. For further description of these data, see: Abowd, Haltiwanger and Lane (2004) "New Data and New Questions in Personnel Economics," available on this web page.

Lane raised two conceptual issues, which she argued are central to the empirical analysis of offshoring and deserve more attention. First, when one talks of a job being offshored, how should "job" be defined? In the LEHD, a job is an employer/employee match. But in the offshoring context, it may be more appropriate to focus on a particular occupation within a match. Also, given that roughly 25% of the job spells in their data last less than a quarter, she asked whether research should focus on relatively stable jobs. Second, she stressed the need to specify the "identifying event" when a job moves from one location to another. This may be very difficult given the wide range of factors and shocks that affect individual firms and the extent of

churning in U.S. labor markets. Haltiwanger noted on-going work with members of the Sloan Foundation funded industry centers (retail food, software, semiconductors, trucking and financial services) aimed at understanding the industry-specific identifying events and their implications, such as for productivity, employment, and earnings. She also summarized what an ideal data set might contain.

Haltiwanger described some of the work already being done using LEHD. For example, the QWI program makes available quarterly workforce indicators such as rates of accession, separation, job creation and job destruction by detailed industry and location. He noted that these data exhibit a tremendous amount of churning. Accession and separation rates each exceed 20% per quarter while rates of job creation and destruction are typically 7-10%. This implies over 13 millions jobs destroyed each year. Relative to those numbers available indicators of offshore employment look small. He referenced a recent Federal Reserve Bank of Boston study for more careful analysis of these numbers that reaches a similar conclusion. (<http://www.bos.frb.org/economic/ppb/2004/ppb0401.htm>)

Another project uses the LEHD data to study aspects of outsourcing by focusing on clusters of workers who leave a business. The most common destination for these clusters is to the temporary help and personnel supply, helping to explain the tremendous growth of that industry, but accounting for only about 1% of total separations and accessions. (See Benedetto et al (2004) "Using Worker Flows to Measure Firm Dynamics," available on this page.)

Finally, Haltiwanger stressed the tremendous amount of information that could be made available if more attention were devoted to integrating existing data sets. He noted that economic census data has already been integrated with the LEHD. To study offshoring, it would be particularly valuable to integrate BLS occupation data and BEA data on MNCs and FDI. He advocated more focus on such data integration, instead of pushing for new surveys.

The first discussant was **Jared Bernstein**. He stressed that offshoring introduces large implicit supplies of skilled workers which is likely to dampen wage growth for skilled Americans. Thus, he urged that work on offshoring focus on wages as well as on jobs. In this context, he noted that offshoring raises questions about the effectiveness of re-skilling – the standard, and in his view often correct, prescription to address domestic labor market difficulties associated with globalization.

Bernstein expressed concern that the MLS, as currently structured, misses a significant portion of offshoring. For example, MLS data do not match 2000-2003 job loss data from the business employment dynamics statistics (from the BLS Quarterly Census of Employment and Wages). One problem is that many layoffs are not massive. He encouraged Sharon Brown to discuss what it would take to relax constraints to the MLS data, such as by including smaller firms. Another problem is that jobs may be outsourced or offshored without associated with layoffs. He argued that a new employer based survey would be the only way to capture this dimension, and encouraged BLS to pursue this. In this sense, he disagreed with Haltiwanger.

The second discussant was **Lori Kletzer**. Her main points are outlined in her PowerPoint presentation, available on this web page. Kletzer commended BLS for timely revisions to the MLS data. It now addresses issues of outsourcing and offshoring more effectively. She noted that overseas location is much more likely to involve a different company while domestic relocations are likely to be in-house, suggesting important differences between these phenomenon. Although the MLS data only captures a piece of the offshoring, she noted that it is

difficult to reconcile its numbers with the very large estimates of jobs likely to be lost to offshoring by Forrester and others.

Kletzer briefly discussed the Displaced Worker Survey (DWS) which she has used extensively in her own research. These data show a significant shift in job loss to the service sector and to more skilled workers. She stressed the importance of retaining this important information source, and advocated enriching its occupational detail. However, she noted the difficulties of linking jobs displaced to offshoring, particularly in services. Finally, she found the Haltiwanger and Lane work on clusters of workers moving to temporary help agencies particularly interesting, having recently learned about a temporary help agency becoming an offshoring intermediary.

A PowerPoint is also available for the final presentation, given by **Margaret McConnell**. After explaining that her perspective was that of a monetary policy maker, she discussed why the Fed cares about offshoring. Monetary policy is seen as potentially offsetting cyclical movements, while reactions to structural changes are likely to be inflationary. In trying to explain the very slow job growth since the trough of the past recession, much attention has focused on the roles of offshoring and productivity (two of the many factors identified as structural). She briefly outlined two recent studies using aggregate industry level data, which reach opposite conclusions about the importance of structural factors. She then discussed some of her own research. One paper uses data on workers (CPS) and fails to find evidence of important structural factors. A second integrates input/output data with trade data and occupational employment statistics to construct a measure of the equivalent U.S. jobs embodied in net exports. They find that the number of exported jobs is small relative to U.S. payroll employment. Treating international trade data as indicative of offshoring behavior, this work supports the view that offshoring has played a minor role in recent U.S. employment trends.

McConnell then turned to the statistical presentations from this session. She asked about how much detail were in the MLS data, such as information broken down by type of activity, and whether it would be possible to link these data to information about worker characteristics and occupations. She noted the need for better data on the service sector more generally. Finally, she noted that there are other dimensions of recent U.S. labor market behavior which warrant additional research. One is the fact that labor force participation rates have not been picking up, which is somewhat puzzling. A second is the general issue of U.S. workforce flexibility, including the roles of contingent workers and temporary help agencies.

The discussion following these presentations focused on three issues. First, some commentators wondered whether offshoring might not be more important in helping to explain slow domestic job growth than in explaining absolute job loss – particularly during the recent jobless recovery. Second, participants asked about the experiences of those displaced from services activities relative to those displaced from elsewhere in the economy. Information is available from the BLS displaced worker data, though at the time of the Workshop, only through 2001. These data show that displaced service workers are very heterogeneous. However, business and professional services employs relatively young and well educated workers. When displaced these have higher average re-employment rates than workers displaced from manufacturing. (The displaced worker data for 2001-03 were released in July 2004.) Finally, BLS was encouraged to explore ways to speed up the availability of data such as the MLS, displaced workers and the business employment dynamics. There was also interest in expanding the MLS data to include smaller layoff events. However both of these changes would require additional BLS resources.